Gabriela CROITORU (SALAMU)
NATIONAL INSTITUTE FOR LASER, PLASMA AND RADIATION PHYSICS - INFLPR
LABORATORY OF SOLID-STATE QUANTUM ELECTRONICS

LIST OF PUBLICATIONS

A. PAPERS PUBLISHED IN PEER-REVIEW JOURNALS

37. G. Croitoru, F. Jipa, M. Greculeasa, A. Broasca, F. Voicu, L Gheorghe and N. Pavel, "Buried depressed-cladding waveguides inscribed in Nd^{3+} and Yb^{3+} doped CLNGG laser crystals by picosecond-laser beam writing," Materials **17**(8), 1758 (2024).
36. A. Broasca, M. Greculeasa, F. Voicu, S. Hau, C. Gheorghe, G. Croitoru, N. Pavel, G. Stanciu, A. Petris, P. Gheorghe, F. Albota, A. Serban, L. Gheorghe, "LGYSB:Nd - high-performance lasing in the near-infrared region," J. Am. Chem. Soc. **146**(3), 2196-2207 (2024).
35. G. Croitoru, F. Jipa, N. Pavel, "Laser emission from buried depressed-cladding waveguides inscribed in Nd:YAG ceramics by picosecond-laser beam writing," Opt. Mater. **148**, 114772 (2024).
34. C. Dumitrache, N. T. Vasile, G. Croitoru, N. Pavel, "Laser-induced ignition of methane-air mixtures by a four-beam, pulse-burst mode passively Q-switched Nd:YAG/Cr^{4+}:YAG laser," Results Phys. **42**, 105958 (2022).
33. 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).
32. A. Broasca, M. Greculeasa, F. Voicu, S. Hau, G. Croitoru, C. Gheorghe, N. Pavel, L. Gheorghe, "Efficient near-infrared laser emission and nonlinear optical properties of a newly developed Yb:LYSB laser crystal," J. Alloys & Comp. **844**, 156143 (2020).
31. M. Greculeasa, A. Broasca, F. Voicu, S. Hau, G. Croitoru, G. Stanciu, C. Gheorghe, N. Pavel, L. Gheorghe, "Bifunctional $La_xNd_yGd_zSc_{4-x-y-z}(BO_3)_4$ crystal: Czochralski growth, linear and nonlinear optical properties, and near-infrared laser emission performances," Opt. & Laser Techn. **131**, 106433 (2020).
30. 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).
29. A. G. Doroshenko, R. P. Yavetskiy, S. V. Parkhomenko, I. O. Vorona, O. S. Kryzhanovska, P. V. Mateychenko, A. V. Tolmachev, E. A. Vovk, V. A. Bovda, G. Croitoru, L. Gheorghe, "Effect of the sintering temperature on the microstructure and optical properties of YAG:Cr,Mg ceramics," Opt. Mater. **98**, 109505 (2019).
28. R. P. Yavetskiya, A. G. Doroshenko, S. V. Parkhomenko, I. O. Vorona, A. V. Tolmachev, D. Yu. Kosyanov, A. A. Vornovskikh, A. M. Zakharenko, V. Yu. Mayoroc, L. Gheorghe, G. Croitoru, N. Pavel, V. V. Multian, and V. Ya. Gayvoronsky, "Microstructure evolution during reactive sintering of $Y_3Al_5O_{12}$:Nd^{3+} transparent ceramics: Influence of green body annealing," J. Eur. Ceram. Soc. **39**(13), 3867-3875 (2019).
27. 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).
26. G. Stanciu, L. Gheorghe, F. Voicu, S. Hau, C. Gheorghe, G. Croitoru, M. Enculescu, and R.P. Yavetskiy, "Highly transparent Yb:Y_2O_3 ceramics obtained by solid-state reaction and combined sintering procedures," Ceramics International **45**(3), 3217-3222 (2019).
25. G. Croitoru (Salamu) and N. Pavel, "Passive Q-Switching by Cr^{4+}:YAG Saturable Absorber of Buried Depressed-Cladding Waveguides Obtained in Nd-Doped Media by Femtosecond Laser Beam Writing," Materials **11**(9), 1689 (2018).

