Petitioner Bluehouse Global Ltd.

Ex. 1002 (Pages 1-246)

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 9,293,545 B2 Page 1 of 1

APPLICATION NO. : 14/451680 DATED : March 22, 2016

INVENTOR(S) : Shunpei Yamazaki et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Specification

At column 3, line 14, "InMO₃(ZnO)_n," should be --InMO₃(ZnO)_m--;

At column 9, line 61, "20 nm" should be --20 nm.--;

At column 13, line 50, "20 nm" should be --20 nm.--;

At column 20, line 22, "5602M" should be --5602_M--;

At column 21, line 8, "5621_)" should be --5621_J--;

At column 21, line 10, "5621_)" should be --5621_J--;

At column 21, line 12, "Ti," should be --T1,--;

At column 21, line 15, "Ti," should be --T1,--;

At column 40, line 3, " \in r" should be -- ϵ r--;

At column 42, line 67, "01" should be $--\theta1$ --.

Signed and Sealed this Thirtieth Day of August, 2016

Michelle K. Lee

Director of the United States Patent and Trademark Office

Michelle K. Lee

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re Patent Application of:)	Confirmation No. 5776
Shunpei YAMAZAKI et al.)	Group Art Unit: 2816
Serial No. 14/451,680)	Examiner: Jeremy J. Joy
Filed: August 5, 2014)	
U.S. Patent No. 9,293,545)	
For: SEMICONDUCTOR DEVICE)	

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. § 1.322 FOR CORRECTION OF OFFICE MISTAKE

ATTN: Certificate of Correction Branch Honorable Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

As provided in detail in the attached, the patentee respectfully requests that a Certificate of Correction be granted in the above-identified patent to correct a mistake in a patent, incurred through the fault of the Office.

Under 37 C.F.R. 1.322, "The Commissioner may issue a certificate of correction pursuant to 35 U.S.C. 254 to correct a mistake in a patent, incurred through the fault of the Office, which mistake is clearly disclosed in the records of the Office at the request of the patentee's assignee."

The patentee furthermore requests <u>Expedited Issuance</u> of this Certificate of Correction in accordance with MPEP § 1480.01. Specifically, this section provides that:

In an effort to reduce the overall time required in processing and granting Certificate of Correction requests, the Office will expedite processing and granting of patentee requests where such requests are accompanied by evidence to show that the error is attributable solely to the Office Where the correction requested was incurred through the fault of the Office, and the matter is clearly disclosed in the records of the

Office, and is accompanied by documentation that unequivocally supports the patentee's assertion(s), a Certificate of Correction will be expeditiously issued. MPEP § 1480.01

The following errors appear to have occurred through the fault of the Office, and the patentee respectfully requests correction thereof.

```
At column 3, line 14, "InMO<sub>3</sub>(ZnO)<sub>n</sub>," should be --InMO<sub>3</sub>(ZnO)<sub>m</sub>--; At column 9, line 61, "20 nm" should be --20 nm.--; At column 13, line 50, "20 nm" should be --20 nm.--; At column 20, line 22, "5602M" should be --5602_M--; At column 21, line 8, "5621_)" should be --5621_J--; At column 21, line 10, "5621_)" should be --5621_J--; At column 21, line 12, "Ti," should be --T1,--; At column 21, line 15, "Ti," should be --T1,--; At column 40, line 3, "\inr" should be --\inr--; At column 42, line 67, "01" should be --\in1--.
```

The corrections in the specification are directed to mistakes in the patent incurred through the fault of the Office, possibly resulting from the Office's document scanning processes.

- 3 - Application Serial No. 14/451,680 U.S. Patent No. 9,293,545 Attorney Docket No. 0756-10566

As the errors were incurred through the fault of the Office, a fee is not believed to be necessary. Should it be determined that a fee is necessary, any deficiencies or overages in any fees due in connection with this patent and the requested actions should be applied to Deposit Account No. 50-2280.

Respectfully submitted,

Eric J. Robinson

Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, Virginia 22033 (571) 434-6789

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO

: 9.293.545

DATED

: March 22, 2016

INVENTOR(S)

: Shunpei YAMAZAKI et al.

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At column 3, line 14, "InMO₃(ZnO)_n," should be --InMO₃(ZnO)_m--;

At column 9, line 61, "20 nm" should be --20 nm.--;

At column 13, line 50, "20 nm" should be --20 nm.--;

At column 20, line 22, "5602M" should be --5602 M--;

At column 21, line 8, "5621")" should be --5621 J--;

At column 21, line 10, "5621")" should be --5621 J--;

At column 21, line 12, "Ti," should be --T1,--;

At column 21, line 15, "Ti," should be --T1,--;

At column 40, line 3, "∈r" should be --Er--;

At column 42, line 67, "01" should be --01--.

MAILING ADDRESS OF SENDER:

PATENT NO. 9,293,545

No. of additional copies

Eric J. Robinson Robinson Intellectual Property Law Office 3975 Fair Ridge Drive Suite 20 North Fairfax, Virginia 22033

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Electronic Acknowledgement Receipt			
EFS ID:	26272119		
Application Number:	14451680		
International Application Number:			
Confirmation Number:	5776		
Title of Invention:	SEMICONDUCTOR DEVICE		
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI		
Customer Number:	31780		
Filer:	Eric J. Robinson		
Filer Authorized By:			
Attorney Docket Number:	0756-10566		
Receipt Date:	06-JUL-2016		
Filing Date:	05-AUG-2014		
Time Stamp:	16:29:33		
Application Type:	Utility under 35 USC 111(a)		

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	COC_06JULY2016.pdf	445742 def3c95b9c4faeeb925a643a60350c816879 8b27	no	4
Warnings:			BLUEHOUS	SE EXHIBIT 10	002

Information:	
Total Files Size (in bytes):	445742

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	03/22/2016	9293545	0756-10566	5776

03/02/2016

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, VA 22033

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Shunpei YAMAZAKI, Setagaya, JAPAN; Semiconductor Energy Laboratory Co., Ltd., Atsugi-shi, JAPAN; Kengo AKIMOTO, Atsugi, JAPAN; Daisuke KAWAE, Yamato, JAPAN;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit <u>SelectUSA.gov</u>.

IR103 (Rev. 10/09) Page 9 of 246

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Confirmation No. 5776
Shunpei YAMAZAKI et al.)	Group Art Unit: 2816
Serial No. 14/451,680)	Examiner: Jeremy J. Joy
Filed: August 5, 2014)	
For: SEMICONDUCTOR DEVICE)	

LETTER REGARDING PAYMENT OF ISSUE FEE

MS Issue Fee Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

It is respectfully requested that the Issue Fee paid on October 6, 2015 be applied towards the current Issue Fee due February 16, 2016. Also, attached is the new Issue Fee Transmittal Form PTOL-85, along with a copy of the Petition granting the Withdrawal from Issue indicating that the Issue Fee may be reapplied in this matter.

Respectfully submitted,

Eric J. Robinson Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, Virginia 22033 (571) 434-6789

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
(571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPOND	DENCE ADDRESS (Note: Use Bi	ock 1 for any change of address)	Fee	(s) Transmittal. This ers. Each additional e its own certificate	nailing can only be used fo s certificate cannot be used for paper, such as an assignme of mailing or transmission. ificate of Mailing or Transi	or any other accompanying nt or formal drawing, must
31780 Robinson Intel 3975 Fair Ridge Suite 20 North	llectual Property L	aw Office, P.C.	I he Stat addi tran	reby certify that thi es Postal Service wi ressed to the Mail smitted to the USPT	s Fee(s) Transmittal is being ith sufficient postage for firs Stop ISSUE FEE address O (571) 273-2885, on the da	deposited with the United at class mail in an envelope above, or being facsimile attendicated below.
Fairfax, VA 220	033					(Depositor's name)
•						(Signature)
				Mich was the same and the same a	· · · · · · · · · · · · · · · · · · ·	(Date)
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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014		Shunpei YAMAZAKI	•	0756-10566	5776
TITLE OF INVENTION	N: SEMICONDUCTOR I	DEVICE				
APPLN, TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$960	\$960	02/16/2016
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				1	see attached letter	
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	EREMY J	2816	257-043000			
CFR 1.363).	lence address or indicatio	,	2. For printing on the p (1) The names of up to			bhinson
Change of corresp Address form PTO/S	pondence address (or Cha B/122) attached.	nge of Correspondence	or agents OR, alternativ	vely,	Pohincon	Intellectual
"Fee Address" inc	dication (or "Fee Address 02 or more recent) attach	" Indication form	(2) The name of a single registered attorney or a 2 registered patent attoristed, no name will be	igent) and the name rneys or agents. If n	s of up to Property	Law Office, P.C.
3. ASSIGNEE NAME A	AND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or typ	pe)		
PLEASE NOTE: Un recordation as set for	iless an assignee is ident th in 37 CFR 3.11. Com	ified below, no assignee	data will appear on the part of the part o	atent. If an assigne	e is identified below, the do	ocument has been filed for
(A) NAME OF ASSI			(B) RESIDENCE: (CITY			
Semicondu	ctor Energy Labor	atory Co., Ltd.	Atsugi-shi, K	anagawa-ken,	Japan	
Please check the approp	riate assignee category or	categories (will not be p	rinted on the patent):	Individual 🖺 Cor	rporation or other private gro	oup entity Government
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Plea	se first reapply an	y previously paid issue fee	shown above)
	usly paid, please see att		A check is enclosed.			
→ Publication Fee (I ★ Advance Order - :	No small entity discount p	permitted) ously paid, please	Payment by credit car The director is hereby	d. Form PTO-2038 : authorized to charg	is attached. e the required fee(s), any def	iciency or credits any
- Advance Grace	see att	ached letter	overpayment, to Depo	sit Account Number	e the required fee(s), any def 50-2280(enclose a	n extra copy of this form).
5. Change in Entity Sta	atus (from status indicate	d aboye)				
Applicant certifyi	ng micro entity status. Se	e 37 CFR 1.29	NOTE: Absent a valid ce	rtification of Micro	Entity Status (see forms PTC not be accepted at the risk of	D/SB/15A and 15B), issue
Applicant asserting	ng small entity status. See	37 CFR 1.27	NOTE: If the application	was previously und	er micro entity status, checki	
Applicant changing	ng to regular undiscounte	d fee status.	to be a notification of loss NOTE: Checking this bor- entity status, as applicable	will be taken to be	a notification of loss of enti-	tlement to small or micro
NOTE: This form must b	be signed in accordance v	vith 37 CFR 1.31 and 1.3	3. See 37 CFR 1.4 for signa		nd certifications.	
Authorized Signature		Company and the second		Date	February 16, 2	016
Typed or printed nam	neEric J. R	obinson		Registration No	38,285	

Typed or printed name

Registration No.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

Decision Date:

October 26, 2015

In re Application of:

DECISION ON PETITION

Shunpei YAMAZAKI

UNDER CFR 1.313(c)(2)

Application No:

14451680

Filed:

05-Aug-2014

Attorney Docket No: 0756-10566

This is an electronic decision on the petition under 37 CFR 1.313(c)(2), filed October 26, 2015, to withdraw the above-identified application from issue after payment of the issue fee.

The petition is GRANTED.

The above-identified application is withdrawn from issue for consideration of a submission under 37 CFR 1.114 (request for continued examination). See 37 CFR 1.313(c)(2).

Petitioner is advised that the issue fee paid in this application cannot be refunded. If, however, this application is again allowed, petitioner may request that it be applied towards the issue fee required by the new Notice of Allowance.

Telephone inquiries concerning this decision should be directed to the Patent Electronic Business Center (EBC) at 866-217-9197.

This application file is being referred to Technology Center AU 2816 for processing of the request for continuing examination under 37 CFR 1.114.

Office of Petitions

Electronic Acknowledgement Receipt			
EFS ID:	24919356		
Application Number:	14451680		
International Application Number:			
Confirmation Number:	5776		
Title of Invention:	SEMICONDUCTOR DEVICE		
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI		
Customer Number:	31780		
Filer:	Eric J. Robinson/Sue Ann Carr		
Filer Authorized By:	Eric J. Robinson		
Attorney Docket Number:	0756-10566		
Receipt Date:	16-FEB-2016		
Filing Date:	05-AUG-2014		
Time Stamp:	14:21:25		
Application Type:	Utility under 35 USC 111(a)		

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	IF_16FEB2016.pdf	422941 	no	3
			l		

Warnings:

Information:BLUEHOUSE EXHIBIT 1002

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.





PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

o; Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

maintenance fee notifica	dions.						
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block I for any change of address)				Fee(s) Transmittal.	This certific onal paper, s	ate cannot be used for such as an assignmen	domestic mailings of the or any other accompanying t or formal drawing, must
3975 Fair Ridge Suite 20 North	llectual Property L Drive	aw Office, P.C.		I hereby certify that States Postal Service	t this Fee(s) ce with suffic	of Mailing or Transn Transmittal is being cient postage for first SUE FEE address 273-2885, on the dat	deposited with the United class mail in an envelope above, or being facsimile e indicated below.
Fairfax, VA 220)336 CCH9U2 8888	0044 1445 1689					(Depositor's name) (Signature)
at f C: i		953.89 (فرؤ				(Date)
		•					
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR	ATTOR	NEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014		Shunpei YAMAZA	KI		7756-10566	5776
TITLE OF INVENTION	SEMICONDUCTOR I	DEVICE					
APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE I	DUE PREV. PAID IS	SUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$960)	\$960	02/16/2016
EXAN	IINEK	ART UNIT	CLASS-SUBCLASS	Adju	stnent da	Previously paid, plea see attached letter ate: 02/17/2016	CCHAU2
JOY, JE	REMY J	2816	257-043000	19/8	6/2015 II C:1501	TEFSU 0000849	3 14451688 -988.88 82
1. Change of correspond	ence address or indicatio	n of "Fee Address" (37		the patent front page			750100 0.
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required.		" Indication form ed. Use of a Customer	or agents OR, alter (2) The name of a registered attorney 2 registered patent listed, no name with the control of the control	single firm (having or agent) and the r attorneys or agents Il he printed.	as a member	Robinson	binson, Intellectual .aw Office, P.C.
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recordation as set fort	h in 37 CFR 3.11. Comp	pletion of this form is NO					cument has been filed for
(A) NAME OF ASSI	GNEE		(B) RESIDENCE: (C	CITY and STATE O	R COUNTR	Y)	
Semicondu	ctor Energy Labor	atory Co., Ltd.	Atsugi-shi	i, Kanagawa-ke	•		· <u> </u>
Please check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	☐ Individual 🚨	Corporation	or other private grou	p entity Government
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	lus (trom status indicated ng micro entity status. Se		NOTE: Absent a vali	id certification of M	icro Entity St	tatus (see forms PTO	/SB/15A and 15B), issue application abandonment.
Applicant asserting	g small entity status. See	37 CFR 1.27					ng this box will be taken
Applicant changing	g to regular undiscounte	d fee status.		s box will be taken t			ement to small or micro
NOTE: This form must b	e signed in accordance v	vith 37 CFR 1.31 and 1.33	3. See 37 CFR 1.4 for	signature requireme	ats and certif	ications.	
Authorized Signature	5	<u></u>		Date	Fe	bruary 16, 20	016
Typed or printed nam	e Eric J. R	obinson		Registratio	n No	38,285	



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

31780 7590 11/13/2015 Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, VA 22033 EXAMINER

JOY, JEREMY J

ART UNIT PAPER NUMBER

2816

DATE MAILED: 11/13/2015

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014	Shunpei YAMAZAKI	0756-10566	5776

TITLE OF INVENTION: SEMICONDUCTOR DEVICE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$960	\$960	02/16/2016

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifica	ations.			•		,		
CURRENT CORRESPOND		Fee(s) Transmittal. Thi	s certifica	ate cannot be used f	r domestic mailings of the or any other accompanying nt or formal drawing, must		
Robinson Intel 3975 Fair Ridge Suite 20 North	aw Office, P.C.		I here States addre transr	Cert by certify that this s Postal Service w ssed to the Mail mitted to the USP	tificate of is Fee(s) vith suffic Stop IS FO (571)	f Mailing or Trans: Transmittal is being tient postage for firs SUE FEE address 273-2885, on the da	mission g deposited with the United st class mail in an envelope above, or being facsimile tte indicated below.	
Fairfax, VA 220)33							(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTORN	NEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014	•	Shunpei YAMAZA	KI	•	0	756-10566	5776
TITLE OF INVENTION	N: SEMICONDUCTOR D	DEVICE						
APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0		\$960		\$960	02/16/2016
FXAN	MINER	ART UNIT	CLASS-SUBCLASS					
	EREMY J	2816	257-043000					
<u> </u>			2. For printing on t	the na	tent front page lis	t		
 Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer 			(1) The names of up to 3 registered patent attorneys or agents OR, alternatively, (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to					
Number is required 3 ASSIGNEE NAME A	AND RESIDENCE DATA	TO BE PRINTED ON						
PLEASE NOTE: Un		fied below, no assignee	data will appear on th	he pat	ent. If an assign	ee is iden	ntified below, the de	ocument has been filed for
(A) NAME OF ASSI	GNEE		(B) RESIDENCE: (C	CITY	and STATE OR C	OUNTR	Y)	
Please check the approp	riate assignee category or	categories (will not be pr	rinted on the natent):		Individual D Co	orporation	or other private gra	oup entity 📮 Government
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4a. The following fee(s) Issue Fee	are submitted:	40	 Payment of Fee(s): (A check is enclos 		е игѕі геарріу ап	iy previo	usty paid issue fee	snown above)
	No small entity discount p	ermitted)	Payment by credit card. Form PTO-2038 is attached.					
Advance Order -	# of Copies		The director is her overpayment, to I	reby a Deposi	uthorized to charg it Account Numbe	ge the req	uired fee(s), any def (enclose a	iciency, or credits any n extra copy of this form).
5. Change in Entity Sta	atus (from status indicated	l above)						
Applicant certifying micro entity status. See 37 CFR 1.29			NOTE: Absent a vali	id cert	ification of Micro	Entity St	tatus (see forms PTC	D/SB/15A and 15B), issue
☐ Applicant asserting small entity status. See 37 CFR 1.27			NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment. NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.					
Applicant changing	NOTE: Checking this entity status, as appli-			e a notific	cation of loss of enti	tlement to small or micro		
NOTE: This form must	be signed in accordance w	vith 37 CFR 1.31 and 1.33	3. See 37 CFR 1.4 for	signat	ure requirements	and certif	ications.	
Authorized Signature	·				Date			
Typed or printed nan	ne				Registration N	o		



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
14/451,680	08/05/2014	Shunpei YAMAZAKI	0756-10566	5776	
31780 75	90 11/13/2015		EXAM	INER	
	tual Property Law O	ffice, P.C.	JOY, JEREMY J		
3975 Fair Ridge Dr	rive		ART UNIT	PAPER NUMBER	
Suite 20 North			ART UNIT	PAPER NUMBER	
Fairfax, VA 22033			2816		
			DATE MAILED: 11/13/201	5	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation BLUEHOUSE EXHIBIT 1002

	Application No. 14/451,680	Applicant(s) YAMAZAKI E	
Notice of Allowability	Examiner	Art Unit	AIA (First Inventor to
Notice of Anowability	JEREMY JOY	2816	File) Status
			No
The MAILING DATE of this communication appeal All claims being allowable, PROSECUTION ON THE MERITS IS (wherewith (or previously mailed), a Notice of Allowance (PTOL-85) of NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RICE of the Office or upon petition by the applicant. See 37 CFR 1.313	OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	olication. If not will be mailed	included in due course. THIS
 This communication is responsive to <u>Request for Continued</u> A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/ 			
 An election was made by the applicant in response to a restr requirement and election have been incorporated into this act 		ne interview on	; the restriction
 The allowed claim(s) is/are <u>2-21</u>. As a result of the allowed claim(s) intellectual property office http://www.uspto.gov/patents/init_events/pph/index.jsp or ser 	e for the corresponding application.	For more infor	
4. 🛮 Acknowledgment is made of a claim for foreign priority under	35 U.S.C. § 119(a)-(d) or (f).		
Certified copies:			
a) ☑ All b) ☐ Some *c) ☐ None of the:			
1. 🛛 Certified copies of the priority documents have			
2. Certified copies of the priority documents have			
Copies of the certified copies of the priority doc	uments have been received in this r	national stage a	application from the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" o noted below. Failure to timely comply will result in ABANDONME THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with	the requirements
5. CORRECTED DRAWINGS (as "replacement sheets") must	be submitted.		
including changes required by the attached Examiner's Paper No./Mail Date	Amendment / Comment or in the O	ffice action of	
Identifying indicia such as the application number (see 37 CFR 1.8 each sheet. Replacement sheet(s) should be labeled as such in the			(not the back) of
 DEPOSIT OF and/or INFORMATION about the deposit of Blattached Examiner's comment regarding REQUIREMENT FOR 			he
Attachment(s)			
1. X Notice of References Cited (PTO-892)	5. 🗌 Examiner's Amendr	nent/Comment	İ
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 10/26/2015 	6. 🛛 Examiner's Stateme	ent of Reasons	for Allowance
 Examiner's Comment Regarding Requirement for Deposit of Biological Material 	7.		
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date			
/JEREMY JOY/			
Examiner, Art Unit 2816			

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-13)

Art Unit: 2816

The present application is being examined under the pre-AIA first to invent

provisions.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office

action under Ex Parte Quayle, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since

this application is eligible for continued examination under 37 CFR 1.114, and the fee

set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has

been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2015

has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 10/26/2015 was filed

after the mailing date of the Notice of Allowance on 07/06/2015. The submission is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Allowable Subject Matter

3. Claims **2-21** are allowed over the prior art.

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Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

4. Claims 2-21 are allowed because the prior art of record neither anticipate nor

rendered obvious the limitations of base claims 2 and 11 including "a first metal film and

a second metal film over the gate insulating film; ... wherein a side surface of the first

metal film faces a side surface of the second metal film, and wherein each of the side

surface of the first metal film and the side surface of the second metal film has a step in

a lower end portion thereof" and the limitations of base claim. In particular, the prior art

of record falls short with regards to teaching a step portion formed in a lower portion of a

side surface of a first metal film and a second metal film that face each other.

In example:

(i) Furukawa et al. (U.S. Patent Pub. No. 2008/0099757) teaches a glass

substrate; a gate electrode over the glass substrate; a gate insulating film over the gate

electrode; a first conductive film and a second conductive film over the gate insulating

film; an organic semiconductor film in contact with the first and second conductive films;

wherein a side surface of the first conductive film faces a side surface of the second

conductive film; and wherein each of the side surface of the first conductive film and the

side surface of the second conductive film has a step in a lower end portion thereof, but

fails to specifically teach the first and second conductive films are first and second metal

films and an oxide semiconductor film formed on the first and second metal films rather

than the organic semiconductor film as disclosed

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step in a lower portion thereof.

(ii) Akimoto (**U.S. Patent Pub. No. 2007/0108446**) teaches using a metal film to form a portion of the first and second conductive films (source/drain electrodes) and an oxide semiconductor film formed the first and second conductive films in a display device similar to that of the applicant, but fails to specifically teach that the metal film that forms a portion of the first and second conductive films would not be obvious to modify *Furukawa* with such that the first and second metal film portions would have a

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY JOY whose telephone number is (571)270-7445. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on (571)272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 14/451,680 Page 5

Art Unit: 2816

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEREMY JOY/ Examiner, Art Unit 2816 November 2, 2015

/MARVIN PAYEN/ Primary Examiner, Art Unit 2816

Notice of References Cited Application/Control No. 14/451,680 Examiner JEREMY JOY Applicant(s)/Patent Under Reexamination YAMAZAKI ET AL. Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	Α	US-2007/0108446 A1	05-2007	Akimoto; Kengo	H01L29/41733	257/61
*	В	US-2007/0172591 A1	07-2007	SEO; O-gweon	C23C16/0272	427/248.1
*	O	US-2008/0038882 A1	02-2008	Takechi; Kazushige	H01L29/4908	438/151
*	D	US-2009/0114917 A1	05-2009	YAMAZAKI; Shunpei	H01L29/78696	257/59
*	Е	US-2010/0044711 A1	02-2010	IMAI; Shinji	H01L27/14676	257/59
*	F	US-2005/0056897 A1	03-2005	Kawasaki, Masahiro	H01L51/0021	257/359
*	G	US-2006/0033098 A1	02-2006	Shih; Ishiang	H01L51/0021	257/40
*	Ι	US-2006/0027804 A1	02-2006	Yamazaki; Shunpei	G02F1/1368	257/59
*	_	US-2006/0292726 A1	12-2006	Akimoto; Kengo	H01L21/3221	438/30
*	7	US-2008/0073653 A1	03-2008	lwasaki; Tatsuya	H01L29/7869	257/79
*	K	US-2005/0205870 A1	09-2005	Yamazaki, Shunpei	G02F1/133553	257/72
*	Ы	US-2004/0108562 A1	06-2004	Nagayama, Kenichi	H01L51/0021	257/434
*	М	US-2008/0099757 A1	05-2008	Furukawa; Shinobu	C07D209/88	257/40

FOREIGN PATENT DOCUMENTS

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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Application/Control No. Applicant(s)/Patent Under Reexamination 14/451,680 YAMAZAKI ET AL. Notice of References Cited Art Unit Examiner Page 2 of 2 2816 JEREMY JOY U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	Α	US-2007/0072439 A1	03-2007	Akimoto; Kengo	H01L27/1225	438/795
*	В	US-2011/0062419 A1	03-2011	Kikuchi; Hiroaki	B82Y10/00	257/24
*	O	US-2008/0036698 A1	02-2008	Kawasaki; Masahiro	G02F1/1368	345/55
*	D	US-7,696,513 B2	04-2010	Hayashi; Ryo	H01L27/3211	257/40
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Issue Classification



14451680

Examiner

JEREMY JOY

Applicant(s)/Patent Under Reexamination

YAMAZAKI ET AL.

Art Unit

2816

СРС				
Symbol			Туре	Version
H01L	29	<i>l</i> 41733	F	2013-01-01
H01L	51	/ 0512	I	2013-01-01
H01L	51	<i>f</i> 0508	I	2013-01-01
H01L	51	<i>I</i> 0545	I	2013-01-01
H01L	29	<i>I</i> 4908	1	2013-01-01
H01L	51	<i>l</i> 105	1	2013-01-01
H01L	21	<i>l</i> 02554	A	2013-01-01
H01L	21	<i>I</i> 02565	A	2013-01-01
H01L	21	<i>I</i> 02631	A	2013-01-01
H01L	27	<i>I</i> 1225	1	2013-01-01
H01L	29	<i>1</i> 7869	1	2013-01-01
H01L	29	78696	I	2013-01-01
H01L	29	786		2013-01-01
H01L	27	<i>I</i> 1288		2013-01-01

CPC Combination Sets									
Symbol	Туре	Set	Ranking	Version					

/JEREMY JOY/ Examiner.Art Unit 2816	11/02/2015		ns Allowed:
(Assistant Examiner)	(Date)	2	0
/MARVIN PAYEN/ Primary Examiner.Art Unit 2816	11/03/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	2

U.S. Patent and Trademark Office Part of Paper No. 20151030

Issue Classification

Application/Control No.	Applicant(s)/Patent Under Reexamination
14451680	YAMAZAKI ET AL.

