

## **LIST OF PUBLICATIONS**

### **1. PAPERS PUBLISHED IN PEER-REVIEW JOURNALS**

20. A. Broasca, **M. Greculeasa**, F. Voicu, C. Gheorghe, S. Hau, C.A. Susala, L. Gheorghe, "Bifunctional Nd-doped LGSB crystals: A roadmap for crystal growth and improved laser emission performance in the NIR and green domains," *Materials* **18**(5), 964 (2025).
19. **M. Greculeasa**, F. Voicu, S. Hau, C. Gheorghe, L. Gheorghe, "Growth and spectroscopic characterization of a new 6.2 at.% Yb-doped LGSB crystal," *J. Optoelectron. Adv. Mater.* **26**(11-12), 475-479 (2024).
18. G. Croitoru, F. Jipa, **M. Greculeasa**, A. Broasca, F. Voicu, L. Gheorghe and N. Pavel, "Buried depressed-cladding waveguides inscribed in Nd<sup>3+</sup> and Yb<sup>3+</sup> doped CLNGG laser crystals by picosecond-laser beam writing," *Materials* **17**(8), 1758 (2024).
17. C. Gheorghe, S. Hau, L. Gheorghe, A. Broasca, **M. Greculeasa**, F. Voicu, G. Stanciu, M. Enculescu, "Growth and spectroscopic properties of Ca<sub>3</sub>(Ta,Ga)<sub>5</sub>O<sub>12</sub>Pr<sup>3+</sup> single crystal as a promising new laser material in the visible domain," *Opt. Mater.* **150**, 115286 (2024).
16. 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).
15. A. Broasca, **M. Greculeasa**, F. Voicu, C. Gheorghe and L. Gheorghe, "Pure and Yb-Doped La<sub>x</sub>Y<sub>y</sub>Sc<sub>4-x-y</sub>(BO<sub>3</sub>)<sub>4</sub> Crystals: A Review of Recent Advances," *Crystals* **13**(2), 169 (2023).
14. C. Gheorghe, S. Hau, L. Gheorghe, F. Voicu, **M. Greculeasa**, A. Broasca, and G. Stanciu, "RE<sup>3+</sup>-Doped Ca<sub>3</sub>(Nb,Ga)<sub>5</sub>O<sub>12</sub> and Ca<sub>3</sub>(Li,Nb,Ga)<sub>5</sub>O<sub>12</sub> Crystals (RE = Sm, Dy, and Pr): A Review of Current Achievements," *Materials* **16**(1), 269 (2023).
13. A. Broasca, **M. Greculeasa**, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, L. Gheorghe, "Pr:LGSB as a new nonlinear optical crystal: Czochralski growth and optical characterization," *J. Alloys & Comp.* **908**, 164633 (2022).
12. A. Broasca, **M. Greculeasa**, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, C. A. Brandus, N. Pavel, M. Enculescu, L. Gheorghe, "Growth and characterization of 3.5 at.% Nd:LGSB bifunctional crystal," *Opt. Mat.* **123**, 111832 (2022).
11. 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<sup>4+</sup>:YAG saturable absorber," *Opt. Mater. Express* **11**(3), 685-694 (2021).
10. 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).
9. **M. Greculeasa**, A. Broasca, F. Voicu, S. Hau, G. Croitoru, G. Stanciu, C. Gheorghe, N. Pavel, L. Gheorghe, "Bifunctional La<sub>x</sub>Nd<sub>y</sub>Gd<sub>z</sub>Sc<sub>4-x-y-z</sub>(BO<sub>3</sub>)<sub>4</sub> crystal: Czochralski growth, linear and nonlinear optical properties, and near-infrared laser emission performances," *Opt. & Laser Techn.* **131**, 106433 (2020).
8. 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<sub>x</sub>Gd<sub>y</sub>R<sub>z</sub>Sc<sub>4-x-y-z</sub>(BO<sub>3</sub>)<sub>4</sub> (R = Yb, Nd) crystals - A review of recent developments," *Opt. Mat. X* **7**, 100052 (2020).