24. N. Pavel, M. Bärwinkel, P. Heinz, D. Brüggemann, G. Dearden, G. Croitoru, O. V. Grigore, "Laser Ignition - Spark Plug Development and Application in Reciprocating Engines," Prog. Quantum Electron. **58**, 1-32 (2018).
23. R. P. Yavetskiy, S. V. Parkhomenko, I. O. Vorona, A. V. Tolmachev, D. Yu Kosyanov, V. G. Kuryavyi, V. Yu. Mayorov, L. Gheorghe, G. Croitoru, M. Enculescu, "Effect of green body annealing on laser performance of YAG:Nd^{3+} ceramics," Ceram. Int. **44**(4), 4487-4490 (2018).
22. G. Croitoru (Salamu), F. Jipa, and N. Pavel, "Passive Q-switch laser operation of circular, buried depressed-cladding waveguides realized by direct fs-laser beam writing in Nd:YAG/Cr^{4+}:YAG composite media," Opt. Mat. Express **7**(7), 2496-2504 (2017).
21. I. O. Vorona, R. P. Yavetskiy, A. G. Doroshenko, S. V. Parkhomenko, A. V. Tolmachev, V. N. Baumer, D. Yu Kosyanov, V. I. Vovna, V. G. Kuryavyi, M. Greculeasa, L. Gheorghe, S. Hau, C. Gheorghe, G. Croitoru, "Structural-phase state and lasing of 5-15 at.% Yb^{3+}:$Y_3Al_5O_{12}$ optical ceramics," J. Eur. Cer. Soc. **37**(13), 4115-4122 (2017).
20. O. V. Grigore, G. Croitoru, T. Dascalu, N. Pavel, "Diode-laser edge-pumped Nd:YAG/YAG lens-shaped composite laser," Opt. & Laser Techn. **94**, 86-89 (2017).
19. T. Dascalu, G. Croitoru, O. Grigore, N. Pavel, "High-peak power passively Q-switched Nd:YAG/Cr^{4+}:YAG composite laser with multiple-beam output," Photonics Research, **4**(6), 267-271 (2016).
18. F. Khaled, P. Loiseau, F. Voicu, A. Achim, S. Hau, C. Gheorghe, G. Croitoru, N. Pavel, L. Gheorghe, G. Aka, "Spectroscopic properties and laser performances of Yb:LGSB nonlinear optical crystal," J. Alloys & Comp. **688** (Part A), 510-517 (2016).
17. G. Salamu and N. Pavel, "Power scaling from buried depressed-cladding waveguides realized in Nd:YVO_4 by femtosecond-laser beam writing," Opt. & Laser Techn. **84**, 149-154 (2016).
16. G. Salamu, F. Jipa, M. Zamfirescu, and N. Pavel, "Watt-Level Output Power Operation from Diode-Laser Pumped Circular Buried Depressed-Cladding Waveguides Inscribed in Nd:YAG by Direct Femtosecond-Laser Writing," IEEE Photonics Journal **8**(1), art. 1500209 (2016).
15. N. Pavel, T. Dascalu, G. Salamu, M. Dinca, N. Boicea, and A. Birtas, "Ignition of an automobile engine by high-peak power Nd:YAG/Cr^{4+}:YAG laser-spark devices," Opt. Express **23**(26), 33028-33037 (2015).
14. T. Dascalu, G. Salamu, O. Sandu, M. Dinca, and N. Pavel, "Scaling and passively Q-switch operation of a Nd:YAG laser pumped laterally through a YAG prism," Opt. & Laser Techn. **67**, 164-168 (2015).
13. N. Pavel, G. Salamu, F. Jipa, and M. Zamfirescu, "Diode-laser pumping into the emitting level for efficient lasing of depressed cladding waveguides realized in Nd:YVO_4 by the direct femtosecond-laser writing technique," Opt. Express **22** (19), 23057-23065 (2014).
12. N. Pavel, G. Salamu, F. Voicu, F. Jipa, and M. Zamfirescu, "Cladding waveguides realized in Nd:YAG laser media by direct writing with a femtosecond-laser beam," Proceedings of the Romanian Academy Series A - Mathematics Physics Technical Sciences Information Science **15** (2), 151-158 (2014).
11. G. Salamu, F. Jipa, M. Zamfirescu, and N. Pavel, "Cladding waveguides realized in Nd:YAG ceramic by direct femtosecond-laser writing with a helical movement technique," Opt. Mater. Express **4** (4), 790-797 (2014).
10. G. Salamu, F. Jipa, M. Zamfirescu, and N. Pavel, "Laser emission from diode-pumped Nd:YAG ceramic waveguide lasers realized by direct femtosecond-laser writing technique," Opt. Express **22** (5), 5177-5182 (2014).
9. G. Salamu, F. Voicu, N. Pavel, T. Dascalu, F. Jipa, and M. Zamfirescu, "Laser emission in diode-pumped Nd:YAG single-crystal waveguides realized by direct femtosecond-laser writing technique," Rom. Reports in Physics **65** (3), 943-953 (2013).
8. N. Pavel, G. Salamu, F. Voicu, F. Jipa, M. Zamfirescu, and T. Dascalu, "Efficient laser emission in diode-pumped Nd:YAG buried waveguides realized by direct femtosecond-laser writing," Laser Physics Letters **10** (9), 095802 (2013).
7. T. Dascalu, G. Salamu, O. Sandu, F. Voicu, and N. Pavel, "Novel laterally pumped by prism laser configuration for compact solid-state lasers," Laser Physics Letters **10** (5), 05580 (2013).

6. G. Salamu, E. Osiac, C. Dascalu, N. Pavel, and T. Dascalu, “Simultaneous Dual-Wavelength Operation at 1.06 and 1.34 µm in Nd-vanadate Laser Crystals,” Laser Physics **22** (5), 866-871 (2012).
5. O. Sandu, G. Salamu, N. Pavel, T. Dascalu, D. Chuchumishev, A. Gaydardzhiev, and I. Buchvarov, “High-peak power, passively Q-switched, composite, all-poly-crystalline ceramics Nd:YAG/Cr^{4+}:YAG lasers,” Quantum Electronics **42** (3), 211-215 (2012).
4. 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).
3. G. Salamu, O. Sandu, F. Voicu, M. Dejanu, D. Popa, S. Parlac, C. Ticos, N. Pavel, and T. Dascalu, "Study of Flame Development in 12% Methane-Air Mixture Ignited by Laser," Optoelectronics and Advanced Materials - Rapid Communications **5** (11), 1166-1169 (2011).
2. S. Georgescu, A.M. Voiculescu, G. Salamu, H. Niciu, D. Niciu, M. Popescu, A. Lörinczi, A. Velea, I.D. Simandan, “Synthesis and luminescence properties of Nd-doped chalcogenide glass $(Ge_5As_2S_{13})(NdCl_3)_x$=(x=0.3%, 0.5%),” Chalcogenide Letters **7** (11), 621-624 (2010).
1. N. Pavel, T. Dascalu, G. Salamu, O. Sandu, A. Leca, and V. Lupei, “Q-switched Nd lasers pumped directly into the $^4F_{3/2}$ emitting level,” Opt. Commun. **282** (24), 4749-4754 (2009).

