

## 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.uspio.gov

| APPLICATION NO.                   | FILING DATE   | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|-----------------------------------|---------------|------------------------|-------------------------|------------------|
| 10/065,277                        | 09/30/2002    | Roman Chistyakov       | ZON-001                 | 5690             |
| 23701 75                          | 90 10/11/2006 |                        | EXAM                    | INER             |
| RAUSCHENBA                        | CH PATENT LAW | MCDONALD, RODNEY GLENN |                         |                  |
| P.O. BOX 387<br>BEDFORD, MA 01730 |               |                        | ART UNIT                | PAPER NUMBER     |
|                                   |               |                        | 1753                    |                  |
|                                   |               |                        | DATE MAILED: 10/11/2006 |                  |

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

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

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 Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.



|   | Application No.   | tion No. Applicant(s)   |  |  |  |
|---|---|---|--|--|--|
|   | 10/065,277  | CHISTYAKOV, ROMAN   |  |  |  |
| Notice of Allowability  | Examiner  | Art Unit  |  |  |  |
|   | Rodney G. McDonald  | 1753  |  |  |  |
| The MAILING DATE of this communication appearance All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313  | (OR REMAINS) CLOSED in this apport or other appropriate communication GHTS. This application is subject to              | plication. If not included will be mailed in due course. THIS |  |  |  |
| 1. A This communication is responsive to Amendment filed Aug  | <u>ust 8, 2006</u> .  |   |  |  |  |
| 2. The allowed claim(s) is/are <u>1-50</u> .  |   |   |  |  |  |
| <ol> <li>Acknowledgment is made of a claim for foreign priority una)</li></ol>  | been received. been received in Application No cuments have been received in this of this communication to file a reply | national stage application from the                           |  |  |  |
| 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give   |   |   |  |  |  |
| <ul> <li>5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted. <ul> <li>(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached</li> <li>1)  hereto or 2)  to Paper No./Mail Date</li> <li>(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date</li> <li>Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).</li> </ul> </li> <li>6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.</li> </ul> |   |   |  |  |  |
| <ul> <li>Attachment(s)</li> <li>1. ☐ Notice of References Cited (PTO-892)</li> <li>2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 12/03, 5/04</li> <li>4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>   | 5. ☐ Notice of Informal P 6. ☑ Interview Summary Paper No./Mail Dat 7. ☑ Examiner's Amenda                              | (PTO-413),<br>e <u>9-29-06</u> .                              |  |  |  |
| . •   | 9.  Other   | 1 / MAA   |  |  |  |

RODNEY G. MCDONALD PRIMARY EXAMINER



Application/Control Number: 10/065,277 Page 2

Art Unit: 1753

## **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kurt Rauschenbach on September 29, 2006.

The application has been amended as follows:

Page 3, paragraph 0020, after "FIG. 13" insert the phrase "includes FIGS. 13 A and 13B which".

Page 32, paragraph 0032, after "FIG. 13" insert the phrase "includes FIGS 13A and 13B which".

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

Applicant's arguments filed May 2, 2006 have been fully considered and are deemed persuasive. Specifically, Claims 1-50 are allowable over the prior art of record because the prior art of record does not teach the applied prior art applied in the previous office action does not teach the claimed apparatus or method wherein an ionization source generates a weakly-ionized plasma proximate to the anode and cathode assembly and a power supply generating a voltage pulse that produces an electric field between the cathode assembly and the anode, the power supply being configured to generate the voltage pulse with an amplitude and a rise time that increases an excitation rate of ground state atoms that are present in the weakly-ionized



Application/Control Number: 10/065,277 Page 3

Art Unit: 1753

plasma to create a multi-step ionization process that generates a strongly-ionized plasma, from the weakly ionized plasma, the multi-step ionization process comprising exciting the ground state atoms to generate excited atoms, and then ionizing the excited atoms within the weakly-ionized plasma without forming an arc discharge.

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."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Application/Control Number: 10/065,277 Page 4

Art Unit: 1753

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.

Rodney G. McDonald Primary Examiner

Art Unit 1753

RM September 29, 2006