7. C. A. Brandus, S. Hau, A. Broasca, **M. Greculeasa**, F. M. Voicu, C. Gheorghe, L. Gheorghe, and T. Dascalu, "Efficient 1  $\mu$ m Laser Emission of Czochralski-Grown Nd:LGSB Single Crystal," Materials 12(12), 2005 (2019).
6. L. Gheorghe, **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, K. N. Belikov, E. Yu. Bryleva, and O. Gaiduk, "Incongruent Melting  $\text{La}_x\text{Y}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$ : LYSB Nonlinear Optical Crystal Grown by the Czochralski Method," ACS Appl. Mat. Interfaces 11(23), 20987-20994 (2019).
5. S. Hau, C. Gheorghe, L. Gheorghe, F. Voicu, **M. Greculeasa**, G. Stanciu, A. Broasca, M. Enculescu, "Spectroscopic investigations of  $\text{Pr}^{3+}$  ions doped CNGG and CLNGG single crystals," J. Alloy. Compd. 799, 288-301 (2019).
4. L. Gheorghe, **M. Greculeasa**, F. Voicu, C. Gheorghe, S. Hau, A. M. Vlaicu, K. N. Belikov, E. Yu. Bryleva, O. V. Gaiduk, "Crystal growth and structural characterization of  $\text{Sm}^{3+}$ ,  $\text{Pr}^{3+}$  and  $\text{Dy}^{3+}$ -doped CNGG and CLNGG single crystals," Opt. Mater. 84, 335-338 (2018).
3. C. Gheorghe, S. Hau, L. Gheorghe, F. Voicu, **M. Greculeasa**, M. Enculescu, K. N. Belikov, E. Yu. Bryleva, O. V. Gaiduk, "Yellow laser potential of cubic  $\text{Ca}_3(\text{Nb},\text{Ga})_5\text{O}_{12}:\text{Dy}^{3+}$  and  $\text{Ca}_3(\text{Li},\text{Nb},\text{Ga})_5\text{O}_{12}:\text{Dy}^{3+}$  single crystals," J. Alloys & Comp. 739, 806-816 (2018).
2. 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, and G. Croitoru, "Structural-phase state and lasing of 5-15 at.%  $\text{Yb}^{3+}:\text{Y}_3\text{Al}_5\text{O}_{12}$  optical ceramics," J. Eur. Cer. Soc. 37(13), 4115-4122 (2017).
1. C. Gheorghe, S. Hau, L. Gheorghe, F. Voicu, **M. Greculeasa**, A. Achim, M. Enculescu, "Optical properties of  $\text{Sm}^{3+}$  doped  $\text{Ca}_3(\text{Nb},\text{Ga})_5\text{O}_{12}$  and  $\text{Ca}_3(\text{Li},\text{Nb},\text{Ga})_5\text{O}_{12}$  single crystals," J. Lumin. 186, 175-182 (2017).

## **2. COMMUNICATIONS AT INTERNATIONAL CONFERENCES**

(Technical Digests, manuscripts up to 3 pages)

53. G. Croitoru, F. Jipa, **M. Greculeasa**, A. Broasca, F. M. Voicu, L. M. Gheorghe, N. Pavel, "Laser emissions from buried depressed-cladding waveguides inscribed in  $\text{Nd}^{3+}:\text{CLNGG}$  laser crystals by picosecond-laser beam writing," The 1st International Online Conference on Photonics - IOCP 2024 Conference, 14-16 October 2024; (<https://sciforum.net/paper/view/19069>).
52. G. Croitoru, F. Jipa, **M. Greculeasa**, N. Pavel, "Y-branch splitters inscribed in  $\text{Nd}^{3+}:\text{YAG}$  ceramics by picosecond-laser beam writing," The 1st International Online Conference on Photonics - IOCP 2024 Conference, 14-16 October 2024; (<https://sciforum.net/paper/view/19070>).
51. 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.
50. 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, Crișan, Romania (P2-O1, poster presentation).
49. 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, Crișan, Romania (P2-O2, poster presentation).
48. **M. Greculeasa**, A. Broasca, F. Voicu, C. Gheorghe, S. Hau, G. Stanciu, C.A. Brandus, N. Pavel, and L. Gheorghe, "Crystal growth and characterization of Nd:LGSB as bifunctional laser and nonlinear optical crystals," The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crișan, Romania (P2-O3, poster presentation).