B. PROCEEDINGS OF INTERNATIONAL CONFERENCES

(Presentations at International Meetings published in extended version)

5/C63. N. Pavel, G. Croitoru, O.-V. Grigore, N.-T. Vasile, T. Dascalu, A. Birtas, N. Boicea, M. Dinca, F. Draghici, and R. Chiriac, “Laser spark-plug development: from experimental device to successful engine ignition,” Proc. SPIE **12170**, Advances in 3OM: Opto-Mechatronics, Opto-Mechanics, and Optical Metrology, 121700M (5 May 2022); https://doi.org/10.1117/12.2620045

4/C53. A. Birtas, N. Boicea, G. Croitoru, M. Dinca, N. Pavel, F. Draghici, and R. Chiriac, “On the possibility to improve petrol engine operation by laser ignition,” Energy Procedia **157**, 1022-1028 (2019); Proceeding paper, Technologies and Materials for Renewable Energy, Environment and Sustainability (TMREES), TMREES18, 19-21 Sept. 2018, Athens, Greece. https://doi.org/10.1016/j.egypro.2018.11.269

3/C45. A. Birtas, N. Boicea, F. Draghici, R. Chiriac, G. Croitoru, M. Dinca, T. Dascalu, and N. Pavel, “On the assessment of performance and emissions characteristics of a SI engine provided with a laser ignition system,” IOP Conf. Ser.: Mater. Sci. Eng. **252**, art. 012071 (2017); doi:10.1088/1757-899X/252/1/012071

2/C19. G. Salamu, F. Voicu, F. Jipa, M. Zamfirescu, T. Dascalu, and N. Pavel, "Laser emission from diode-pumped Nd:YAG cladding waveguides obtained by direct writing with a femtosecond-laser beam," Proc. SPIE **9135**, Laser Sources and Applications II, 91351F (May 1, 2014); doi:10.1117/12.2052250; http://dx.doi.org/10.1117/12.2052250

1/C11. 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

C. COMMUNICATIONS AT INTERNATIONAL CONFERENCES

(Technical Digests, manuscripts up to 3 pages)

85. L. Gheorghe, A. Broasca, M. Greculeasa, F. Voicu, S. Hau, C. Gheorghe, G. Croitoru, N. Pavel, "High efficiency laser emission in the near-infrared range from a new LGYSB:Nd laser crystal," The 8th European Conference on Crystal Growth - ECCG8, 21-25 July 2024, Warsaw, Poland.
84. O. V. Grigore, G. Croitoru, G. Stanciu, N. Pavel, “Study of multi-point laser ignition of CH_4/air and H_2/air mixtures in a constant-volume combustion chamber," Tmrees24Fr International Conference on Technologies and Materials for Renewable Energy, Environment and Sustainability, Metz, France, July 8-10, 2024 (oral presentation, online).

83. G. Croitoru, F. Jipa, and N. Pavel, ”Buried depressed-cladding waveguides realized in Nd:YAG ceramics with high-repetition rate picosecond-laser pulses,” The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crişan, Romania (O3, oral presentation).
82. O. V. Grigore, G. Croitoru, G. Stanciu, A. Craciun, and N. Pavel, ”Laser ignition of H_2/air mixtures by a high-peak power passively Q-switched Nd:YAG/Cr^{4+}:YAG laser,” The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crişan, Romania (O5, oral presentation).
81. L. Gheorghe, A. Broasca, M. Greculeasa, F. Voicu, S. Hau, C. Gheorghe, G. Stanciu, G. Croitoru, and N. Pavel, ”Nd:LYSB as a new laser and nonlinear optical crystal grown by the Czochralski method,” The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crişan, Romania (P2-O1, poster presentation).
80. A. Broasca, M. Greculeasa, F. Voicu, S. Hau, C. Gheorghe, G. Croitoru, N. Pavel, and L. Gheorghe, ”LGYSB:Nd - a new laser crystal with enhanced performance for high-efficiency laser applications in the near-infrared region,” The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crişan, Romania (P2-O2, poster presentation).
79. G. Stanciu, F. Voicu, C. Tihon, A.M. Voiculescu, S Hau, C. Gheorghe, G. Croitoru, L. Gheorghe, and N. Pavel, ”Multilayered Y_2O_3/RE^{3+}:Y_2O_3 (RE= Nd, Yb) transparent ceramics: Fabrication process and laser performances,” The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crişan, Romania (P2-O5, poster presentation).
78. G. Croitoru, F. Jipa, N. Pavel, “Buried depressed-cladding waveguides inscribed in Nd:YAG ceramics by picosecond-laser beam writing," The 10th Tiny Integrated Laser and Laser Ignition Conference 2024, 24-26 April 2024, Pacifico Yokohama, Yokohama, Japan, presentation TILA-LICp-03 (poster presentation).
77. N. Pavel, O.-V. Grigore, G. Stanciu, G. Croitoru, “Characteristics of Laser Ignition in Methane/Air and Hydrogen/Air Mixtures in a Constant-Volume Combustion Chamber,” 2nd International Conference Advances in 3OM: Opto-Mechatronics, Opto-Mechanics and Optical Metrology, 11-14 December 2023, Timisoara, Romania (paper OPT23-13, keynote presentation). Book of Abstracts, ISSN 2810-5249.
76. G. Croitoru and N. Pavel, “Buried depressed-cladding waveguides lasers realized in Nd-doped laser media by direct writing with a fs-laser beam,” Markus Pessa International Summer School "New Frontiers in Optical Technologies," 7 - 11 August 2023, Tampere University, Finland (poster presentation).
75. O.-V. Grigore, C. Dumitrache, G. Croitoru, and N. Pavel, “Aspects of CH_4-air mixtures laser ignition by a multi-point, pulse-train passively Q-switched Nd:YAG/Cr^{4+}:YAG laser,” Markus Pessa International Summer School "New Frontiers in Optical Technologies," 7 - 11 August 2023, Tampere University, Finland (poster presentation).
74. G. Stanciu, F. Voicu, C. A. Brandus, C. E. Tihon, S. Hau, C. Gheorghe, G. Croitoru, L. Gheorghe, N. Pavel, ”Rare-earths doped Y_2O_3 laser materials,” International Conference on Crystal Growth and Epitaxy - ICCGE-20, 30 July - 04 August 2023, Naples, Italy; (poster presentation PS 2 - P30).
73. A. Broasca, M. Greculeasa, F. Voicu, S. Hau, G. Stanciu, C. Gheorghe, G. Croitoru, N. Pavel, L. Gheorghe, ”Growth and optical properties of Nd:LYSB as a new laser and nonlinear optical borate crystal,” International Conference on Crystal Growth and Epitaxy - ICCGE-20, 30 July - 04 August 2023, Naples, Italy; (oral presentation Optical Crystals 4 - O3).
72. M. Greculeasa, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, G. Croitoru, N. Pavel, L. Gheorghe, ”Development of LYSB and Yb-doped LYSB crystals as new candidates for the next generation of nonlinear optical and/or laser crystals,” International Conference on Crystal Growth and Epitaxy - ICCGE-20 2023, 30 July - 04 August, Naples, Italy; (oral presentation Optical Crystals 6 - O4).