Examiner Art Unit

JEREMY JOY 2816

US ORIGINAL CLASSIFICATION									INTERNATIONAL	CL	ASS	IFIC	ATI	ON
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/JEREMY JOY/ Examiner.Art Unit 2816	11/02/2015		ns Allowed:
(Assistant Examiner)	(Date)	2	0
/MARVIN PAYEN/ Primary Examiner.Art Unit 2816	11/03/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	2

Issue Classification



Application/Control No.	Applicant(s)/Patent Under Reexamination
14451680	YAMAZAKI ET AL.
Examiner	Art Unit
JEREMY JOY	2816

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47										47					
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
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/JEREMY JOY/ Examiner.Art Unit 2816	11/02/2015		ns Allowed:
(Assistant Examiner)	(Date)	2	0
/MARVIN PAYEN/ Primary Examiner.Art Unit 2816	11/03/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	2

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Substitute for form 1449	/PTO			, Co	mplete if Known
INFORMATION DISCLOSURE +				Application Number	14/451,680
				Filing Date	August 5, 2014
STATEM	ENT BY	APPL	ICANT	First Named Inventor	Shunpei YAMAZAKI
				Art Unit	2816
(Use as many sheets as necessary)				Examiner Name	J. JOY
Sheet	1	of	5	Attorney Docket Number	0756-10566

Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
Initials*	No.1	Number-Kind Code ^{2 (fr known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
		US-8,937,580	01-20-2015	Miyagawa.K	
		US-2015/0123109	05-07-2015	Miyagawa.K	
		US-2015/0248859	09-03-2015	Miyagawa.K	
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Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	T ⁶			
initials*	No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	-Kind Code ⁵ (if known) MM-DD-YYYY Applicant of Cited D	Applicant of Cited Document	Figures Appear				
		JP-2005-092188A	04-07-2005			Abst			
		JP-2008-176287A	07-31-2008			Abst			
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Examiner	/Jeremy.lov/	Date	44/00/0045
Signature	rootenty ooyr	Considered	11/02/2015

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to In is collection of mormation is required by 37 CFK 1.39. and 1.39. The information is required to obtain or rectain a benchmark of the more more than 1.39. The information is required to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449	/PTO			Co	mplete if Known
INFORMA	TION DI	2017	SUIDE	Application Number	14/451,680
				Filing Date	August 5, 2014
STATEMENT BY APPLICANT				First Named Inventor	Shunpei YAMAZAKI
				Art Unit	2816
(Use as many sheets as necessary))	Examiner Name	J. JOY
Sheet	2	of	5	Attorney Docket Number	0756-10566

			U. S. PATENT DOCU	MENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (if known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-7,880,696	02-01-2011	Ozawa.T et al.	
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Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	T ⁶
Initials*	No. ¹	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear	
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Signature Considered 11/02/2015	Examiner Signature	/Jeremy Joy/	Date Considered	
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^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449	PTO			Complete if Known		
INICODRA	TION DI	eci (SCHOE	Application Number	14/451,680	
INFORMATION DISCLOSURE				Filing Date	August 5, 2014	
STATEMENT BY APPLICANT			ICANT.	First Named Inventor	Shunpei YAMAZAKI	
				Art Unit	2816	
(Use as many sheets as necessary))	Examiner Name	J. JOY	
Sheet	3	of	5	Attorney Docket Number	0756-10566	

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Examiner Cite Initials* No.1		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant				
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Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	Т6			
Initials*	No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY Applicant of Cited D	Applicant of Cited Document	Figures Appear				
		JP-2007-250984A	09-27-2007			Abst			
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		EP-0895219A	02-03-1999			Eng			

Examiner Signature	/Jeremy Joy/	Date Considered	11/02/2015
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Substitute for form 144	19/PTO			Complete if Known		
INICODM	ATION DI	201	SCHEE	Application Number	14/451,680	
				Filing Date	August 5, 2014	
STATEN	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI	
				Art Unit	2816	
(Use as many sheets as necessary)			")	Examiner Name	J. JOY	
Sheet	1 4	of	5	Attorney Docket Number	0756-10566	

U. S. PATENT DOCUMENTS									
Examiner Cite		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant				
Initials*	No.1	Number-Kind Code ^{2 (if known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear				
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		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear					
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Examiner Signature	/Jeremy Joy/	Date Considered	11/02/2015
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Substitute for form 1449/PTO				Complete if Known			
INFORMA	TION DI	SCI (JOHE	Application Number	14/451,680		
				Filing Date	August 5, 2014		
STATEMENT BY APPLICANT			ICAN I	First Named Inventor	Shunpei YAMAZAKI		
(Non-				Art Unit	2816		
(Use as many sheets as necessary)				Examiner Name	J. JOY		
Sheet 5 of 5			5	Attorney Docket Number	0756-10566		

U. S. PATENT DOCUMENTS									
Examiner	Cite No.1		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant			
Initials*			Number-Kind Code ^{2 (f known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear			
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Examiner Initials*	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	T ⁶
	No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known) MM-DD-YYYY	Applicant of Cited Document	Figures Appear		
		EP-1619654A	01-25-2006			Eng
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		EP-1830344A	09-05-2007			Eng

Examiner		Date	11/02/2015
Signature	/Jeremy Joy/	Considered	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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BIB DATA SHEET

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APPLICANT	_	-normal obora	otoni Co	1 + d	taugi ahi IADAN	ı.						
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Shunpei YAMAZAKI, Setagaya, JAPAN; Kengo AKIMOTO, Atsugi, JAPAN; Daisuke KAWAE, Yamato, JAPAN;												
** CONTINUING DATA ***********************************												
** FOREIGN APPLICATIONS ************************************												
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							☐ Other					
							☐ Credit					

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L24	50	US-8937580-\$.DID. OR US- 20150123109-\$.DID. OR US- 20150248859-\$.DID. OR US-8243055- \$.DID. OR US-8477085-\$.DID. OR US- 7224333-\$.DID. OR US-9153168-\$.DID. OR US-7375705-\$.DID. OR US- 20110057958-\$.DID. OR US-7250928- \$.DID. OR US-20080036698-\$.DID. OR US-7696513-\$.DID. OR US-6462722- \$.DID. OR US-6522315-\$.DID. OR US- 6839045-\$.DID. OR US-7180483-\$.DID. OR US-7221339-\$.DID. OR US- 7253793-\$.DID. OR US-7710364-\$.DID. OR JP-2005092188-\$.DID. OR JP- 04072005-\$.DID. OR JP-2004046218- \$.DID. OR JP-02122004-\$.DID. OR US- 7880696-\$.DID. OR US-8154199-\$.DID. OR US-8188647-\$.DID. OR US- 8247967-\$.DID. OR US-8354978-\$.DID. OR US-8362489-\$.DID. OR US- 20030231273-\$.DID. OR US- 20030231273-\$.DID. OR US- 20030231273-\$.DID. OR US- 20080246700-\$.DID. OR JP- 2003195814-\$.DID. OR JP- 2003195814-\$.DID. OR JP- 2007119321-\$.DID. OR JP- 2007119321-\$.DID. OR WO- 2007119321-\$.DID. OR US- 1355240-\$.DID. OR US- 1336953-\$.DID. OR US-1337131-\$.DID. OR US- 1359789-\$.DID. OR US- 1830343-\$.DID. OR US- 1830344- \$.DID. OR EP-09052007-\$.DID. OR US- 1830343-\$.DID. OR US- 1830344- \$.DID.		OR	ON	2015/11/02 19:42
S1	2	"US 20100117077"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 14:18
S2	1806	"257/43".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S3	128	"257/E21.459".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S4	1431	"438/158".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S5	537	"257/E29.296".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S6	1194	"257/57".COLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
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BLUEHOUSE EXHIBIT 1002 Page 36 of 246

USPAT	S7	1225	"438/104".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S10 54 ((DAISUKE) near2 (KAWAE)).INV. US-PGPUB: OR ON 2012/04/04 14:36 S11 109 ("20080128689" "20080308968" "20080308796" "20080308806" 77061014" "2008010867" 20080258141" "2008012873" "7203368" "20080258141" "20090058773" "7203368" "20080258141" "20090058773" "7203368" "20080258131" "20090058773" "20080258133" "20090052541" "20070054650" "20170152217" "20070054650" "20170152217" "20070054650" "20170152217" "20080108529" "2008012851" "20080128974" "20080128974" "20080128974" "20080128974" "20080128974" "200801289777" "20080058938" "20100025875" "20100025875" "20100025875" "2010005659" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010005678" "2010056787878" "201005678	S8	5416	((SHUNPEI) near2 (YAMAZAKI)).INV.	(8	OR	ON	2012/04/04 14:35
	S9	274	((KENGO) near2 (AKIMOTO)).INV.	58	OR	ON	2012/04/04 14:35
"20080308796" "20080308806" USPAT "706114" "2006010867" "20080284172" "20080258141" "2008020684172" "3208024410" "5847410" "6563174" "3200020132454" "20000231882" "20080281382" "2008028131" "20070054507" "20070152217" "220070387296" "2008028133" "2008028133" "20080185291" "20080115585" "200801085291" "20080115585" "200801085291" "200801085291" "200801085591" "200801085973" "200801085973" "200801085977" "200801085977" "200801085977" "200801085977" "200801085979" "200801085979" "200801085979" "20080203887" "2008028387" "2008028387" "2008028387" "2008028387" "2008028387" "2008028387" "2008028387" "2008028387" "2008008882" "20080284187" "200701787678" "2008008882" "200808882" "2008088828" "2008088828" "2008088828" "2008088828" "2008088882" "2008088882" "2008088882" "2008088881" "2008088882" "20080838950" "20080284588" "2008015858140" "20090278122" "200802858140" "20090278122" "200802858140" "20080278122" "20080285818" "2008013599" "2008028588" "2008013599" "2008028588" "2008013599" "2008028588" "2008013599" "2008028588" "2008013599" "2008028588" "2008013599" "2008028588" "2008013599" "7453085" "7514864" "2008038879" "3080388452" "2008038864" "20080135869" "7544864" "5588646" "727522" "6660812" "7301211" "2008038658" "20080135499" "7064346" "2008038894" "2008013658" "20080136884" "20080136899" "20080136898" "20080136898" "20080136898" "20080136898" "20080136898" "20080136898" "2008038806" "2008038806" "20080136898" "20080136898" "20080136898" "20080136898" "20080136898" "20080136898" "20080138999" "008038806" "20080138999" "008038806" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999" "20080138999"	S10	54	((DAISUKE) near2 (KAWAE)).INV.	S 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	OR	ON	2012/04/04 14:36
S12 6 "2007123861" US-PGPUB; OR ON 2012/04/04	S11	109	"20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "7323368" "20060244107" "5847410" "6563174" "20020132454" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20060108529" "20060113565" "20060169973" "20060113565" "20080169973" "20060228974" "20080169973" "20080228974" "20080169973" "20080228974" "20080169973" "20080050595" "20080106191" "5731856" "7385224" "7462862" "7732819" "200800265678" "20030218222" "20070124187" "20090008639" "20100025678" "20030218222" "20070124187" "20080038929" "2008003882" "20080038929" "2008003882" "20080038929" "2008003850" "20080254569" "200800354540" "20090278122" "20070172591" "20080296568" "20070172591" "20080296568" "20060238135" "20070052025" "7211825" "7453065" "6532045" "7674650" "20080182358" "20070158652" "7298084" "20070187760" "20080308797" "5744864" "6586346" "6727522" "6960812" "7301211" "20060035452" "20080108636" "20070187760" "20080308805" "2007018446" "20080308805" "20080038804" "2008018634" "2007018446" "5008018636" "20070194399" "7064346" "7282782" "7468304" "2007018466" "2008038805" "20090134399" "7064346" "20070108446" "20080308805" "20090060771" "20080308805" "20090065771" "20080308805" "2009006017302" "2006017302" "20060113536" "20060170111" "20070046191" "20070252928" "20080073653" "20080129195" "20080258143" "20080129195" "20080258143" "200801129195" "20080258143" "20090114910" "7105868" "7297977"	28	OR	ON	2012/04/04
	S12	6	"2007123861"	US-PGPUB;	OR	ON	2012/04/04

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			14:47
S13	7	"2007096055"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/04/04 14:47
S14	41	("20020153587" "20030013261" "20030047785" "20030111663" "20030207502" "20030218221" "20030218222" "20030219530" "20040023432" "4887255" "5744864" "6225655" "6255130" "6362499" "6563174" "7067843").PN. OR ("7282782").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:20
S15	51	("20020171085" "20030047785" "20030111663" "20030218221" "20030218222" "20040023432" "20040127038" "20050017244" "3294660" "5289016" "5744864" "6362499" "6391462" "6727522").PN. OR ("7297977").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:21
316	132	("20010046027" "20020056838" "20020109796" "20020132454" "20040038446" "20040127038" "20040132293" "20050017302" "20050199959" "20050259206" "20050275038" "20060035452" "20060086933" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113565" "2006013743" "20060113565" "20060170067" "20060170111" "20060197092" "20060231882" "2006028874" "20060231882" "20060288135" "20060284172" "20060284171" "20060292777" "20070024187" "20070046191" "20070052025" "20070054507" "20070072439" "20070158652" "20070187760" "20070194379" "20070287296" "20080038929" "20080038882" "20080038929" "20080083950" "2008016191" "20080128689" "20080129195" "20080198108" "20080224133" "20080258140"	US-PGPUB; USPAT; USOCR	OR	BLUEHOL	2012/04/04 16:23

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		"20080258141" "20080258143" "20080308796" "20080308797" "20080308804" "20080308805" "20080308806" "20090008639" "20090073325" "20090114910" "20090114911" "20090134399" "20090152541" "20090153762" "20090186437" "20090186445" "20090189155" "20090189156" "5530265" "5696011" "5701167" "5731856" "5817548" "6294274" "6532045" "6674136" "6727522" "6852998" "6900461" "7009204" "7049190").PN. OR ("7061014" "7064346" "7075614" "7105868" "7211825" "7282782" "7297977" "7323356" "7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293").PN. OR ("7674650").URPN.				
S17	9604	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S18	4685	S17 and ((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S19	322	(((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide)) near3 channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S20	118	S17 and S19	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S21	1	("7638360").PN.	US-PGPUB; USPAT	OR	OFF	2012/04/04 16:33
S22	7	("20050017302" "20060244107" "20070048970" "20070072439" "20070184571" "20080254569").PN. OR ("7638360").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:33
S23	2	"US 8134156"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36
S24	3	"US 20070108446"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36
S25	177	("20010046027" "20020011978" "20020044111" "20020056838" "20020106839" "20020109796" "20020110703" "20020132454" "20030047785" "20030207506" "20030218222" "20040038446" "20040127038" "20040132293" "20040252270" "20050017302" "20050082541" "20050084999" "20050104071" "20050164423" "20050199959" "20050231107" "20050233509" "20050250308" "20050259206" "20050275038" "20060035452" "20060043377" "20060054888" "20060086933"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:36

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"200601086		0110867"			
58					
"20060113		0113539"			
"20060113!		0113565"			
"20060163	743" "2006	0169973"			
"200601700	067" "2006	0170111"			
"20060183		0197092"			
"200602089		0228974"			
2.9					
"200602318		0238135"			
"20060244	107" "2006	0249733"			
"20060284	171" "2006	0284172"			
"20060286	737" i "2006	0292777"			
"20070024		0046191"			
"200700520		0054507"			
8					
"20070072		0090365"			
"20070108		0141784"			
"20070152	217" "2007	0158652"			
20070172	591" "2007:	0187678"			
"20070187	760" "2007	0194379"			
"200702382		0252928"			
"20070272		0287296"			
"20080006		0038882"			
21					
"20080038		0050595"			***************************************
"200800730		0083950"			
"20080106°		0108198"			
"200801286	389" "2008	0129195"			
"20080166	334" "2008	0174710"			
"20080182	358" İ "2008	0198108" İ			
"20080224		0254569"			
"20080258		0258140"			
"20080258"		0258143"			
× 6					
5 6	796").PN. OF				
("20080308		30308804"			
"20080308	305" "2008	0308806"			
"200900086	339" "2009	0068773"			
"20090073	325" "2009	0114910"			
"200901149		0134399"			
"20090152	i i	0153762"			
"20090186		0186445"			
		!			
"20090189		0189156"			
"200902393		0278122"			
"20090280		0305461"			
"20100003		0038639"			
"20100085	283" "2010	0240157"			
"20110012 ⁻	119" "2011	0024787"			
"5382457"	"5530265"				
"5701167"	"5731856"	"5803975"	i		
"5817548"	"5888410"	"5930607"			
"5952708"	"5994157"	"6294274"			
\$ 1	!				
"6459418"	"6529251"	"6532045"			
"6563174"	"6674136"	"6727522"			
"6819368"	"6852998"	"6900461"			
"6921627"	"7009204"	"7012658"			
"7049190"	"7061014"	"7064346"			
"7067843"	"7075614"	"7105868"			
"7189992"	"7211825"	"7264979"			
"7268842"	"7282782"	7297977"			
"7323356"	"7330234"	"7339187"			
2.8	"7385224"				
"7365805"	•	"7391055" "7452065"			
"7402506"	"7411209"	"7453065"			
"7453087"	"7456430"	"7462862"			
"7468304"	"7470607"	"7485478"			
"7501293"	"7560396"	"7633471"			
"7732818"	"7825419"	"7855380"			7777
			!!		
				BLUEHOU	SE EXHIBIT 100

		"RE38292").PN. OR ("8134156").URPN.				
S26	95	\$25 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:44
S27	0	(buffer near5 (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:48
S28	0	(buffer with (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:48
S29	0	(source drain) with (ozide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:49
S30	5583	(source drain) with (oxide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S31	371	(buffer with (source drain) with (oxide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S32	118	(buffer with (source drain) with (oxide near2 semiconductor) with channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S33	24	S32 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:04
\$34	108	"20010046027" "20020056838" "20020132454" "20030189401" "20030218222" "20040038446" "20040127038" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113565" "20060169973" "20060170111" "20060197092" "2006028977" "2006028974" "20060231882" "20060284171" "20060244107" "20060292777" "20070024187" "20070046191" "20070052025" "20070054507" "20070172591" "20070090365" "20070172591" "20070152217" "20070287296" "20070194379" "20070287296" "20070194379" "20080038882" "20080038929" "20080050595" "200800129195" "20080128689" "20080129195" "20080258140" "20080258139" "20080258143" "20080296568" "20080308804" "20080308805" "20080308804" "20080308805" "20080308804" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:08

		"20090065771" "20090068773" "20090073325" "20090114910" "20090134399" "20090152541" "20090278122" "20090280600" "20100025678" "20110012118" "5731856" "5744864" "5847410" "6294274" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977" "7301211" "7323356" "7385224").PN. OR ("7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293" "7674650" "7732819" "7915075").PN. OR ("8021917").URPN.				
S35	43	S34 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S36	0	S34 and ((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S37	54124	((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S38	217	S37 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S39	164	S38 not (angle adj implant\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:15
S40	3037	((taper incline decline angle) near3 (side sidewall surface) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:23
S41	178	(tft (thin adj film adj transistor)) and S40	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:24
S42	10	"US 7081641"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 17:29
S43	11	("20050056897" "6569707" "6858527").PN. OR ("7081641").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:30
S44	48	((taper near2 angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:40
S45	32689	((taper angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:41
S46	161	S45 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S47	243	((taper angle) near3 ((source drain) adj electrode))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S48	243	(taper angle) near3 ((source drain) adj electrode)	US-PGPUB; USPAT;	OR	ON	2012/04/04 17:42 JSE EXHIBIT 10

	***************************************		USOCR			
S49	206	(tft (thin adj film adj transistor)) and S48	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:43
S50	69	S25 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:53
S51	519	(source drain) near3 (tilt adj angle)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S52	54	S51 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S53	5614	S8 S9 S10	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S54	3354	S53 and (tft (thin adj film)) and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S55	145	S53 and (tft (thin adj film)) and ((angle taper) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:00
S56	5	"US 7564058"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 18:04
S57	20	("20020043662" "20030148561" "20030213959" "20030234424" "20040189188" "4797108" "5028551" "5151806" "5640067" "6037197" "6121660" "6388270" "6433363" "6448116" "6476416" "6639244" "6709901").PN. OR ("7564058").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:04
S58	8	S57 and angle	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:05
S59	218	("20030189401" "20080128689" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20080224133" "20080258139" "20110012118" "7915075" "7402506" "7411209" "20110012118" "7915075" "7462862" "20060108529" "20060228974" "20060169973" "20080050595" "20080106191" "5731856" "7385224" "7732819" "2008023387" "20090008639" "20100025678" "20030218222" "20070024187" "20080006877" "20080038882" "20080038929"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2012/09/18 18:08

GCO	10460	"20080083950" "20080254569" "20080258140" "20090278122" "20090280600" "7049190" "20070172591" "20080296568" "20010046027" "20020056838" "20060113539" "20060208977" "20060238135" "20070052025" "7211825" "7453065" "7674650" "20080182358" "20090073325" "7453087" "7501293" "20070072439" "7282782" "20070187760" "20080308797" "5744864" "6586346" "6727522" "6960812" "7301211" "20060035452" "20060091793" "20060197092" "20070090365" "20080166834" "20090134399" "7064346" "7468304" "20050199959" "20070108446" "7297977" "20080308804" "20080308805" "20090065771" "20040038446" "20040127038" "20050017302" "200600170111" "20070046191" "20070252928" "20080129195" "20080258143" "20090114910" "7105868" "7323356").PN.				2012/00/19
S60	18460	(tft (thin adj film)) and ((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:28
S61	133336	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S62	10304	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S63	1628	S61 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S64	34920	((angle taper gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S65	193	S64 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S66	1	("20120132910").PN.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:00
S67	10	("20110318916" "20120058599" "8021917" "8030663" "8115201").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:01
S68	11	S66 S67	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2012/09/26 22:01 JSE EXHIBIT 10

			EPO; JPO; DERWENT IBM TDB			
S69	5731	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S70	294	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S71	62	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S72	5942	S69 S70 S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S73	5403	S72 and (tft (thin\$1film) (thin adj film))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S74	3556	S73 and (angle taper)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S75	878	S73 and ((angle taper) with electrode)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:05
S76	133560	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S77	10334	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S78	1631	S76 and S77	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S79	532	S72 and S78	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:06
S80	89	((angle taper gradation stair) near3 (source drain)) and S77 and S72	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:08
S81	5466	(257/59).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19
S82	5099	(257/72).OCLS.	US-PGPUB;	OR	OFF BLUEHOL	2012/09/26 JSE EXHIBIT 10

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			USPAT			22:19
S83	45	((angle taper gradation stair) near3 (source drain)) and S77 and S81	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S84	40	((angle taper gradation stair) near3 (source drain)) and S77 and S82	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S85	60	S83 S84	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S86	674	(257/e29.277). OCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:21
S87	311	(257/e21.535).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:24
S88	1543	(438/158).OCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:27
S89	15	((angle taper gradation stair) near3 (source drain)) and S77 and S88	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:27
S90	3682	(438/149).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:28
S91	17	((angle taper gradation stair) near3 (source drain)) and S77 and S90	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:28
S95	6242	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S96	356	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S97	75	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S98	6489	S95 S96 S97	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2013/07/01 10:27
S99	142606	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S100	11746	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S101	1860	S99 and S100	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S102	600	S98 and S101	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/01 10:27
S103	5191	(semiconductor near5 ((indium in) and (gallium ga) and (zinc zn)))	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2013/08/12 02:30
c	23	ct.	> N .	,	"BLUEHO	USE EXHIBIT 10

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			EPO; JPO; DERWENT IBM_TDB			
S104	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S105	1268	S103 and S104	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S106	1058	(IN\$2ga\$2zn)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2013/08/12 02:33
S107	268	"20030189401" "20050050897" "20060110867" "20060284172" "20080128689" "20080258141" "20080308796" "20080308806" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "201200132910" "5847410" "6294274" "6563174" "7323368" "7402506" "7411209" "8030663" "8115201" "8158464" "20060108529" "20060113565" "20060108529" "20060113565" "20080161973" "20080050595 "20080161971" "20100065844" "20100117086" "5731856" "20030218222" "20060027804" "20070024187" "20070187678" "20080038882" "20080038929" "20080038882" "20080038929" "20080038882" "20080258140" "2009008639" "20080258140" "20090280600" "20100025678" "20090280600" "2010025678" "7049190" "20090189156" "8134156" "20010046027" "20080296568" "20060113539" "20080296568" "20060113539" "20080296568" "20060113549" "20070052025" "200600113549" "20070187760" "20080134399" "2008030877" "200803844" "20070187760" "20080134399" "2008030877" "200803844" "20070187760" "20080134399" "20080308797" "20080134399" "20080308797" "20080134399" "20080308797" "20080134399" "20080308797" "20080134399" "20080308797" "20080134399" "20080308797" "20080134399" "20080308797" "20080134399" "20080308797" "20090134399" "2008030308797" "20090134399" "2008030308797" "20090134399" "2008030308797" "20090134399" "20090152506" "5744864"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2013/08/12 09:01

		"6586346" "6727522" "6960812" "7064346" "7282782" "7298084" "7301211" "7468304" "20090186445" "8368079" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20060170111" "20060292726" "20070046191" "20070108446" "20070252928" "20070272922" "20080073653" "20080129195" "20080258143" "20080308804" "20080308805" "20090065771" "20120058599" "7105868" "7297977" "7323356" "20100003783").PN.				
S108	6320	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S109	368	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S110	77	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S111	6569	S108 S109 S110	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2013/08/12 09:01
S112	143950	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S113	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S114	1895	S112 and S113	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S115	617	S111 and S114	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01
S116	133	("20030189401" "20050050897" "20060110867" "20060284172" "20080128689" "20080258141" "20080308796" "20080308806" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "20100044711" "20110318916" "20120132910" "5847410" "6294274" "6563174" "7323368" "7402506" "7411209" "8030663"	US-PGPUB; USPAT; FPRS; EPO; JPO; IBM_TDB	OR	ON BILIEHOI	2013/08/12 09:02

S117	2	"8115201" "8158464" "20060108529" "20060113565" "20060169973" "20060228974" "20060292777" "20080050595" "20080106191" "20100065844" "20100117086" "5731856" "7385224" "7462862" "7732819" "20070024187" "20070187678" "20070024187" "20070187678" "20070194379" "20080006877" "20080038882" "20080038929" "20080038882" "2008023387" "2008008639" "20080258140" "2009008639" "20090278122" "200900280600" "20100025678" "77049190" "20090189156" "8134156" "20010046027" "20020056838" "20060113539" "2008028977" "20060238135" "20070052025" "20070172591" "20080296568" "20100109002" "7211825" "7453065" "20080182358" "20090073325" "6532045" "7453065" "20060108636" "20060113549" "20050056897" "20060035452" "20060108636" "20060113549" "20060197092" "2007072439" "20070090365" "20070158652" "20070187760" "20080166834" "20090152506" "5744864" "6586346" "6727522" "6960812" "20090152506" "5744864" "20090152506" "5744864" "20090152506" "5744864" "20090152506" "5744864" "20090152506" "5744864" "20090152506" "574868" "20090186445" "8368079" "20090186445" "8368079" "20040038446" "20040127038" "20050058599" "2007012922" "2006017302" "20080129195" "20080073653" "20080129195" "20080073653" "20080129195" "20080073653" "20080129195" "20080073653" "20080129195" "20080073653" "20080129195" "20080073653" "20080129195" "200900152506" "7105868" "20100003783") .P.N. "20100003783") .P.N. "20100003783") .P.N.	US-PGPUB; USPAT; USOCR; DERWENT	OR	o S	2013/12/11 01:46
S118	1	("20060033098").PN.	US-PGPUB; USPAT	OR	OFF	2013/12/11 01:57
S119	6558	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
S120	385	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
S121	82	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
	: k		US-PGPUB;	£	.: k	:::::::::::::::::::::::::::::::::

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB			02:41
S123	148280	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S124	12541	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S125	1990	S123 and S124	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S126	649	S122 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2013/12/11 02:41
S127	6765	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S128	395	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S129	87	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S130	7028	S127 S128 S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2014/03/23 19:33
S131	151627	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S132	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S133	2067	S131 and S132	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S134	680	S130 and S133	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2014/03/23 19:33
S135		"2008205451"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB		ON	2014/03/23 19:34
S136	10	"2005223049"	US-PGPUB;	OR	ON	2014/03/23 OUSE EXHIBIT 10

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			19:34
S137	3	"07064112"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S138	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S139	6584	(257/59).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S140	48	((angle taper gradation stair) near3 (source drain)) and S138 and S139	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S141	4077	(438/149).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S142	18	((angle taper gradation stair) near3 (source drain)) and S138 and S141	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S143	1947	(438/158).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S144	17	((angle taper gradation stair) near3 (source drain)) and S138 and S143	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S145	17	S144	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S146	320	(257/e21.535).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S147	72	S140 S142 S144	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:58
S151	7097	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S152	423	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S153	98	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S154	7378	S151 S152 S153	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 07:57
S155	157340	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT;	OR	ON BLUEHOL	2014/08/25 07:57 JSE EXHIBIT 10

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			USOCR			
S156 1	3935	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S157 2	186	S155 and S156	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S158 7	21	S154 and S157	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2014/08/25 07:57
3 3 3	118	"20080128689" "20030189401" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20050050897" "7323368" "20060244107" "5847410" "6563174" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110318916" "8030663" "8115201" "20120132910" "2006014917" "20100044711" "20060169973" "2008025859" "2008016191" "5731856" "7385224" "7462862" "7732819" "20100117086" "20080203387" "20090016222" "20100139910" "2010017086" "20080203387" "2008016191" "5731856" "7385224" "7462862" "7732819" "20100117086" "20080203387" "2009008639" "20100025678" "20080166977" "20080083950" "2008006877" "20080083950" "20080258140" "20080258140" "20080238135" "20080238135" "200802388135" "2009027804" "20080238135" "20080238135" "20080296568" "20080238135" "20080298568" "20080238135" "2008038950" "20080238135" "20080258140" "20090073325" "7453065" "6532045" "7501293" "8021917" "20080308897" "20080238135" "20070158652" "7211825" "7453065" "6532045" "7501293" "8021917" "20080308397" "2008033887" "2008033887" "200803385" "2008033850" "2008033879" "5744864" "6586346" "6727522" "6960812" "7301211" "20060035452" "7298084" "20070158652" "7298084" "20070158652" "7298084" "20070158652" "7301211" "20060035452" "7064346" "720060035452" "7064346" "720070138446" "20070178446	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	O	2014/08/25 08:16

		"20080308805" "20090065771" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20060170111" "20070046191" "20070252928" "20080073653" "20080129195" "20080258143" "20090114910" "7105868" "7297977" "7323356" "20120058599" "20060292726").PN.				
S160	1802	S157 and ("257".clas. "438".clas.)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 08:50
S161	11	("3890632" "4015279" "4054894" "4252574" "4272880" "5041913" "5075244" "5498894" "5652453" "5698885" "6060751").PN. OR ("6600196").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 08:56
S162	23	("2005/0205870").URPN.	USPAT	OR	ON	2014/08/25 09:00
S163	34	S161 S162	USPAT	OR	ON	2014/08/25 09:13
S164	5	("2006/0033098").URPN.	USPAT	OR	ON	2014/08/25 09:46
S165	59	("20010046611" "20020045289" "20020093283" "20020101154" "20020121860" "20020139303" "20030015698" "20030085398" "20030092214" "20030092232" "20030213952" "20030218166" "20040012017" "20040075093" "20040108562" "20040161192" "20040206959" "20050042548" "20050057136" "20050084712" "20050098207" "20050170208" "20050098207" "20050170208" "200500248267" "20060033098" "20060020136" "20060033098" "200600118166" "20060180812" "20060228822" "20060232203" "20060237731" "20060238112" "20060237731" "20060238112" "20060270066" "20060233203" "20070007516" "20070031701" "20080048183" "20080099757" "20090267077" "4981768" "5487953" "6486601" "6589673" "5487953" "6486601" "7545840" "7560735" "7605534" "7626198" "7744501").PN. OR ("8049208").URPN.	US-PGPUB; USPAT; USOCR	OR	OZ	2014/08/25 09:48
S166	17	("2004/0012017").URPN.	USPAT	OR	ON	2014/08/25 09:51
S167	11	("2004/0108562").URPN.	USPAT	OR	ON	2014/08/25 09:53
S168	1	("20090134383").PN.	US-PGPUB; USPAT	OR	OFF	2014/08/25 10:08
S169	9	"2006126363"	US-PGPUB;	OR	ON	2014/08/25

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S170	40	(US-20100117077-\$ or US-20050017302-\$ or US-20060043377-\$ or US-20060228974-\$ or US-20060231882-\$ or US-20070108446-\$ or US-20070172591-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20090186437-\$ or US-20090186437-\$ or US-20090114917-\$ or US-20090114917-\$ or US-20060292726-\$ or US-20080073653-\$ or US-20060292726-\$ or US-20080073653-\$ or US-20130214270-\$ or US-20040108562-\$ or US-20040108562-\$ or US-20090134383-\$).did. or (US-20090134383-\$).did. or (US-20090134383-\$).did. or (US-20090134383-\$).did. or (US-2007123861-\$ or US-8049208-\$).did. or (US-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-20072439-\$ or JP-2007096055-\$	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	O	2014/08/25 10:56
S171	16	S170 and buffer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB		ON	2014/08/25 10:56
S173	7408	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S174	447	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S175	102	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S176	7696	S173 S174 S175	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:41
S177	161896	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S178	14662	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S179	2301	S177 and S178	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41

S180	767	S176 and S179	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB		ON	2014/12/23 22:41
S181	40	(US-20100117077-\$ or US-20050017302-\$ or US-20060043377-\$ or US-20060228974-\$ or US-20060231882-\$ or US-20070108446-\$ or US-20070172591-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20090114917-\$ or US-20100301325-\$ or US-20100117086-\$ or US-20090114917-\$ or US-20100044711-\$ or US-20050056897-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20060033098-\$ or US-20050205870-\$ or US-20040108562-\$ or US-2008009757-\$).did. or (US-20090134383-\$).did. or (US-8134156-\$ or US-7208756-\$ or US-7564058-\$ or US-6600196-\$ or US-8049208-\$).did. or (WO-2006126363-\$).did. or (JP-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-2008205451-\$).did.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2014/12/23 22:41
S182	3792	(257/43).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:46
S183	2191	(257/e29.151).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:46
S184	2413	(257/e21.414).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S185	2127	(438/158). CCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S186	2423	(438/104).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S187	127	S185 and S186	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT IBM_TDB	OR	ON	2014/12/23 22:48
S188	1321	S178 and S182	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:48
S189	453	S178 and S183	US-PGPUB; USPAT; USOCR;	OR	ON	2014/12/23 22:48 JSE EXHIBIT 10

