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LIST OF PUBLICATIONS

1. PAPERS PUBLISHED IN PEER-REVIEW JOURNALS

9. **C. A. Brandus**, M. Greculeasa, A. Broasca, F. Voicu, L. Gheorghe, and N. Pavel, "Diode-pumped bifunctional Nd:LGSB laser passively Q-switched by a Cr^{4+}:YAG saturable absorber," Opt. Mater. Express **11**(3), 685-694 (2021).
8. G. Stanciu, F. Voicu, **C. A. Brandus**, C. E. Tihon, S. Hau, C. Gheorghe, G. Croitoru, L. Gheorghe, M. Dumitru, "Enhancement of the laser emission efficiency of Yb:Y_2O_3 ceramics via multi-step sintering method fabrication," Opt. Mater. **109**, 110411 (2020).
7. L. Gheorghe, A. Broasca, M. Greculeasa, F. Voicu, G. Stanciu, S. Hau, G. Croitoru, **C. A. Brandus**, C. Gheorghe, F. Khaled, P. Loiseau, G. Aka, "Czochralski-grown $La_xGd_yR_zSc_{4-x-y-z}(BO_3)_4$ (R = Yb, Nd) crystals - A review of recent developments," Opt. Mat. X **7**, 100052 (2020).
6. C. A. Brandus, "Analysis of the self-frequency doubling nonlinear mirror mode-locking threshold. The case of Nd:GdCOB bi-functional material," Rom. Rep. Phys. **72**(1), 401 (2020).
5. **C. A. Brandus**, S. Hau, A. Broasca, M. Greculeasa, F. M. Voicu, C. Gheorghe, L. Gheorghe, and T. Dascalu, "Efficient 1 μm Laser Emission of Czochralski-Grown Nd:LGSB Single Crystal," Materials **12**(12), 2005 (2019).
4. P. Ribes-Pleguezuelo, N. Pavel, E. Beckert, C. Damm, A. Bodemann, O. V. Grigore, G. Croitoru, **C. A. Brandus**, N. T. Vasile, R. Eberhardt, and A. Tünnermann, "Assembly process and optical performances for a golden laser spark-plug device," Opt. Eng. **58**(6), 065101 (2019).
3. **C.A. Brandus**, T. Dascalu, "Cavity design peculiarities and influence of SESAM characteristics on output performances of a Nd:YVO_4 mode locked laser oscillator," Opt. & Laser Techn. **111**, 452-458 (2019).
2. **C.A. Brandus**, L. Gheorghe, T. Dascalu, "Efficient laser operation at 1.06 μm in co-doped Lu^{3+}, Nd^{3+}:$GdCa_4O(BO_3)_3$ single crystal," Opt. Mat. **42**, 376-380 (2015).
1. G. Salamu, A. Ionescu, **C.A. Brandus**, O. Sandu, N. Pavel, and T. Dascalu, "High-Peak Power, Passively Q-switched, Composite, All-Poly-Crystalline Ceramics Nd:YAG/Cr^{4+}:YAG Laser and Generation of 532-nm Green Light," Laser Physics **22** (1), 68-73 (2012).

2. PROCEEDINGS OF INTERNATIONAL CONFERENCES

(Presentations at International Meetings published in extended version)

3. **C. A. Brandus**, L. Gheorghe, and T. Dascalu, "Infrared laser emission in a compact CW and quasi-CW diode pumped Nd^{3+}:GdLuCOB laser," Conference Proc. IEEE, Advanced Optoelectronics and Lasers (CAOL), 2013 International Conference on, 9 - 13 Sept. 2013, Sudak, Ukraine; pages 102-103, ISSN: 2160-1518, ISBN: 978-1-4799-0016-9, DOI: 10.1109/CAOL.2013.6657543.
2. G. Salamu, A. Ionescu, **C. Brandus**, O. Grigore, N. Pavel and T. Dascalu, "Generation of high-peak power 532-nm green pulses from composite, all-ceramics, passively Q-switched Nd:YAG/Cr^{4+}:YAG laser," Proc. SPIE **8882**, ROMOPTO 2012: Tenth Conference on Optics: Micro- to Nanophotonics III, 888206 (June 10, 2013); doi:10.1117/12.2032267; http://dx.doi.org/10.1117/12.2032267