71. G. Croitoru, I. Anghel, F.-M. Voicu, M. Greculeasa, A. Broasca, L.-M. Gheorghe, N. Pavel, “Buried Depressed-Cladding Waveguides Fabricated in RE^{3+}:CLNGG Laser Crystals using Direct Laser Writing Technique,” 2023 Conference on Lasers and Electro-Optics/Europe - European Quantum Electronics Conferences (CLEO®/Europe-EQEC 2023), 26-30 June 2023, presentation CA-P.4 (poster presentation)); doi: 10.1109/CLEO/Europe-EQEC57999.2023.10232516.

70. C. Dumitrache, G. Croitoru, N. Pavel, “Laser ignition of CH_4-air mixtures by a four-beam passively Q-switched Nd:YAG/Cr^{4+}:YAG laser operating in burst mode," The 9th Tiny Integrated Laser and Laser Ignition Conference 2022, 19-21 April 2023, Pacifico Yokohama, Yokohama, Japan, presentation TILA-LIC2-02 (oral presentation).

69. L. M. Gheorghe, A. Broasca, M. Greculeasa, F. Voicu, G. Croitoru, S. Hau, C. Gheorghe, N. Pavel, “Yb- and Nd-doped $La_xGd_ySc_{4-x-y}(BO_3)_4$ (LGSB) as new high performance near-infrared laser crystals," The 9th Tiny Integrated Laser and Laser Ignition Conference 2022, 19-21 April 2023, Pacifico Yokohama, Yokohama, Japan, presentation TILA-LICp-01 (poster presentation).

68. G. Stanciu, F. Voicu, C. A. Brandus, C. E. Tihon, S. Hau, C. Gheorghe, G. Croitoru, L. M. Gheorghe, N. Pavel, “RE^{3+}:Y_2O_3 transparent ceramic media realized via a multi-step sintering method," The 9th Tiny Integrated Laser and Laser Ignition Conference 2022, 19-21 April 2023, Pacifico Yokohama, Yokohama, Japan, presentation TILA-LICp-02 (poster presentation).

67. G. Croitoru, I. Anghel, F. Voicu, M. Greculeasa, A. Broasca, L. M. Gheorghe, N. Pavel, “Waveguides realized in RE^{3+}:CLNGG laser crystals by direct writing with a fs-laser beam," The 9th Tiny Integrated Laser and Laser Ignition Conference 2022, 19-21 April 2023, Pacifico Yokohama, Yokohama, Japan, presentation TILA-LICp-03 (poster presentation).

66. N. T. Vasile, G. Croitoru, C. Dumitrache, and N. Pavel, ”Multi-point, pulse-train laser ignition of methane-air mixtures by a high-peak power passively Q-switched Nd:YAG/Cr^{4+}:YAG compact laser,” 10th EPS-QEOD EUROPHOTON Conference, 28 Aug. - 2 Sept. 2022, Hannover, Germany; presentation TUE-P-1.1. EPJ Web Conf. **267**, 01002 (2022), https://doi.org/10.1051/epjconf/202226701002.

65. G. Stanciu, F. Voicu, C. A. Brandus, C. E. Tihon, S. Hau, C. Gheorghe, G. Croitoru, L. Gheorghe, N. Pavel, "Fabrication and laser performances of Nd- and Yb-doped $Y_3Al_5O_{12}$ transparent ceramics," International Conference on Laser, Plasma and Radiation - Science and Technology, June 7-10, 2022 Bucharest, Romania; poster presentation P2-06.

64. N. T. Vasile, G. Croitoru, N. Pavel, “"Multi-point, burst pulse-train laser ignition of methane-air mixtures by a high-peak power passively Q-switched Nd:YAG/Cr^{4+}:YAG multi-beam laser", The 8th Tiny Integrated Laser and Laser Ignition Conference 2022, 20-22 April 2022, Pacifico Yokohama, Yokohama, Japan, presentation LIC2-03 (oral presentation).

B5/63. N. Pavel, G. Croitoru, O.-V. Grigore, N.-T. Vasile, T. Dascalu, A. Birtas, N. Boicea, M. Dinca, F. Draghici, R. Chiriac, “Laser Spark-Plug Development - From Experimental Device to Successfully Engine Ignition,” 1st International Conference Advances in 3OM: Opto-Mechatronics, Opto-Mechanics and Optical Metrology, 13-16 December 2021, Timisoara, Romania; paper 3OM100-55 (keynote presentation).

62. A. Broasca, M. Greculeasa, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, G. Croitoru, N. Pavel, L. Gheorghe, “LYSB and Yb-Doped LYSB crystals: Czochralski growth, optical characterization and laser emission performances,” OSA Laser Congress Virtual Event, 03 Oct. - 07 Oct. 2021; oral presentation ATh1A.6.

61. 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).

60. 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).

59. A. Broasca, M. Greculeasa, F. Voicu, S. Hau, G. Croitoru, C. Gheorghe, N. Pavel, L. Gheorghe, "New Yb:LYSB bifunctional crystal for efficient near-infrared laser emission and self-frequency doubling conversion," 9th EPS-QEOD Europhoton Virtual Conference, 30 August - 4 September 2020; poster presentation Tu-P1.12.

58. N. Pavel, R. Chiriac, A. Birtas, N. Boicea, F. Draghici, G. Croitoru, and M. Dinca, "Lean-mixture operation of a passenger car gasoline engine ignited by passively Q-switched Nd:YAG/Cr^{4+}:YAG laser spark plugs," CLEO Europe - EQEC 2019 Conference, 23-27 June 2019, Münich, Germany, presentation CM-P.13 (poster presentation).