			FPRS; EPO; JPO; DERWENT; IBM_TDB		
S190	919	S178 and S184	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:48
S191	2471	S188 S189 S190	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:48
S192	416	S179 and (S185 S186)	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:49
S193	4	"42621714".FMID.	US-PGPUB; OR USPAT; FPRS	ON	2014/12/23 22:51
S194	137	("20010046027" "20020056838" "20020132454" "20030189401" "20030218222" "20040038446" "20040127038" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113565" "20060154397" "20060169973" "20060154397" "20060197092" "2006028977" "20060228974" "20060231882" "20060238135" "20060244107" "20060292777" "20070024187" "20060292777" "20070052025" "20070054507" "20070057261" "20070072439" "20070057261" "20070172591" "20070152217" "20070187760" "20070187678" "20070252928" "20070194379" "2008038882" "20080006877" "20080038882" "20080038929" "2008003950" "20080106191" "20080128689" "20080129195" "20080254569" "20080258139" "20080258140" "20080296568" "20080308796" "20080308797"	US-PGPUB; OR USPAT; USOCR	OZ	2014/12/23 22:51

C201	1	"20080308804" "20080308805" "20080308806" "20090008639" "20090065771" "20090068773" "20090073325" "20090114910" "20090134399" "20090152506" "20090152541" "20090186437" "20090186445" "20090189155" "20090189156" "20090239335" "20090278122" "20090280600" "20090305461" "20100003783" "20100025678" "20100065844" "20100090217" "20100092800" "20100109002").PN. OR ("20100117077" "20100163865" "5731856" "5744864" "5847410" "5879973" "6294274" "6338990" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977" "7301211" "7323356" "7385224" "7402506" "7411209" "7453065" "77501293" "7749825" "7919365" "7732819" "7749825" "7919365" "7732887" "7981734" "8134156" "8158464" "8222098" "8253252" "8368079" "8525165").PN. OR ("8841661").URPN.			OEE	2015/02/26
S201	1	("20070072439").PN.	US-PGPUB; USPAT	OR	OFF	2015/02/26 01:39
S202	7544	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
S203	462	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
S204	107	((Daisuke) near2 (KAWAE)).1NV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
\$205	7840	S202 S203 S204	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/02/26 02:17
S206	164051	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
S207	15029	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
S208	2358	S206 and S207	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
S209	787	S205 and S208	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON BLUEHOL	2015/02/26 02:17

S210	167	US-7323368-\$.DID. OR US-	US-PGPUB;	OR	ON	2015/02/26
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		20080128689-\$.DID. OR US-7298084-	JPO			
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		20070108446-\$.DID. OR US- 20070072439-\$.DID. OR US-5847410-				
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11 1	1	SI .	1	§	ii BLUEHOL	ii JSE EXHIBIT 100

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S211	2241	20060292726-\$.DID. OR US-8134156- \$.DID. OR US-8158464-\$.DID. OR US- 8368079-\$.DID. OR US-20090186445- \$.DID. OR US-20090189155-\$.DID. OR US- 20100003783-\$.DID. OR US- 20060033098-\$.DID.	US-PGPUB;	OR	OFF	2015/06/08
		<u> </u>	USPAT			14:15
S212	2	"US 20140339556"	US-PGPUB; USPAT; USOCR; DERWENT		ON	2015/06/18 00:26
S213	43	(US-20100117077-\$ or US-20050017302-\$ or US-20060043377-\$ or US-20060197092-\$ or US-20060228974-\$ or US-20060231882-\$ or US-20070108446-\$ or US-20070172591-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20090186437-\$ or US-20090114917-\$ or US-20100301325-\$ or US-20100117086-\$ or US-20090114917-\$ or US-20100044711-\$ or US-20050056897-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20130214270-\$ or US-20060033098-\$ or US-20050205870-\$ or US-20040108562-\$ or US-20080099757-\$).did. or (US-20090134383-\$ or US-20100213461-\$ or US-20070072439-\$ or US-20140339556-\$).did. or (US-8134156-\$ or US-7208756-\$ or US-7564058-\$ or US-6600196-\$ or US-8049208-\$).did. or (WO-2006126363-\$).did. or (JP-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-2007096055-\$ or JP-0706655-\$ or JP-2008205451-\$).did.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:28
S214	11296	H01L29/7869.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
S215	6973	H01L27/1225.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
S216	4396	H01L29/41733.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
S217	8780	H01L29/4908.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT		ON	2015/06/18 00:34 SE EXHIBIT 10

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S218	1346	H01L51/105.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
S219	1927	H01L51/0508.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
S220	2050	H01L51/0512.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT		ON	2015/06/18 00:34
S221	8728	H01L51/0545.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:35
S223	11749	S219 S220 S221	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:35
S225	6927	S215 not S223	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:35
S227	13924	S216 S217 S218	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:36
S228	12057	S227 not (S223 S225)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:36
S229	167947	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2015/06/18 00:37
S230	412	S229 and S223	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
S231	660	S229 and S225	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
S232	1225	S229 and S228	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
	2297	S230 S231 S232	US-PGPUB;	5	ON	2015/06/18

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			USPAT; FPRS; JPO; DERWENT			00:37
S234	2073	\$233 and ((thin adj film) tft)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
S235	1364	\$234 and ((source drain) with metal)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
S236	6390	(angle taper\$3 step\$3 gradation stair indent\$5) near3 ((source drain) adj (layer electrode film))	US-PGPUB; USPAT; USOCR	OR	ON	2015/06/18 00:39
S237	3100	\$236 and ((thin adj film) tft) and ((source drain) with metal)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
S238	216	\$237 and \$223	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
S239	578	\$237 and \$225	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
S240	380	\$237 and \$228	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
S241	1174	S238 S239 S240	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
S242	454	S241 and (@ay<"2010")	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:42
S243	4169	(shape) near3 ((source drain) adj (layer electrode film))	US-PGPUB; USPAT; USOCR	OR	ON	2015/06/18 01:06
S244	1986	S243 and ((thin adj film) tft) and ((source drain) with metal)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 01:07
S245	1111	S244 and (@ay<"2010")	US-PGPUB; USPAT; FPRS; JPO; DERWENT	and the state of t	ON	2015/06/18 01:07
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COL	F0	LIC 0007500 ¢ DID, OD LIC	LIC DODLID		ON	0015/10/07
S251	ວບ	US-8937580-\$.DID. OR US-	US-PGPUB;	UK	ON	2015/10/27
		20150123109-\$.DID. OR US-	USPAT;			18:17
		20150248859-\$.DID. OR US-8243055-	USOCR;			
		\$.DID. OR US-8477085-\$.DID. OR US-	JPO			
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		\$.DID.				

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S92	1300	(257/57).OCLS.	US- PGPUB; USPAT	OR	OFF	2012/09/26 22:18
S93	16	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and oxide and (angle with (bottom top))).clm.	US- PGPUB; USPAT	OR	ON	2012/09/26 23:11
S94	9	(((source adj electrode) with (angle with (bottom top))) and ((drain adj electrode) with (angle with (bottom top)))).clm.	US- PGPUB; USPAT	OR	ON	2012/09/26 23:13
S148	1694	(257/57).OCLS.	US- PGPUB; USPAT	OR	OFF	2014/03/23 19:32
S149	12	(((source adj electrode) with (angle with (bottom top))) and ((drain adj electrode) with (angle with (bottom top)))).clm.	US- PGPUB; USPAT	OR	ON	2014/03/23 19:32
S150	21	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and oxide and (angle with (bottom top))).clm.	US- PGPUB; USPAT	5	ON	2014/03/23 19:32
S172	1	"Term Removed"	USPAT	OR	ON	2014/08/25 10:56

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S195 1		"Term Removed"	USPAT	OR	ON	2014/12/23 22:41
S196 1	827	(257/57).OOLS.	US- PGPUB; USPAT	OR	OFF	2014/12/23 22:41
S197 1	79	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and (oxide adj semiconductor) and (step near5 (source drain))).clm.	US- PGPUB; USPAT	OR	ON	2014/12/23 22:42
S198 3	311	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and (oxide adj semiconductor) and (step with step with (source drain))).clm.	US- PGPUB; USPAT	OR	ON	2014/12/23 22:43
S199 9)	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and (oxide adj semiconductor) and (step with side with (source drain))).clm.	US- PGPUB; USPAT	OR	ON	2014/12/23 22:43
S200 1	80	("20010030323" "20010046027" "20020044111" "20020056838" "20020132454" "20020185466" "20030189401" "20030218222" "20040038446" "20040127038" "20040263757" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060113536" "20060110867" "20060113536" "20060113565" "20060113549" "20060113565" "20060197092" "2006028977" "2006028974" "20060231882" "2006028877" "20060284171" "20060284172" "20060292777" "20070024187" "20070046191" "20070052025" "20070054507" "20070096816" "2007018446" "20070172591" "20070194379" "2007002417" "20070194379" "20070249104" "20070252928" "20070172591" "20070287296" "2008006877" "20080038882" "20080038929" "20080038950" "20080166935" "20080126689" "20080166935" "2008012689" "20080166935" "20080128689" "20080166934" "20080128689" "20080166834" "20080128689" "20080166834" "200802585140" "20080258139" "20080258140" "200802858139" "2008038880" "20080296568" "2008038880" "2008038959" "2008038880" "2008038959" "2008038880" "20080286588" "2008038881" "20080296588" "2008038881" "20080296588" "2008038881" "2008038895" "2008038885" "2008008877" "20080388881" "20080258141" "20080258143" "20080258139" "20080388881" "20080258839" "20080388881" "20080258839" "20080388881" "20080258839" "20080388881" "2008038895" "2008038886" "2008038895" "20080388881" "2008038805" "20080388881" "2008038805" "20080388881" "20080066771" "2009008637" "200900665771" "2009008637" "200900665771" "20090068773" "20090072232" "20090073325" "20090114910"	US- PGPUB; USPAT	OR	OZ	2014/12/23 22:43

		"20090134399" "20090140438" "20090148970").PN. OR ("20090152506" "20090152541" "20090186437" "20090186445" "20090278122" "20090280600" "20100025678" "20100051934" "20100051949" "20100059742" "20100072467" "20100065840" "20100072467" "20100084650" "20100092800" "20100102312" "20100102315" "20100105164" "20100105163" "20100105164" "20100109022" "20100117075" "20100123136" "2010012312" "20100123136" "2010015164" "20100301329" "2011017698" "20120286267" "5256897" "5338959" "5731856" "5744864" "5755938" "5847410" "6124606" "6294274" "6359672" "6558987" "6563174" "6586346" "6727522" "6762802" "6767847" "6838308" "6900872" "6960812" "7049190" "7061014" "7064346" "7071037" "7105868" "7199846" "7211825" "7282782" "7297977" "7301211" "7323356" "7358592" "7385224" "7402506" "7411209" "7453065" "7453087" "7462862" "77468304" "7501293" "7674650" "77714329" "7732819" "7767505" "7772021" "7935964" "7960730" "7982215" "7998372" "8030195" "8168544" "8207756" "8236635" "8242494" "8304765" "8309961" "8319215" "8343799").PN. OR ("8686417").URPN.				
S246	1	"Term Removed"	USPAT	OR	ON	2015/06/18 00:28
S247	1028	H01L29/41733.cpc.	US- PGPUB	OR	ON	2015/06/18 01:05
S248	911	H01L29/41733.cpc.	USPAT	OR	ON	2015/06/18 01:05
S249	1309	(substrate and gate and source and drain and ((sidewall (side adj surface)) near5 step)).clm.	US- PGPUB; USPAT	OR	ON	2015/06/18 01:11
S250	88	(substrate and gate and source and drain and ((sidewall (side adj surface)) near5 step) and (oxide adj semiconductor) and metal).clm.	US- PGPUB; USPAT		ON	2015/06/18 01:11

11/2/2015 8:55:03 PM

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Search Notes



Application/Control No.	Applicant(s)/Patent Under Reexamination
14451680	YAMAZAKI ET AL.
Examiner	Art Unit
JEREMY JOY	2896

CPC- SEARCHED					
Symbol	Date	Examiner			
H01L29/7869, 49080	6/17/2015	Jeremy J. Joy			
H01L27/1225	6/17/2015	Jeremy J. Joy			
H01L51/105, 0508, 0512, 0545	6/17/2015	Jeremy J. Joy			

CPC COMBINATION SETS - SEARCHED				
Symbol	Date	Examiner		

US CLASSIFICATION SEARCHED						
Class	Subclass	Date	Examiner			

SEARCH NOTES					
Search Notes	Date	Examiner			
See search notes from parent applications 12/613,769 and 13/763874	8/25/2014	Jeremy J. Joy			
General keyword and EAST search is attached.	8/25/2014	Jeremy J. Joy			
General keyword and EAST search is attached.	2/26/2015	Jeremy J. Joy			
General keyword, interference and EAST search is attached.	6/18/2015	Jeremy J. Joy			
General keyword, interference and EAST search is attached.	11/2/2015	Jeremy J. Joy			

INTERFERENCE SEARCH					
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner		
H01L29	41733	6/18/2015	Jeremy J. Joy		

/JEREMY JOY/ Examiner.Art Unit 2816	November 2, 2015

U.S.	DEF	PARTI	MENT	OF	CON	IMER	CE
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PATENT WITHDRAWAL NOTICE

DATE WITHDRAWN	WITHDRAWAL NUMBER					
10/27/2015	30928					
The following application has	been WITHDRAWN from the					
11/10/20	<u>015</u> issue.					
SERIAL NO.	PATENT NUMBER					
14451680	9184249					
TITLE	<u> </u>					
SEMICONDUCTOR DEVICE						
NAME AND ADDRESS						
SHUNPEI YAMAZAKI Setagaya, JP						
REASON FOR WITHDRAWAL						
Auto-petition to withdraw - Granted						
<u>.</u>						
APPROVED						
Patent Publ	errell/, Manager ication Branch ta Management					

FORM PTO-302 -- (REV. 05-2009)

Doc code: RCEX Doc description: Request for Continued Examination (RCE) PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	REQ	UEST FC			N(RCE)TRANSMITTA	\L	
			(Submitted	d Only via EFS	-Web)		
Application Number	14/451,680	Filing Date	2014-08-05	Docket Number (if applicable)	0756-10566	Art Unit	2816
First Named Inventor	Shunpei YAMAZ	'AKI et al.		Examiner Name	Jeremy J. Joy	•	
This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV							
		S	UBMISSION REQ	UIRED UNDER 37	7 CFR 1.114		
in which they	were filed unless	applicant ins		applicant does not wi	nents enclosed with the RCE vish to have any previously filed		
	y submitted. If a fi on even if this box			any amendments file	ed after the final Office action r	nay be cor	nsidered as a
Consider the arguments in the Appeal Brief or Reply Brief previously filed on							
☐ Oth	ner 						
X Enclosed							
Am	nendment/Reply						
 ★ Info	ormation Disclosu	ıre Statemer	nt (IDS)				
Affidavit(s)/ Declaration(s)							
Oti	her 						
MISCELLANEOUS							
			ntified application is and 3 months; Fee und		CFR 1.103(c) for a period of r quired)	nonths _	
◯ OtherF	Petition to Withdra	aw from Issu	le				
FEES							
🗙 The Dire	ctor is hereby aut		s required by 37 CF harge any underpayr		RCE is filed. lit any overpayments, to		
		SIGNATUF	RE OF APPLICANT	Γ, ATTORNEY, OF	R AGENT REQUIRED		
_	Practitioner Sign ant Signature	ature					

Doc code: RCEX

PTO/SB/30EFS (07-09)

Doc description: Request for Continued Examination (RCE)

Approved for use through 07/31/2012. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Signature of Registered U.S. Patent Practitioner				
Signature	/Eric J. Robinson/	Date (YYYY-MM-DD)	2015-10-26	
Name	Eric J. Robinson	Registration Number	38285	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

BLUEHOUSE EXHIBIT 1002 Page 70 of 246

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Confirmation No. 5776
Shunpei YAMAZAKI et al.)	Group Art Unit: 2816
Serial No. 14/451,680)	Examiner: Jeremy J. Joy
Filed: August 5, 2014)	
For: SEMICONDUCTOR DEVICE AND)	
MANUFACTURING METHOD)	
THEREOF)	

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. § 1.56 and 37 C.F.R. §§ 1.97-1.99, Applicant submits herewith a Form PTO-1449 listing information known to Applicant and requests that this information be made of record in the above identified application. Copies are submitted herewith in accordance with 37 C.F.R. § 1.98(a).

Except as provided below, in accordance with 37 C.F.R. § 1.97(e), it is certified that each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.

Unless otherwise noted, the references submitted were cited by the Japanese Patent Office in counterpart Japanese Patent Application No. 2014-206901 in an Office Action mailed October 13, 2015.

U.S. Patent No. 8,937,580 and U.S. Publication Nos. 2015/0123109 and 2015/0248859 are in the family of JP 2005-092188. These references were not directly

cited by the foreign patent office, but are submitted herewith for consideration by the Examiner.

- U.S. Patent No. 8,243,055 and WO 2008/075697 are in the family of JP 2008-176287. These references were not directly cited by the foreign patent office, but are submitted herewith for consideration by the Examiner.
- U.S. Patent No. 8,477,085 is in the family of JP 2008-151963. This reference was not directly cited by the foreign patent office, but is submitted herewith for consideration by the Examiner.
- U.S. Patent No. 7,224,333 is in the family of JP 2003-280587. This reference was not directly cited by the foreign patent office, but is submitted herewith for consideration by the Examiner.
- U.S. Patent No. 9,153,168 is in the family of JP 2004-046218. This reference was not directly cited by the foreign patent office, but is submitted herewith for consideration by the Examiner.
- U.S. Patent No. 7,375,705 and U.S. Publication No. 2011/0057958 are in the family of JP 2005-266346. These references were not directly cited by the foreign patent office, but are submitted herewith for consideration by the Examiner.
- U.S. Patent No. 7,250,928 is in the family of JP 2003-195814. This reference was not directly cited by the foreign patent office, but is submitted herewith for consideration by the Examiner.
- U.S. Publication No. 2008/0036698 is in the family of JP 2008-042043. This reference was not directly cited by the foreign patent office, but is submitted herewith for consideration by the Examiner.
- U.S. Patent No. 7,696,513 and WO 2007/119321 are in the family of JP 2007-250984. These references were not directly cited by the foreign patent office, but are submitted herewith for consideration by the Examiner.
- U.S. Patent Nos. 6,462,722; 6,522,315; 6,839,045; 7,180,483; 7,221,339; 7,253,793; 7,710,364; 7,880,696; 8,154,199; 8,188,647; 8,247,967; 8,354,978;

8,362,489; U.S. Publication Nos. 2003/0231273; 2008/0246700; 2012/0299902; EP 0 895 219; EP 0 917 127; EP 1 255 240; EP 1 336 953; EP 1 337 131; EP 1 359 789; EP 1 363 265; EP 1 619 654; EP 1 830 342; EP 1 830 343 and EP 1 830 344 are in the family of WO 1998/036407. These references were not directly cited by the foreign patent office, but are submitted herewith for consideration by the Examiner.

This Information Disclosure Statement is being submitted with a RCE. Therefore, no fee is required.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,

Eric J. Robinson Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, Virginia 22033 (571) 434-6789

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Substitute for form 1449/PTO				Co	Complete if Known			
INFORMATION DISCLOSURE		Application Number	14/451,680					
				Filing Date	August 5, 2014			
STATEMENT BY APPLICANT			ICANT	First Named Inventor	Shunpei YAMAZAKI			
				Art Unit	2816			
(Use	(Use as many sheets as necessary)			Examiner Name	J. JOY			
Sheet	1	of	5	Attorney Docket Number	0756-10566			

			U. S. PATENT DOCU	MENTS	MANUAL
Examiner	Cite	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
Initials*	No.	Number-Kind Code ^{2 (If known)}		Applicant of Orlea pocument	Figures Appear
		US-8,937,580	01-20-2015	Miyagawa.K	
		US-2015/0123109	05-07-2015	Miyagawa.K	
		US-2015/0248859	09-03-2015	Miyagawa.K	
-		US-8,243,055	08-14-2012	Abe.K	
		US-8,477,085	07-02-2013	Shishido.H	
		US-7,224,333	05-29-2007	Yamazaki.S et al.	
		US-9,153,168	10-06-2015	Osame.M et al.	
		US-7,375,705	05-20-2008	Morita.A	
		US-2011/0057958	03-10-2011	Morita.A	
		US-7,250,928	07-31-2007	Yamazaki.S et al.	
		US-2008/0036698	02-14-2008	Kawasaki.M et al.	
	†	US-7,696,513	04-13-2010	Hayashi.R et al.	
		US-6,462,722	10-08-2002	Kimura.M et al.	
		US-6,522,315	02-18-2003	Ozawa.T et al.	
		US-6,839,045	01-04-2005	Ozawa.T et al.	1001
		US-7,180,483	02-20-2007	Kimura.M et al.	
	1	US-7,221,339	05-22-2007	Ozawa.T et al.	
		US-7,253,793	08-07-2007	Ozawa.T et al.	
		US-7,710,364	05-04-2010	Ozawa.T et al.	

FOREIGN PATENT DOCUMENTS							
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	T ⁶	
initials*	No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear		
		JP-2005-092188A	04-07-2005			Abst	
		JP-2008-176287A	07-31-2008			Abst	
		JP-2008-151963A	07-03-2008			Abst	
		JP-2003-280587A	10-02-2003			Abst	
		JP-2006-227238A	08-31-2006			Abst	
	<u> </u>	JP-2004-046218A	02-12-2004			Abst	

Examin		Date	
Signatu	е	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the relign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the inclividual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449/PTO				Complete if Known			
INFORMATION DISCLOSURE			SUIDE	Application Number	14/451,680		
···· - · · · · · · · · · · · · · · · ·				Filing Date	August 5, 2014		
SIAIEM	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI		
				Art Unit	2816		
(Use as many sheets as necessary))	Examiner Name	J. JOY		
Sheet	2	of	5	Attorney Docket Number	0756-10566		

			U. S. PATENT DOCU	MENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (if known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-7,880,696	02-01-2011	Ozawa.T et al.	
		US-8,154,199	04-10-2012	Ozawa.T et al.	
		US-8,188,647	05-29-2012	Kimura.M et al.	
		US-8,247,967	08-21-2012	Ozawa.T et al.	
		US-8,354,978	01-15-2013	Ozawa.T et al.	
		US-8,362,489	01-29-2013	Kimura.M et al.	
		US-2003/0231273	12-18-2003	Kimura.M et al.	
		US-2008/0246700	10-09-2008	Ozawa.T et al.	
		US-2012/0299902	11-29-2012	Ozawa.T et al.	

FOREIGN PATENT DOCUMENTS								
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	T ⁶		
Initials*	No. ¹	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY Applicant of Cited Document		Figures Appear	,		
		JP-2008-241783A	10-09-2008			Abst		
		JP-2005-266346A	09-29-2005			Abst		
		JP-2006-165527A	06-22-2006			Abst		
		JP-2006-286719A	10-19-2006			Abst		
		JP-2003-195814A	07-09-2003			Abst		
		JP-2008-042043A	02-21-2008			Abst		

Examiner Signature	Date Considered	
Signature	Considered	

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (end by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the relign of the Emperor must precede the serial number of the patent document. Stind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO		Complete if Known			
INFORMATION DISCLOSURE			SCHEE	Application Number	14/451,680
				Filing Date	August 5, 2014
STATEMENT BY APPLICANT			ICANI	First Named Inventor	Shunpei YAMAZAKI
				Art Unit	2816
(Use as many sheets as necessary))	Examiner Name	J. JOY
Sheet	3	of	5	Attorney Docket Number	0756-10566

Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant
Initials* No.1	No.1	Number-Kind Code ^{2 (if known)}	MM-DD-YYYY	Applicant of Cited Document	Figures Appear
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FOREIGN PATENT DOCUMENTS							
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	T ₆	
Initials*	No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear		
		JP-2007-250984A	09-27-2007			Abst	
		JP-2005-354036A	12-22-2005			Abst	
		WO-1998/036407	08-20-1998			Abst	
		WO-2008/075697	06-26-2008			Eng.	
		WO-2007/119321	10-25-2007			Eng.	
		EP-0895219A	02-03-1999			Eng.	

Examiner		Date	·	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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INICODNIA	TION DI	eci (SCHEE	Application Number	14/451,680
INFORMATION DISCLOSURE				Filing Date	August 5, 2014
STATEM	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI
			_	Art Unit	2816
(Use a	as many sheets as	necessary)	Examiner Name	J. JOY
Sheet	4	of	5	Attorney Docket Number	0756-10566

Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	
Initials* No.1	Number-Kind Code ^{2 (If known)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear		
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Examiner Cite		Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	₇ 6
Initials* No. ¹	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Figures Appear		
		EP-0917127A	05-19-1999			Eng
		EP-1255240A	11-06-2002			Eng
		EP-1336953A	08-20-2003		The state of the s	Eng
		EP-1337131A	08-20-2003			Eng
		EP-1359789A	11-05-2003			Eng
		EP-1363265A	11-19-2003			Eng

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the relign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WiPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449	/PTO				Complete if Known
INIEODMA	TION DI	eci /	SUDE	Application Number	14/451,680
STATEMENT BY APPLICANT				Filing Date	August 5, 2014
			LICANI	First Named Inventor	Shunpei YAMAZAKI
				Art Unit	2816
(Use a	is many sheets as	necessary	()	Examiner Name	J. JOY
Sheet	5	of	5	Attorney Docket Number	0756-10566

			U. S. PATENT DOCUM	ENIS			
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant		
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Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	L _e
		EP-1619654A	01-25-2006		()garoo / Appoal	Eng
		EP-1830342A	09-05-2007			Eng
		EP-1830343A	09-05-2007			Eng
		EP-1830344A	09-05-2007			Eng

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Examiner	Date	
Signature	Considered	

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Doc Code: PET.AUTO Document Description: Petition au	tomatically granted by EFS-Web	PTO/SB/140 U.S. Patent and Trademark Office Department of Commerce
Electronic Petition Request	PETITION TO WITHDRAW AN APPLI THE ISSUE FEE UNDER 37 CFR 1.313	CATION FROM ISSUE AFTER PAYMENT OF B(c)
Application Number	14451680	
Filing Date	05-Aug-2014	
First Named Inventor	Shunpei YAMAZAKI	
Art Unit	2816	
Examiner Name	JEREMY JOY	
Attorney Docket Number	0756-10566	
Title	SEMICONDUCTOR DEVICE	
withdraw an application from issu	n from issue for further action upon petition by ue, applicant must file a petition under this sec easons why withdrawal of the application from	ction including the fee set forth in § 1.17(h) and a
APPLICANT HEREBY PETITIONS TO	O WITHDRAW THIS APPLICATION FROM ISSUE	UNDER 37 CFR 1.313(c).
are unpatentable, an amendment claims to be patentable; (b) Consideration of a request for	e claims, which must be accompanied by an u t to such claim or claims, and an explanation a continued examination in compliance with §	unequivocal statement that one or more claims as to how the amendment causes such claim or 1.114 (for a utility or plant application only); or be in favor of a continuing application, but not a
Petition Fee		
Small Entity		
Micro Entity		
Regular Undiscounted		
Reason for withdrawal from issue		

One or more claims are unpater	One or more claims are unpatentable						
Consideration of a request for consideration of a request	ontinued examination (RCE) (List of Required Documents and Fees)						
	Applicant hereby expressly abandons the instant application (any attorney/agent signing for this reason must have power of attorney pursuant to 37 CFR 1.32(b)).						
RCE request, submission, and fee.							
I certify, in accordance with 37 CFR 1.4(d)(4) that: The RCE request ,submission, and fee have already been filed in the above-identified application on							
Are attached.							
THIS PORTION MUST BE COMPLETE	D BY THE SIGNATORY OR SIGNATORIES						
I certify, in accordance with 37 CFR	1.4(d)(4) that I am:						
 An attorney or agent registered in this application. 	to practice before the Patent and Trademark Office who has been given power of attorney						
An attorney or agent registered	to practice before the Patent and Trademark Office, acting in a representative capacity.						
A sole inventor							
A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application							
A joint inventor; all of whom are	signing this e-petition						
Signature	/Eric J. Robinson/						
Name	Eric J. Robinson						
Registration Number	38285						

Electronic Patent A	\ pp	lication Fee	Transmit	tal	
Application Number:	144	151680			
Filing Date:	05-	Aug-2014			
Title of Invention:	SEMICONDUCTOR DEVICE				
First Named Inventor/Applicant Name:	Shu	unpei YAMAZAKI			
Filer:	Eric J. Robinson/Adele Stamper				
Attorney Docket Number:	0756-10566				
Filed as Large Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Petition fee- 37 CFR 1.17(h) (Group III)		1464	1	140	140
Request for Continued Examination		1801	1	1200	1200
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD	(\$)	1340



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

Decision Date: October 26, 2015

In re Application of :

DECISION ON PETITION

Shunpei YAMAZAKI

UNDER CFR 1.313(c)(2)

Application No: 14451680

Filed: 05-Aug-2014

Attorney Docket No: 0756-10566

This is an electronic decision on the petition under 37 CFR 1.313(c)(2), filed October 26, 2015, to withdraw the above-identified application from issue after payment of the issue fee.

The petition is **GRANTED.**

The above-identified application is withdrawn from issue for consideration of a submission under 37 CFR 1.114 (request for continued examination). See 37 CFR 1.313(c)(2).

Petitioner is advised that the issue fee paid in this application cannot be refunded. If, however, this application is again allowed, petitioner may request that it be applied towards the issue fee required by the new Notice of Allowance.

Telephone inquiries concerning this decision should be directed to the Patent Electronic Business Center (EBC) at 866-217-9197.

This application file is being referred to Technology Center AU 2816 for processing of the request for continuing examination under 37 CFR 1.114.