1. A. Ionescu, M. Mernea, I. Vasile, **C. A. Brandus**, M. E. Barbanta-Patrascu, L. Tugulea, D. Mihailescu, and T. Dascalu, “Study of supported phospholipid bilayers by THz-TDS,” Proc. SPIE **8496**, Terahertz Emitters, Receivers, and Applications III, 849614 (2012); doi:10.1117/12.981603.

3. COMMUNICATIONS AT INTERNATIONAL CONFERENCES

(Technical Digests, manuscripts up to 3 pages)

23. G. Stanciu, F. Voicu, **C.-A. Brandus**, E.-C. Tihon, S. Hau, C. Gheorghe, G. Croitoru, L. Gheorghe, “Development of a new sintering technique for fabricating high-quality Nd^{3+}- and Yb^{3+}-doped Y_2O_3 Transparent Ceramics,” 2021 Conference on Lasers and Electro-Optics/Europe - European Quantum Electronics Virtual Conferences (CLEO®/Europe-EQEC 2021), 21-25 June 2021, presentation CE-P.4 (poster presentation).
22. M. Greculeasa, A. Broasca, F. Voicu, S. Hau, G. Croitoru, **C. Brandus**, G. Stanciu, C. Gheorghe, L. Gheorghe, “RE-doped LGSB (RE = Nd, Yb) as new high performance near-infrared laser crystals,” 2021 Conference on Lasers and Electro-Optics/Europe - European Quantum Electronics Virtual Conferences (CLEO®/Europe-EQEC 2021), 21-25 June 2021, presentation CA-P.7 (poster presentation).
21. **C. A. Brandus**, M. Greculeasa, A. Broasca, F. Voicu and L. Gheorghe, “Self-frequency-doubling Nd:LGSB laser passively Q-switched by Cr^{4+}:YAG saturable absorber,” OSA Laser Congress, 13 - 16 Oct. 2020, oral presentation AF2A.6.
20. **C. A. Brandus**, M. Greculeasa, A. Broasca, F. Voicu, L. Gheorghe, "Infrared and self-frequency-doubling emission characteristics of diode-pumped Nd:LGSB laser crystal," 9th EPS-QEOD Europhoton Virtual Conference, 30 August - 4 September 2020; poster presentation Tu-P1.11.
19. G. Stanciu, F. Voicu, **C. A. Brandus**, C. Tihon, S. Hau, C. Gheorghe, G. Croitoru, L. Gheorghe, "Enhancement of the laser emission efficiency of Yb:Y_2O_3 ceramics via multi-step sintering method fabrication," 9th EPS-QEOD Europhoton Virtual Conference, 30 August - 4 September 2020; poster presentation Tu-P1.13.
18. **C. A. Brandus**, A. Broasca, M. Greculeasa, L. Gheorghe, and T Dascalu, “Ultrashort ps-order Pulse Generation from a SESAM Mode-Locked Czochralski-Grown Nd:LGSB Laser Crystal,” OSA Laser Congress, Advanced Solid State Lasers Conference - ASSL 2019, 29 September - 03 October 2019, Vienna, Austria, ISBN: 978-1-943580-68-2, OSA Technical Digest (Optical Society of America, 2019), paper JTu3A.45 (poster presentation); https://doi.org/10.1364/ASSL.2019.JTu3A.45
17. L. Gheorghe, M. Greculeasa, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, **C. A. Brandus**, G. Croitoru, N. Pavel, “Undoped, Yb- and Nd-doped LGSB Czochralski-grown nonlinear and laser crystals,” Advanced Solid State Lasers Conference - ASSL 2019, 29 September - 03 October 2019, Vienna, Austria, ISBN: 978-1-943580-68-2, OSA Technical Digest (Optical Society of America, 2019), paper AM3A.2 (oral presentation); https://doi.org/10.1364/ASSL.2019.AM3A.2
16. **C. A. Brandus**, C. Gheorghe, S. Hau, A. Broasca, M. Greculeasa, F. Voicu, L. Gheorghe, and N. Pavel, “Highly efficient laser emission from a Novel Nd:LGSB crystal,” CLEO Europe - EQEC 2019 Conference, 23-27 June 2019, Münich, Germany, ISBN: 978-1-7281-0469-0, OSA Technical Digest (Optical Society of America, 2019), paper CA-P.44 (poster presentation).
15. G. Stanciu, L. Gheorghe, F. Voicu, **C. A. Brandus**, C. Tihon, G. Croitoru, and N. Pavel, “Fabrication and laser performance of highly transparent Nd:YAG ceramics,” TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-P08 (poster presentation).
14. P. Ribes-Pleguezuelo, E. Beckert, C. Damm, A. Bodemann, R. Eberhardt, A. Tünnermann, N. Pavel, O. V. Grigore, G. Croitoru, **C. A. Brandus**, and N. T. Vasile, “The “Golden” Laser Spark Plug Assembly Process,” The 7th Laser Ignition Conference, 22-26 April 2019, Pacifico Yokohama, Yokohama, Japan, presentation LIC7-2 (oral presentation).
13. **C. A. Brandus**, T. Dascalu, “Construction and optimization of a SESAM - mode locked Nd:YVO_4 laser,” Joint International Student Conference on Photonics & Modern Laser Application Conference 2018, ISCP-INDLAS 2018, September 3-7, 2018, Alba-Iulia, Romania; oral presentation; Book of abstracts ISBN 978-606-16-1001-3; pages 65-67.