47. F. Voicu, L. Gheorghe, C. Gheorghe, S. Hau, **M. Greculeasa**, A. Broasca, G. Stanciu, and M. Enculescu," Growth and spectroscopic properties of  $\text{Ca}_3(\text{Ta},\text{Ga})_5\text{O}_{12}\text{Pr}^{3+}$  single crystal," The 2nd International Conference on Laser, Plasma and Radiation - Science and Technology (ICLPR-ST), 16-21 June 2024, Danube Delta, Crișan, Romania (P2-O4, poster presentation).
46. L. Gheorghe, A. Broasca, **M. Greculeasa**, F. Voicu, C. Gheorghe, S. Hau, G. Stanciu, C. A. Brandus, N. Pavel, "Czochralski-grown LGSB crystals as high-performance NIR laser crystals and SFD crystals in the VIS spectral range," International Conference on Crystal Growth and Epitaxy - ICCGE-20, 30 July - 04 August 2023, Naples, Italy (poster presentation PS 1 - P49).
45. C. Gheorghe, S. Hau, A. Broasca, **M. Greculeasa**, F. Voicu, M. Enculescu, L. Gheorghe, " $\text{Ca}_3(\text{Ta},\text{Ga})_5\text{O}_{12}\text{:Pr}^{3+}$  as potential laser crystal emitting in the blue and red spectral domains," International Conference on Crystal Growth and Epitaxy - ICCGE-20, 30 July - 04 August 2023, Naples, Italy; (poster presentation PS 3 - P15).
44. 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).
43. **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, 30 July - 04 August 2023, Naples, Italy; (oral presentation Optical Crystals 6 - O4).
42. G. Croitoru, I. Anghel, F.-M. Voicu, **M. Greculeasa**, A. Broasca, L.-M. Gheorghe, N. Pavel, "Buried Depressed-Cladding Waveguides Fabricated in  $\text{RE}^{3+}\text{:CLNGG}$  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).
41. L. M. Gheorghe, A. Broasca, **M. Greculeasa**, F. Voicu, G. Croitoru, S. Hau, C. Gheorghe, N. Pavel, "Yb- and Nd-doped  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  (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).
40. G. Croitoru, I. Anghel, F. Voicu, **M. Greculeasa**, A. Broasca, L. M. Gheorghe, N. Pavel, "Waveguides realized in  $\text{RE}^{3+}\text{:CLNGG}$  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).
39. L. Gheorghe, A. Broasca, **M. Greculeasa**, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, "Czochralski growth and characterization of newly developed Pr:LGSB nonlinear optical and laser crystal," 7<sup>th</sup> European Conference on Crystal Growth - ECCG7, 25-27 July 2022, Paris, France; oral presentation.
38. S. Hau, **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, D. Avram, M. Enculescu, L. Gheorghe, C. Gheorghe, " $\text{Pr}^{3+}$ -doped  $\text{Ca}_3(\text{Ta}, \text{Ga})_5\text{O}_{12}$  single crystal as potential laser material in the visible range," 7<sup>th</sup> European Conference on Crystal Growth - ECCG7, 25-27 July 2022, Paris, France; presentation P20.
37. S. Hau, C. Gheorghe, L. Gheorghe, F. Voicu, **M. Greculeasa**, A. Broasca, G. Stanciu, M. Enculescu, "Spectroscopic Characterizations of  $\text{Pr}^{3+}$  and  $\text{Dy}^{3+}$  doped Calcium Tantalum Gallium Garnet-  $\text{Ca}_{2.85}\text{Ta}_{1.80}\text{Ga}_{3.10}\text{O}_{12}$  Single Crystals," 20th International Balkan Workshop on Applied Physics and Materials Science (IBWAP 2022), July 12-145, Constanta, Romania; presentation S1-P7.
36. A. Broasca, **M. Greculeasa**, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, and L. Gheorghe, "Growth and optical properties of the newly developed Pr:LGSB bifunctional crystal," 10th EPS-QEOD EUROPHTON Conference, 28 Aug. - 2 Sept. 2022, Hannover, Germany; presentation TUE-P-1.8.
35. **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, C.A. Brandus, N. Pavel, and L. Gheorghe, "Development of Czochralski-grown  $\text{La}_{0.733}\text{Nd}_{0.035}\text{Gd}_{0.452}\text{Sc}_{2.75}(\text{BO}_3)_4$  as a new

