### UNITED STATES PATENT AND TRADEMARK OFFICE

### **BEFORE THE PATENT TRIAL AND APPEAL BOARD**

### SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD.

Petitioner

v.

### AU OPTRONICS CORPORATION

Patent Owner

Patent No. 6,689,629 C1 Issued: November 14, 2014 Filed: March 16, 2010

Inventors: Takatoshi TSUJIMURA et al.

Title: ARRAY SUBSTRATE FOR DISPLAY, METHOD OF MANUFACTURING ARRAY SUBSTRATE FOR DISPLAY AND DISPLAY DEVICE USING THE ARRAY SUBSTRATE

Inter Partes Review No.: Unassigned

### **DECLARATION OF YUE KUO, DR.ENG.SCI.**

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### **TABLE OF CONTENTS**

I.	INTRODUCTION AND BACKGROUND1	
II.	SUMMARY OF MY OPINIONS	
	A.	Instructions
	B.	Effective Filing Dates and Prior Art Patents and Printed Publications 9
III.	OVERVIEW OF THE TECHNOLOGY10	
	A.	Summary of the Prosecution History of the '629 Patent
IV.	CLAIM CONSTRUCTION	
V.	ANALYSIS	
	А.	Ground 1: Claims 1, 3, 5-6, 9, 11, 14, and 17 are obvious under 35 U.S.C. § 103 in view of Noda, AAPA, Tsujimura, Ichioka, and Shimizu
	В.	Ground 2: Claims 7-8 and 15-16 are obvious under 35 U.S.C. § 103 in view of Noda, AAPA, Tsujimura, Ichioka, Shimizu, and Wicke33
	C.	Ground 3: Claims 1, 9, and 17 are obvious under 35 U.S.C. § 103 under Noda, AAPA, Tsujimura, Ichioka, and Ono
VI.	CONCLUSION42	

Declaration of Yue Kuo, Dr.Eng.Sci. U.S. Patent No. 6,689,629 C1

### **EXHIBITS**

I may refer to the following Exhibits that I understand were submitted by

Petitioner in connection with this Inter Partes Review ("IPR").

Exhibit	Description
1001	U.S. Patent No. 6,689,629 C1 ("the '629 Patent")
1002	File History of U.S. Patent No. 6,689,629 C1
1003	U.S. Patent No. 6,689,629 B2
1004	File History of U.S. Patent No. 6,689,629 B2
1005	Certified English Translation of Japanese Publication No. P2000- 98909A ("Noda")
1006	Low Resistance Gate Line for High-Resolution TFT/LCD Display ("Tsujimura")
1007	U.S. Patent No. 5,546,013 ("Ichioka")
1008	Certified English Translation of Japanese Publication No. HEI 2- 189922 ("Shimizu")
1009	U.S. Patent No. 2,990,282 ("Wicke")
1010	Certified English Translation of Japanese Publication No. SHO 63- 181355 ("Ono")
1012	Power of Attorney
1013	Japanese Application No. 2001-029587
1014	Japanese Publication No. P2000-98909A
1015	Japanese Publication No. HEI 2-189922
1016	Japanese Publication No. SHO 63-181355

ATTACHMENT A: CV of Dr. Yue Kuo

Declaration of Yue Kuo, Dr.Eng.Sci. U.S. Patent No. 6,689,629 C1

### I. INTRODUCTION AND BACKGROUND

1. I have been retained by counsel for Shenzhen China Star

Optoeletronics Technology Co., Ltd. ("CSOT" or "Petitioner"), and asked to review and provide my opinion on the patentability of claims 1, 3, 5-9, 11, and 14-17 of U.S. Patent 6,689,629 C1 (Ex. 1001, "the '629 Patent"). I am being compensated for my time at my normal consulting rate of \$450 per hour. My compensation is not contingent on the outcome of this proceeding or the content of my opinions.

2. I am the Dow Professor of Chemical Engineering with a joint appointment in Electrical Engineering and Materials Science and Engineering, at Texas A&M University. I received my B.S. (1974) from National Taiwan University and M.S. (1978) and Dr. Eng. Sci. (1979) from Columbia University.

3. I spent about 20 years at the IBM T. J. Watson Research Center, Yorktown Heights, NY, Semiconductor Division of Data General in Silicon Valley, etc. as well as 17 years at Texas A&M University. My research has been focused on device fabrication processes with understanding of materials and physics of ICs and thin film transistors (TFTs) for LCDs. My research results and inventions have been used in numerous worldwide productions.

4. I am the editor and co-author of the following textbooks:

Declaration of Yue Kuo, Dr.Eng.Sci. U.S. Patent No. 6,689,629 C1

Thin Film Transistors: Materials and Processes Volume 1:
Amorphous Silicon Thin Film Transistors; and

ii. Thin Film Transistors: Materials and Processes Volume 2:Polycrystalline Silicon Thin Film Transistors.

These textbooks were published by Kluwer Academic Publishers on February 1, 2004 and have been widely used in universities and industry worldwide.

5. I have authored over 400 papers, hold 11 patents and more than 40 invention disclosures, mostly on TFT technologies. Many of my papers have been highly cited, downloaded, and awarded, such as the #1 most cited papers in ECS Trans., Jpn. J. Appl. Phys., J. Vac. Sci. Technol. B, J. Appl. Phys., Appl. Phys. Lett., Microelectronics Reliability, AIP/APS Virtual J. Nanoscale Sci. and Technol., Virtual J. Biological Phys. (7 times), IIE Trans., IEEE Spectrum, and IEEE EDS News Letters. I edited 30 journals and conference proceedings, two TFT textbooks, and 3 short course books.

6. I have been honored with the following awards and appointments: Gordon E. Moore Medal of Solid State Science and Technology by Electrochemical Society (ECS), Fellow of IEEE, Fellow of ECS, ECS Electronics and Photonics award, Distinguished Research Achievement Award of Texas A&M University, Innovation Award of Texas A&M University System, 10 IBM awards,

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