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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/465,574	08/18/2006	Roman Chistyakov	ZON-016CN2	1473
23701	7590	12/08/2009	EXAMINER	
RAUSCHENBACH PATENT LAW GROUP, LLC			LE, TUNG X	
P.O. BOX 387			ART UNIT	PAPER NUMBER
BEDFORD, MA 01730			2821	
			MAIL DATE	DELIVERY MODE
			12/08/2009	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.

**Office Action Summary**

<b>Application No.</b> 11/465,574	<b>Applicant(s)</b> CHISTYAKOV, ROMAN	
<b>Examiner</b> TUNG X. LE	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on response to election 7/30/2009.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 48-84 is/are pending in the application.  
4a) Of the above claim(s) 48-63 and 84-86 is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 64-83 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**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).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
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)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date: 9/29/2006; 2/10/2009; 4/24/2009; 10/06/2009
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is in response to the Applicant's response to election/restriction filed on July 30, 2009. In virtue of this election:

- Claims 1-47 are cancelled;
- Claims 48-63 and 84-86 are withdrawn; and thus,
- Claims 64-83 remain pending in the instant application.

#### *Election/Restrictions*

1. Applicant's election without traverse of claims 64-83 (Group II) in the reply filed on July 30, 2009 is acknowledged.

Non-elected claims 48-63 and 84-86 need to be **cancelled** during the next communication in order to advance prosecution of the instant application.

#### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Art Unit: 2821

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 64-73 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21-26 and 28-33 of U.S. Patent No. 7,095,179 B2 in view of Lee et al. U.S. Patent No. 5,476,693.

With respect to claims 64-73, the inventions of claims 21-26 and 28-33 of U.S. Patent No. 7,095,179 are including the inventions of claims 64-73 of the instant application, but they are not including the limitations of "a strong plasma occurs without forming an arc between the anode and the cathode assembly".

Lee discloses a method of generating a plasma, comprising that a formation of a strong plasma occurs without forming an arc between the anode and the cathode assembly (see figure 4 and column 8 in lines 41-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plasma system of the inventions of claims 21-26 and 28-33 of the patent with a strong plasma occurring without an arc between the anode and the cathode as taught by Lee for the purpose of getting a high electron density during the generating plasma operation since this configuration for the stated purpose would have been deemed obvious as evidenced by the teaching of Lee (see column 8 in lines 41-55).

4. Claims 74-83 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 38-43 and 46 of U.S. Patent No. 7,095,179 B2 in view of Lee et al. U.S. Patent No. 5,476,693.

Art Unit: 2821

With respect to claims 74-83, the inventions of claims 38-43 and 46 of U.S. Patent No. 7,095,179 are including the inventions of claims 74-83 of the instant application, but they are not including the limitations of "a strong plasma occurs without forming an arc between the anode and the cathode assembly".

Lee discloses a method of generating a plasma, comprising that a formation of a strong plasma occurs without forming an arc between the anode and the cathode assembly (see figure 4 and column 8 in lines 41-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plasma system of the inventions of claims 38-43 and 46 of the patent with a strong plasma occurring without an arc between the anode and the cathode as taught by Lee for the purpose of getting a high electron density during the generating plasma operation since this configuration for the stated purpose would have been deemed obvious as evidenced by the teaching of Lee (see column 8 in lines 41-55).

#### ***Citation of Relevant Prior Art***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Goebel (U.S. Patent No. 5,828,176) discloses planar cross field plasma switch and method.

Prior art Goebel (U.S. Patent No. 5,537,005) discloses high current, low pressure plasma cathode electron gun.

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