Notice of Allowability	Application No.	Applicant(s)	
	11/399,166	GLEBOV ET AL.	
	Examiner	Art Unit	
	Jessica T. Stultz	2873	

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY 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.

1. ☒ This communication is responsive to *Petition and Amendments filed July 10, 2007 and Amendments and Remarks filed April 5, 2007*.

2. ☒ The allowed claim(s) is/are *1,3-5,7-12 and 14-21*.

3. ☐ 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 the:
      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)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20070821.

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).

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.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20070821* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other *Response to Arguments*.

Jessica Stultz
August 21, 2007

Allowed Claims: 1, 3-5, 7-12, and 14-21

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 Phyllis Wood on August 21, 2007.

The application has been amended as follows:

1. In the specification, page 1, paragraph 1 (as amended on July 10, 2007), lines 8-9, the phrase "invention, and further claims the benefit of priority" should be --invention, and U.S. Patent Application Ser. No. 11/261,077 further claims the benefit of priority --;

2. In the specification, page 1, paragraph 1 (as amended on July 10, 2007), lines 10-11, the phrase "HR-01-1041-0004 and claims the benefit of priority" should be --HR-01-1041-0004; and the current application also claims the benefit of priority--;

3. Claim 1, lines 4-5, change the phrase "at the liquid crystal layer;" to --at the optically controlled liquid crystal spatial light modulator;--;

4. Claim 1, line 17, change the phrase "the volume Bragg gratings" to --the volume Bragg grating--;

5. Claim 8, line 1, change the phrase "The system of claim 4" to --The system of claim 5--;

6. Claim 10, lines 11-12, change the phrase "approximately 100 %, wherein the high efficiency PTR Bragg." to --approximately 100 %.--;

7. Claim 18, line 4, change the phrase "provided by PTR phase plate" to --provided by a PTR phase plate--;

8. Claim 18, lines 6-7, change the phrase "of the optically controlled liquid crystal spatial light modulator." to --of the liquid crystal layer.--;

9. Claim 20, line 5, change the phrase "Bragg gratings" to --Bragg grating--.

Drawings

Figures 1a-b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Examiner's Comments

For applicant's information, the petition to filed July 10, 2007 for an unintentionally delayed domestic priority claim has been granted as shown in the response mailed August 13, 2007.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: none of the prior art alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103.

Specifically regarding independent claim 1, none of the prior art alone or in combination disclose or teach of an optical device comprising an optically controlled liquid crystal spatial light modulator, a first laser source, a second laser source, a lens, and a collimator as claimed, specifically wherein the device further comprises a volume Bragg grating recorded in a photosensitive PTR glass for angular magnification of a collimated controlled beam to decrease a switching time, wherein the collimated controlled beam is directed to the volume Bragg grating so that the collimated controlled beam is not diffracted.

Specifically regarding independent claim 4, none of the prior art alone or in combination disclose or teach of a system for optical beam steering and switching comprising an optically controlled liquid crystal spatial light modulator, a first laser source, a second laser source, a lens, and a collimator as claimed, specifically wherein the device further comprises a volume Bragg grating recorded in a photosensitive PTR glass for angular magnification of a collimated controlled beam for large angle beam deflection to provide the optical beam steering and switching.

Specifically regarding independent claim 10, none of the prior art alone or in combination disclose or teach of a method comprising the steps of focusing a controlled laser beam on a liquid crystal layer; focusing an area of highest gradient power density of a controlling beam at a controlling wavelength on the liquid crystal layer as claimed, specifically comprising the step of

using a Bragg grating recorded in a photosensitive PTR glass for angular magnification of the controlled beam for large angle beam deflection.

Response to Arguments

Applicant's arguments, see Remarks and Petition, filed April 5, 2007 and July 10, 2007, with respect to the 103(a) rejections of independent claims 1, 4, and 10 (and therefore dependent claims 3, 5, 7-9, 11-12, and 14-21) wherein Efimov '497 is used a teaching reference, have been fully considered and are persuasive since the current application now claims priority to this reference and it is therefore not available as prior art. The 103(a) rejections of independent claims 1, 4, and 10 (and therefore dependent claims 3, 5, 7-9, 11-12, and 14-21) have been withdrawn.

Conclusion

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 Jessica T. Stultz whose telephone number is (571) 272-2339. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. 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.

Jessica T Stultz
Examiner
Art Unit 2873
August 21, 2007