Office of Petitions

Electronic Ack	Electronic Acknowledgement Receipt				
EFS ID:	23867499				
Application Number:	14451680				
International Application Number:					
Confirmation Number:	5776				
Title of Invention:	SEMICONDUCTOR DEVICE				
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI				
Customer Number:	31780				
Filer:	Eric J. Robinson/Adele Stamper				
Filer Authorized By:	Eric J. Robinson				
Attorney Docket Number:	0756-10566				
Receipt Date:	26-OCT-2015				
Filing Date:	05-AUG-2014				
Time Stamp:	13:11:50				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment	yes
Payment Type	Electronic Funds Transfer
Payment was successfully received in RAM	\$1340
RAM confirmation Number	10131
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing	j:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.
Other Reference-Patent/App/Search documents		JP_2005092188.pdf	6102017	no	35
	documents		80cbcc6c49fffb7f518dc4581c729e0a680c4 d8d		
Warnings:					
Information:	1				
2	Other Reference-Patent/App/Search documents	JP_2008176287.pdf	5314665	no	33
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Warnings:	·				
Information:					
3	Other Reference-Patent/App/Search	JP_2008151963.pdf	14170885	no	82
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4	Other Reference-Patent/App/Search	JP_2003280587.pdf	3495812	no	20
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5	Other Reference-Patent/App/Search	JP_2006227238.pdf	3322077	no	21
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6	Other Reference-Patent/App/Search	JP_2004046218.pdf	2431615 no		14
	documents	- ,	d9aad8c971256bda6aad9f7e91faefad29f4 7245		
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7	Request for Continued Examination	RCE_26OCT2015.pdf	697933	no	3
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8	Other Reference-Patent/App/Search documents	JP_2008241783.pdf	3319194	no	21
	documento		3c73e2343ba2f38bcdbb6a8af221f517a393 8d30		
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9	Other Reference-Patent/App/Search documents	JP_2005266346.pdf	6137994	no	38
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11	Other Reference-Patent/App/Search	JP_2006286719.pdf	2436966	no	16
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12	Other Reference-Patent/App/Search	JP_2003195814.pdf	7355604	no	37
	documents	31 <u>_</u> 2000 1300 1 11 pu	19524f2b45764066248837250889eec1823 cdc5a		
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,-	documents		10446fe2820c6722ec1420de71bfd81798a3 ade8		
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14	Other Reference-Patent/App/Search	JP_2007250984.pdf	3280528	no	21
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15	Other Reference-Patent/App/Search	JP_2005354036.pdf	1625586	no	11
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16	Other Reference-Patent/App/Search	WO_98036407.pdf	9866975	no	89
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17	Other Reference-Patent/App/Search documents	WO_2008075697.pdf	9769101	no	90		
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18	Other Reference-Patent/App/Search documents	WO_2007119321.pdf	4786612	no	44		
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20	Other Reference-Patent/App/Search	EP_0917127.pdf	1308930	no	20		
20	documents	E1_0517 127.pdi	cd4a3fd4b5f8bf633d07bcb3fb938bec988e 32b2	110	20		
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21	Other Reference-Patent/App/Search	EP_1255240.pdf	7123418	no	52		
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22	Other Reference-Patent/App/Search	EP_1336953.pdf	7049836	no	50		
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Warnings:							
Information:							
23	Other Reference-Patent/App/Search	EP_1337131.pdf	1080013	no	19		
	documents		7a07c1b3af1989335e27bf90b4a11b9fcf96 d45b				
Warnings:							
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24	Other Reference-Patent/App/Search	EP_1359789.pdf	7095070	no	52		
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Warnings:							
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26	Other Reference-Patent/App/Search	EP_1619654.pdf	2951136	no	21
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Information:			1		<u> </u>
28	Other Reference-Patent/App/Search documents	EP_1830343.pdf	7124001	no	50
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Information:					
29	Other Reference-Patent/App/Search	EP_1830344.pdf	7120962	no	49
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Warnings:					
Information:					
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	Document Des Other Reference-Patent/Ap Other Reference-Patent/Ap	p/Search documents	zip description Start 1 4		3
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Warnings: Information: 32 Warnings:	Other Reference-Patent/Ap Other Reference-Patent/Ap Other Reference-Patent/Ap Petition automatically granted by EFS Fee Worksheet (SB06)	p/Search documents p/Search documents petition-request.pdf	2ip description Start 1 4 31509 4d34688bf8dce36247b515cb911fabb27f8 04b0 32396 d33746f3ca6f873cc9305c441c3f7fd6eee55	no	2
Warnings: Information:	Other Reference-Patent/Ap Other Reference-Patent/Ap Other Reference-Patent/Ap Petition automatically granted by EFS Fee Worksheet (SB06)	p/Search documents p/Search documents petition-request.pdf	2ip description Start 1 4 31509 4d34688bf8dce36247b515cb911fabb27f8 04b0 32396 d33746f3ca6f873cc9305c441c3f7fd6eee55	no	2

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	11/10/2015	9184249	0756-10566	5776

31780

7590

10/21/2015

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, VA 22033

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Shunpei YAMAZAKI, Setagaya, JAPAN; Semiconductor Energy Laboratory Co., Ltd., Atsugi-shi, JAPAN; Kengo AKIMOTO, Atsugi, JAPAN; Daisuke KAWAE, Yamato, JAPAN;

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IR103 (Rev. 10/09)

BLUEHOUSE EXHIBIT 1002
Page 90 of 246

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
(571)-273-2885

CURRENT CORRESPOND	ENCE ADDRESS (Note: Use Bl	ock 1 for any cha	nge of address)	Feet	e) Transmittal Thi	e certif	icate cannot be used for	r domestic mailings of th or any other accompanying nt or formal drawing, mus
3975 Fair Ridge	7590 07/06 lectual Property L Drive		e, P.C.	I be	Cer	tificate	e of Mailing or Trans	
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APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR		AHO	RNEY DOCKET NO.	CONFIRMATION NO.
14/451,680 TITLE OF INVENTION	08/05/2014 SEMICONDUCTOR I	DEVICE		Shunpei YAMAZAKI			0756-10566	5776
APPLN, TYPE	ENTITY STATUS	ISSUE FI	EE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUI	EFEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$90	60	\$0	\$0		\$960	10/06/2015
EXAM	INER	ART	INIT	CLASS-SUBCLASS				
JOY, JEI	REMY J	28	16	257-043000				
Address form PTO/SE "Fee Address" indi	ondence address (or Cha	nge of Corres	epondence orm	For printing on the p (1) The names of up to or agents OR, alternative (2) The name of a single registered attorney or a 2 registered patent attolisted, no name will be	3 registered patentely, e firm (having as a gent) and the nameneys or agents. If	t attorn memb es of u	Robinson Property	obinson, Intellectual Law Office, P.C.
3. ASSIGNEE NAME A	ND RESIDENCE DATA	TO BE PRI	NTED ON	THE PATENT (print or typ	e)			
PLEASE NOTE: Unl	ess an assignee is ident h in 37 CFR 3.11. Comr	fied below, a	no assignee form is NO	data will appear on the pa T a substitute for filing an	tent. If an assign	ee is ic	lentified below, the de	ocument has been filed fo
(A) NAME OF ASSIG	•			(B) RESIDENCE: (CITY	_	OUNT	TRY)	
Semiconduc	ctor Energy Labor	atory Co.,	Ltd.	Atsugi-shi, Kar	nagawa-ken,	Japai	n	
	•.			rinted on the patent):	Individual 🖾 Co	rporati	on or other private gro	oup entity 🗖 Governmen
4a. The following fee(s) a ☑ Issue Fee ☐ Publication Fee (N ☑ Advance Order - #	o small entity discount p	ermitted)	-	b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The director is hereby overpayment, to Depo	I. Form PTO-2038	is atta	ched.	shown above) Ticiency, or credits any on extra copy of this form).
5. Change in Entity Stat	tus (from status indicated ag micro entity status. Se		9					D/SB/15A and 15B), issue application abandonment.
Applicant asserting	g small entity status. See	37 CFR 1.27		NOTE: If the application to be a notification of loss				
Applicant changing	g to regular undiscounted	l fee status.		NOTE: Checking this box entity status, as applicable	will be taken to be			
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Authorized Signature	- Land				Date		October 6, 2	015
Typed or printed name	Fric I	Robinso	ın		Registration N	Īo.	38,285	

Typed or printed name

Registration No.

Electronic Patent Application Fee Transmittal					
Application Number:	14	451680			
Filing Date:	05-	-Aug-2014			
Title of Invention:	SEA	MICONDUCTOR DEV	/ICE		
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI				
Filer:	Eric J. Robinson/Sue Ann Carr				
Attorney Docket Number:	cket Number: 0756-10566				
Filed as Large Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Utility Appl Issue Fee		1501	1	960	960

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Tota	al in USD	(\$)	966
			8001 2 3 Total in USD (\$)

Electronic Ack	Electronic Acknowledgement Receipt				
EFS ID:	23695675				
Application Number:	14451680				
International Application Number:					
Confirmation Number:	5776				
Title of Invention:	SEMICONDUCTOR DEVICE				
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI				
Customer Number:	31780				
Filer:	Eric J. Robinson/Sue Ann Carr				
Filer Authorized By:	Eric J. Robinson				
Attorney Docket Number:	0756-10566				
Receipt Date:	06-OCT-2015				
Filing Date:	05-AUG-2014				
Time Stamp:	08:10:32				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment	yes
Payment Type	Electronic Funds Transfer
Payment was successfully received in RAM	\$966
RAM confirmation Number	8490
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:							
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)		
1	Issue Fee Payment (PTO-85B)	IF.pdf	220916	no	1		
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2	Fee Worksheet (SB06)	fee-info.pdf	32238	no	2		
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Total Files Size (in bytes):

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

253154



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, VA 22033

EXAMINER

JOY, JEREMY J

ART UNIT PAPER NUMBER

2816

DATE MAILED: 07/06/2015

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014	Shunpei YAMAZAKI	0756-10566	5776

TITLE OF INVENTION: SEMICONDUCTOR DEVICE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	10/06/2015

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u> SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

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If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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or <u>Fax</u> (571)-273-2885

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CURRENT CORRESPOND	DENCE ADDRESS (Note: Use Bl	ock 1 for any change of address)	pape	rs. Each additiona	l paper,	can only be used for icate cannot be used for such as an assignment ling or transmission.	domestic mailings of the or any other accompanying at or formal drawing, must
31780 Robinson Intel 3975 Fair Ridge Suite 20 North	7590 07/06 Ilectual Property L		I her State addr trans	eby certify that th	ic Feels	of Mailing or Transum) Transmittal is being ficient postage for first ISSUE FEE address 1) 273-2885, on the data	nission deposited with the United t class mail in an envelope above, or being facsimile te indicated below.
Fairfax, VA 220	033						(Depositor's name)
,							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014	•	Shunpei YAMAZAKI			0756-10566	5776
TITLE OF INVENTION	N: SEMICONDUCTOR I	DEVICE					
APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0		\$960	10/06/2015
EXAM	MINER	ART UNIT	CLASS-SUBCLASS				
JOY, JE	EREMY J	2816	257-043000				
CFR 1.363). Change of corresponders form PTO/S "Fee Address" inc PTO/SB/47; Rev 03-Number is required 3. ASSIGNEE NAME A	AND RESIDENCE DATA	nge of Correspondence "Indication form ed. Use of a Customer A TO BE PRINTED ON This ified below no assignee	2. For printing on the p (1) The names of up to or agents OR, alternativ (2) The name of a singl registered attorney or a 2 registered patent attool listed, no name will be THE PATENT (print or type data will appear on the part of t	3 registered patentiely, e firm (having as a gent) and the namineys or agents. If printed.	nt attorn n members of up no name	er a 2 o to e is 3	cument has been filed for
(A) NAME OF ASSI	IGNEE		(B) RESIDENCE: (CITY	and STATE OR C	COUNT	RY)	
Please check the approp	riate assignee category or	categories (will not be pr	rinted on the patent): \Box	Individual 🖵 Co	orporati	on or other private gro	up entity 🚨 Government
	are submitted: No small entity discount p # of Copies	permitted)	 Payment of Fee(s): (Plea A check is enclosed. Payment by credit care The director is hereby overpayment, to Depo 	d. Form PTO-2038 authorized to charg	is attac	ched. equired fee(s), any defi	, and the second
	ntus (from status indicated ng micro entity status. Se		NOTE: Absent a valid cer fee payment in the micro	tification of Micro	Entity	Status (see forms PTO accepted at the risk of	/SB/15A and 15B), issue application abandonment.
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Applicant changing	ng to regular undiscounte	d fee status.	NOTE: Checking this box entity status, as applicable	will be taken to b			
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014	Shunpei YAMAZAKI	0756-10566	5776
31780 75	90 07/06/2015		EXAM	INER
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3975 Fair Ridge Dr	rive		A DOTE I IN HEE	DADED MEMORED
Suite 20 North			ART UNIT	PAPER NUMBER
Fairfax, VA 22033			2816	
			DATE MAILED: 07/06/201	5

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation BLUEHOUSE EXHIBIT 1002

	Application No. 14/451,680	A pplicant(s) YAMAZAKI E	
Notice of Allowability	Examiner	Art Unit	AIA (First Inventor to
Notice of Anowability	JEREMY JOY	2816	File) Status
			No
The MAILING DATE of this communication appear. All claims being allowable, PROSECUTION ON THE MERITS IS (herewith (or previously mailed), a Notice of Allowance (PTOL-85) of NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGORY of the Office or upon petition by the applicant. See 37 CFR 1.313	OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	lication. If not will be mailed	included in due course. THIS
 This communication is responsive to <u>response after final action</u> A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/ 			
 An election was made by the applicant in response to a restr requirement and election have been incorporated into this ac 		ne interview on	; the restriction
 The allowed claim(s) is/are <u>2-21</u>. As a result of the allowed c Highway program at a participating intellectual property offic http://www.uspto.gov/patents/init_events/pph/index.jsp or ser 	e for the corresponding application.	For more infor	
4. 🛮 Acknowledgment is made of a claim for foreign priority under	r 35 U.S.C. § 119(a)-(d) or (f).		
Certified copies:			
a) ☑ All b) ☐ Some *c) ☐ None of the:			
1. Certified copies of the priority documents have			
2. Certified copies of the priority documents have			
3. Copies of the certified copies of the priority doc	uments have been received in this n	national stage a	application from the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONMI THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with	the requirements
5. CORRECTED DRAWINGS (as "replacement sheets") must	be submitted.		
including changes required by the attached Examiner's Paper No./Mail Date	Amendment / Comment or in the Or	ffice action of	
Identifying indicia such as the application number (see 37 CFR 1.4 each sheet. Replacement sheet(s) should be labeled as such in the			(not the back) of
 DEPOSIT OF and/or INFORMATION about the deposit of BI attached Examiner's comment regarding REQUIREMENT FO 			he
Attachment(s)			
1. Notice of References Cited (PTO-892)	5. 🗌 Examiner's Amendr	nent/Comment	t
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	6. 🛛 Examiner's Stateme	ent of Reasons	for Allowance
 Examiner's Comment Regarding Requirement for Deposit of Biological Material 	7.		
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date			
/JEREMY JOY/			
Examiner, Art Unit 2816			

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-13)

Application/Control Number: 14/451,680 Page 2

Art Unit: 2816

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 05/15/2015, with respect to the previous rejection have been fully considered and are persuasive. Therefore it has been withdrawn.

Allowable Subject Matter

2. Claims **2-21** are allowed over the prior art.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

3. Claims 2-21 are allowed because the prior art of record neither anticipate nor rendered obvious the limitations of base claims 2 and 11 including "a first metal film and a second metal film over the gate insulating film; ... wherein a side surface of the first metal film faces a side surface of the second metal film, and wherein each of the side surface of the first metal film and the side surface of the second metal film has a step in a lower end portion thereof" and the limitations of base claim. In particular, the prior art of record falls short with regards to teaching a step portion formed in a lower portion of a side surface of a first metal film and a second metal film that face each other.

Application/Control Number: 14/451,680 Page 3

Art Unit: 2816

In example:

than the organic semiconductor film as disclosed

(i) Furukawa et al. (U.S. Patent Pub. No. 2008/0099757) teaches a glass substrate; a gate electrode over the glass substrate; a gate insulating film over the gate electrode; a first conductive film and a second conductive film over the gate insulating film; an organic semiconductor film in contact with the first and second conductive films; wherein a side surface of the first conductive film faces a side surface of the second conductive film; and wherein each of the side surface of the first conductive film and the side surface of the second conductive film has a step in a lower end portion thereof, but fails to specifically teach the first and second conductive films are first and second metal films and an oxide semiconductor film formed on the first and second metal films rather

(ii) Akimoto (**U.S. Patent Pub. No. 2007/0108446**) teaches using a metal film to form a portion of the first and second conductive films (source/drain electrodes) and an oxide semiconductor film formed the first and second conductive films in a display device similar to that of the applicant, but fails to specifically teach that the metal film that forms a portion of the first and second conductive films would not be obvious to modify *Furukawa* with such that the first and second metal film portions would have a step in a lower portion thereof.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JEREMY JOY whose telephone number is (571)270-

7445. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Zandra Smith can be reached on (571)272-2429. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

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800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEREMY JOY/

Examiner, Art Unit 2816

June 18, 2015

/MARVIN PAYEN/

Primary Examiner, Art Unit 2816

Page 4

Notice of References Cited Application/Control No. 14/451,680 Applicant(s)/Patent Under Reexamination YAMAZAKI ET AL. Examiner JEREMY JOY Art Unit Page 1 of 1

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*	С	US-2008/0038882	02-2008	Takechi et al.	438/151
*	D	US-2009/0114917	05-2009	YAMAZAKI et al.	257/59
*	Е	US-2010/0044711	02-2010	IMAI, Shinji	257/59
*	F	US-2007/0072439	03-2007	Akimoto et al.	438/795
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NON-PATENT DOCUMENTS

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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes



Application/Control No.	Applicant(s)/Patent Under Reexamination
14451680	YAMAZAKI ET AL.
Examiner	Art Unit
 JEBEMY JOY	2896

CPC- SEARCHED				
Symbol	Date	Examiner		
H01L29/7869, 49080	6/17/2015	Jeremy J. Joy		
H01L27/1225	6/17/2015	Jeremy J. Joy		
H01L51/105, 0508, 0512, 0545	6/17/2015	Jeremy J. Joy		

CPC COMBINATION SETS - SEARCHED				
Symbol	Date	Examiner		

	US CLASSIFICATION SEARCHE	ED	
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SEARCH NOTES		
Search Notes	Date	Examiner
See search notes from parent applications 12/613,769 and 13/763874	8/25/2014	Jeremy J. Joy
General keyword and EAST search is attached.	8/25/2014	Jeremy J. Joy
General keyword and EAST search is attached.	2/26/2015	Jeremy J. Joy
General keyword, interference and EAST search is attached.	6/18/2015	Jeremy J. Joy

	INTERFERENCE SEARCH		
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
H01L29	41733	6/18/2015	Jeremy J. Joy

/JEREMY JOY/ Examiner.Art Unit 2816	June 18, 2015



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

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APPLICANTS Semiconductor Energy Laboratory Co., Ltd., Atsugi-shi, JAPAN;											
INVENTORS Shunpei YAMAZAKI, Setagaya, JAPAN; Kengo AKIMOTO, Atsugi, JAPAN; Daisuke KAWAE, Yamato, JAPAN;											
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	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	14451680	YAMAZAKI ET AL.
	Examiner	Art Unit
	JEREMY JOY 	2896

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L188	2	"US 20140339556"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2015/06/18 00:26
L189	43	or US-20060197092-\$ or US-	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:28
L191	11296	H01L29/7869.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT		ON	2015/06/18 00:34
L192	6973	H01L27/1225.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
L193	4396	H01L29/41733.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
L194	8780	H01L29/4908.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
L195	1346	H01L51/105.cpc.	US-PGPUB; USPAT;	OR	ON BLUEHOL	2015/06/18 00:34

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			FPRS; JPO; DERWENT			7777777
L196	1927	H01L51/0508.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
L197	2050	H01L51/0512.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:34
L198	8728	H01L51/0545.cpc.	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:35
L200	11749	196 197 198	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:35
L202	6927	192 not 200	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:35
L204	13924	193 194 195	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:36
L205	12057	204 not (200 202)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:36
L206	167947	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2015/06/18 00:37
L207	412	L206 and 200	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
L208	660	L206 and 202	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
L209	1225	L206 and 205	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
L210	2297	207 208 209	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
L211	2073	210 and ((thin adj film) tft)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
L212	1364	211 and ((source drain) with metal)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:37
L213	6390	(angle taper\$3 step\$3 gradation stair	US-PGPUB;	OR	ON	2015/06/18

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		indent\$5) near3 ((source drain) adj (layer electrode film))	USPAT; USOCR	Proportion		00:39
L214	3100	213 and ((thin adj film) tft) and ((source drain) with metal)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
L215	216	214 and 200	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
L216	578	214 and 202	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
L217	380	214 and 205	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
L218	1174	215 216 217	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:40
L219	454	218 and (@ay<"2010")	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 00:42
L222	4169	(shape) near3 ((source drain) adj (layer electrode film))	US-PGPUB; USPAT; USOCR	OR	ON	2015/06/18 01:06
L223	1986	222 and ((thin adj film) tft) and ((source drain) with metal)	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 01:07
L224	1111	223 and (@ay< "2010")	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2015/06/18 01:07
S1	2	"US 20100117077"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 14:18
S2	1806	"257/43".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S3	128	"257/E21.459".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S4	1431	"438/158".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S5	537	"257/E29.296".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S6	1194	"257/57".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S7	1225	"438/104".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S8	5416	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:35
S9	274	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:35

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S11	2012/04/04 14:36
"20050199959" "20060043377" "20060113536" "20060170111" "20070046191" "20070252928" "20080073653" "20080129195" "20080258143" "20090114910" "7105868" "7297977" "7323356").PN.	
S12 6	2012/04/04 14:47
S13 7 "2007096055" US-PGPUB; OR ON	33
BLUEHC	2012/04/04

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	14:47
S14	41	("20020153587" "20030013261" "20030047785" "20030111663" "20030207502" "20030218221" "20030218222" "20030219530" "20040023432" "4887255" "5744864" "6225655" "6255130" "6362499" "6563174" "7067843").PN. OR ("7282782").URPN.	US-PGPUB; OR USPAT; USOCR	ON 2012/04/04 16:20
S15	51	("20020171085" "20030047785" "20030111663" "20030218221" "20030218222" "20040023432" "20040127038" "20050017244" "3294660" "5289016" "5744864" "6362499" "6391462" "6727522").PN. OR ("7297977").URPN.	US-PGPUB; OR USPAT; USOCR	ON 2012/04/04 16:21
S16	132	"20010046027" "20020056838" "20020109796" "20020132454" "20040038446" "20040127038" "20040132293" "20050017302" "20050199959" "20050259206" "20050275038" "20060035452" "20060086933" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113539" "20060113549" "20060113565" "20060135452" "20060135452" "20060135452" "20060135452" "2006013549" "20060170067" "2006013549" "20060170067" "2006028974" "2006028974" "2006028974" "20060284171" "20060284171" "20060284171" "20060284171" "20060284171" "20060284171" "20070052025" "20070046191" "20070052025" "20070054507" "20070072439" "2007018446" "20070187760" "20070187760" "20070187760" "20070194379" "20070187760" "20080038882" "20080038929" "20080038882" "20080166834" "20080129195" "20080128689" "20080129195" "20080128689" "20080129195" "20080258140" "20080258141" "20080258143" "20080258141" "20080258143" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20080308805" "20080308806" "20090186445" "20090186445" "20090186445" "20090189156" "2	US-PGPUB; OR USPAT; USOCR	ON 2012/04/04 16:23

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		"5530265" "5696011" "5701167" "5731856" "5817548" "6294274" "6532045" "6674136" "6727522" "6852998" "6900461" "7009204" "7049190").PN. OR ("7061014" "7064346" "7075614" "7105868" "7211825" "7282782" "7297977" "7323356" "7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293").PN. OR ("7674650").URPN.				
S17	9604	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S18	4685	S17 and ((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S19	322	(((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide)) near3 channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S20	118	S17 and S19	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S21	1	("7638360").PN.	US-PGPUB; USPAT	OR	OFF	2012/04/04 16:33
S22	7	("20050017302" "20060244107" "20070048970" "20070072439" "20070184571" "20080254569").PN. OR ("7638360").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:33
S23	2	"US 8134156"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36
S24	3	"US 20070108446"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36
S25	177	("20010046027" "20020011978" "20020044111" "20020056838" "20020106839" "20020109796" "20020110703" "20020132454" "20030047785" "20030207506" "20030218222" "20040038446" "20040127038" "20040132293" "20040252270" "20050017302" "20050082541" "20050084999" "20050104071" "20050164423" "20050199959" "20050231107" "20050233509" "20050250308" "20050259206" "20050275038" "20060035452" "20060043377" "20060054888" "20060108529" "20060113536" "20060113565" "20060113549" "20060113565" "20060170067" "20060170111" "20060183274" "20060197092" "20060231882" "20060228974" "20060231882" "20060238135"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:36

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11 11		·	ĺ	1	 BLUEHOL	JSE EXHIBIT 10
S28	0	(buffer with (source drain) with (ozide	USOCR US-PGPUB;	OR	ON	2012/04/04
S27	0	(buffer near5 (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT;	OR	ON	2012/04/04 16:48
			USPAT; USOCR			16:44
	95		USOCR US-PGPUB; USPAT;		OZ OZ	2012/04/04
		"20060244107" "20060249733" "20060284171" "20060284172" "20060286737" "20060292777" "20070024187" "20070046191" "20070052025" "20070054507" "20070072439" "20070090365" "20070108446" "20070141784" "20070152217" "20070158652" "20070172591" "20070187678"				

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		near2 semiconductor))	USPAT; USOCR			16:48
S29	0	(source drain) with (ozide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:49
S30	5583	(source drain) with (oxide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S31	371	(buffer with (source drain) with (oxide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S32	118	(buffer with (source drain) with (oxide near2 semiconductor) with channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S33	24	S32 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:04
S34	108	("20010046027" "20020056838" "20020132454" "20030189401" "20030218222" "20040038446" "20040127038" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113539" "20060113549" "20060113565" "20060169973" "2006013565" "20060197092" "20060208977" "2006028974" "20060231882" "20060288135" "20060244107" "20060284171" "20070024187" "20070046191" "20070052025" "20070046191" "20070072439" "20070054507" "20070072439" "20070054507" "20070172591" "20070152217" "20070172591" "20070152217" "20070187760" "2007015217" "20070287296" "20070054507" "20070287296" "2008006877 "20080038882" "2008006877 "20080038882" "2008006877 "20080038882" "2008006877 "20080258140" "2008016911" "20080128689" "2008016911" "20080258140" "20080258139" "20080258140" "2008028680" "20080258141" "2008028689" "20080308806" "20080308797" "20080308806" "20080308805" "20080308806" "20080008639" "20090065771" "20090086373" "20090073325" "2009008639" "20090073325" "20090114910" "20090278122" "20090286600" "20100025678" "2010012118" "5731856" "5744864" "5847410" "6294274" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:08

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		"7301211" "7323356" "7385224").PN. OR ("7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293" "7674650" "7732819" "7915075").PN. OR ("8021917").URPN.				
S35	43	S34 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S36	0	S34 and ((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S37	54124	((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S38	217	337 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S39	164	S38 not (angle adj implant\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:15
S40	3037	((taper incline decline angle) near3 (side sidewall surface) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:23
S41	178	(tft (thin adj film adj transistor)) and S40	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:24
S42	10	"US 7081641"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 17:29
S43	11	("20050056897" "6569707" "6858527").PN. OR ("7081641").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:30
S44	48	((taper near2 angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:40
S45	32689	((taper angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:41
S46	161	S45 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S47	243	((taper angle) near3 ((source drain) adj electrode))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S48	243	(taper angle) near3 ((source drain) adj electrode)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S49	206	(tft (thin adj film adj transistor)) and S48	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:43
S50	69	S25 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:53
S51	519	(source drain) near3 (tilt adj angle)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56 JSE EXHIBIT 10

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S52	54	S51 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S53	5614	S8 S9 S10	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S54	3354	S53 and (tft (thin adj film)) and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S55	145	S53 and (tft (thin adj film)) and ((angle taper) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:00
S56	5	"US 7564058"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 18:04
S57	20	("20020043662" "20030148561" "20030213959" "20030234424" "20040189188" "4797108" "5028551" "5151806" "5640067" "6037197" "6121660" "6388270" "6433363" "6448116" "6476416" "6639244" "6709901").PN. OR ("7564058").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:04
S58	8	S57 and angle	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:05
S59	218	("20030189401" "20080128689" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110012118" "7915075" "7462862" "20060108529" "20060213565" "20060169973" "20060228974" "20060169973" "20080050595" "20080106191" "5731856" "7385224" "7732819" "2008023387" "20090008639" "20100025678" "20030218222" "20070024187" "20070187678" "2008038882" "2008006877" "20080038882" "20080038929" "20080258140" "20090278122" "20090280600" "7049190" "20070172591" "20080296568" "20010046027" "20080296568" "20060238135" "20070052025" "7211825" "7453065" "7674650" "20080182358" "20090073325" "7453087" "7501293" "20070072439" "7282782"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/18 18:08

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		"20070187760" "20080308797" "5744864" "6586346" "6727522" "6960812" "7301211" "20060035452" "20060091793" "20060108636" "20060113549" "20060197092" "20070090365" "20080166834" "20090134399" "7064346" "7468304" "20050199959" "20070108446" "7297977" "20080308804" "20080308805" "20090065771" "20040038446" "20040127038" "20050017302" "20060043377" "20060113536" "20060170111" "20070046191" "20070252928" "20070272922" "20080073653" "20080129195" "20080258143" "20090114910" "7105868" "7323356").PN.				
S60	18460	(tft (thin adj film)) and ((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:28
S61	133336	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S62	10304	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S63	1628	S61 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S64	34920	((angle taper gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S65	193	S64 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S66	1	("20120132910").PN.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:00
S67	10	("20110318916" "20120058599" "8021917" "8030663" "8115201").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:01
S68	11	S66 S67	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:01
S69	5731	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S70	294	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S71	62	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB;		ON	2012/09/26

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S72	5942	S69 S70 S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S73	5403	S72 and (tft (thin\$1film) (thin adj film))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S74	3556	S73 and (angle taper)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S75	878	S73 and ((angle taper) with electrode)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:05
S76	133560	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S77	10334	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S78	1631	S76 and S77	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S79	532	S72 and S78	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:06
S80	89	((angle taper gradation stair) near3 (source drain)) and S77 and S72	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:08
S81	5466	(257/59). CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19
S82	5099	(257/72).OCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19
S83	45	((angle taper gradation stair) near3 (source drain)) and S77 and S81	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S84	40	((angle taper gradation stair) near3 (source drain)) and S77 and S82	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S85	60	S83 S84	US-PGPUB; USPAT;	OR	ON	2012/09/26 22:19

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			USOCR			
S86	674	(257/e29.277).OOLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:21
S87	311	(257/e21.535).COLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:24
S88	1543	(438/158).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:27
S89	15	((angle taper gradation stair) near3 (source drain)) and S77 and S88	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:27
S90	3682	(438/149).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:28
S91	17	((angle taper gradation stair) near3 (source drain)) and S77 and S90	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:28
S95	6242	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S96	356	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S97	75	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S98	6489	S95 S96 S97	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/01 10:27
S99	142606	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S100	11746	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S101	1860	S99 and S100	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S102	600	S98 and S101	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/01 10:27
S103	5191	(semiconductor near5 ((indium in) and (gallium ga) and (zinc zn)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 02:30
S104	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S105	1268	S103 and S104	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30