57. L. Gheorghe, M. Greculeasa, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, G. Croitoru, and N. Pavel, "Pure, Yb- and Nd-doped $La_xGd_ySc_{4-x-y}(BO_3)_4$ Czochralski-grown nonlinear optical and laser crystals," TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-I02 (invited presentation).

56. F. M. Voicu, L. Gheorghe, M. Greculeasa, A. Broasca, C. Gheorghe, S. Hau, and G. Croitoru, "Nd^{3+} doped $La_xGd_ySc_{4-x-y}(BO_3)_4$ as bifunctional laser and nonlinear crystal," TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-P06 (poster presentation).

55. 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).

54. 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).

B4/53. A. Birtas, N. Boicea, G. Croitoru, M. Dinca, N. Pavel, F. Draghici, R. Chiriac, "On the possibility to improve petrol engine operation by laser ignition," TMREES Conference Series, Technologies and Materials for Renewable Energy, Environment and Sustainability, TMREES18, 19-21 Sept. 2018, Athens, Greece; presentation 175.

52. N. Pavel, G. Croitoru, O. V. Grigore, M. Dinca, T. Dascalu, "Laser ignition - A review of laser spark plug development and achievements on engine ignition," Joint International Student Conference on Photonics & Modern Laser Application Conference 2018, ISCP-INDLAS 2018, September 3-7, 2018, Alba-Iulia, Romania; Plenary lesson; Book of Abstracts ISBN 978-606-16-1001-3; pages 19-21.

51. G. Croitoru and N. Pavel, "Passive Q-switch by Cr^{4+}:YAG saturable absorber laser operation of circular, buried depressed-cladding waveguides inscribed by fs-laser beam in Nd:YAG and Nd:YVO_4," 8th EPS-QEOD EUROPHOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, 02-07 September, 2018, Barcelona, Spain; Europhysics Conference Abstracts Volume 42C, ISBN 979-10-96389-10-0; presentation WeP.16 (poster presentation).

50. G. Dearden, N. Pavel, M. Bärwinkel, P. Heinz, D. Brüggemann, G. Croitoru, and O. V. Grigore, "Laser spark plug developments for engine ignition," The 6th Laser Ignition Conference, 23-27 April 2018, Pacifico Yokohama, Yokohama, Japan, presentation LIC3-1 (invited talk).

49. A. Birtas, N. Boicea, F. Draghici, R. Chiriac, G. Croitoru, M. Dinca, and N. Pavel, "On the performances of a 4-cylinder automobile engine with classical spark plug and laser ignition systems," The 6th Laser Ignition Conference, 23-27 April 2018, Pacifico Yokohama, Yokohama, Japan, presentation LIC3-5 (oral presentation).

48. N. Pavel, O. V. Grigore, G. Croitoru, and M. Dinca, "A high-peak power passively Q-switched Nd:YAG/Cr^{4+}:YAG compact laser with multiple-beam output," The 6th Laser Ignition Conference, 23-27 April 2018, Pacifico Yokohama, Yokohama, Japan, presentation LICp6-1 (poster presentation).

47. L. Gheorghe, F. Voicu, M. Greculeasa, A. Achim, F. Khaled, P. Loiseau, G. Aka, S. Hau, C. Gheorghe, G. Croitoru, "Pure and Yb-doped $La_xGd_ySc_{4-x-y}(BO_3)_4$ incongruent borates type crystal: Czochralski growth, NLO properties and laser performances," TIM 17 Physics Conference, 25 - 27 May 2017, Timisoara, Romania; invited talk CM-I01.

B3/46. A. Birtas, N. Boicea, F. Draghici, R. Chiriac, G. Croitoru, M. Dinca, T. Dascalu and N. Pavel, "On the assessment of performance and emissions characteristics of a SI engine provided with a

laser ignition system," CAR 2017, The 11th Edition of The International Congress of Automotive and Transport Engineering, November 8-11 2017, University of Pitesti, Pitesti, Romania; presentation CAR 2017_090.

45. N. Pavel, A. Birtas, M. Dinca, G. Croitoru, T. Dascalu, and N. Boicea, "Ignition by Laser Sparks of a Gasoline Automobile Engine," IONS Balvanyos 2017, International OSA Network of Student, 25-28 July 2017, Balvanyos, Romania (invited talk); Book of Abstracts, ISBN 978-606-16-0903-1, pages 34-36.

44. I. O. Vorona, R. P. Yavetskiy, A. Doroshenko, S. Parkhomenko, A. Tolmachev, L. Gheorghe, M. Greculeasa, C. Gheorghe, S. Hau, C. A. Brandus, and 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; OSA Technical Digest (online) (Optical Society of America, 2017), paper LWA5.4 (poster presentation); ISBN: 978-1-943580-32-3 (https://doi.org/10.1364/LIC.2017.LWA5.4).

43. A. Birtas, N. Boicea, G. Croitoru, M. Dinca, T. Dascalu, N. Pavel, "Combustion Characteristics of a Gasoline-Air Mixture Laser Ignition," The 5th Laser Ignition Conference, 20-23 June 2017, Bucharest, Romania; OSA Technical Digest (online) (Optical Society of America, 2017), paper LFA3.4 (oral presentation).; ISBN: 978-1-943580-32-3 (https://doi.org/10.1364/LIC.2017.LFA3.4).

42. N. Pavel, A. Birtas, G. Croitoru, M. Dinca, N. Boicea, T. Dascalu, "Laser Ignition of a Gasoline Engine Automobile," The 5th Laser Ignition Conference, 20-23 June 2017, Bucharest, Romania; OSA Technical Digest (online) (Optical Society of America, 2017), paper LWA4.3 (oral presentation); ISBN: 978-1-943580-32-3 (https://doi.org/10.1364/LIC.2017.LWA4.3).