bifunctional laser and nonlinear crystal," 10th EPS-QEOD EUROPHOTON Conference, 28 Aug. - 2 Sept. 2022, Hannover, Germany; presentation TUE-P-1.9.

34. **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, C.A. Brandus, N. Pavel, M. Enculescu, L. Gheorghe, "Crystal Growth and Characterization of  $\text{La}_{0.733}\text{Nd}_{0.035}\text{Gd}_{0.452}\text{Sc}_{2.78}(\text{BO}_3)_4$  as a New Bifunctional Laser and Nonlinear Optical Crystal," International Conference on Laser, Plasma and Radiation - Science and Technology, June 7-10, 2022 Bucharest, Romania; poster presentation P2-05.
33. A. Broasca, **M. Greculeasa**, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, L. Gheorghe, "Czochralski Growth and Characterization of new Pr:LGSB Nonlinear Optical Crystal," International Conference on Laser, Plasma and Radiation - Science and Technology, June 7-10, 2022 Bucharest, Romania; poster presentation P2-04.
32. S. Hau, C. Gheorghe, L. Gheorghe, F. Voicu, **M. Greculeasa**, A. Brosca, G. Stanciu, D. Avram, M. Enculescu, "Luminescence and optical thermometry of the  $\text{Pr}^{3+}$  ions doped  $\text{Ca}_3(\text{M},\text{Ga})_5\text{O}_{12}$  ( $\text{M}^{5+} = \text{Nb}, \text{Ta}$ ) garnet phosphors," International Conference on Laser, Plasma and Radiation - Science and Technology, June 7-10, 2022 Bucharest, Romania; poster presentation P2-01.
31. 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.
30. **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).
29. C. A. Brandus, **M. Greculeasa**, A. Broasca, F. Voicu and L. Gheorghe, "Self-frequency-doubling Nd:LGSB laser passively Q-switched by  $\text{Cr}^{4+}\text{-YAG}$  saturable absorber," OSA Laser Congress, 13 - 16 Oct. 2020, oral presentation AF2A.6.
28. 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.
27. 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.
26. L. Gheorghe, **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, C. Brandus, G. Croitoru, and N. Pavel, "Undoped, Yb- and Nd-doped LGSB Czochralski-grown nonlinear and laser crystals," Advanced Solid State Lasers Conference - ASSL 2019, 29 September 2019 - 03 October 2019, Vienna, Austria, presentation AM3A.2 (oral presentation).
25. 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 2019 - 03 October 2019, Vienna, Austria, presentation JTU3A.45 (poster presentation).
24. A. Broasca, L. Gheorghe, **M. Greculeasa**, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, G. Croitoru, and N. Pavel, "Czochralski growth and characterization of pure and Yb-doped  $\text{La}_x\text{Y}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  nonlinear and laser crystal," OSA Laser Congress, Advanced Solid State Lasers Conference - ASSL 2019, 29 September 2019 - 03 October 2019, Vienna, Austria, presentation JM5A.40 (poster presentation).
23. L. Gheorghe, **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, S. Hau, and C. Gheorghe, " $\text{Yb}^{3+}$  - doped  $\text{La}_x\text{Y}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  as bifunctional laser and nonlinear optical crystal," Excited States of Transitions Elements Conference - ESTE 2019, 08-13 September 2019, Kudowa Zdrój, Poland, presentation O-10 (oral presentation)..
22. S. Hau, C. Gheorghe, L. Gheorghe, F. Voicu, **M. Greculeasa**, G. Stanciu, A. Broasca, and M. Enculescu, "Optical properties of  $\text{Pr}^{3+}$  ions doped garnet crystals," Excited States of Transitions