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S106	1058	(IN\$2ga\$2zn)	US-PGPUB; USPAT;	OR	ON	2013/08/12 02:33
			USOCR;			02.00
			FPRS; EPO; JPO;			
			DERWENT;			
C107	260	//20020190401" "20050050907"	IBM_TDB US-PGPUB;		ONI	2012/09/12
S107	200	("20030189401" "20050050897" "20060110867" "20060284172"	USPAT;	UR	ON	2013/08/12 09:01
		"20080128689" "20080258141"	USOCR;			
		"20080308796" "20080308806" "20090068773" "7061014"	FPRS; EPO; JPO;			
		"20090189155" "20020132454"	DERWENT;			
		"20060231882" "20060244107"	IBM_TDB			
		"20060284171" "20070054507" "20070152217" "20070287296"				
		"20080224133" "20080258139"				
		"20090114917" "20090152541" "20100044711" "20110318916"				
		"20100044711 20110318916 "20120132910" "5847410"				
		"6294274" "6563174" "7323368"				
		"7402506" "7411209" "8030663" "8115201" "8158464"				
		"20060108529" "20060113565"				
		"20060169973" "20060228974"				
		"20060292777" "20080050595" "20080106191" "20100065844"				
		"20100117086" "5731856"				
		"7385224" "7462862" "7732819"				
		"20030218222" "20060027804" "20070024187" "20070187678"				
		"20070194379" "20080006877"				
		"20080038882" "20080038929" "20080083950" "20080203387"				
		"20080254569" "20080253367				
		"20090008639" "20090278122"				
		"20090280600" "20100025678" "7049190" "20090189156"				
		"8134156" "20010046027"				
		"20020056838" "20060113539"				
		"20060208977" "20060238135" "20070052025" "20070172591"				
		"20080296568" "20100109002"				
		"7211825" "7453065" "20000180058" "20000072005"				
		"20080182358" "20090073325" "6532045" "7453087" "7501293"				
		"7674650" "8021917"				
		"20050056897" "20060035452" "20060108636" "20060113549"				
		"20060108036" 20060113349"				
		"20070090365" "20070158652"				
		"20070187760" "20080166834" "20080308797" "20090134399"				
		<u>"20090152506" "5744864" </u>				
		"6586346" "6727522" "6960812"				
		"7064346" "7282782" "7298084" "7301211" "7468304"				
		"20090186445" "8368079"				
		"20040038446" "20040127038" "20050017303" "20050199959"				
		"20050017302" "20050199959" "20060043377" "20060113536"				
		"20060170111" "20060292726"				
		"20070046191" "20070108446" "20070252928" "20070272922"				
		20010202020 20010212022			BLUEUOI	JSF FXHIBIT 10

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		"20080073653" "20080129195" "20080258143" "20080308804" "20080308805" "20090065771" "20090114910" "20100092800" "20120058599" "7105868" "7297977" "7323356" "20100003783").PN.				
S108	6320	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S109	368	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S110	77	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S111	6569	S108 S109 S110	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01
S112	143950	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S113	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S114	1895	S112 and S113	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S115	617	S111 and S114	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01
S116	133	("20030189401" "20050050897" "20060110867" "20060284172" "20080128689" "20080258141" "20080308796" "20080308806" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "20100044711" "20110318916" "20120132910" "5847410" "6294274" "6563174" "7323368" "7402506" "7411209" "8030663" "8115201" "8158464" "20060108529" "20060113565" "20060169973" "20060228974" "20060292777" "20080050595" "20080106191" "20100065844" "20100117086" "5731856" "7385224" "7462862" "7732819" "20070024187" "20080006877"	US-PGPUB; USPAT; FPRS; EPO; JPO; IBM_TDB	OR	ON	2013/08/12 09:02 OUSE EXHIBIT 10

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		"20080038882" "20080038929" "20080083950" "20080203387" "20080254569" "20080258140" "20090008639" "20090278122" "20090280600" "20100025678" "7049190" "20090189156" "8134156" "20010046027" "20020056838" "20060113539" "20060208977" "20060238135" "20070052025" "20070172591" "20080296568" "20100109002" "7211825" "7453065" "20080182358" "20090073325" "6532045" "7453087" "7501293" "7674650" "8021917" "20050056897" "20060035452" "20060197092" "20070072439" "20070187760" "20080166834" "20070187760" "20080166834" "20080308797" "20090134399" "20090152506" "5744864" "6586346" "6727522" "6960812" "7064346" "7282782" "7298084" "7301211" "7468304" "20090186445" "8368079" "20060043377" "20050199959" "20060043377" "20060113536" "2007009652928" "20070108446" "20070252928" "20070108446" "20070252928" "20070108446" "20080308805" "20080129195" "20080258143" "20080308804" "20080308805" "20090065771" "20120058599" "7105868" "7297977" "7323356" "20100003783").PN.				
S117	2	"US 20130214270"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2013/12/11 01:46
S118	1	("20060033098").PN.	US-PGPUB;	OR	OFF	2013/12/11
S119	6558	((SHUNPEI) near2 (YAMAZAKI)).INV.	USPAT US-PGPUB;	OR	ON	01:57 2013/12/11
S120	385	((KENGO) near2 (AKIMOTO)).INV.	USPAT US-PGPUB;	OB	ON	02:41 2013/12/11
			USPAT			02:41
S121	82	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
S122	6814	S119 S120 S121	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/12/11 02:41
S123	148280	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41

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S124	12541	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S125	1990	S123 and S124	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S126	649	S122 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/12/11 02:41
S127	6765	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S128	395	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S129	87	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S130	7028	S127 S128 S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:33
S131	151627	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S132	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S133	2067	S131 and S132	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S134	680	S130 and S133	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:33
S135	9	"2008205451"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S136	10	"2005223049"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S137	3	"07064112"	US-PGPUB; USPAT; USOCR;	OR	ON	2014/03/23 19:34

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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S138	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S139	6584	(257/59).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S140	48	((angle taper gradation stair) near3 (source drain)) and S138 and S139	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S141	4077	(438/149).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S142	18	((angle taper gradation stair) near3 (source drain)) and S138 and S141	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S143	1947	(438/158).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S144	17	((angle taper gradation stair) near3 (source drain)) and S138 and S143	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S145	17	S144	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S146	320	(257/e21.535).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S147	72	S140 S142 S144	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:58
S151	7097	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S152	423	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S153	98	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S154	7378	S151 S152 S153	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 07:57
S155	157340	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S156	13935	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S157	2186	S155 and S156	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S158	721	S154 and S157	US-PGPUB;	OR	ON	2014/08/25 DUSE EXHIBIT 10

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		USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			07:57
S159 318	["20080128689" "20030189401" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20050050897" "7323368" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110318916" "8030663" "8115201" "20120132910" "20090114917" "20100044711" "20060168529" "20060113565" "20060169973" "20080250595" "20080106191" "5731856" "7385224" "7462862" "7732819" "20100117086" "20080203387" "2009008639" "20100025678" "2008008639" "20100025678" "20080086877" "20080338882" "2008008877" "20080038882" "2008008877" "20080038882" "20080038929" "20080203887" "200800254569" "20080286600" "7049190" "20060027804" "20090278122" "20090280600" "7049190" "20060027804" "20090278125" "20080258140" "20090278125" "20080258140" "20090278125" "20080258140" "20090278125" "20080258140" "20090278125" "20080258140" "2009017325" "20080289568" "20010046027" "20080280597" "20080038135" "20060208977" "20080038135" "20060208977" "20060238135" "20070158652" "721825" "7453065" "6532045" "7501293" "8021917" "20060197092" "20070158652" "7298084" "20070187760" "20080308797" "5744864" "2009073325" "7453087" "7501293" "8021917" "20060108636" "20060113539" "20080166834" "20070158652" "7298084" "20070187760" "20080308805" "20080182358" "20060197092" "20080182358" "20060197092" "20080182358" "20060197092" "20080182358" "2008016834" "200701187460" "20080308805" "20080133390" "2008016834" "20070133399" "20080149190" "20080035452" "20080149195" "20080133396" "20080149195" "20080258143" "200900714910" "20080258143" "20090114910" "7105868" "20090114910" "7105868" "20090114910" "7105868" "20090114910" "7105868" "7297977" "7323356"	US-PGPUB; USOCR; FPRS; EPO; JPO; IBM_TDB	OR	RILIEHO	JSE EXHIBIT 100

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		"20120058599" "20060292726").PN.				
S160	1802	S157 and ("257".clas. "438".clas.)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 08:50
S161	11	("3890632" "4015279" "4054894" "4252574" "4272880" "5041913" "5075244" "5498894" "5652453" "5698885" "6060751").PN. OR ("6600196").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 08:56
S162	23	("2005/0205870").URPN.	USPAT	OR	ON	2014/08/25 09:00
S163	34	S161 S162	USPAT	OR	ON	2014/08/25 09:13
S164	5	("2006/0033098").URPN.	USPAT	OR	ON	2014/08/25 09:46
S165	59	("20010046611" "20020045289" "20020093283" "20020101154" "20020121860" "20020139303" "20030015698" "20030085398" "20030092214" "20030092232" "20030213952" "20030218166" "20040012017" "20040075093" "20040018562" "20040161192" "20040206959" "20050042548" "20050057136" "20050084712" "20050098207" "20050170208" "200500248267" "20060033098" "20060020136" "20060033098" "20060043346" "20060046096" "20060118166" "20060180812" "20060228822" "20060232203" "20060237731" "20060238112" "20060270066" "20060231701" "20080048183" "20080099757" "20090267077" "4981768" "5487953" "6486601" "6589673" "6951694" "7158161" "7387904" "7462883" "7521855" "7545840" "7560735" "7605534" "7626198" "7649197" "7667389" "7683532" "7714501").PN. OR ("8049208").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 09:48
S166	17	("2004/0012017").URPN.	USPAT	OR	ON	2014/08/25 09:51
S167	11	("2004/0108562").URPN.	USPAT	OR	ON	2014/08/25 09:53
S168	1	("20090134383").PN.	US-PGPUB; USPAT	OR	OFF	2014/08/25 10:08
S169	9	"2006126363"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 10:11
S170	40	(US-20100117077-\$ or US- 20050017302-\$ or US-20060043377-\$ or US-20060197092-\$ or US- 20060228974-\$ or US-20060231882-\$ or US-20070090365-\$ or US-	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2014/08/25 10:56 JSE EXHIBIT 1

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		20070108446-\$ or US-20070172591-\$ or US-20080038882-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20100301325-\$ or US-20100117086-\$ or US-20090114917-\$ or US-20100044711-\$ or US-20050056897-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20130214270-\$ or US-20130214270-\$ or US-20060033098-\$ or US-20050205870-\$ or US-20040108562-\$ or US-20080099757-\$).did. or (US-20090134383-\$).did. or (US-8134156-\$ or US-7208756-\$ or US-7564058-\$ or US-6600196-\$ or US-8049208-\$).did. or (WO-2006126363-\$).did. or (JP-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-2005223049-\$).did. or (US-20070072439-\$ or JP-2007096055-\$ or JP-07096055-\$ or JP-2007096055-\$ o				
S171	16	S170 and buffer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 10:56
S173	7408	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S174	447	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S175	102	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S176	7696	S173 S174 S175	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2014/12/23 22:41
S177	161896	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S178	14662	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S179	2301	S177 and S178	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S180	767	S176 and S179	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:41
S181	40	(US-20100117077-\$ or US- 20050017302-\$ or US-20060043377-\$	US-PGPUB; USPAT;	OR	ON	2014/12/23 22:41
			=	•	BLUEHOU	SE EXHIBIT 10

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		20060228974-\$ or US-20060231882-\$ or US-20070090365-\$ or US-20070172591-\$ or US-20080038882-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20100301325-\$ or US-20100117086-\$ or US-20090114917-\$ or US-20100044711-\$ or US-20050056897-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20060033098-\$ or US-20050056897-\$ or US-20040108562-\$ or US-2008009757-\$).did. or (US-8134156-\$ or US-7208756-\$ or US-7564058-\$ or US-6600196-\$ or US-8049208-\$).did. or (WO-2006126363-\$).did. or (JP-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-2007096055-\$ or JP-07096055-\$ or JP-2007096055-\$ or JP-2008205451-\$ or JP-2007096055-\$ or JP-2008205451-\$	FPRS; JPO; DERWENT			
S182	3792	(257/43).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:46
S183	2191	(257/e29.151).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:46
S184	2413	(257/e21.414).OOLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S185	2127	(438/158).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S186	2423	(438/104).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S187	127	S185 and S186	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:48
S188	1321	S178 and S182	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:48
S189	453	S178 and S183	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:48
S190	919	S178 and S184	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/12/23 22:48 SE EXHIBIT 10

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	branches and the second		DERWENT; IBM_TDB		
S191	2471	S188 S189 S190	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:48
S192	416	S179 and (S185 S186)	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:49
S193	4	"42621714".FMI D.	US-PGPUB; OR USPAT; FPRS	ON	2014/12/23 22:51
S194	137	\[\begin{array}{c c c c c c c c c c c c c c c c c c c	US-PGPUB; OR USPAT; USOCR	ON	2014/12/23

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		"20100025678" "20100065844" "20100090217" "20100092800" "20100109002").PN. OR ("20100117077" "20100163865" "20120097964" "5470768" "5731856" "5744864" "5847410" "5879973" "6294274" "6338990" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977" "7301211" "7323356" "7385224" "7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293" "7576394" "7674650" "7732819" "7749825" "7919365" "7923287" "7981734" "8134156" "8158464" "8222098" "8253252" "8368079" "8525165").PN. OR ("8841661").URPN.				
	1	("20070072439").PN.	US-PGPUB; USPAT		OFF	2015/02/26 01:39
S202	7544	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
S203	462	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
S204	107	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
S205	7840	S202 S203 S204	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/02/26 02:17
S206	164051	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
S207	15029	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
S208	2358	\$206 and \$207	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
S209	787	\$205 and \$208	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/02/26 02:17
S210	167	US-7323368-\$.DID. OR US-20070272922-\$.DID. OR US-20070158652-\$.DID. OR US-20080128689-\$.DID. OR US-7298084-\$.DID. OR US-6532045-\$.DID. OR US-20070108446-\$.DID. OR US-20070072439-\$.DID. OR US-5847410-\$.DID. OR US-6586346-\$.DID. OR US-20030189401-\$.DID. OR US-6960812-\$.DID. OR US-6727522-\$.DID. OR US-	US-PGPUB; USPAT; USOCR; JPO	OR	ON	2015/02/26 02:17 JSE EXHIBIT 10

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7061014-\$.DID. OR US-20080296568-\$.DID. OR US-20080308805-\$.DID. OR US-20080308805-\$.DID. OR US-20080308804-\$.DID. OR US-20080308797-\$.DID. OR US-2007123861-\$.DID. OR JP-05172007-\$.DID. OR JP-03231472-\$.DID. OR JP-10151991-\$.DID. OR US-1505377-\$.DID. OR US-20090008639-\$.DID. OR US-20070172591-\$.DID. OR US-20070172591-\$.DID. OR US-20070172591-\$.DID. OR US-20070172591-\$.DID. OR US-20070172591-\$.DID. OR US-20090065771-\$.DID. OR US-20090065771-\$.DID. OR US-7301211-\$.DID. OR US-20090065771-\$.DID. OR US-7674650-\$.DID. OR US-20100025678-\$.DID. OR US-20100025678-\$.DID. OR US-20070152217-\$.DID. OR US-20070152217-\$.DID. OR US-20060234172-\$.DID. OR US-20080182358-\$.DID. OR US-20080182358-\$.DID. OR US-20080284172-\$.DID. OR US-20060284172-\$.DID. OR US-20060284172-\$.DID. OR US-20060284172-\$.DID. OR US-20060284172-\$.DID. OR US-20060284172-\$.DID. OR US-20070187678-\$.DID. OR US-20070187678-\$.DID. OR US-20070187678-\$.DID. OR US-20080284172-\$.DID. OR US-20080284172-\$.DID. OR US-2007250983-\$.DID. OR US-7385224-\$.DID. OR US-20080258139-\$.DID. OR US-20080258139-\$.DID. OR US-20080258139-\$.DID. OR US-20080258139-\$.DID. OR US-20080258143-\$.DID. OR US-20080258143-\$.DID. OR US-20080258140-\$.DID. OR US-20080258140-\$.DID. OR US-20080258140-\$.DID. OR US-20080258141-\$.DID. OR US-2008028897-\$.DID. OR US-2008028897-\$.DID. OR US-2008028897-\$.DID. OR US-2008028897-\$.DID. OR US-2008028897-\$.DID. OR US-2008028897-\$.DID. OR US-2008013688-\$.DID. OR US-2008013688-\$.DID. OR US-2008013688-\$.DID. OR US-2008013688-\$.DID. OR US-2008013688-\$		
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S211	2241	20100003783-\$.DID. OR US- 20060033098-\$.DID. (438/158).CCLS.	US-PGPUB; USPAT	OR	OFF	2015/06/08 14:15
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EAST Search History (Interference)

Ref #	ef Hits Search Query		DBs	Default Operator	Plurals	Time Stamp
L190	1	"Term Removed"	USPAT	OR	ON	2015/06/18 00:28
L220	1028	H01L29/41733.cpc.	US- PGPUB; UPAD	OR	ON	2015/06/18 01:05
L221	911	H01L29/41733.cpc.	USPAT	OR	ON	2015/06/18 01:05
L225	1309	(substrate and gate and source and drain and ((sidewall (side adj surface)) near5 step)).dm.	US- PGPUB; USPAT; UPAD	OR	ON	2015/06/18 01:11
L226	88	(substrate and gate and source and drain and ((sidewall (side adj surface)) near5 step) and (oxide adj semiconductor) and metal).clm.	US- PGPUB; USPAT; UPAD	OR	ON	2015/06/18 01:11
S92	1300	(257/57).OCLS.	US- PGPUB; USPAT; UPAD	OR	OFF	2012/09/26 22:18
S93	16	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and oxide and (angle with (bottom top))).clm.	US- PGPUB; USPAT; UPAD	OR	ON	2012/09/26 23:11
S94	9	(((source adj electrode) with (angle with (bottom top))) and ((drain adj electrode) with (angle with (bottom top)))).clm.	US- PGPUB; USPAT; UPAD	OR	ON	2012/09/26 23:13
S148	1694	(257/57). CCLS.	US- PGPUB; USPAT; UPAD	OR	OFF	2014/03/23 19:32
S149	12	(((source adj electrode) with (angle with (bottom top))) and ((drain adj electrode) with (angle with (bottom top)))).clm.	US- PGPUB; USPAT; UPAD	OR	ON	2014/03/23 19:32
S150	21	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and oxide and (angle with (bottom top))).clm.	US- PGPUB; USPAT; UPAD	OR	ON	2014/03/23 19:32
S172	1	"Term Removed"	USPAT	OR	ON	2014/08/25 10:56
S195	1	"Term Removed"	USPAT	OR	ON	2014/12/23 22:41
S196	1827	(257/57).CCLS.		OR	OFF	2014/12/23 22:41
S197	179	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and (oxide adj semiconductor) and (step near5 (source drain))).clm.	US- PGPUB; USPAT; UPAD	OR	ON	2014/12/23 22:42
S198	311	((gate adj electrode) and (source adj electrode) and (drain adj electrode) and (oxide adj semiconductor) and (step with	US- PGPUB; USPAT;		ON	2014/12/23 22:43 JSE EXHIBIT 10

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	<u> </u>	step with (source		UPAD	<u> </u>		
3199	9		ode) and (source adj	US-	OR	ON	2014/12/2
			drain adj electrode) and	PGPUB;			22:43
			onductor) and (step with	USPAT;			
][side with (source	e drain))).clm.	UPAD]		
3200	180	("20010030323"	"20010046027"	US-	OR	ON	2014/12/2
		20020044111"	["] 20020056838"	PGPUB:			22:43
		"20020132454"	"20020185466"	USPAT			
		"20030189401"	"20030218222"	***************************************			
		"20040038446"	"20040127038"				
		"20040263757"	"20050017302"				
		"20050199959"	"20060035452"	***************************************			11111
		"20060043377"	"20060091793"				
		"20060108529"	"20060108636"		***************************************		
		"20060110867"	"20060113536"			***************************************	
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		"20060170111"	"20060197092"		***************************************		
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		"20080203387"	"20080224133"	***************************************			***************************************
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		"20080308796"	"20080308797"				
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		"20080308806"	"20090008638"		***************************************		
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		"20090061574"	"20090065771"	***************************************			
		"20090068773"	"20090072232"				
		"20090073325"	"20090114910"	***************************************			***************************************
		"20090134399"	"20090140438"				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		21	PN. OR ("20090152506"				
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BLUEHOUSE EXHIBIT 1002 Page 135 of 246

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Issue Classification



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14451680

YAMAZAKI ET AL.

Applicant(s)/Patent Under Reexamination

Examiner

JEREMY JOY

Art Unit

2816

СРС					
Symbol			Туре	Version	
H01L	29	<i>l</i> 41733	F	2013-01-01	
H01L	51	/ 0512	I	2013-01-01	
H01L	51	<i>f</i> 0508	I	2013-01-01	
H01L	51	<i>I</i> 0545	I	2013-01-01	
H01L	29	<i>I</i> 4908	1	2013-01-01	
H01L	51	<i>l</i> 105	1	2013-01-01	
H01L	21	<i>l</i> 02554	A	2013-01-01	
H01L	21	<i>I</i> 02565	A	2013-01-01	
H01L	21	<i>I</i> 02631	A	2013-01-01	
H01L	27	<i>I</i> 1225	1	2013-01-01	
H01L	29	<i>1</i> 7869	1	2013-01-01	
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H01L	29	786		2013-01-01	
H01L	27	<i>I</i> 1288		2013-01-01	

CPC Combination Sets								
Symbol	Туре	Set	Ranking	Version				

/JEREMY JOY/ Examiner.Art Unit 2816	06/18/2015		ns Allowed:		
(Assistant Examiner)	(Date)	20			
/MARVIN PAYEN/ Primary Examiner.Art Unit 2816	06/29/2015	O.G. Print Claim(s)	O.G. Print Figure		
(Primary Examiner)	(Date)	1	2		

U.S. Patent and Trademark Office Part of Paper No. 20150618

Issue Classification



Application/Control No.	Applicant(s)/Patent Under Reexaminatio					

14451680 YAMAZAKI ET AL.

Examiner Art Unit

JEREMY JOY 2816

	US ORIGINAL CLASSIFICATION									INTERNATIONAL	CL	ASS	IFIC	ATI	ON
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257			57			Н	0	1	L	29 / 786 (2006.01.01)	Н	0	1	L	21 / 28 (2006.01.01)
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/MARVIN PAYEN/ Primary Examiner.Art Unit 2816	06/29/2015	O.G. Print Claim(s)	O.G. Print Figure		
(Primary Examiner)	(Date)	1	2		

Issue Classification

Application/Control No.	Applicant(s)/Patent Under Reexamination				
14451680	YAMAZAKI ET AL.				
Examiner	Art Unit				
JEREMY JOY	2816				

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
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(Assistant Examiner)	(Date)	2	U		
/MARVIN PAYEN/ Primary Examiner.Art Unit 2816	06/29/2015	O.G. Print Claim(s)	O.G. Print Figure		
(Primary Examiner)	(Date)	1	2		

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	Confirmation No. 5776
Shunpei YAMAZAKI et al.)	Group Art Unit: 2816
Serial No. 14/451,680)	Examiner: Jeremy J. Joy
Filed: August 5, 2014)	
For: SEMICONDUCTOR DEVICE AND)	
MANUFACTURING METHOD)	
THEREOF)	

AFTER FINAL RESPONSE

Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The Official Action mailed March 16, 2015, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on August 29, 2014.

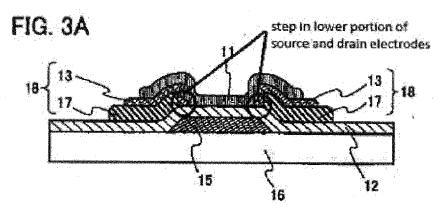
Claims 2-21 are pending in the present application, of which claims 2 and 11 are independent. No claim amendments are being made at this time. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 2-21 as obvious based on the combination of U.S. Publication No. 2008/0099757 to Furukawa and U.S. Publication No. 2007/0108446 to Akimoto. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 2 and 11 already recite *inter alia* a first metal film and a second metal film over the gate insulating film; and an oxide semiconductor film in contact with the first metal film and the second metal film. For the reasons provided below, Furukawa and Akimoto, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action asserts that Furukawa teaches "a first conductive film and a second conductive film over the gate insulating film (Fig. 3A, first and second conductive films 18); an organic semiconductor film in contact with the first and second conductive films (Fig. 3A, oxide semiconductor film 11); wherein a side surface of the first conductive film faces a side surface of the second conductive film; and wherein each of the side surface of the first conductive film and the side surface of the second conductive film has a step in a lower end portion thereof (Fig. 3A; ¶s 0115-0155 and



0183-0185)" (pages 2 and 3, Paper No. 20150226; Office's annotation of FIG. 3A of Furukawa reproduced above). The Official Action concedes that "Furukawa fails to teach the first and second conductive films are first and second metal films and an oxide semiconductor film formed on the first and second metal films rather than the organic semiconductor film" (page 3, Id.). Instead, the Official Action asserts that "Akimoto teaches using a metal films [sic] to form first and second conductive films (source/drain electrodes) and an oxide semiconductor film formed the first and second conductive films [sic] in a display device similar to that of the applicant (Fig. 1A, first and second metal films 10a/11a, oxide semiconductor film 13; ¶ 0062-0066)" (Id.). The Applicant respectfully disagrees and traverses the assertions of the Official Action.

Furukawa discloses source and drain electrodes 18 each including a lower layer 17 and an upper layer 13 that covers an end portion of the lower layer 17. As shown in Fig. 3A of Furukawa (reproduced above with Office's annotations), an alleged step is formed by covering the end portion of the lower layer 17 with the upper layer 13 in Furukawa. On the other hand, Akimoto only potentially discloses that "[t]he source electrode 10 is formed with a layered film of the first conductive film 10a and the second conductive film 10b, and the drain electrode 11 is formed with a layered film of the first conductive film 11a and the second conductive film 11b." Akimoto at paragraph [0063]. With respect to the material, Akimoto discloses that "[a]s the second conductive film, ZnO (zinc oxide) to which a p-type or n-type impurity of B (boron), Al (aluminum), Ga

(gallium), P (phosphorous), or As (arsenic) is added can be used." See, Akimoto at paragraph [0064].

In other words, Akimoto's second conductive film is a metal oxide film rather than a metal film and, as such, the upper layers 10b and 11b of the source and drain electrodes are formed of the metal oxide film. Therefore, there is no teaching in the prior art with respect to "a first metal film and a second metal film over the gate insulating film," "an oxide semiconductor film in contact with the first metal film and the second metal film," and the like, as recited in the independent claims. Since the alleged source electrode and drain electrode based on Akimoto are formed of a metal oxide film, not a metal film, in an upper layer thereof, Furukawa and Akimoto cannot be reasonably interpreted to teach the above-mentioned features of the present invention. Instead, it appears the Official Action has included knowledge well beyond that which was within the level of ordinary skill in the art at the time the claimed invention was made. Furthermore, the Official Action appears to have made inferences that could have only been gleaned from Applicant's disclosure based on impermissible hindsight.

Moreover, in view of the above-mentioned deficiency, there is no proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Furukawa and Akimoto or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden.

Specifically, the Official Action asserts that it would have been obvious at the time of the invention to incorporate the teachings of Akimoto into the device of Furukawa "because metal films are well known in the art to be used to form source and drain electrodes" (page 4, Paper No. 20150226). However, even if arguendo Furukawa was modified to incorporate source 10 and drain 11 electrodes of Akimoto, then the upper layer covering an end portion of the lower layer of Furukawa's source and drain electrodes, including the alleged step portion shown in FIG. 3A above, would be formed of zinc oxide (i.e., a metal oxide) and the asserted rationale for combining Furukawa and Akimoto (i.e., "because metal films are well known in the art to be used to form source and drain electrodes") does not provide a proper reason for incorporating Akimoto's zinc oxide layers.

In any event, the proposed modification set forth by the Official Action, i.e., to replace Furukawa's layer 13 with a *metal oxide* of Akimoto does not arguably result in an oxide semiconductor film in contact with the first metal film and the second metal film, as claimed. Therefore, the Applicant respectfully submits that Furukawa and Akimoto, either alone or in combination, do not teach or suggest the above-mentioned limitations with respect to the first metal film and the second metal film and that the Official Action has not provided a proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Furukawa and Akimoto or to combine reference teachings to achieve the claimed invention.

Since Furukawa and Akimoto do not teach or suggest all the claim limitations, and since there is no proper reason to combine Furukawa and Akimoto, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below. The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,

Eric J. Robinson Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, Virginia 22033 (571) 434-6789

Electronic Acknowledgement Receipt					
EFS ID:	22360993				
Application Number:	14451680				
International Application Number:					
Confirmation Number:	5776				
Title of Invention:	SEMICONDUCTOR DEVICE				
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI				
Customer Number:	31780				
Filer:	Eric J. Robinson/Adele Stamper				
Filer Authorized By:	Eric J. Robinson				
Attorney Docket Number:	0756-10566				
Receipt Date:	15-MAY-2015				
Filing Date:	05-AUG-2014				
Time Stamp:	15:24:29				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Response After Final Action	AFRESPONSE_15MAY2015_075	911663	no	6
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Warnings:

Information: BLUEHOUSE EXHIBIT 1002

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/451,680	08/05/2014	Shunpei YAMAZAKI	0756-10566	5776
	7590 03/16/201 ectual Property Law O		EXAM	INER
3975 Fair Ridge Suite 20 North		inec, i.e.	JOY, JE	RЕМҮ J
Fairfax, VA 220	033		ART UNIT	PAPER NUMBER
			2816	
			MAIL DATE	DELIVERY MODE
			03/16/2015	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

BLUEHOUSE EXHIBIT 1002 Page 148 of 246

	Application No. 14/451,680	Applicant(s) YAMAZAKI E	
Office Action Summary	Examiner JEREMY JOY	Art Unit 2816	AIA (First Inventor to File) Status No
The MAILING DATE of this communication app	ears on the cover sheet with the c	orrespondenc	ce address
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed the mailing date of D (35 U.S.C. § 133	this communication.
Status			
1) Responsive to communication(s) filed on 12/11 A declaration(s)/affidavit(s) under 37 CFR 1.1			
<i>i</i>	action is non-final.		
3) An election was made by the applicant in response	•		ng the interview on
 ; the restriction requirement and election Since this application is in condition for allowant closed in accordance with the practice under E 	nce except for formal matters, pro	secution as t	o the merits is
Disposition of Claims*			
5) Claim(s) 2-21 is/are pending in the application. 5a) Of the above claim(s) is/are withdraw 6) Claim(s) is/are allowed. 7) Claim(s) 2-21 is/are rejected. 8) Claim(s) is/are objected to. 9) Claim(s) are subject to restriction and/or * If any claims have been determined allowable, you may be eliparticipating intellectual property office for the corresponding aphttp://www.uspto.gov/patents/init_events/pph/index.jsp or send	vn from consideration. relection requirement. gible to benefit from the Patent Pro splication. For more information, plea	ase see	way program at a
Application Papers			
 10) The specification is objected to by the Examiner 11) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the correction Replacement drawing sheet(s) including the correction 	epted or b) objected to by the Idrawing(s) be held in abeyance. See	e 37 CFR 1.85(
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)	-(d) or (f).	
Certified copies: a) ☑ All b) ☐ Some** c) ☐ None of the: 1. ☑ Certified copies of the priority document 2. ☐ Certified copies of the priority document 3. ☐ Copies of the certified copies of the priority document application from the International Bureau	s have been received in Applicat rity documents have been receiv I (PCT Rule 17.2(a)).		
** See the attached detailed Office action for a list of the certifie	ed copies not received.		
Attachment(s)			
1) X Notice of References Cited (PTO-892)	3) 🔲 Interview Summary	(PTO-413)	
 Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/S Paper No(s)/Mail Date <u>08/29/2014</u>. 	Paper No(s)/Mail Do		

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The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Response to Amendment

 Applicant's amendment to the claims filed on 12/11/2014 has been acknowledged and entered. Claims 20-21 have been added. Final office action on the merits is as follows:

Claim Rejections - 35 USC § 103

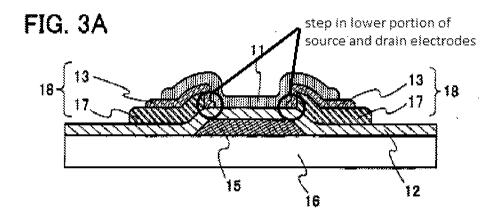
The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims **2-21** are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over *Furukawa* et al. (**U.S. Patent Pub. No. 2008/0099757**, from hereinafter "*Furukawa*) in view of *Akimoto* (**U.S. Patent Pub. No. 2007/0108446**).