41. G. Croitoru, O. V. Grigore, M. Dinca, N. Pavel, M. Bärwinkel, P. Heinz, D. Brüggemann, "Aspects of Air-Breakdown with a High-Peak Power Passively Q-Switched Nd:YAG/Cr^{4+}:YAG Laser," The 5th Laser Ignition Conference, 20-23 June 2017, Bucharest, Romania; OSA Technical Digest (online) (Optical Society of America, 2017), paper LWA5.9 (poster); ISBN: 978-1-943580-32-3 (https://doi.org/10.1364/LIC.2017.LWA5.9).

40. T. Dascalu, G. Croitoru, O. V. Grigore, and N. Pavel, "Multiple-Beam Output High-Peak Power Nd:YAG/Cr^{4+}:YAG Laser for Laser Ignition," International Conference on Space Optics, ICSO 2016, 18-21 Oct. 2016, Biarritz, France (presentation 254, poster presentation); Proc. of SPIE Vol. **10562**, 105625X (2016); doi: 10.1117/12.2296222

39. G. Croitoru, T. Dascalu, F. Jipa, M. Zamfirescu, N. Pavel, "High-power operation in circular buried depressed-cladding waveguides inscribed in Nd:YAG and Nd:YVO_4 by femtosecond-laser beam," 7th EPS-QEOD EUROPHOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, 21-26 August, 2016, Vienna, Austria; presentation FWG-4.4 (oral presentation).

38. O. V. Grigore, G. Croitoru, T. Dascalu, M. Dinca, N. Pavel, "Edge-pumped Nd:YAG/YAG lens-shaped composite laser," 7th EPS-QEOD EUROPHOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, 21-26 August, 2016, Vienna; Austria, PO-2.1 (poster presentation).

37. G. Croitoru (Salamu), N. Pavel, T. Dascalu, F. Jipa, M. Zamfirescu, "Power-scaling from burried depressed-cladding waveguides realized in Nd:YAG and Nd:YVO_4 by direct writing with a femtosecond-laser beam," The 16th International Balkan Workshop on Applied Physics, 7-9 July, 2016, Constanta, Romania; Book of Abstracts, pp. 77-78 (S2 L3, invited presentation).

36. A. Birtas, G. Croitoru (Salamu), M. Dinca, T. Dascalu, N. Boicea, and N. Pavel, "The effect of laser ignition on a homogenous lean mixture of an automotive gasoline engine," The 4th Laser Ignition Conference, 17-20 May 2016, Pacifico Yokohama, Yokohama, Japan, presentation LIC6-2 (oral presentation).
(page 78 of http://opicon.jp/wp-content/uploads/2016/05/OPIC2016FinalProgram.pdf)

35. G. Croitoru (Salamu), O. V. Grigore, T. Dascalu, and N. Pavel, "Passively Q-switched Nd:YAG/Cr^{4+}:YAG laser with multiple-beam output," The 4th Laser Ignition Conference, 17-20 May 2016, Pacifico Yokohama, Yokohama, Japan, presentation LICp-1 (poster presentation).
(page 101 http://opicon.jp/wp-content/uploads/2016/05/OPIC2016FinalProgram.pdf)

34. P. Loiseau, F. Khaled, G. Aka, L. Gheorghe, F. Voicu, G. Salamu, A. Achim, and N. Pavel, "Nonlinear optical borates suitable for crystal growth by Czochralski method frequency doubling

and self-frequency doubling in the visible range," 7th International Symposium on Optical Materials, 29 Feb. - 04 March 2016, Lyon, France; invited talk I-7.

33. J. Nikkinen, A. Härkönen, I. Leino, V.-M. Korpijärvi, G. Salamu, and M. Guina, "Q-switched microchip MOPA generating 100 ps pulses at 532 nm," SPIE Photonics West 2016, Solid State Lasers XXV: Technology and Devices, Conference 9726, Paper 9726-75, 13-18 February 2016, San Francisco, USA; (poster presentation).

32. N. Pavel, T. Dascalu, M. Dinca, G. Salamu, N. Boicea, A. Birtas, "Laser Ignition of an Automobile Engine by a High-Peak Power Nd:YAG/Cr^{4+}:YAG Laser," Advanced Solid State Lasers Conference and Exhibition (ASSL), 04 - 09 October 2015, WISTA-Technology Park, Adlershof-Berlin, Germany; presentation ATh2A.2 (poster presentation).

31. N. Pavel, G. Salamu, F. Voicu, O. Grigore, T. Dascalu, F. Jipa, and M. Zamfirescu, "Depressed-cladding waveguides inscribed in Nd:YAG and Nd:YVO_4 by femtosecond-laser writing technique. Realization and laser emission," ROMOPTO 2015, 11th International Conference on Optics "Micro- to Nano-Photonics IV", September 1-4, 2015, Bucharest, Romania; presentation I.I.7 (invited presentation).

30. G. Salamu, O. Grigore, T. Dascalu, and N. Pavel, "High energy, high-peak power passively Q-switched Nd:YAG/Cr^{4+}:YAG composite ceramic laser," ROMOPTO 2015, 11th International Conference on Optics "Micro- to Nano-Photonics IV", September 1-4, 2015, Bucharest, Romania; presentation I.P.1 (poster presentation).

29. N. Pavel, G. Salamu, O. V. Grigore, M. Dinca, T. Dascalu, N. Boicea, and A. Birtas, "High-Peak Power Passively Q-switched Nd:YAG/Cr^{4+}:YAG Lasers for Successful Ignition of an Automobile Engine," The 15th International Balkan Workshop on Applied Physics, July 2-4, 2015, Constanta, Romania, presentation S2-L3, Book of Abstracts, pgs. 80-81 (invited presentation).

28. N. Pavel, T. Dascalu, M. Dinca, G. Salamu, N. Boicea, and A. Birtas, "Automobile Engine Ignition by a Passively Q-switched Nd:YAG/Cr^{4+}:YAG Laser," CLEO Europe - EQEC 2015 Conference, 21-25 June 2015, Münich, Germany, presentation CA-5b.2 (oral presentation).