Elements Conference - ESTE 2019, 08-13 September 2019, Kudowa Zdrój, Poland (poster presentation).

21. 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, München, Germany, CA-P.44 (poster presentation).
20. M. Porębski, M. Kowalczyk, L. Gheorghe, **M. Greculeasa**, A. Broasca, F. Voicu, and J. Sotor, "Passively mode-locked self-frequency doubling Yb:LGBS laser," CLEO Europe - EQEC 2019 Conference, 23-27 June 2019, München, Germany, presentation CA-P.23 (poster presentation).
19. L. Gheorghe, **M. Greculeasa**, A. Broasca, F. Voicu, G. Stanciu, S. Hau, C. Gheorghe, G. Croitoru, and N. Pavel, "Pure, Yb- and Nd-doped  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  Czochralski-grown nonlinear optical and laser crystals," TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-I02 (invited presentation).
18. A. Broasca, L. Gheorghe, **M. Greculeasa**, F. Voicu, and G. Stanciu, "Czochralski growth and optical properties of nonlinear  $\text{La}_x\text{Y}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  - LYSB single crystal," TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-P03 (poster presentation).
17. F. M. Voicu, L. Gheorghe, **M. Greculeasa**, A. Broasca, C. Gheorghe, S. Hau, and G. Croitoru, "Nd<sup>3+</sup> doped  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  as bifunctional laser and nonlinear crystal," TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-P06 (poster presentation).
16. **M. Greculeasa**, L. Gheorghe, A. Broasca, F. Voicu, C. Gheorghe, S. Hau, and G. Stanciu, "Czochralski growth and characterization of Yb-doped LYSB single crystals," TIM 19 Physics Conference, 29 - 31 May 2019, Timisoara, Romania, presentation CM-P11 (poster presentation).
15. **M. Greculeasa**, L. Gheorghe, F. Voicu, C. Gheorghe, S. Hau, and A. M. Vlaicu, "Crystal growth and structural investigation of Sm<sup>3+</sup>, Dy<sup>3+</sup>-doped CNGG and CLNGG crystals for lasers in the visible range," ECCG6 Sixth European Conference on Crystal Growth, Varna, Bulgaria, 16-20 September 2018 poster presentation S02-P35 (poster presentation)
14. L. Gheorghe, **M. Greculeasa**, F. Voicu, F. Khaled, P. Loiseau, G. Aka, S. Hau, C. Gheorghe, G. Croitoru, and N. Pavel, "Pure and Nd-doped Czochralski-grown  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  nonlinear optical single crystals," ECCG6 Sixth European Conference on Crystal Growth, Varna, Bulgaria, 16-20 September 2018, S02-P15 (poster presentation)
13. L. Gheorghe, **M. Greculeasa**, F. Voicu, F. Khaled, P. Loiseau, G. Aka, S. Hau, C. Gheorghe, G. Croitoru, and N. Pavel, "Czochralski growth and optical properties of pure, Yb- and Nd-doped  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  nonlinear optical and laser crystals," 8th EPS-QEOD EUROPOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, 02-07 September, 2018, Barcelona, Spain, ThP.34 (poster presentation)
12. **M. Greculeasa**, L. Gheorghe, F. Voicu, C. Gheorghe, S. Hau, and A. M. Vlaicu, "Growth and characterization of Sm- and Dy-doped CNGG and CLNGG single crystals for laser emission in the yellow - orange spectral range," 8th EPS-QEOD EUROPOTON CONFERENCE, Solid State, Fibre, and Waveguide Coherent Light Sources, 02-07 September, 2018, Barcelona, Spain, ThP.41 (poster presentation)
11. L. Gheorghe, **M. Greculeasa**, F. Voicu, F. Khaled, P. Loiseau, G. Aka, S. Hau, C. Gheorghe, G. Croitoru, and N. Pavel, "Czochralski growth, NLO properties and laser performances of pure and Nd-doped  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$ -LGSB single crystals," (TIM 18 Physics Conference), 24 - 26 May 2018, Timisoara, Romania (oral presentation)
10. S. Hau, C. Gheorghe, L. Gheorghe, F. Voicu, **M. Greculeasa**, G. Stanciu, and M. Enculescu, "Optical properties of Pr<sup>3+</sup>-doped  $\text{Ca}_3(\text{Nb},\text{Ga})_5\text{O}_{12}$  single crystal," (TIM 18 Physics Conference), 24 - 26 May 2018, Timisoara, Romania (poster presentation)
9. **M. Greculeasa**, L. Gheorghe, F. Voicu, C. Gheorghe, S. Hau and M. Enculescu, "Growth and spectroscopic properties of Dy<sup>3+</sup>-doped CNGG and CLNGG crystals for lasers in the yellow spectral region," (TIM 18 Physics Conference), 24 - 26 May 2018, Timisoara, Romania (poster presentation)
8. L. Gheorghe, F. Voicu, **M. Greculeasa**, A. Achim, F. Khaled, P. Loiseau, and G. Aka, " $\text{La}_x\text{Gd}_y\text{Sc}_z(\text{BO}_3)_4$  ( $x+y+z=4$ ) nonlinear optical crystals grown by the Czochralski method," (The