12. G. Stanciu, C. A. Stanciu, **C. A. Brandus**, F. Voicu, T. Dascalu, "Laser Gain Transparent Ceramics Media," The 5th Laser Ignition Conference, 20-23 June 2017, Bucharest, Romania, ISBN: 978-1-943580-32-3, OSA Technical Digest (online) (Optical Society of America, 2017), paper LWA5.5, https://doi.org/10.1364/LIC.2017.LWA5.5 (poster presentation).
11. I. O. Vorona, R. P. Yavetskiy, A. Doroshenko, S. Parkhomenko, A. Tolmachev, L. Gheorghe, M. Greculeasa, C. Gheorghe, S. Hau, **C. Brandus**, G. Croitoru, "Nd^{3+}:YAG Ceramic Materials with Efficient Laser Emission under Diode-Laser Pumping," The 5th Laser Ignition Conference, 20-23 June 2017, Bucharest, Romania, ISBN: 978-1-943580-32-3, OSA Technical Digest (online) (Optical Society of America, 2017), paper LWA5.4 https://doi.org/10.1364/LIC.2017.LWA5.4 (poster presentation).
10. M. Chaika, K. Chernomorets, A. Doroshenko, S. Parkhomenko, A. Tolmachev, I. Vorona, R. Yavetskiy, M. Greculeasa, **C.A. Brandus**, "Synthesis of Mg^{2+}, Cr^{4+}:YAG optical ceramics for passive Q-switch lasers," International Conference on Oxide Materials for Electronic Engineering – fabrication, properties and applications OMEE-2017, May 29 - June 2, 2017 Lviv, Ukraine, Section 5 Materials for quantum and optoelectronics and detectors of radiation; Mo-P18 (poster presentation) http://science.lpnu.ua/omee-2017
9. **C.A. Brandus**, L. Gheorghe, A. Achim, G. Stanciu, and T. Dascalu, "Evaluation of co-doped Lu^{3+}, Nd^{3+}:$GdCa_4O(BO_3)_3$ single crystal, a potential self-doubling material with emission in green spectral range," CLEO Europe - EQEC 2015 Conference, 21-25 June 2015, Münich, Germany, ISBN: 978-1-4673-7475-0, OSA Technical Digest (Optical Society of America, 2015), paper CA-P.32 (poster presentation).
8. T. Dascalu, A. Ionescu, G. Salamu, O. Grigore, M. Dinca, F. Voicu, **C. Brandus**, and N. Pavel, "Novel Thin Disk Lens Shaped Composite Nd:YAG/YAG Ceramic Laser," CLEO Europe - EQEC 2015 Conference, 21-25 June 2015, Münich, Germany, ISBN: 978-1-4673-7475-0, OSA Technical Digest (Optical Society of America, 2015), paper CA-10.4 (oral presentation).
7. **C. A. Brandus**, L. Gheorghe, F. Voicu, and T. Dascalu, "Laser Emission at 1.06 μm in Nd:GdLuCOB and Nd:GdCOB Crystals," The 14th International Balkan Workshop on Applied Physics, July 2-4, 2014, Constanta, Romania, presentation S2-OP4, Book of Abstracts p. 113 (oral presentation).