27. 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, presentation CA-10.4 (oral presentation).

26. G. Salamu, N. Pavel, T. Dascalu, F. Jipa, and M. Zamfirescu, "Diode-Pumped Laser Emission from Depressed Cladding Waveguides Inscribed in Nd-doped Media by Femtosecond Laser Writing Technique," CLEO Europe - EQEC 2015 Conference, 21-25 June 2015, Münich, Germany, presentation CA-P.29 (poster presentation).

25. N. Pavel, G. Salamu, F. Jipa, and M. Zamfirescu, "Efficient Laser Emission under 880-nm Diode-Laser Pumping of Cladding Waveguides Inscribed in Nd:YVO_4 by Femtosecond-Laser Writing Technique," Advanced Solid State Lasers (ASSL) Congress, 16-21 November 2014, Shanghai, China, presentation ATu2A.26 (poster presentation).

24. G. Salamu, F. Voicu, A. Achim, L. Gheorghe, N. Pavel and T. Dascalu, "Efficient laser emission from a disordered Yb:CLNGG crystal," 5th International Student Conference on Photonics, Orastie, Romania, 23-26 September 2014; presentation P.07 (poster presentation). **Note**: This work received the "Best Poster Award - Third Place" diploma award at the conference.

23. G. Salamu, F. Jipa, M. Zamfirescu, F. Voicu, and N. Pavel, "Laser emission from diode-pumped Nd:YAG waveguide lasers realized by femtosecond-writing technique," 5th International Student Conference on Photonics, Orastie, Romania, 23-26 September 2014; presentation O.02 (oral presentation). **Note**: This work was awarded with the "Best Oral Presentation - Second Place" diploma at the conference.

22. N. Pavel, G. Salamu, F. Jipa, M. Zamfirescu, F. Voicu, and T. Dascalu, "Efficient laser emission in diode-pumped Nd:YAG cladding waveguides fabricated by direct writing with a helical movement technique," 6th EPS-QEOD EUROPHOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, 24-29 August, 2014, Neuchâtel, Switzerland, presentation TuP-T2-P-02 (poster presentation); Europhysics Conference Abstract Vol. 38 E; ISBN 2-914771-89-4.

21. N. Pavel, G. Salamu, F. Voicu, T. Dascalu, F. Jipa, and M. Zamfirescu, "Waveguides Fabricated in Nd:YAG by Direct fs-Laser Writing - Realization and Laser Emission under Diode-Laser

Pumping," The 14th International Balkan Workshop on Applied Physics, July 2-4, 2014, Constanta, Romania, presentation S2-L07, Book of Abstracts p. 106 (invited presentation).

20. N. Pavel, G. Salamu, and T. Dascalu, "Passively Q-switched, composite Nd:YAG/Cr^{4+}:YAG laser pumped laterally through a prism," The 2nd Laser Ignition Conference, 22 - 25 April 2014, Pacifico Yokohama, Yokohama, Japan, presentation LIC5-2 (oral presentation).

19/B2. G. Salamu, F. Jipa, M. Zamfirescu, and N. Pavel, "Laser Emission from Nd:YAG Laser Waveguides Realized by Femtosecond-Laser Writing Techniques," 2014 Photonics Europe SPIE Conference, 14-17 April 2014, Brussels, Belgium; paper number: 9135-52.

18. N. Pavel, G. Salamu, F. Jipa, and M. Zamfirescu, "Laser emission from diode-pumped Nd:YAG waveguides, realized by direct femtosecond-laser writing technique," Advanced Solid State Lasers (ASSL) Congress, 27 October - 1 November 2013, Paris, France, presentation ATu2A.6 (oral presentation).

17. N. Pavel, G. Salamu, F. Voicu, F. Jipa, and M. Zamfirescu, "Femtosecond-laser inscribed Nd:YAG waveguides. Realization and laser emission," LPHYS'13: 22nd International Laser Physics Workshop, Prague, 15-19 July, 2013, presentation 4.1.3 (oral presentation).

16. N. Pavel, G. Salamu, and O. Grigore, "Passively Q-switched Nd:YAG/Cr^{4+}:YAG lasers with high peak power," LPHYS'13: 22nd International Laser Physics Workshop, Prague, 15-19 July, 2013, presentation 4.1.2 (oral presentation).

15. N. Pavel, G. Salamu, and T. Dascalu, "Passively Q-switched Nd:YAG/Cr^{4+}:YAG lasers for ignition of an automobile engine," The 13th International Balkan Workshop on Applied Physics, 4-6 July 2013, Constanta, Romania, presentation S5-L01, Book of Abstracts p. 116 (invited presentation).

14. G. Salamu, F. Voicu, N. Pavel, T. Dascalu, F. Jipa, and M. Zamfirescu, "Diode-pumped laser emission in femtosecond-laser inscribed Nd:YAG waveguides," International Conference "Modern Laser Applications" Third Edition, INDLAS 2013, 20-24 May 2013, Bran, Romania, presentation O1 (oral presentation).

13. T. Dascalu, G. Salamu, N. Pavel, O. Grigore, and F. Voicu, "Compact 'prism-by side-pumped' solid-state laser," CLEO Europe - EQEC 2013 Conference, 12-16 May 2013, Münich, Germany, presentation CA-9.5 (oral presentation).

12. N. Pavel, T. Dascalu, G. Salamu, and O. Grigore, "Novel geometry for compact, diode-pumped solid-state lasers," Laser Ignition Conference '13, 23-25 April 2013, Yokohama, Japan, presentation LIC4-2 (oral presentation).

11/B1. G. Salamu, A. Ionescu, C. 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, Bucharest, Romania, presentation I.P. 5; Poster presentation. **Note**: This work was awarded with the Certificate of Excellence for First Place Student Presentation (Best Poster SPIE Award) at the ROMOPTO 2012 conference.