Regarding Claim 2, *Furukawa* teaches a glass substrate (Fig. 3A, substrate 16); a gate electrode over the glass substrate (Fig. 3A, gate electrode 15); a gate insulating film over the gate electrode (Fig. 3A, gate dielectric 12); a first conductive film and a second conductive film over the gate insulating film (Fig. 3A, first and second conductive films 18); an organic semiconductor film in contact with the first and second

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conductive films (Fig. 3A, oxide semiconductor film 11); wherein a side surface of the first conductive film faces a side surface of the second conductive film; and wherein each of the side surface of the first conductive film and the side surface of the second conductive film has a step in a lower end portion thereof (Fig. 3A; ¶'s 0115-0155 and 0183-0185).



Furukawa fails to teach the first and second conductive films are first and second metal films and an oxide semiconductor film formed on the first and second metal films rather than the organic semiconductor film as disclosed.

Akimoto teaches using a metal films to form first and second conductive films (source/drain electrodes) and an oxide semiconductor film formed the first and second conductive films in a display device similar to that of the applicant (Fig. 1A, first and second metal films 10a/11a, oxide semiconductor film 13; ¶ 0062-0066).

In view of the teachings of *Akimoto*, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of *Furukawa* to include that the first and second conductive films are metal films and an

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oxide semiconductor layer as the active semiconductor channel layer because metal films are well known in the art to be used to form source and drain electrodes as they provide low resistance materials that enhance current flow and perform well during device operation and oxide semiconductors are well known in the art of thin film transistors as they provide adequate channel mobility during device operation. Also, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding Claim 3, as in the combination above, *Furukawa* as modified by *Akimoto* teaches wherein the oxide semiconductor film is positioned on the first and second metal films (*Furukawa* - Fig. 3A, *Akimoto* – Fig. 1A).

Regarding Claim 4, as in the combination above, *Furukawa* as modified by *Akimoto* teaches wherein the first and second metal films are in contact with the gate insulating film (*Furukawa* - Fig. 3A, *Akimoto* – Fig. 1A).

Regarding Claim 5, as in the combination of *Furukawa* and *Akimoto* above, *Akimoto* teaches the oxide semiconductor film comprises zinc (¶ 0066).

Regarding Claim 6, *Furukawa* teaches the step lays flat on the substrate creating about a 90° angle which satisfies the claims in regards to the angle of inclination of the step in relation to the surface of the substrate (Fig. 2A).

Regarding Claim 7, as in the combination above, *Akimoto* teaches a first buffer layer between the oxide semiconductor film and the first metal film and a second buffer layer between the oxide semiconductor film and the second metal film, wherein each of

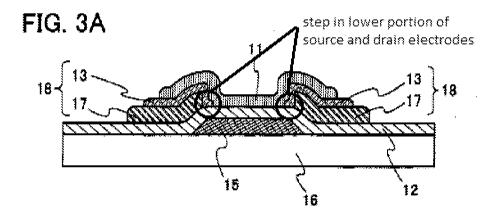
Art Unit: 2816

the first buffer layer and the second buffer layer has a lower resistivity than the oxide semiconductor film (Fig. 1A, buffer layers 10b/11b; ¶0064).

Regarding Claims 8-10, Furukawa teaches the device comprising a pixel portion comprising: the semiconductor device as claimed above and a display element electrically connected to one of the source electrode and the drain electrode and more specifically wherein the display element is a liquid crystal element or a light emitting element (Fig. 8B and 9B, depicting the semiconductor device as taught above with a display element as claimed, LC element 564, light emitting element 637).

Regarding Claim 11, Furukawa teaches a glass substrate (Fig. 2A, substrate 16); a gate electrode over the glass substrate (Fig. 2A, gate electrode 15); a gate insulating film over the gate electrode (Fig. 2A, gate dielectric 12); a first conductive film and a second conductive film over the gate insulating film (Fig. 2A, first and second conductive films 18); an organic semiconductor film in contact with the first and second conductive films (Fig. 2A, oxide semiconductor film 11); wherein a side surface of the first conductive film faces a side surface of the second conductive film; and wherein each of the side surface of the first conductive film and the side surface of the second conductive film has a step in a lower end portion thereof, wherein each of the first and second conductive films comprises a first layer and a second layer and wherein the first layer and the second layer comprise different materials (Fig. 2A, layer 13 vs. 17; ¶'s 0084-0099 and 0112-0115).

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Furukawa fails to teach the first and second conductive films are first and second metal films and an oxide semiconductor film formed on the first and second metal films rather than the organic semiconductor film as disclosed.

Akimoto teaches using a metal films to form first and second conductive films (source/drain electrodes) and an oxide semiconductor film formed the first and second conductive films in a display device similar to that of the applicant (Fig. 1A, first and second metal films 10a/11a, oxide semiconductor film 13; ¶ 0062-0066).

In view of the teachings of *Akimoto*, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of *Furukawa* to include that the first and second conductive films are metal films and an oxide semiconductor layer as the active semiconductor channel layer because metal films are well known in the art to be used to form source and drain electrodes as they provide low resistance materials that enhance current flow and perform well during device operation and oxide semiconductors are well known in the art of thin film transistors as they provide adequate channel mobility during device operation. Also, it

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has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding Claim 12, as in the combination above, *Furukawa* as modified by *Akimoto* teaches wherein the oxide semiconductor film is positioned on the first and second metal films (*Furukawa* - Fig. 3A, *Akimoto* – Fig. 1A).

Regarding Claim 13, as in the combination above, *Furukawa* as modified by *Akimoto* teaches wherein the first and second metal films are in contact with the gate insulating film (*Furukawa* - Fig. 3A, *Akimoto* – Fig. 1A).

Regarding Claim 14, as in the combination of *Furukawa* and *Akimoto* above, *Akimoto* teaches the oxide semiconductor film comprises zinc (¶ 0066).

Regarding Claim 15, *Furukawa* teaches the step lays flat on the substrate creating about a 90° angle which satisfies the claims in regards to the angle of inclination of the step in relation to the surface of the substrate (Fig. 2A).

Regarding Claim 16, as in the combination above, *Akimoto* teaches a first buffer layer between the oxide semiconductor film and the first metal film and a second buffer layer between the oxide semiconductor film and the second metal film, wherein each of the first buffer layer and the second buffer layer has a lower resistivity than the oxide semiconductor film (Fig. 1A, buffer layers 10b/11b; ¶0064).

Regarding Claims 17-19, *Furukawa* teaches the device comprising a pixel portion comprising: the semiconductor device as claimed above and a display element electrically connected to one of the source electrode and the drain electrode and more

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specifically wherein the display element is a liquid crystal element or a light emitting element (Fig. 8B and 9B, depicting the semiconductor device as taught above with a display element as claimed, LC element 564, light emitting element 637).

Regarding Claims 20-21, as in the combination above, *Furukawa* modified by *Akimoto* teaches wherein the first metal film is a source electrode and wherein the second metal film is a drain electrode (*Furukawa* - Fig. 3A, *Akimoto* – Fig. 1A).

Response to Arguments

3. Applicant's arguments filed 12/11/2014 have been fully considered but they are not persuasive.

(i) In regards to the applicant's arguments that the prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended, the examiner respectfully disagrees. In particular, in the newly formed rejection above, *Furukawa* teaches first and second conductive films acting as source and drain electrodes wherein they have a step as claimed in the lower portion thereof and *Akimoto* teaches that said first and second metal films may comprise metal films to form the source and drain electrodes and an oxide semiconductor active layer as claimed will contact the metal film used for form the first and second conductive films functioning as the source and drain electrodes in the prior art and as disclosed by the applicant. The reasons for the combination are clearly stated above providing rationale for teaching the newly amended claim features and therefore the rejection is deemed proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY JOY whose telephone number is (571)270-7445. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on (571)272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEREMY JOY/ Examiner, Art Unit 2816 February 26, 2015

/MARVIN PAYEN/ Primary Examiner, Art Unit 2816

Notice of References Cited	Application/Control No. 14/451,680	Applicant(s)/Patent Under Reexamination YAMAZAKI ET AL.	
Notice of Helefelices Offed	Examiner	Art Unit	
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



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CONFIRMATION NO. 5776

SERIAL NUM	IBER	FILING or DATI					ROUP ART UNIT ATTORNEY DOCKE			ORNEY DOCKET NO.
14/451,68	80	08/05/2			257		2816			0756-10566
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APPLICANT Semicond	_	Energy Labora	atory Co.,	Ltd., A	tsugi-shi, JAPAN	I, Ass	signee (wi	th 37 CF	R 1.1	72 Interest);
Kengo Al Daisuke I	YAMAZ KIMOTO KAWAE	AKI, Setagay), Atsugi, JAF , Yamato, JA	PAN; PAN;							
** CONTINUING DATA **********************************										
JAPAN 2	** FOREIGN APPLICATIONS ************************************									
** IF REQUIRE 08/13/20	•	EIGN FILING	LICENS	E GRA	NTED **					
Foreign Priority claims 35 USC 119(a-d) con-		Yes No No	☐ Met af	ter ince	STATE OR COUNTRY		HEETS AWINGS	TOT.		INDEPENDENT CLAIMS
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Substitute for form 144	9/PTO			Co	mplete if Known
INFORMATION DISCLOSURE			OSURE	Application Number	14/451,680
		Filing Date	August 5, 2014		
STATEM			First Named Inventor	Shunpei YAMAZAKI	
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(Use as many sheets as necessary)		Examiner Name	Jeremy J. Joy		
Sheet	1	of	15	Attorney Docket Number	0756-10566

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Examiner Signature	/Jeremy Joy/	Date Considered	02/26/2015

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INFORMA	TION DI	SCLO	SHRE	Application Number	14/451,680		
INFORMATION DISCLOSURE				Filing Date	August 5, 2014		
STATEMENT BY APPLICANT			ICANI	First Named Inventor	Shunpei YAMAZAKI		
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(Use as many sheets as necessary)			1	Examiner Name	Jeremy J. Joy		
Sheet	2	of	15	Attorney Docket Number	0756-10566		

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INFORM	ATION DI	SCL	OSLIBE	Application Number	14/451,680	
				Filing Date	August 5, 2014	
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Sheet	3	of	15	Attorney Docket Number	0756-10566	

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Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
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Examiner Signature	/Jeremy Joy/	Date Considered	02/26/2015
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INFORMA	TION DI	SCL	OSLIDE	Application Number	14/451,680	
				Filing Date	August 5, 2014	
STATEM	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI	
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Sheet	4	of	15	Attorney Docket Number	0756-10566	

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	Examiner Signature	/Jeremy Joy/	Date Considered	02/26/2015
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				Filing Date	August 5, 2014	
SIAIEW	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI	
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(Use as many sheets as necessary))	Examiner Name	Jeremy J. Joy	
Sheet	5	of	15	Attorney Docket Number	0756-10566	

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Substitute for form 1449	/PTO	-		Co	Complete if Known			
INFORM/	TION D	ISCI (SUBE	Application Number	14/451,680			
				Filing Date	August 5, 2014			
STATEIVI	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI			
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Sheet	6	of	15	Attorney Docket Number	0756-10566			

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INFORMA	TION DI	SCL	OSLIBE	Application Number	14/451,680			
				Filing Date	August 5, 2014			
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(Use as many sheets as necessary)			')	Examiner Name	Jeremy J. Joy			
Sheet	7	of	15	Attorney Docket Number	0756-10566			

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INFORMA	ATION DI	SCL	OSLIDE	Application Number	14/451,680
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				First Named Inventor	Shunpei YAMAZAKI
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(Use as many sheets as necessary)				Examiner Name	Jeremy J. Joy
Sheet	8	of	15	Attorney Docket Number	0756-10566

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Examiner Cite		Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant Passages or Relevant	
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INFORMA	TION DI	SCL	OSLIBE	Application Number	14/451,680
				Filing Date	August 5, 2014
STATEMENT BY APPLICANT			LICANI	First Named Inventor	Shunpei YAMAZAKI
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(Use as many sheets as necessary)			')	Examiner Name	Jeremy J. Joy
Sheet	9	of	15	Attorney Docket Number	0756-10566

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INFORM	ATION DI	SCL	OSLIRE	Application Number	14/451,680
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STATEM	ENI BY	APPL	LICANI	First Named Inventor	Shunpei YAMAZAKI
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(Use as many sheets as necessary)				Examiner Name	Jeremy J. Joy
Sheet	10	of	15	Attorney Docket Number	0756-10566

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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SIAIEIVII	STATEMENT BY APPLICANT			First Named Inventor	Shunpei YAMAZAKI		
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(Use as many sheets as necessary))	Examiner Name	Jeremy J. Joy		
Sheet	11	of	15	Attorney Docket Number	0756-10566		

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Examiner /Jeremy Joy/ Signature	Date Considered 02/26/2015	
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Substitute for form 14	49/PTO			Co	Complete if Known			
INFORM	ATION D	ופכו מ	SUBE	Application Number	14/451,680			
				Filing Date	August 5, 2014			
STATEMENT BY APPLICANT			JCANI	First Named Inventor	Shunpei YAMAZAKI			
(110	a aa manu ahaata a			Art Unit	2896			
(Use as many sheets as necessary))	Examiner Name	Jeremy J. Joy			
Sheet	12	of	15	Attorney Docket Number	0756-10566			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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-		KIKUCHI.H et al., "39.1:INVITED PAPER:OPTICALLY ISOTROPIC NANO-STRUCTURED LIQUID CRYSTAL COMPOSITES FOR DISPLAY APPLICATIONS", SID DIGEST '09 : SID INTERNATIONAL SYMPOSIUM DIGEST OF TECHNICAL PAPERS, May 31, 2009, pp. 578-581.	Eng.
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Examiner Signature /Jeremy Joy/	Date Considered	02/26/2015
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Substitute for form 144	9/PTO .			Complete if Known			
INFORM	ATION DI	SCL	OSLIDE	Application Number	14/451,680		
				Filing Date	August 5, 2014		
STATEMENT BY APPLICANT			_ICAN I	First Named Inventor	Shunpei YAMAZAKI		
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(Use as many sheets as necessary)			')	Examiner Name	Jeremy J. Joy		
Sheet	13	of	15	Attorney Docket Number	0756-10566		

	NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²			
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Examiner /Jeremy Joy/	Date Considered	02/26/2015
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Substitute for form 1449	/PTO			Complete if Known			
INFORMA	TION DI	SCL	OSLIBE	Application Number	. 14/451,680		
				Filing Date	August 5, 2014		
STATEMENT BY APPLICANT			LICANI	First Named Inventor	Shunpei YAMAZAKI		
/llee e			Λ	Art Unit	2896		
(Use as many sheets as necessary)			")	Examiner Name	Jeremy J. Joy		
Sheet	14	of	15	Attorney Docket Number	0756-10566		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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Examiner Signature /Jeremy Joy/	Date Considered	02/26/2015
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INFORM	ATION D	ISCI (SURF	Application Number	14/451,680				
				Filing Date	August 5, 2014				
STATEM	IENI BY	APPL	JCAN I	First Named Inventor	Shunpei YAMAZAKI				
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(Use as many sheets as necessary)				Examiner Name	Jeremy J. Joy				
Sheet	15	of	15	Attorney Docket Number	0756-10566				

	V. 1 p	NON PATENT LITERATURE DOCUMENTS	
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		CHINESE OFFICE ACTION (APPLICATION NO.200910206768.3) DATED March 15, 2013.	Full

Examiner /Jeremy Joy/	Date Considered	02/26/2015
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	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	14451680	YAMAZAKI ET AL.
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	1	("20070072439").PN.	US-PGPUB; USPAT	OR	OFF	2015/02/26 01:39
L5	7544	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
L6	462	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USP A T	OR	ON	2015/02/26 02:17
L7	107	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2015/02/26 02:17
L8	7840	L5 L6 L7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/02/26 02:17
L9	164051	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
L10	15029	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
L11	2358	L9 and L10	US-PGPUB; USPAT; USOCR	OR	ON	2015/02/26 02:17
L12	787	L8 and L11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/02/26 02:17
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20090134399-\$.DID. OR US-7211825-			
\$.DID. OR US-20070024187-\$.DID. OR			
US-20010046027-\$.DID. OR US-			-
20080038882-\$.DID. OR US-7049190-			***************************************
\$.DID. OR US-20040038446-\$.DID. OR			
58			
US-20060228974-\$.DID. OR US-	****		
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\$.DID. OR JP-10051986-\$.DID. OR JP-			
63265818-\$.DID. OR JP-11021988-			
\$.DID. OR EP-2226847-\$.DID. OR EP-			
51	***************************************		
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\$.DID. OR US-20060113549-\$.DID. OR			***************************************
US-7411209-\$.DID. OR US-			
20070090365-\$.DID. OR US-7453087-			
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		BLUEHOU	SE EXHIBIT 10

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		\$.DID. OR US-20080073653-\$.DID. OR US-7468304-\$.DID. OR US-20070054507-\$.DID. OR US-20060113536-\$.DID. OR US-20060108529-\$.DID. OR US-20060113539-\$.DID. OR US-20060108636-\$.DID. OR US-20060108636-\$.DID. OR US-20050199959-\$.DID. OR US-20050199959-\$.DID. OR US-20050199959-\$.DID. OR US-2002076356-\$.DID. OR US-7462862-\$.DID. OR US-7297977-\$.DID. OR JP-2004273732-\$.DID. OR JP-2004273614-\$.DID. OR JP-09042008-\$.DID. OR US-2008005459-\$.DID. OR US-7282782-\$.DID. OR US-2008006877-\$.DID. OR US-200800280600-\$.DID. OR US-20090278122-\$.DID. OR US-7282782-\$.DID. OR US-7282782-\$.DID. OR US-7323356-\$.DID. OR US-7323356-\$.DID. OR US-20090278122-\$.DID. OR US-7323356-\$.DID. OR US-20090278122-\$.DID. OR US-20090278122-\$.DID. OR US-20090152506-\$.DID. OR US-20090152506-\$.DID. OR US-20100092800-\$.DID. OR US-20100092800-\$.DID. OR US-20110318916-\$.DID. OR US-20110318916-\$.DID. OR US-20110318916-\$.DID. OR US-20100117086-\$.DID. OR US-2010003783-\$.DID. OR US-2010003783-\$.DID. OR US-20100003783-\$.DID. OR US-20100003783-\$.DID. OR US-20100003783-\$.DID. OR US-20060033098-\$.DID. OR US-200600330				
S1	2	"US 20100117077"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 14:18
S2	1806	"257/43".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S3	128	"257/E21.459".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S4	1431	"438/158".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32

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S5	537	"257/E29.296".CCLS.	US-PGPUB; USP A T	OR	ON	2012/04/04 14:32
S6	1194	"257/57".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S7	1225	"438/104".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S8	5416	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:35
S9	274	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:35
S10	54	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:36
S11	109	("20080128689" "20030189401" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "7323368" "20060244107" "5847410" "6563174" "20020132454" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20060169973" "2006013565" "20060169973" "20060228974" "20080292777" "20080050595" "20080106191" "5731856" "7385224" "7462862" "7732819" "2008003387" "2009008639" "20100025678" "20030218222" "20070024187" "20070187678" "20080038882" "20080038929" "20080038882" "20080038929" "20080038882" "20080254569" "20080258140" "20080254569" "20080258140" "20090278122" "20070172591" "20080296568" "20070172591" "20080296568" "20060238135" "20060208977" "20060238135" "20070052025" "7211825" "7453065" "6532045" "7674650" "20080182358" "2007017769" "200802884" "200701785652" "7298084" "20070158652" "7298084" "20070158652" "7298084" "20070134399" "2006018636" "5744864" "6586346" "6727522" "6960812" "7301211" "50060035452" "20060108636" "20070108446" "2008018636" "20070108446" "2008018636" "20070108446" "2008018636" "20070108446" "2008018636" "2007017090365" "20080166834" "20070134399" "7064346" "7282782" "7468304" "20070108446" "20080138846" "20070108446" "20080138885" "200900134399" "7064346" "20070108446" "20080138885" "200900134399" "7064346" "20070108446" "2008038885" "200900134399" "7064346" "20070108446" "2008038885" "200900134399" "7064346" "20070108446" "20080138885" "200900134399" "7064346" "20070108446" "20080129195" "200800308804" "20080129195"	US-PGPUB; USPAT	OR	ON	2012/04/04 14:36

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		"20080258143" "20090114910" "7105868" "7297977" "7323356").PN.				
S12	6	"2007123861"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/04/04 14:47
S13	7	"2007096055"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/04/04 14:47
S14	41	("20020153587" "20030013261" "20030047785" "20030111663" "20030207502" "20030218221" "20030218222" "20030219530" "20040023432" "4887255" "5744864" "6225655" "6255130" "6362499" "6563174" "7067843").PN. OR ("7282782").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:20
S15	51	("20020171085" "20030047785" "20030111663" "20030218221" "20030218222" "20040023432" "20040127038" "20050017244" "3294660" "5289016" "5744864" "6362499" "6391462" "6727522").PN. OR ("7297977").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:21
S16	132	("20010046027" "20020056838" "20020109796" "20020132454" "20040038446" "20040127038" "20040132293" "20050017302" "20050199959" "20050259206" "20050275038" "20060095452" "20060086933" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113565" "20060113549" "20060113565" "20060163743" "20060169973" "20060170067" "20060208977" "2006028974" "20060231882" "20060288135" "20060244107" "20060284171" "20060292777" "20070024187" "20070046191" "20070052025" "20070054507" "20070072439" "20070158652" "2007018446" "20070158652" "20070172591" "20070194379" "20070287296" "20080008877" "20080038882" "20080038929" "20080083950" "20080129195" "20080128689"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:23

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		"20080182358" "20080198108" "20080224133" "20080254569" "20080258139" "20080258140" "20080258141" "20080258143" "20080308796" "20080308797" "20080308804" "20080308805" "20080308806" "20090008639" "20090073325" "20090114910" "20090114911" "20090134399" "20090152541" "20090153762" "20090186437" "20090186445" "20090189155" "20090189156" "5530265" "5696011" "5701167" "5731856" "5817548" "6294274" "6532045" "6674136" "6727522" "6852998" "6900461" "7009204" "7049190").PN. OR ("7061014" "7064346" "7075614" "7105868" "7211825" "7282782" "7297977" "7323356" "7402506" "7411209" "7468304" "7501293").PN. OR ("7674650").URPN.				
S17	9604	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S18	4685	S17 and ((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S19	322	(((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide)) near3 channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S20	118	S17 and S19	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S21	1	("7638360").PN.	US-PGPUB; USPAT	OR	OFF	2012/04/04 16:33
S22	7	("20050017302" "20060244107" "20070048970" "20070072439" "20070184571" "20080254569").PN. OR ("7638360").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:33
S23	2	"US 8134156"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36
S24	3	"US 20070108446"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36
S25	177	("20010046027" "20020011978" "20020044111" "20020056838" "20020106839" "20020109796" "20020110703" "20020132454" "20030047785" "20030207506" "20030218222" "20040038446" "20040127038" "20040132293" "20040252270" "20050017302" "20050082541" "20050084999" "20050104071" "20050164423" "20050199959" "20050231107" "20050233509" "20050250308"	US-PGPUB; USPAT; USOCR	OR	ON BLUEHOL	2012/04/04 16:36 JSE EXHIBIT 10

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	"200601700)67" "2006	0170111"						
	"200601832	74" "2006	0197092" İ						
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	"200602318		0238135"						
	"200602441	07" "2006	0249733"						
	"200602841	71" "2006	0284172"						
	"200602867	737" İ "2006	0292777"						
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		'							
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	"200700724	39" "2007	0090365"						
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-	"200701522	217" i "2007	0158652"						
	"200701725		0187678"						
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	"200701877								
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	"200702729	922" "2007	0287296"						
	"200800068	377" "2008	0038882"						
	"200800389	929" i "2008	0050595"						
	"200800736		0083950"						
	"200801061		0108198"						
	"200801286		0129195"						
	"200801668		0174710"						
	"200801823	358" "2008	0198108"						
	"200802241	33" "2008	0254569"						
	"200802581	39" i "2008	0258140"						
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	"5952708"	"5994157"	"6294274"						
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	"6819368"	"6852998"	"6900461"						
	"6921627"	"7009204"	"7012658"						
		7003204 "7061014"	"7064346"						
	"7049190" "7067940"		!	****					
	"7067843"	"7075614"	"7105868"	****				•	
	"7189992"	"7211825"	"7264979"					•	
	"7268842"	"7282782"	"7297977"	****				•	
	"7323356"	"7330234"	"7339187"						
	"7365805"	"7385224"	i "7391055" i						
	"7402506"	"7411209"							
	"7453087"	"7456430"						-	
-	55557	00400		****				-	***
2.8				> N	21	3	BLUEHOÙ	, ISE EXHIBIT 1	00

		"7468304" "7470607" "7485478" "7501293" "7560396" "7633471" "7732818" "7825419" "7855380" "RE38292").PN. OR ("8134156").URPN.				
S26	95	\$25 and \$17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:44
S27	0	(buffer near5 (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:48
S28	0	(buffer with (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:48
S29	0	(source drain) with (ozide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:49
S30	5583	(source drain) with (oxide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S31	371	(buffer with (source drain) with (oxide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S32	118	(buffer with (source drain) with (oxide near2 semiconductor) with channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S33	24	S32 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:04
S34	108	("20010046027" "20020056838" "20020132454" "20030189401" "20030218222" "20040038446" "20040127038" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060108636" "20060110867" "20060113536" "20060113539" "20060113549" "20060113565" "20060169973" "20060170111" "20060197092" "20060208977" "20060228974" "20060231882" "20060238135" "20060244107" "20060284171" "20070024187" "20070046191" "20070024187" "20070054507" "20070072439" "20070090365" "20070172591" "20070152217" "20070187760" "20070194379" "20070252928" "20070194379" "20070252928" "20070272922" "20070287296" "20080006877" "20080038882" "20080038929" "20080038950" "20080106191" "20080128689" "20080129195" "20080258140" "20080258139" "20080258140" "20080258141" "20080258143" "20080296568" "20080258143" "20080296568" "20080258143" "20080296568" "20080258143" "20080296568" "20080258143" "20080296568" "20080258143" "20080296568"	US-PGPUB; USPAT; USOCR	OR	ON BLUEHOL	2012/04/04 17:08

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		"20080308804" "20080308805" "20080308806" "20090008639" "20090065771" "20090068773" "20090073325" "20090114910" "20090134399" "20090152541" "20090278122" "20090280600" "20100025678" "20110012118" "5731856" "5744864" "5847410" "6294274" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977" "7301211" "7323356" "7385224").PN. OR ("7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293" "7674650" "7732819" "7915075").PN. OR ("8021917").URPN.				
S35	43	S34 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S36	0	S34 and ((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S37	54124	((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S38	217	S37 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S39	164	S38 not (angle adj implant\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:15
S40	3037	((taper incline decline angle) near3 (side sidewall surface) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:23
S41	178	(tft (thin adj film adj transistor)) and S40	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:24
S42	10	"US 7081641"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 17:29
S43	11	("20050056897" "6569707" "6858527").PN. OR ("7081641").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:30
S44	48	((taper near2 angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:40
S45	32689	((taper angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:41
S46	161	S45 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S47	243	((taper angle) near3 ((source drain) adj electrode))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S48	243	(taper angle) near3 ((source drain) adj	US-PGPUB;	OR	ON	2012/04/04 USE EXHIBIT 10

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		electrode)	USPAT; USOCR		***************************************	17:42
S49	206	(tft (thin adj film adj transistor)) and S48	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:43
S50	69	S≥5 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:53
S51	519	(source drain) near3 (tilt adj angle)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S52	54	S51 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S53	5614	S8 S9 S10	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S54	3354	S53 and (tft (thin adj film)) and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S55	145	S53 and (tft (thin adj film)) and ((angle taper) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:00
S56	5	"US 7564058"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 18:04
S57	20	("20020043662" "20030148561" "20030213959" "20030234424" "20040189188" "4797108" "5028551" "5151806" "5640067" "6037197" "6121660" "6388270" "6433363" "6448116" "6476416" "6639244" "6709901").PN. OR ("7564058").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:04
S58	8	S57 and angle	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:05
S59	218	("20030189401" "20080128689" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110012118" "7915075" "7462862" "20060108529" "20060228974" "20060169973" "20080050595" "20080106191" "5731856" "7385224" "7732819" "20080203387" "20090008639" "20100025678" "20030218222" "20070024187" "20070187678" "20070194379" "20080006877"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/18 18:08

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		"20080038882" "20080038929" "20080083950" "20080254569" "20080258140" "20090278122" "20090280600" "7049190" "20070172591" "20080296568" "20010046027" "20020056838" "20060113539" "20060208977" "20060238135" "20070052025" "7211825" "7453065" "7674650" "20080182358" "20090073325" "7453087" "7501293" "20070072439" "7282782" "20070187760" "20080308797" "5744864" "6586346" "6727522" "6960812" "7301211" "20060035452" "20060091793" "20060197092" "20070090365" "20080166834" "20090134399" "7064346" "7468304" "20080169959" "20070108446" "7297977" "20080308804" "20080308805" "20090065771" "20040038446" "20040127038" "20050017302" "20060043377" "20060113536" "20060170111" "20070046191" "20070252928" "20070272922" "20080073653" "20080129195" "20080258143" "20090114910" "7105868" "7323356").PN.				
S60	18460	(tft (thin adj film)) and ((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:28
S61	133336	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S62	10304	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S63	1628	S61 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S64	34920	((angle taper gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S65	193	S64 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S66	1	("20120132910").PN.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:00
S67	10	("20110318916" "20120058599" "8021917" "8030663" "8115201").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:01
S68	11	S66 S67	US-PGPUB; USPAT; USOCR;	OR	ON	2012/09/26 22:01 JSE EXHIBIT 10