6. **C.A. Brandus**, L. Gheorghe, T. Dascalu, "Infrared laser emission in a compact CW and quasi-CW diode pumped Nd^{3+}:GdLuCOB laser", International Conference on Advanced Optoelectronics and Laser, CAOL 2013, 9-13 September 2013, Sudak, Crimea, Ukraine (oral presentation).
5. **C. A. Brandus**, F. Voicu, L. Gheorghe, and T. Dascalu, "Laser emission at 1061 nm in a diode-pumped Nd:GdLuCOB laser," International Conference "Modern Laser Applications" Third Edition, INDLAS 2013, 20-24 May 2013, Bran, Romania, presentation O10 (oral presentation).
4. G. Salamu, A. Ionescu, **C. A. Brandus**, O. Sandu, N. Pavel, and T Dascalu, "Generation of high-peak power 532-nm green pulses from passively Q-switched, all-poly-crystalline Nd:YAG/Cr^{4+}:YAG ceramics laser," Micro- to Nano-Photonics III, ROMOPTO 2012, 10th International Conference on Optics, 3-6 September 2012, Bucharest, Romania, presentation II.P.1; poster presentation.
3. A. Ionescu, M. Mernea, I. Vasile, **C. A. Brandus**, M.E. Barbanta-Patrascu, L. Tugulea, D. Mihailescu, and T. Dascalu, "Study of supported phospholipid bilayers by THz-TDS," SPIE Optics and Photonics Conference, 12-16 August 2012, San Diego, USA, paper 8496-39; poster presentation.
2. N. Pavel, G. Salamu, O. Sandu, A. Ionescu, **C. Brandus**, F. Voicu, and T. Dascalu, "Efficient, simultaneous dual-wavelength emission at 1.06 and 1.34 μm in Nd:$GdVO_4$ laser crystal," 5th EPS-QEOD EUROPHOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, Stockholm, Sweden, presentation TuP.11; poster presentation.
1. A. Ionescu, **C.A. Brandus**, O. Sandu, M.E. Barbanta-Patrascu, L. Tugulea, and T. Dascalu, "THz domain spectroscopy in studying supported lipid membranes," International Student Conference on Photonics 2012, SPIE Student Chapter, 8-11 May 2012, Sinaia, Romania. Book of abstracts, ISSN 2284-9750, p. 65; poster presentation.

4. OTHER CONTRIBUTIONS

2. **C. A. Brandus**, T.Dascalu, (**2018**) "Developing of an efficient $NdYVO_4$ mode locked laser oscillator: design and output performances," Bucharest University Faculty of Physics 2018 Meeting, Section: Optics, Spectroscopy, Plasma and Lasers, June 21, 2018, Magurele, Ilfov, Romania (oral presentation).
1. **C.A. Brandus**, L. Gheorghe, and T. Dascalu, (**2013**) "Continuous-wave laser emission in a diode-pumped Nd^{3+}:GdLuCOB laser crystal," 540. Wilhelm und Else Heraeus-Seminar "Modern Concepts of Continuous Wave and Pulsed High Power Lasers", July 14-17, 2013 / Physikzentrum Bad Honnef, Germany (poster presentation).