10. G. Salamu, F. Voicu, F. Jipa, M. Zamfirescu, and N. Pavel, "Direct femtosecond laser written waveguides in Nd:YAG," Micro- to Nano-Photonics III, ROMOPTO 2012, 10th International Conference on Optics, 3-6 September, Bucharest, Romania, presentation II.P. 1; Poster presentation.

9. 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.

8. G. Salamu, O. Sandu, M. Dejanu, F. Voicu, C. Ticos, D. Popa, S. Parlac, N. Pavel, and T. Dascalu, "Study of combustion process for a methane-air mixture using a microlaser system," International Student Conference on Photonics 2012, SPIE Student Chapter, 8-11 May 2012, Sinaia, Romania; Book of abstracts, ISSN 2284-9750, p. 17; Oral presentation.

7. G. Salamu, O. Sandu, M. Dejanu, F. Voicu, C. Ticos, D. Popa, S. Parlac, N. Pavel, and T. Dascalu, "Investigation of laser ignition for methane-air mixture and development of a microlaser system," Physics Conference TIM-11, 24-27 November 2011, Timisoara, Romania; Abstract Book, ISBN 978-973-125-354-1, presentation API-O06 (pg. 125).

6. G. Salamu, O. Sandu, N. Pavel, T. Dascalu, D. Chuchumishev, A. Gaydardzhiev, and I Buchvarov, “Passively Q-switched, Composite, All-Poly-Crystalline Ceramics Nd:YAG/Cr^{4+}:YAG Laser,” 19th International Conference on Advanced Laser Technologies, 03 - 08 September 2011, Golden Sands, Bulgaria; in Book of Abstract, presentation O-6-LN, page 92.
5. D. Chuchumishev, I. Buchvarov, A. Gaydardzhiev, A. Trifonov, O. Sandu, and G. Salamu, “Sub-nanosecond, tunable between 3 μm and 3.5 μm OPO based on PPSLT, pumped by 0.5 kHz Nd:YAG laser,” International Student Workshop on Laser Applications ISWLA 2011, 31 May 31 - 04 June, 2011, Bran, Romania.
4. G. Salamu, O. Sandu, M. Dejanu, F. Voicu, C. Ticos, D. Popa, S. Parlac, N. Pavel, and T. Dascalu, “Study of laser ignition and flame kernel development in methane-air mixture,” International Student Workshop on Laser Applications, 2nd ISWLA 2011, May 31- June 04, 2011, Bran, Romania.
3. G. Salamu, F. Voicu, A. Leca, O. Sandu, N. Pavel, T. Dascalu, M. Dejanu, D. Popa, and S. Parlac, “Characteristics of methane-air combustion measured by Schlieren method,” International Student Workshop on Laser Applications ISWLA 2010, May 25-28, 2010, Bran, Romania, presentation P24.
2. T. Dascalu, N. Pavel, N. Vasile, A. Leca, G. Salamu, and O. Sandu, “Passively Q-switched Nd:YAG/Cr^{4+}:YAG Laser Operated at High Temperature,” Micro- to Nano-Photonics II - ROMOPTO 2009 Conference, August 31 - Sept. 03, 2009, Sibiu, Romania, presentation I.O.3.
1. N. Pavel, G. Salamu, O. Sandu, and T. Dascalu, “Passively Q-switched Cr^{4+}:YAG/Nd-Lasers Pumped Directly into the Emitting Level,” 10th International Balkan Workshop on Applied Physics (IBWAP), July 6-8, 2009, Constanta, Romania, presentation S5-P60; Book of Abstracts, ISBN 978-973-614-507-0, pp. 199-200 (2009).

D. PATENTS

x. N. Pavel, O.-V. Grigore, G. Croitoru, “Sistem Laser pentru Aprinderea Amestecurilor Combustibile,” Romanian patent application, OSIM; Application number: A/00314/21.06.2023.

5. M. Ganciu-Petcu, O. S. Stoican, A. L. Groza, N. Pavel, G. Croitoru, A. Marcu, ”Sistem Combinat Electric-Laser pentru Controlul Descărcărilor Electrice / Combined Electri-Laser System for Electric Discharge Control,” Romanian patent, No. **RO133688-B1** / **28.05.2021 BOPI5/2021**; OSIM application number **a 2018 01123** / **19.12.2018**; Derwent Primary Accession Number: 2019-93514N.

4. A. Birtas, N. Boicea, T. Dascalu, N. Pavel, G. Salamu, O.-V. Grigore, “Bougie Laser pour Moteur à Combustion,” Patent No. **FR3051511-B1** / 02.10.2020; Application Nr. **FR3051511-A1** / 18.05.2016; International Patent Classification: F02P-023/4; Derwent Primary Accession Number: 2017-79875J

3. A. Birtas, N. Boicea, T. Dascalu, N. Pavel, G. Salamu, O.-V. Grigore, “Bujie cu Laser, pentru un Motor cu Ardere / Laser Spark Plug for Combustion Engine,” Romanian patent, No. **RO132267/30.06.2020 BOPI6/2020**, Application number: **a 2016 00353/18.05.2016**; Derwent Primary Accession Number: 2017-80743V

2. T. Dascalu, N. Pavel, G. Salamu, O. Grigore, F. Voicu, M. Dinca, "Sistem Laser cu Doua Fascicule pentru Ignitia Motoarelor cu Ardere Interna / Laser System with Two Beams for Igniting the Internal Combustion Engines," Romanian patent, No. **RO129307B1/30.12.2019 BOPI 12/2019**; Application number: **a 2013 00417/30.05.2013**; Derwent Primary Accession Number: 2014-F52453.

1. T. Dascalu, O. Sandu, F. Voicu, N. Pavel, G. Salamu, M. Dinca, “Sistem Laser pentru Ignitia Motoarelor cu Ardere Interna / Laser System for Igniting the Internal Combustion Engines,” Romanian patent, No. **RO126373** / **30.08.2018 BOPI 8/2018**; Application number: **a 2010 01326/13.12.2010** published in BOPI 6/2011, 30/06.2011; International Patent Classification: A61M-005/31; B65B-003/04. Derwent Primary Accession Number: 2011-Q13136.