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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S69	5731	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S70	294	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S71	62	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S72	5942	S69 S70 S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S73	5403	S72 and (tft (thin\$1film) (thin adj film))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S74	3556	S73 and (angle taper)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S75	878	S73 and ((angle taper) with electrode)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:05
S76	133560	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S77	10334	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S78	1631	S76 and S77	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S79	532	S72 and S78	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:06
S80	89	((angle taper gradation stair) near3 (source drain)) and S77 and S72	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:08
S81	5466	(257/59).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19 JSE EXHIBIT 10

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S82	5099	(257/72).COLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19
S83	45	((angle taper gradation stair) near3 (source drain)) and S77 and S81	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S84	40	((angle taper gradation stair) near3 (source drain)) and S77 and S82	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S85	60	S83 S84	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S86	674	(257/e29.277).OCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:21
S87	311	(257/e21.535).OOLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:24
S88	1543	(438/158).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:27
S89	15	((angle taper gradation stair) near3 (source drain)) and S77 and S88	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:27
S90	3682	(438/149).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:28
S91	17	((angle taper gradation stair) near3 (source drain)) and S77 and S90	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:28
S95	6242	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S96	356	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S97	75	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/01 10:27
S98	6489	S95 S96 S97	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/01 10:27
S99	142606	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S100	11746	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S101	1860	S99 and S100	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S102	600	S98 and S101	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/01 10:27
S103	5191	(semiconductor near5 ((indium in) and (gallium ga) and (zinc zn)))	US-PGPUB; USPAT; USOCR;	OR	ON	2013/08/12 02:30
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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S104	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S105	1268	S103 and S104	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S106	1058	(IN\$2ga\$2zn)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 02:33
S107	268	("20030189401" "20050050897" "20060110867" "20060284172" "20080128689" "20080258141" "20080308796" "20080308806" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "20100044711" "20110318916" "20120132910" "5847410" "6294274" "6563174" "7323368" "7402506" "7411209" "8030663" "8115201" "8158464" "20060108529" "20060113565" "20060169973" "20060228974" "20060191" "20100065844" "20100117086" "5731856" "7385224" "7462862" "7732819" "20030218222" "20060027804" "20070024187" "20070187678" "20080038882" "20080038929" "20080038882" "20080038929" "20080038882" "20080258140" "2009008639" "20080258140" "2009008639" "200802587140" "2009008639" "200802587140" "2009008639" "200802587140" "2009008639" "200802587140" "2009008639" "200802587140" "200800254569" "20080258140" "20080038882" "2008038929" "20080038882" "2008038929" "20080038888" "20090778122" "20080056888" "20090278122" "20080025668" "20090278122" "2008025668" "2008025879" "20080113539" "20080296568" "20090278122" "20080296568" "200907172591" "20080296568" "2009073325" "6532045" "7453087" "7501293" "7674650" "8021917" "20080182358" "200600135452" "20080187760" "20080166834" "200700187760" "20080166834" "200700187760" "20080166834" "20080308797" "20090134399"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON BI UEHO	2013/08/12

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		"20090152506" "5744864" "6586346" "6727522" "6960812" "7064346" "7282782" "7298084" "7301211" "7468304" "20090186445" "8368079" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20060170111" "20060292726" "20070046191" "20070108446" "20070252928" "20070272922" "20080073653" "20080129195" "20080258143" "20080308804" "20080308805" "20090065771" "20090114910" "20100092800" "20120058599" "7105868" "7297977" "7323356" "20100003783").PN.				
S108	6320	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S109	368	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S110	77	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S111	6569	S108 S109 S110	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01
S112	143950	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S113	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S114	1895	S112 and S113	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S115	617	S111 and S114	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01
S116	133	("20030189401" "20050050897" "20060110867" "20060284172" "20080128689" "20080258141" "20080308796" "20080308806" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "20100044711" "20110318916" "20120132910" "5847410" "6294274" "6563174" "7323368"	US-PGPUB; USPAT; FPRS; EPO; JPO; IBM_TDB	OR	ON	2013/08/12 09:02 JSE EXHIBIT 10

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S118 S119	1	("20060033098").PN. ((SHUNPEI) near2 (YAMAZAKI)).INV. ((KENGO) near2 (AKIMOTO)).INV. ((DAISUKE) near2 (KAWAE)).INV.	USPAT; USOCR; DERWENT US-PGPUB; USPAT US-PGPUB; USPAT US-PGPUB; USPAT US-PGPUB; USPAT	OR OR OR	OFF ON ON	2013/12/11 01:57 2013/12/11 02:41 2013/12/11 02:41 2013/12/11 02:41
S117	2	"7402506" "7411209" "8030663" "8115201" "8158464" "20060108529" "20060113565" "20060169973" "20060228974" "200600292777" "20080050595" "20080106191" "20100065844" "20100117086" "5731856" "20030218222" "20060027804" "20070024187" "20070187678" "20070024187" "2008006877" "20080038882" "20080038929" "20080038882" "2008023387" "20080038882" "20080258140" "20090008639" "20080258140" "200900280600" "20100025678" "7049190" "20090189156" "8134156" "20010046027" "20020056838" "20060238135" "20070052025" "20070172591" "20080296568" "20100109002" "7211825" "7453065" "20080182358" "20090073325" "6532045" "7453087" "7501293" "7674650" "8021917" "20060108636" "2006013539" "20060108636" "20070072439" "20060108636" "20070072439" "20070090365" "20070172591" "20080308797" "20080134399" "20070152506" "5744864" "20090152506" "5744864" "20090152506" "5744864" "2009016445" "8368079" "2009017321" "7468304" "20090186445" "8368079" "200901366445" "8368079" "200901366445" "20080134399" "20090152506" "5744864" "20090186445" "8368079" "200901366445" "20080134399" "20090152506" "5744864" "2008038897" "20090065771" "20080258143" "20080129195" "200700252928" "20070272922" "20080073653" "20080189195" "20080058599" "7105868" "20070058599" "7105868" "20080058599" "7105868" "20080058599" "7105868" "20080058599" "7105868" "20120058599" "7105868" "20120058599" "7105868" "20120058599" "7105868" "2012005058599" "7105868" "20120003783").PN.	US-PGPUB;	OR	OZ	2013/12/11

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S122	6814	S119 S120 S121	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/12/11 02:41
S123	148280	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S124	12541	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S125	1990	S123 and S124	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S126	649	S122 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/12/11 02:41
S127	6765	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S128	395	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S129	87	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S130	7028	S127 S128 S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2014/03/23 19:33
S131	151627	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S132	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S133	2067	S131 and S132	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S134	680	S130 and S133	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:33
S135	9	"2008205451"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34

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S136	10	"2005223049"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S137	3	"07064112"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S138	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S139	6584	(257/59).COLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S140	48	((angle taper gradation stair) near3 (source drain)) and S138 and S139	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S141	4077	(438/149).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S142	18	((angle taper gradation stair) near3 (source drain)) and S138 and S141	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S143	1947	(438/158).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S144	17	((angle taper gradation stair) near3 (source drain)) and S138 and S143	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S145	17	S144	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S146	320	(257/e21.535).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S147	72	S140 S142 S144	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:58
S151	7097	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S152	423	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S153	98	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
S154	7378	S151 S152 S153	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 07:57
S155	157340	((angle taper step gradation stair)	US-PGPUB;	OR	ON	2014/08/25 JSE EXHIBIT 1

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		near3 (source drain))	USPAT; USOCR		***************************************	07:57
S156	13935	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S157	2186	S155 and S156	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
S158	721	S154 and S157	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 07:57
S159	318	("20080128689" "20030189401" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20050050897" "7323368" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110318916" "8030663" "8115201" "20120132910" "20060169973" "20060113565" "20060169973" "2006028974" "200801691" "5731856" "200801691" "5731856" "20090008639" "20100025678" "20090008639" "20100025678" "20090008639" "20100025678" "20080108529" "2008023387" "20090008639" "20100025678" "200900714917" "20080038882" "20070187678" "20080038882" "2008018222" "20070194379" "20080038929" "20080038882" "20080254569" "20080258140" "20090278122" "20090280600" "7049190" "20060027804" "20090278122" "20090280600" "7049190" "20060027804" "20090278122" "20090280600" "7049190" "20060027804" "20080113539" "20060208977" "2008013359" "20060208977" "2008013359" "20070052025" "7211825" "7453065" "6532045" "7674650" "20080182358" "20090073325" "7453087" "7501293" "8021917" "20080308797" "5744864" "6586346" "6727522" "6960812" "729080108636" "20070158652" "729080166834" "20070158652" "72008016836" "20070158652" "720080166834" "20070158652" "7064346" "6727522" "6960812" "7064346" "7282782" "7468304" "20080166834" "20090134399" "7064346" "7282782" "7468304" "20050056897" "20070108446"	US-PGPUB; USPAT; USCCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25

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		"20070272922" "20080308804" "20080308805" "20090065771" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20060170111" "20070046191" "20070252928" "20080073653" "20080129195" "20080258143" "20090114910" "7105868" "7297977" "7323356" "20120058599" "20060292726").PN.				
S160	1802	S157 and ("257".clas. "438".clas.)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 08:50
S161	11	("3890632" "4015279" "4054894" "4252574" "4272880" "5041913" "5075244" "5498894" "5652453" "5698885" "6060751").PN. OR ("6600196").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 08:56
S162	23	("2005/0205870").URPN.	USPAT	OR	ON	2014/08/25 09:00
S163	34	S161 S162	USPAT	OR	ON	2014/08/25 09:13
S164	5	("2006/0033098").URPN.	USPAT	OR	ON	2014/08/25 09:46
S165	59	("20010046611" "20020045289" "20020093283" "20020101154" "20020121860" "20020139303" "20030015698" "20030085398" "20030092214" "20030092232" "20030213952" "20030218166" "20040012017" "20040075093" "20040108562" "20040161192" "20040206959" "20050042548" "20050057136" "20050042548" "20050098207" "200500470208" "20050098207" "20050084712" "20050098207" "2006008740" "20060020136" "20060033098" "20060043346" "20060046096" "20060118166" "20060180812" "20060228822" "20060232203" "20060237731" "20060238112" "20060270066" "20060238112" "20060270066" "200602373303" "20070007516" "20070031701" "20080048183" "20080099757" "20090267077" "4981768" "5487953" "6486601" "6589673" "6951694" "7158161" "7387904" "7462883" "7521855" "7545840" "7560735" "7605534" "7626198" "7649197" "7667389" "7683532" "7714501").PN. OR ("8049208").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 09:48
S166	17	("2004/0012017").URPN.	USPAT	OR	ON	2014/08/25 09:51
S167	11	("2004/0108562").URPN.	USPAT	OR	ON	2014/08/25 09:53
S168	1	("20090134383").PN.	US-PGPUB; USPAT	OR	OFF	2014/08/25 10:08
S169	9	"2006126363"	US-PGPUB; USPAT;	OR	ON	2014/08/25 10:11

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			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S170	40	(US-20100117077-\$ or US-20050017302-\$ or US-20060043377-\$ or US-20060197092-\$ or US-20060228974-\$ or US-20060231882-\$ or US-2007019090365-\$ or US-20070172591-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20090186437-\$ or US-20100301325-\$ or US-20100117086-\$ or US-20090114917-\$ or US-20100044711-\$ or US-20050056897-\$ or US-20060027804-\$ or US-20130214270-\$ or US-20130214270-\$ or US-20060033098-\$ or US-2005005870-\$ or US-20040108562-\$ or US-20080099757-\$).did. or (US-20090134383-\$).did. or (US-8134156-\$ or US-7208756-\$ or US-7564058-\$ or US-6600196-\$ or US-8049208-\$).did. or (WO-2006126363-\$).did. or (JP-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-20072439-\$ or JP-2007096055-\$ or JP-07096055-\$ or JP-2007096055-\$ o	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2014/08/25 10:56
S171	16	S170 and buffer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 10:56
S173	7408	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S174	447	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S175	102	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/12/23 22:41
S176	7696	S173 S174 S175	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:41
S177	161896	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S178	14662	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41
S179	2301	S177 and S178	US-PGPUB; USPAT; USOCR	OR	ON	2014/12/23 22:41

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S180	767	S176 and S179	US-PGPUB;	OR	ON	2014/12/23
			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			22:41
S181	40	(US-20100117077-\$ or US-20050017302-\$ or US-20060043377-\$ or US-20060197092-\$ or US-20060228974-\$ or US-20060231882-\$ or US-20070108446-\$ or US-20070172591-\$ or US-20080283831-\$ or US-20090166616-\$ or US-20090186437-\$ or US-20090186437-\$ or US-20100301325-\$ or US-201003172591-\$ or US-20090186437-\$ or US-20100301325-\$ or US-20100117086-\$ or US-20090114917-\$ or US-20100044711-\$ or US-20050056897-\$ or US-20060027804-\$ or US-20060027804-\$ or US-20060033098-\$ or US-20080073653-\$ or US-20040108562-\$ or US-2008009757-\$).did. or (US-8134156-\$ or US-7208756-\$ or US-7564058-\$ or US-7208756-\$ or US-7564058-\$ or US-6600196-\$ or US-8049208-\$).did. or (WO-2006126363-\$).did. or (JP-2007123861-\$ or JP-2007096055-\$ or JP-07064112-\$ or JP-2007096055-\$ or JP-07096055-\$ or JP-07096055-\$ or JP-07096055-\$ or JP-2007096055-\$ S-PGPUB; USPAT; FPRS; JPO: DERWENT	OR	ON	2014/12/23 22:41	
S182	3792	(257/43).COLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:46
S183	2191	(257/e29.151).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:46
S184	2413	(257/e21.414).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S185	2127	(438/158). OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S186	2423	(438/104). OCLS.	US-PGPUB; USPAT	OR	OFF	2014/12/23 22:47
S187	127	S185 and S186	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:48
S188	1321	S178 and S182	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/12/23 22:48
S189	453	S178 and S183	US-PGPUB; USPAT; USOCR;	OR	ON	2014/12/23 22:48
					BLUEHOL	JSE EXHIBIT 10

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			FPRS; EPO; JPO; DERWENT; IBM_TDB		
S190	919	S178 and S184	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:48
S191	2471	S188 S189 S190	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:48
S192	416	S179 and (S185 S186)	US-PGPUB; OR USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ON	2014/12/23 22:49
S193	4	"42621714".FMID.	US-PGPUB; OR USPAT; FPRS	ON	2014/12/23 22:51
S194	137	("20010046027" "20020056838" "20020132454" "20030189401" "20030218222" "20040038446" "20040127038" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113565" "20060154397" "20060169973" "20060170111" "20060197092" "2006028977" "2006028974" "20060231882" "20060284171" "20060244107" "20060292777" "20070024187" "20070046191" "20070052025" "20070054507" "20070054187" "20070172591" "20070054379" "2007018446" "20070152217" "20070252928" "20070194379" "20070252928" "20070272922" "20070287296" "20080006877" "20080038882" "20080038929" "20080050595" "20080016191" "20080128689" "20080166191" "20080258140" "20080258139" "20080258140" "20080258141" "20080258143" "20080296568" "20080308796" "20080308797"	US-PGPUB; OR USPAT; USOCR	ON	2014/12/23 22:51

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"20080308804" "20080308805" "20080308806" "20090008639" "20090065771" "20090068773" "20090073325" "20090114910" "20090134399" "20090152506" "20090152541" "20090186437" "20090189156" "20090239335" "20090278122" "20090280600" "20090305461" "20100003783" "20100025678" "20100065844" "20100090217" "20100092800" "20100117077" "20100163865" "20120097964" "5470768" "5731856" "5744864" "5847410" "5879973" "6294274" "6338990" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977" "7301211" "7323356" "7385224" "7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293" "7576394" "7674650" "7732819" "7749825" "7919365" "7923287" "7981734" "8134156" "8158464" "8222098" "8253252" "8368079"		
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Search Notes



Application/Control No.	Applicant(s)/Patent Under Reexamination
14451680	YAMAZAKI ET AL.
Examiner	Art Unit
JEREMY JOY	2896

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED				
Symbol	Date	Examiner		

US CLASSIFICATION SEARCHED						
Subclass	Date	Examiner				

SEARCH NOTES		
Search Notes	Date	Examiner
See search notes from parent applications 12/613,769 and 13/763874	8/25/2014	Jeremy J. Joy
General keyword and EAST search is attached.	8/25/2014	Jeremy J. Joy
General keyword and EAST search is attached.	2/26/2015	Jeremy J. Joy

INTERFERENCE SEARCH						
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner			

/JEREMY JOY/ Examiner.Art Unit 2816	February 26, 2015

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:		Confirmation No. 5776					
Shunpei YAMAZAKI et al.		Group Art Unit: 2896					
Serial No. 14/451,680		Examiner: Jeremy J. Joy					
Filed: August 5, 2014)						
For: SEMICONDUCTOR DEVICE AND)						
MANUFACTURING METHOD)						
THEREOF)						
AMENDMENT							
Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450							

Dear Sir:

In response to the Official Action dated September 11, 2014, please consider the following amendments and remarks in connection with the above-identified application.

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 7 of this paper.

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1. (Canceled)
- 2. (Currently Amended) A semiconductor device comprising:
- a glass substrate;
- a gate electrode over the glass substrate;
- a gate insulating film over the gate electrode;
- a source electrode <u>first metal film</u> and a <u>drain electrode</u> <u>second metal film</u> over the gate insulating film; and

an oxide semiconductor film in contact with the source electrode first metal film and the drain electrode second metal film,

wherein a side surface of the source electrode first metal film faces a side surface of the drain electrode second metal film, and

wherein each of the side surface of the source electrode first metal film and the side surface of the drain electrode second metal film has a step in a lower end portion thereof.

- 3. (Currently Amended) The semiconductor device according to claim 2, wherein the oxide semiconductor film is positioned on the source electrode first metal film and the drain electrode second metal film.
- 4. (Currently Amended) The semiconductor device according to claim 2, wherein the source electrode first metal film and the drain electrode second metal film are in contact with the gate insulating film.

- (Previously Presented) The semiconductor device according to claim 2, wherein the oxide semiconductor film comprises indium, gallium, and zinc.
 - 6. (Currently Amended) The semiconductor device according to claim 2,

wherein a first angle of the step that is made between the side surface of the source electrode first metal film and an upper surface of the glass substrate is greater than or equal to 20° and smaller than or equal to 90°, and

wherein a second angle of the step that is made between the side surface of the drain electrode second metal film and the upper surface of the glass substrate is greater than or equal to 20° and smaller than or equal to 90°.

- (Currently Amended) The semiconductor device according to claim 2, comprising:
- a first buffer layer between the oxide semiconductor film and the source electrode first metal film; and
- a second buffer layer between the oxide semiconductor film and the drain electrode second metal film,

wherein each of the first buffer layer and the second buffer layer has lower resistivity than the oxide semiconductor film.

- 8. (Currently Amended) A display device comprising:
- a pixel portion comprising:

the semiconductor device according to claim 2; and

a display element electrically connected to one of the source electrode first metal film and the drain electrode second metal film.

- 9. (Previously Presented) The display device according to claim 8, wherein the display element is a liquid crystal element.
- 10. (Previously Presented) The display device according to claim 8, wherein the display element is a light-emitting element.
 - 11. (Currently Amended) A semiconductor device comprising:
 - a glass substrate;
 - a gate electrode over the glass substrate;
 - a gate insulating film over the gate electrode;
- a source electrode first metal film and a drain electrode second metal film over the gate insulating film; and

an oxide semiconductor film in contact with the source electrode first metal film and the drain electrode second metal film.

wherein a side surface of the source electrode first metal film faces a side surface of the drain electrode second metal film,

wherein each of the side surface of the source electrode <u>first metal film</u> and the side surface of the <u>drain electrode</u> <u>second metal film</u> has a step in a lower end portion thereof,

wherein each of the source electrode <u>first metal film</u> and the <u>drain electrode</u> second metal film comprises a first layer and a second layer, and

wherein the first layer and the second layer comprises different material from each other.

12. (Currently Amended) The semiconductor device according to claim 11, wherein the oxide semiconductor film is positioned on the source electrode first metal film and the drain electrode second metal film.

- 13. (Currently Amended) The semiconductor device according to claim 11, wherein the source electrode first metal film and the drain electrode second metal film are in contact with the gate insulating film.
- 14. (Previously Presented) The semiconductor device according to claim 11, wherein the oxide semiconductor film comprises indium, gallium, and zinc.
 - 15. (Currently Amended) The semiconductor device according to claim 11,

wherein a first angle of the step that is made between the side surface of the source electrode first metal film and an upper surface of the glass substrate is greater than or equal to 20° and smaller than or equal to 90°, and

wherein a second angle of the step that is made between the side surface of the drain electrode second metal film and the upper surface of the glass substrate is greater than or equal to 20° and smaller than or equal to 90°.

- 16. (Currently Amended) The semiconductor device according to claim 11, comprising:
- a first buffer layer between the oxide semiconductor film and the source electrode first metal film; and
- a second buffer layer between the oxide semiconductor film and the drain electrode second metal film,

wherein each of the first buffer layer and the second buffer layer has lower resistivity than the oxide semiconductor film.

17. (Currently Amended) A display device comprising:

a pixel portion comprising:

the semiconductor device according to claim 11; and

a display element electrically connected to one of the source electrode <u>first metal</u> film and the <u>drain electrode</u> <u>second metal film</u>.

- 18. (Previously Presented) The display device according to claim 17, wherein the display element is a liquid crystal element.
- 19. (Previously Presented) The display device according to claim 17, wherein the display element is a light-emitting element.
 - 20. (New) The semiconductor device according to claim 2, wherein the first metal film is a source electrode, and wherein the second metal film is a drain electrode.
 - 21. (New) The semiconductor device according to claim 11, wherein the first metal film is a source electrode, and wherein the second metal film is a drain electrode.

REMARKS

The Official Action mailed September 11, 2014, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

An Information Disclosure Statement was submitted on August 29, 2014 and consideration of this Information Disclosure Statement is respectfully requested.

Claims 2-19 were pending in the present application prior to the above amendment. Claims 2-4, 6-8, 11-13 and 15-17 have been amended to better recite the features of the present invention and new claims 20 and 21 have been added to recite additional protection to which the Applicant is entitled. Accordingly, claims 2-21 are now pending in the present application, of which claims 2 and 11 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

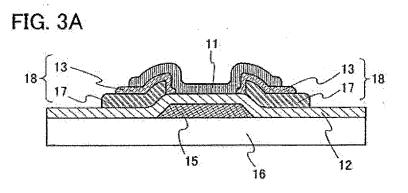
Paragraph 3 of the Official Action rejects claims 2-19 as obvious based on the combination of U.S. Publication No. 2008/0099757 to Furukawa and U.S. Publication No. 2007/0108446 to Akimoto. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally

available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 2 and 11 have been amended to change "a source electrode" to --a first metal film-- and "a drain electrode" to --a second metal film--. As amended, claims 2 and 11 recite *inter alia* that each of the side surface of the <u>first metal film</u> and the side surface of the <u>second metal film</u> has a step in a lower end portion thereof. The amendment is supported in the original specification, for example, by paragraph [0049]. For the reasons provided below, Furukawa and Akimoto, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action asserts that "Furukawa teaches ... a source electrode and a drain electrode over the gate insulating film (Fig. 3A, source and drain electrode 18); an organic semiconductor film in contact with the source electrode and the drain electrode (Fig. 3A, oxide semiconductor film 11); wherein a side surface of the source electrode faces a side surface of the drain electrode; and wherein each of the side surface of the source electrode and the side surface of the drain electrode has a step in a lower end portion thereof (Fig. 3A; ¶s 0115-0155 and 0183-0185)" (page 3, Paper No. 20140825).



However, Furukawa only potentially teaches that the alleged source and drain electrodes 18 each include a conductive layer 17 and a composite layer 13, while the composite layer contains an organic compound and an inorganic compound, not a metal film. See, Furukawa at FIG. 3A (reproduced above) and paragraph [0112]. On the other hand, Furukawa does not teach an oxide semiconductor film in contact with a first metal film and a second metal film or that each of the side surface of the first metal film and the side surface of the second metal film has a step in a lower end portion thereof, as recited in the amended independent claims. Furthermore, Akimoto does not cure the deficiency of Furukawa in this regard.

Therefore, the Applicant respectfully submits that Furukawa and Akimoto, either alone or in combination, do not teach or suggest that each of the side surface of the first metal film and the side surface of the second metal film has a step in a lower end portion thereof. Since Furukawa and Akimoto do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 20 and 21 have been added to recite additional protection to which the Applicant is entitled. The features of claims 20 and 21 are supported in the present specification, for example, by paragraph [0049]. For the reasons stated above, the Applicant respectfully submits that new claims 20 and 21 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,

Eric J. Robinson Reg. No. 38,285

Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, Virginia 22033 (571) 434-6789

Electronic Acknowledgement Receipt				
EFS ID:	20936334			
Application Number:	14451680			
International Application Number:				
Confirmation Number:	5776			
Title of Invention:	SEMICONDUCTOR DEVICE			
First Named Inventor/Applicant Name:	Shunpei YAMAZAKI			
Customer Number:	31780			
Filer:	Eric J. Robinson/Jennifer Rosenfeld			
Filer Authorized By:	Eric J. Robinson			
Attorney Docket Number:	0756-10566			
Receipt Date:	11-DEC-2014			
Filing Date:	05-AUG-2014			
Time Stamp:	16:08:34			
Application Type:	Utility under 35 USC 111(a)			

Payment information:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /₊zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After	AMENDMENT_11DEC2014.pdf	1226703	no	10
	Non-Final Reject	AMERICAN ENT_TIBLEZOT II.pai	10c79fc65af3550675d40f135b377d266688 3f87		

Warnings:

Information: BLUEHOUSE EXHIBIT 1002

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

ation unless it displays a valid OMB control nu

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application	n or Docket Number /451,680	Filing Date 08/05/2014	To be Mailed	
	ENTITY: LARGE SMALL MICRO								
				APPLICA	ATION AS FIL	ED – PAR	ΤΙ		
			(Column	1)	(Column 2)				
	FOR		NUMBER FIL	_ED	NUMBER EXTRA		RATE (\$)	F	EE (\$)
	BASIC FEE (37 CFR 1.16(a), (b), (or (c))	N/A		N/A		N/A		
	SEARCH FEE (37 CFR 1.16(k), (i), c	or (m))	N/A		N/A		N/A		
	EXAMINATION FE (37 CFR 1.16(o), (p), o		N/A		N/A		N/A		
	ΓAL CLAIMS CFR 1.16(i))		mir	nus 20 = *			X \$ =		
	EPENDENT CLAIM CFR 1.16(h))	S	m	inus 3 = *			X \$ =		
If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).									
	MULTIPLE DEPEN	IDENT CLAIM	PRESE N T (3	7 CFR 1.16(j))					
* If t	the difference in colu	ımn 1 is less th	an zero, ente	r "0" in column 2.			TOTAL		
	APPLICATION AS AMENDED – PART II (Column 1) (Column 2) (Column 3)								
NT	12/11/2014	CLAIMS REMAINING AFTER AMENDMEN		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EX	TRA	RATE (\$)	ADDITIC	NAL FEE (\$)
AMENDMENT	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		× \$80 =		0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0		× \$420 =		0
AMI	Application Size Fee (37 CFR 1.16(s))								
	FIRST PRESEN	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FE	∃	0
		(Column 1)		(Column 2)	(Column 3)			
L		CLAIMS REMAINING AFTER AMENDMEN		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EX	TRA	RATE (\$)	ADDITIC	NAL FEE (\$)
ENT	Total (37 CFR 1.16(i))	*	Minus	**	=		X \$ =		
ENDM	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =		
1EN	Application Size Fee (37 CFR 1.16(s))				_				
AM	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
							TOTAL ADD'L FE		
** If *** I	the entry in column the "Highest Numbe f the "Highest Number P	er Previously Pa er Previously F	aid For" IN Th Paid For" IN T	HIS SPACE is less HIS SPACE is less	than 20, enter "20" s than 3, enter "3".		LIE /MONICA FRA		

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



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APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT ATTY. DOCKET NO./TITLE

14/451,680 08/05/2014 Shunpei YAMAZAKI

0756-10566 CONFIRMATION NO. **5776**

31780 Robinson Intellectual Property Law Office, P.C. 3975 Fair Ridge Drive Suite 20 North Fairfax, VA 22033



PUBLICATION NOTICE

Title:SEMICONDUCTOR DEVICE

Publication No.US-2014-0339556-A1

Publication Date:11/20/2014

NOTICE OF PUBLICATION OF APPLICATION

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
14/451,680	14/451,680 08/05/2014 Shunpei YAMAZAKI		0756-10566	5776	
	7590 09/11/201 ectual Property Law O	EXAMINER			
3975 Fair Ridge Suite 20 North		JOY, JEREMY J			
Fairfax, VA 220	033	ART UNIT PAPER NUMBER			
		2896			
			MAIL DATE	DELIVERY MODE	
			09/11/2014	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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	Application No. 14/451,680	Applicant(s) YAMAZAKI ET AL.					
Office Action Summary	Examiner JEREMY JOY	Art Unit 2896	AIA (First Inventor to File) Status No				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address							
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	6(a). In no event, however, may a reply be timil apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed the mailing date of D (35 U.S.C. § 133	this communication.				
Status							
1) Responsive to communication(s) filed on <u>08/14</u> A declaration(s)/affidavit(s) under 37 CFR 1.1							
	action is non-final.						
3) An election was made by the applicant in respo	nse to a restriction requirement :	set forth durin	ng the interview on				
4) Since this application is in condition for allowan	; the restriction requirement and election have been incorporated into this action.						
Disposition of Claims*							
5) Claim(s) 2-19 is/are pending in the application. 5a) Of the above claim(s) is/are withdraw 6) Claim(s) is/are allowed. 7) Claim(s) 2-19 is/are rejected. 8) Claim(s) is/are objected to. 9) Claim(s) are subject to restriction and/or * If any claims have been determined allowable, you may be eliparticipating intellectual property office for the corresponding aphttp://www.uspto.gov/patents/init_events/pph/index.jsp or send	election requirement. gible to benefit from the Patent Pros plication. For more information, plea	ase see	way program at a				
Application Papers 10) ☐ The specification is objected to by the Examiner 11) ☑ The drawing(s) filed on 08/05/2014 is/are: a) ☑ Applicant may not request that any objection to the of Replacement drawing sheet(s) including the corrections.	accepted or b) objected to by drawing(s) be held in abeyance. See	e 37 CFR 1.85((a).				
Priority under 35 U.S.C. § 119							
12)⊠ Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a)	-(d) or (f).					
 Certified copies: a) All b) Some** c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 13/763,874. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). 							
** See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)							
1) X Notice of References Cited (PTO-892)	3) Interview Summary	(PTO-413)					
Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/S Paper No(s)/Mail Date	Paper No(s)/Mail Da						

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The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment to the claims filed on 08/14/2014 has been acknowledged and entered. Claim 1 has been cancelled and claims 2-19 have been added. Non-final office action on the merits is as follows:

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

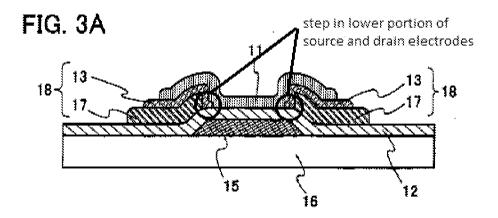
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims **2-19** are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over *Furukawa et al.* (**U.S. Patent Pub. No. 2008/0099757**, from hereinafter "*Furukawa*) in view of *Akimoto* (**U.S. Patent Pub. No. 2007/0108446**).

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Regarding Claim 2, *Furukawa* teaches a glass substrate (Fig. 3A, substrate 16); a gate electrode over the glass substrate (Fig. 3A, gate electrode 15); a gate insulating film over the gate electrode (Fig. 3A, gate dielectric 12); a source electrode and a drain electrode over the gate insulating film (Fig. 3A, source and drain electrode 18); an organic semiconductor film in contact with the source electrode and the drain electrode (Fig. 3A, oxide semiconductor film 11); wherein a side surface of the source electrode faces a side surface of the drain electrode; and wherein each of the side surface of the source electrode and the side surface of the drain electrode has a step in a lower end portion thereof (Fig. 3A; ¶'s 0115-0155 and 0183-0185).



Furukawa fails to teach an oxide semiconductor film formed on the source and drain regions rather than the organic semiconductor film as disclosed.

Akimoto teaches an oxide semiconductor film formed on source and drain regions in a display device similar to that of the applicant (Fig. 1A, oxide semiconductor film 13; ¶ 0065).

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In view of the teachings of *Akimoto*, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of *Furukawa* to include an oxide semiconductor layer as the active semiconductor channel layer because oxide semiconductors are well known in the art of thin film transistors as they provide adequate channel mobility during device operation. Also, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding Claim 3, *Furukawa* teaches wherein the oxide semiconductor film is positioned on the source and the drain electrode (Fig. 2A).

Regarding Claim 4, *Furukawa* teaches wherein the source electrode and the drain electrode are in contact with the gate insulating film (Fig. 2A).

Regarding Claim 5, as in the combination of *Shunpei* and *Akimoto* above, *Akimoto* teaches the oxide semiconductor film comprises zinc (¶ 0066).

Regarding Claim 6, *Furukawa* teaches the step lays flat on the substrate creating about a 90° angle which satisfies the claims in regards to the angle of inclination of the step in relation to the surface of the substrate (Fig. 2A).

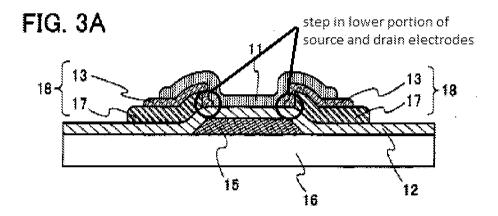
Regarding Claim 7, Furkawa teaches a first buffer layer between the oxide semiconductor film and the source region and a second buffer layer between the oxide semiconductor film and the drain region, wherein each of the first buffer layer and the second buffer layer has a lower resistivity than the oxide semiconductor film (Fig. 12A, buffer layer 19; ¶0206-0211).

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Regarding Claims 8-10, Furukawa teaches the device comprising a pixel portion comprising: the semiconductor device as claimed above and a display element electrically connected to one of the source electrode and the drain electrode and more specifically wherein the display element is a liquid crystal element or a light emitting element (Fig. 8B and 9B, depicting the semiconductor device as taught above with a display element as claimed, LC element 564, light emitting element 637).

Regarding Claim 11, Furukawa teaches a glass substrate (Fig. 2A, substrate 16); a gate electrode over the glass substrate (Fig. 2A, gate electrode 15); a gate insulating film over the gate electrode (Fig. 2A, gate dielectric 12); a source electrode and a drain electrode over the gate insulating film (Fig. 2A, source and drain electrode 18); an organic semiconductor film in contact with the source electrode and the drain electrode (Fig. 2A, oxide semiconductor film 11); wherein a side surface of the source electrode faces a side surface of the drain electrode; and wherein each of the side surface of the source electrode and the side surface of the drain electrode has a step in a lower end portion thereof, wherein each of the source and drain electrode comprises a first layer and a second layer and wherein the first layer and the second layer comprise different materials (Fig. 2A, layer 13 vs. 17; ¶'s 0084-0099 and 0112-0115).

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Furukawa fails to teach an oxide semiconductor film formed on the source and drain regions rather than the organic semiconductor film as disclosed.

Akimoto teaches an oxide semiconductor film formed on source and drain regions in a display device similar to that of the applicant (Fig. 1A, oxide semiconductor film 13; ¶ 0065).

In view of the teachings of *Akimoto*, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of *Furukawa* to include an oxide semiconductor layer as the active semiconductor channel layer because oxide semiconductors are well known in the art of thin film transistors as they provide adequate channel mobility during device operation. Also, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding Claim 12, *Furukawa* teaches wherein the oxide semiconductor film is positioned on the source and the drain electrode (Fig. 2A).

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Regarding Claim 13, *Furukawa* teaches wherein the source electrode and the drain electrode are in contact with the gate insulating film (Fig. 2A).

Regarding Claim 14, as in the combination of *Furukawa* and *Akimoto* above, *Akimoto* teaches the oxide semiconductor film comprises zinc (¶ 0066).

Regarding Claim 15, *Furukawa* teaches the step lays flat on the substrate creating about a 90° angle which satisfies the claims in regards to the angle of inclination of the step in relation to the surface of the substrate (Fig. 2A).

Regarding Claim 16, Furkawa teaches a first buffer layer between the oxide semiconductor film and the source region and a second buffer layer between the oxide semiconductor film and the drain region, wherein each of the first buffer layer and the second buffer layer has a lower resistivity than the oxide semiconductor film (Fig. 12A, buffer layer 19; ¶0206-0211).

Regarding Claims 17-19, Furukawa teaches the device comprising a pixel portion comprising: the semiconductor device as claimed above and a display element electrically connected to one of the source electrode and the drain electrode and more specifically wherein the display element is a liquid crystal element or a light emitting element (Fig. 8B and 9B, depicting the semiconductor device as taught above with a display element as claimed, LC element 564, light emitting element 637).

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY JOY whose telephone number is (571)270-7445. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Such can be reached on (571)-272-8895. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEREMY JOY/ Examiner, Art Unit 2896 August 25, 2014

/CHEUNG LEE/ Primary Examiner, Art Unit 2896

Notice of References Cited	Application/Control No. 14/451,680	Applicant(s)/Patent Under Reexamination YAMAZAKI ET AL.		
Notice of Herefelices Offed	Examiner	Art Unit		
	JEREMY JOY	2896	Page 1 of 1	

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	Α	US-2008/0099757	05-2008	Furukawa et al.	257/40
*	В	US-2007/0108446	05-2007	Akimoto, Kengo	257/061
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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NON-PATENT DOCUMENTS

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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 5776

SERIAL NUMBER FILING					CLASS	GR				RNEY DOCKET
14/451,68	80	DATI 08/05/2			257	2896		0756-10566		
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_	APPLICANTS Semiconductor Energy Laboratory Co., Ltd., Atsugi-shi, JAPAN, Assignee (with 37 CFR 1.172 Interest);									
INVENTORS Shunpei YAMAZAKI, Setagaya, JAPAN; Kengo AKIMOTO, Atsugi, JAPAN; Daisuke KAWAE, Yamato, JAPAN;										
** CONTINUING DATA ***********************************										
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	JEREMY JOY	2896

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Search Notes

Application/Control No.	Applicant(s)/Patent Under Reexamination
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Examiner	Art Unit
JEREMY JOY	2896

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SEARCH NOTES							
Search Notes	Date	Examiner					
See search notes from parent applications 12/613,769 and 13/763874	8/25/2014	Jeremy J. Joy					
General keyword and EAST search is attached.	8/25/2014	Jeremy J. Joy					

	INTERFERENCE SEARCH		
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/JEREMY JOY/ Examiner.Art Unit 2896	August 25, 2014

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	7097	((Shunpei) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
L2	423	((Kengo) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/08/25 07:56
L3	98	((Daisuke) near2 (KAWAE)).INV.	US-PGPUB; USPAT		ON	2014/08/25 07:56
L4	7378	1 2 3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 07:57
L5	157340	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
L6	13935	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
L7	2186	L5 and L6	US-PGPUB; USPAT; USOCR	OR	ON	2014/08/25 07:57
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L24	318	("20080128689" "20030189401" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20050050897" "7323368" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110318916" "8030663" "8115201" "20120132910" "20090114917" "20100044711" "20060108529" "20060113565" "20060169973" "2006028974" "20060292777" "20080050595" "20080106191" "5731856" "7385224" "7462862" "7732819"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB		ON	2014/08/25 08:16

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L39	23	("2005/0205870").URPN.	USPAT	OR	ON	2014/08/25 09:00
L40	34	38 39	USPAT	OR	ON	2014/08/25 09:13
L41	5	("2006/0033098").URPN.	USPAT	OR	ON	2014/08/25 09:46
L42	59	("20010046611" "20020045289" "20020093283" "20020101154" "20020121860" "20020139303" "20030015698" "20030085398" "20030092214" "20030092232" "20030213952" "20030218166" "20040012017" "20040075093" "20040108562" "20040161192" "20040206959" "20050042548" "20050057136" "20050084712"	US-PGPUB; USPAT; USOCR	OR	ON BI UEHOL	2014/08/25 09:48 JSE EXHIBIT 10

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L43	17	("2004/0012017").URPN.	USPAT	OR	ON	2014/08/25 09:51
L44	11	("2004/0108562").URPN.	USPAT	OR	ON	2014/08/25 09:53
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L46	9	"2006126363"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 10:11
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S1	2	"US 20100117077"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 14:18
S2	1806	"257/43".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S 3	128	"257/E21.459".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S4	1431	"438/158".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S5	537	"257/E29.296".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S6	1194	"257/57".OCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S7	1225	"438/104".CCLS.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:32
S8	5416	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:35
S9	274	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:35
S10	54	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2012/04/04 14:36
S11	109	("20080128689" "20030189401" "20080308796" "20080308806" "7061014" "20060110867" "20090068773" "7323368" "20090068773" "7323368" "20060244107" "5847410" "6563174" "20020132454" "20060231882" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20060108529" "20060113565" "20060169973" "20060228974" "20060169973" "20080050595" "20080106191" "5731856" "7385224" "7462862" "7732819" "20080203387" "20090008639" "20100025678" "20030218222" "20070024187" "20070187678" "2008038882" "20080038929" "20080038882" "20080038929" "20080258140" "20080254569" "20080258140" "20080254569" "20090280600" "7049190" "20070172591" "20080296568" "20060113539" "20080296568" "20060238135" "20070052025" "77211825" "7453065" "6532045" "7674650" "20080182358" "20090073325" "7453087" "7501293" "20080308797" "7501293" "20080308797" "20070158652" "7298084" "20070187760" "20080308797" "5744864" "6586346" "6727522"	US-PGPUB; USPAT		ON	2012/04/04 14:36

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		"6960812" "7301211" "20060035452" "20060108636" "20060113549" "20060197092" "20070090365" "20080166834" "20090134399" "7064346" "7282782" "7468304" "20070108446" "20070272922" "20080308804" "20080308805" "20090065771" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20060170111" "20070046191" "20070252928" "20080073653" "20080129195" "20080258143" "20090114910" "7105868" "7297977"				
S12	6	"2007123861"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/04/04 14:47
S13	7	"2007096055"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/04/04 14:47
S14	41	("20020153587" "20030013261" "20030047785" "20030111663" "20030207502" "20030218221" "20030218222" "20030219530" "20040023432" "4887255" "5744864" "6225655" "6255130" "6362499" "6563174" "7067843").PN. OR ("7282782").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:20
S15	51	("20020171085" "20030047785" "20030111663" "20030218221" "20030218222" "20040023432" "20040127038" "20050017244" "3294660" "5289016" "5744864" "6362499" "6391462" "6727522").PN. OR ("7297977").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:21
S16	132	("20010046027" "20020056838" "20020109796" "20020132454" "20040038446" "20040127038" "20040132293" "20050017302" "20050199959" "20050259206" "20050275038" "20060035452" "20060086933" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113539" "20060113549" "20060113565" "20060163743" "20060169973" "20060170067" "20060170111" "20060197092" "20060208977" "20060228974" "20060231882" "20060284171"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:23

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S17	9604	"20070054507" "20070072439" "20070090365" "20070108446" "20070158652" "20070172591" "20070187678" "20070187760" "20070194379" "20070252928" "20070272922" "20070287296" "20080006877" "20080038882" "20080038929" "20080050595" "20080106191" "20080128689" "20080129195" "20080128689" "20080129195" "20080166834" "20080224133" "20080254569" "20080258149" "20080258140" "20080258149" "20080258143" "20080308796" "20080308805" "20080308806" "20090008639" "20090114911" "20090114910" "20090114911" "20090153762" "20090186437" "20090186445" "20090189155" "20090189156" "5731856" "5696011" "5701167" "5731856" "5696011" "5701167" "6532045" "6674136" "6294274" "6532045" "6674136" "6727522" "6852998" "6900461" "7009204" "7049190").PN. OR ("7061014" "7064346" "7075614" "7105868" "7211825" "7282782" "7297977" "7323356" "7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293").PN. OR ("7674650").URPN.	US-PGPUB; USPAT:	OR	OX	2012/04/04 16:25
		((bottom adj gate) bottom\$1gate)	USOCR			
S18	4685	S17 and ((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:25
S19	322	(((semiconductor adj oxide) ((zinc indium gallium zn in ga) adj oxide)) near3 channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S20	118	S17 and S19	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:26
S21	1	("7638360").PN.	US-PGPUB; USP A T	OR	OFF	2012/04/04 16:33
S22	7	("20050017302" "20060244107" "20070048970" "20070072439" "20070184571" "20080254569").PN. OR ("7638360").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:33
S23	2	"US 8134156"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 16:36

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				USOCR; DERWENT			
25	177	("20010046027"	"20020011978"	US-PGPUB;	OR	ON	2012/04/0
		"20020044111"	"20020056838"	USPAT;			16:36
		"20020106839"	"20020109796"	USOCR			
		"20020110703"	"20020132454"				
		"20030047785"	"20030207506"				
		"20030218222"	"20040038446"				
		"20040127038"	"20040132293"				
		"20040252270"	"20050017302"				
		"20050082541"	"20050084999"				
		"20050104071"	"20050164423"				
		"20050199959"	"20050231107"				
		"20050233509"	"20050250308"				
		"20050259206"	"20050275038"				
		"20060035452"	"20060043377"			***************************************	
		"20060054888"	"20060086933"			***************************************	
		"20060091793"	"20060108529"				
		"20060108636"	"20060110867"				
		"20060113536"	"20060113539"				
		"20060113549"	"20060113565"				
		"20060163743"	"20060169973"				
		"20060170067"	"20060170111"				
		"20060183274"	"20060197092"				
		"20060208977"	"20060228974"				
		"20060231882"	"20060238135"				
		"20060244107"	"20060249733"				
		"20060284171"	"20060284172"				
		"20060286737"	"20060292777"				
		"20070024187"	"20070046191"				
		"20070052025"	"20070054507"				
		"20070072439"	"20070090365"				
		"20070108446"	"20070141784"				
		"20070152217"	"20070158652"				
		"20070172591"	"20070187678"				
		"20070187760" "20070238228"	"20070194379" "20070252928"				
		"20070230220"	"20070232326"				
		"20080006877"	"20080038882"				
		"20080038929"	"20080050595"				
		"20080073653"	"20080083950"				
		"20080106191"	"20080108198"				
		"20080128689"	"20080129195"			***************************************	
		"200801266834"	"20080174710"				
		"20080182358"	"20080198108"				
		"20080224133"	"20080254569"				***************************************
		"20080258139"	"20080251666"				***************************************
		58	"20080258143"				
		"20080308796").					
			"20080308804"				
		"20080308805"	["] "20080308806"				
		"20090008639"	"20090068773"				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		"20090073325"	"20090114910"				***************************************
		"20090114911"	"20090134399"				***************************************
		"20090152541"	"20090153762"	***************************************			***************************************
		"20090186437"	"20090186445"				***************************************
		"20090189155"	"20090189156"				***************************************
		"20090239335"	"20090278122"				***************************************
		"20090280600"	"20090305461"				***************************************
		"20100003783"	"20100038639"	· · · · · · · · · · · · · · · · · · ·			
		"20100085283"	"20100240157"				***************************************
		"20110012119"					***************************************
		N .	30265" "5696011"				***************************************
	1	1	31856" "5803975"	' 78		The state of the s	****

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		"5817548" "5888410" "5930607" "5952708" "5994157" "6294274" "6459418" "6529251" "6532045" "6563174" "6674136" "6727522" "6819368" "6852998" "6900461" "6921627" "7009204" "7012658" "7049190" "7061014" "7064346" "7067843" "7075614" "7105868" "7189992" "7211825" "7264979" "7268842" "7282782" "7297977" "7323356" "7330234" "7339187" "7402506" "7411209" "7453065" "7453087" "7456430" "7462862" "7468304" "7470607" "7485478" "7501293" "7560396" "7633471" "7732818" "7825419" "7855380"				
S26	95	S25 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:44
S27	0	(buffer near5 (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:48
S28	0	(buffer with (source drain) with (ozide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:48
S29	0	(source drain) with (ozide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 16:49
S30	5583	(source drain) with (oxide near2 semiconductor) with channel	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S31	371	(buffer with (source drain) with (oxide near2 semiconductor))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S32	118	(buffer with (source drain) with (oxide near2 semiconductor) with channel)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:03
S33	24	S32 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:04
S34	108	("20010046027" "20020056838" "20020132454" "20030189401" "20030218222" "20040038446" "20040127038" "20050017302" "20050199959" "20060035452" "20060043377" "20060091793" "20060108529" "20060108636" "20060113539" "20060113536" "20060113565" "20060169973" "20060170111" "20060197092" "20060208977" "20060228974" "20060231882" "20060238135" "20060244107" "20060284171" "20060284172" "20060292777" "20070024187" "20070046191" "20070052025" "20070090365" "20070108446" "20070152217"	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:08

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		"20070172591" "20070187678" "20070187760" "20070194379" "20070252928" "20070272922" "20070287296" "20080006877" "20080038882" "20080038929" "20080050595" "20080073653" "20080083950" "20080106191" "20080128689" "20080129195" "20080128689" "20080129195" "2008023387" "20080224133" "20080254569" "20080258139" "20080258140" "20080258141" "20080258143" "20080296568" "20080308796" "20080308797" "20080308804" "20080308805" "20080308806" "20090008639" "20090065771" "20090068773" "20090073325" "20090114910" "20090134399" "20090152541" "20090278122" "20090280600" "20100025678" "20110012118" "5731856" "5744864" "5847410" "6294274" "6563174" "6586346" "6727522" "6960812" "7049190" "7061014" "7064346" "7105868" "7211825" "7282782" "7297977" "7301211" "7323356" "7385224").PN. OR ("7402506" "7411209" "7453065" "7453087" "7462862" "7468304" "7501293" "76746260" "7732819"				
S35	43	"7915075").PN. OR ("8021917").URPN. S34 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S36	0	S34 and ((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:10
S37	54124	((angle taper) near5 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S38	217	S37 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:13
S39	164	S38 not (angle adj implant\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:15
S40	3037	((taper incline decline angle) near3 (side sidewall surface) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:23
S41	178	(tft (thin adj film adj transistor)) and S40	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:24
S42	10	"US 7081641"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 17:29
S43	11	("20050056897" "6569707" "6858527").PN. OR ("7081641").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:30

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S44	48	((taper near2 angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:40
S45	32689	((taper angle) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:41
S46	161	S45 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S47	243	((taper angle) near3 ((source drain) adj electrode))	US-PGPUB; USPAT; USOCR		ON	2012/04/04 17:42
S48	243	(taper angle) near3 ((source drain) adj electrode)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:42
S49	206	(tft (thin adj film adj transistor)) and S48	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:43
S50	69	S25 and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:53
S51	519	(source drain) near3 (tilt adj angle)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S52	54	S51 and S17	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:56
S53	5614	S8 S9 S10	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S54	3354	S53 and (tft (thin adj film)) and (angle taper)	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 17:59
S55	145		US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:00
S56	5	"US 7564058"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2012/04/04 18:04
S57	20	("20020043662" "20030148561" "20030213959" "20030234424" "20040189188" "4797108" "5028551" "5151806" "5640067" "6037197" "6121660" "6388270" "6433363" "6448116" "6476416" "6639244" "6709901").PN. OR ("7564058").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:04
S58	8	S57 and angle	US-PGPUB; USPAT; USOCR	OR	ON	2012/04/04 18:05
S59	218	("20030189401" "20080128689" "20080308796" "20080308806" "7061014" "20060110867" "20060284172" "20080258141" "20090068773" "20060244107" "5847410" "6563174" "20020132454" "20060231882"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/18 18:08 SE EXHIBIT 10

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		"20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090152541" "6294274" "7402506" "7411209" "20110012118" "7915075" "7462862" "20060108529" "20060113565" "20060169973" "20060228974" "20060292777" "20080050595" "20080106191" "5731856" "7385224" "7732819" "20080203387" "20090008639" "20100025678" "20090008639" "20100025678" "20030218222" "20070024187" "20090008677" "200800303882" "20080038929" "20080038882" "20080038929" "2008003950" "20080254569" "20080258140" "20090278122" "20090280600" "7049190" "20070172591" "20080296568" "20010046027" "20020056838" "20060113539" "20060208977" "20060238135" "20070052025" "7211825" "7453065" "7674650" "20080182358" "20090073325" "7453087" "7501293" "20070072439" "7282782" "20070187760" "20080308797" "2006013636" "20060091793" "200601366834" "20090013549" "200601966934" "200900134399" "7064346" "7468304" "20050199959" "20070090365" "20080166834" "20090065771" "2008038446" "20090065771" "2008038446" "20090043377" "20070046191" "20070252928" "20070272922" "200800258143" "20090114910" "7105868" "7323356").PN.				
S60	18460	(tft (thin adj film)) and ((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:28
S61	133336	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S62	10304	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S63	1628	S61 and S62	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:29
S64	34920	((angle taper gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/18 18:30
S65	193	S64 and S62	US-PGPUB;	OR	ON BLUEHO	2012/09/18 USE EXHIBIT 10

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			USPAT; USOCR			18:30
S66	1	("20120132910").PN.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:00
S67	10	("20110318916" "20120058599" "8021917" "8030663" "8115201").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:01
S68	11	S66 S67	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:01
S69	5731	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S70	294	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S71	62	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2012/09/26 22:04
S72	5942	S69 S70 S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S73	5403	S72 and (tft (thin\$1film) (thin adj film))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S74	3556	S73 and (angle taper)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:04
S75	878	S73 and ((angle taper) with electrode)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:05
S76	133560	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S77	10334	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:06
S78	1631	S76 and S77	US-PGPUB;	OR	ON	2012/09/26 JSE EXHIBIT 10

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			USPAT; USOCR			22:06
S79	532	S72 and S78	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/09/26 22:06
S80	89	((angle taper gradation stair) near3 (source drain)) and S77 and S72	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:08
S81	5466	(257/59).COLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19
S82	5099	(257/72).COLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:19
S83	45	((angle taper gradation stair) near3 (source drain)) and S77 and S81	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S84	40	((angle taper gradation stair) near3 (source drain)) and S77 and S82	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S85	60	S83 S84	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:19
S86	674	(257/e29.277).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:21
S87	311	(257/e21.535).CCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:24
S88	1543	(438/158).OCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:27
S89	15	((angle taper gradation stair) near3 (source drain)) and S77 and S88	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:27
S90	3682	(438/149).OCLS.	US-PGPUB; USPAT	OR	OFF	2012/09/26 22:28
S91	17	((angle taper gradation stair) near3 (source drain)) and S77 and S90	US-PGPUB; USPAT; USOCR	OR	ON	2012/09/26 22:28
S95	6242	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/0 ⁻ 10:27
S96	356	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/0 ⁻ 10:27
S97	75	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/07/0 ⁻ 10:27
S98	6489	S95 S96 S97	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/0 ⁻ 10:27
S99	142606	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/0 ⁻ 10:27
S100	11746	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT;	OR	ON	2013/07/01 10:27 OUSE EXHIBIT 1

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		<u> </u>	USOCR			
S101	1860	S99 and S100	US-PGPUB; USPAT; USOCR	OR	ON	2013/07/01 10:27
S102	600	S98 and S101	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/07/01 10:27
S103	5191	(semiconductor near5 ((indium in) and (gallium ga) and (zinc zn)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 02:30
S104	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S105	1268	S103 and S104	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 02:30
S106	1058	(IN\$2ga\$2zn)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 02:33
S107	268	("20030189401" "20050050897" "20060110867" "20060284172" "20080128689" "20080258141" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "20100044711" "20110318916" "20120132910" "5847410" "6294274" "6563174" "7323368" "7402506" "7411209" "8030663" "8115201" "8158464" "20060108529" "20060113565" "20060169973" "20060228974" "20060292777" "20080050595" "20080106191" "20100065844" "20100117086" "5731856" "7385224" "7462862" "7732819" "20030218222" "20060027804" "20070024187" "20070187678" "20070024187" "20080038929" "20080038882" "20080038929" "20080038882" "20080258140" "2009008639" "20090278122" "20090280600" "20100025678" "7049190" "20090189156"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01

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		"8134156" "20010046027" "20020056838" "20060113539" "20060208977" "20060238135" "20070052025" "20070172591" "20080296568" "20100109002" "7211825" "7453065" "20080182358" "20090073325" "6532045" "7453087" "7501293" "7674650" "8021917" "20050056897" "20060035452" "20060197092" "20070072439" "20070090365" "20070158652" "20070187760" "20080166834" "20080308797" "20090134399" "20090152506" "5744864" "6586346" "6727522" "6960812" "77064346" "7282782" "7298084" "7301211" "7468304" "20090186445" "8368079" "20090186445" "8368079" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20070046191" "20070108446" "20080258143" "20080308804" "20080308805" "20090065771" "2008014910" "20100092800" "20120058599" "7105868" "7297977" "7323356" "20100003783").PN.				
S108	6320	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S109	368	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S110	77	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/08/12 09:01
S111	6569	S108 S109 S110	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/12 09:01
S112	143950	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S113	11923	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S114	1895	S112 and S113	US-PGPUB; USPAT; USOCR	OR	ON	2013/08/12 09:01
S115	617	S111 and S114	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON BLUEHOL	2013/08/12 09:01 SE EXHIBIT 10

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			IBM_TDB			
S116 13	33	"20030189401" "20050050897" "20060110867" "20060284172" "2008012889" "20080258141" "20080308796" "20080308806" "20090068773" "7061014" "20090189155" "20020132454" "20060231882" "20060244107" "20060231882" "20060244107" "20060284171" "20070054507" "20070152217" "20070287296" "20080224133" "20080258139" "20090114917" "20090152541" "20100044711" "20110318916" "20120132910" "5847410" "6294274" "6563174" "7323368" "7402506" "7411209" "8030663" "8115201" "8158464" "20060108529" "20060113565" "20060169973" "20060228974" "200602929777" "20080050595" "2008016191" "20100065844" "20100117086" "5731856" "7385224" "7462862" "7732819" "20070024187" "2008003882" "2008003882" "20080038829" "20080038829" "20080038829" "20080038829" "20080086377" "20080025678" "20080025678" "20080258140" "20090286600" "20100025678" "20080296568" "20090278122" "20080296568" "20090278122" "20080296568" "20090278122" "20080296568" "20090278122" "20080296568" "20090133539" "20080296568" "20090134399" "20090076325" "7744650" "80306634" "7744650" "80306634" "77443065" "2008003877" "20080296568" "20090073325" "20080296568" "20090073325" "20080136597" "2008023877" "2008023877" "20080296568" "20070172591" "20080296568" "20070172591" "2008003879" "20090073325" "6532045" "7453065" "7501293" "7674650" "802177 "7501293" "7674650" "802177 "7501293" "7674650" "802177 "20060035452" "20060196397" "2006013549" "20090134399" "20090152506" "5744864" "6586346" "6727522" "6960812" "7064346" "72827522" "6960812" "7064346" "72827522" "6960812" "7064346" "72827522" "6960812" "7064346" "72827522" "6960812" "7064346" "7282802" "7298084" "7301211" "748280470" "70080192444" "7301211" "748280470" "7064346" "728280270" "7298084" "7301211" "748280470" "7301211" "748280470" "7301211" "748280470"	US-PGPUB; US-PGPUB; US-PGPUB; ISPO; IPO; IBM_TDB	OR	ON	2013/08/1
		"7211825" "7453065" "20080182358" "20090073325" "6532045" "7453087" "7501293" "7674650" "8021917" "20050056897" "20060035452" "20060108636" "20060113549" "20060197092" "20070072439" "20070090365" "20070158652" "20070187760" "20080166834" "20080308797" "20090134399" "20090152506" "5744864" "6586346" "6727522" "6960812" "7064346" "7282782" "7298084"				
		"7301211" "7468304" "20090186445" "8368079" "20040038446" "20040127038" "20050017302" "20050199959" "20060043377" "20060113536" "20060170111" "20060292726" "20070046191" "20070108446" "20070252928" "20070272922" "20080073653" "20080129195" "20080258143" "20080308804" "20080308805" "20090065771" "20090114910" "20100092800" "20120058599" "7105868" "7297977" "7323356"				

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		"20100003783").PN.				
S117	2	"US 20130214270"	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2013/12/11 01:46
S118	1	("20060033098").PN.	US-PGPUB; USPAT	OR	OFF	2013/12/11 01:57
S119	6558	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
S120	385	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
S121	82	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2013/12/11 02:41
S122	6814	S119 S120 S121	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	ON	2013/12/11 02:41
S123	148280	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S124	12541	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S125	1990	S123 and S124	US-PGPUB; USPAT; USOCR	OR	ON	2013/12/11 02:41
S126	649	S122 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/12/11 02:41
S127	6765	((SHUNPEI) near2 (YAMAZAKI)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S128	395	((KENGO) near2 (AKIMOTO)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S129	87	((DAISUKE) near2 (KAWAE)).INV.	US-PGPUB; USPAT	OR	ON	2014/03/23 19:33
S130	7028	S127 S128 S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:33
S131	151627	((angle taper step gradation stair) near3 (source drain))	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S132	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33
S133	2067	S131 and S132	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:33

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S134	680	S130 and S133	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:33
S135	9	"2008205451"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S136	10	"2005223049"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S137	3	"07064112"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:34
S138	13059	(tft (thin adj film adj transistor)) and ((bottom adj gate) bottom\$1gate)	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S139	6584	(257/59).COLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S140	48	((angle taper gradation stair) near3 (source drain)) and S138 and S139	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S141	4077	(438/149).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:57
S142	18	((angle taper gradation stair) near3 (source drain)) and S138 and S141	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:57
S143	1947	(438/158).OCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S144	17	((angle taper gradation stair) near3 (source drain)) and S138 and S143	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S145	17	S144	US-PGPUB; USPAT; USOCR	OR	ON	2014/03/23 19:58
S146	320	(257/e21.535).CCLS.	US-PGPUB; USPAT	OR	OFF	2014/03/23 19:58
S147	72	S140 S142 S144	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/23 19:58

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