9th International Conference on Advanced Materials: ROCAM 2017), 11-14 July 2017, Bucharest, Romania (oral presentation)

7. **M. Greculeasa**, L. Gheorghe, F. Voicu, A. Achim, and G. Stanciu, "Growth and SHG in NCMP conditions in  $\text{La}(\text{Ca}_{1-x}\text{Sc}_x)_4\text{O}(\text{BO}_3)_3$  single crystals," (The 9th International Conference on Advanced Materials: ROCAM 2017), 11-14 July 2017, Bucharest, Romania (poster presentation)
6. 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<sup>3+</sup>:YAG Ceramic Materials with Efficient Laser Emission under Diode-Laser Pumping," (The 5-th Laser Ignition Conference 2017 - LIC '17) 20-23 June 2017, Bucharest, Romania (poster presentation)
5. M. Chaika, K. Chernomorets, A. Doroshenko, S. Parkhomenko, A. Tolmachev, I. Vorona, R. Yavetskiy, **M. Greculeasa**, and C.A. Brandus, "Synthesis of Mg<sup>2+</sup>, Cr<sup>4+</sup>: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 (poster presentation)
4. L. Gheorghe, F. Voicu, **M. Greculeasa**, A. Achim, F. Khaled, P. Loiseau, G. Aka, S. Hau, C. Gheorghe, and G. Salamu, "Pure and Yb-doped  $\text{La}_x\text{Gd}_y\text{Sc}_{4-x-y}(\text{BO}_3)_4$  incongruent borate type crystal: Czochralski growth, NLO properties, and laser performances," (TIM 17 Physics Conference), 25 - 27 May 2017, Timisoara, Romania (invited presentation)
3. **M. Greculeasa**, L. Gheorghe, F. Voicu, A. Achim, F. K., P. Loiseau, and G. Aka, "Czochralski growth of  $\text{La}_x\text{Gd}_y\text{Sc}_z(\text{BO}_3)_4$  ( $x + y + z = 4$ ) nonlinear optical crystal," (TIM 17 Physics Conference), 25 - 27 May 2017, Timisoara, Romania (poster presentation)
2. F. Voicu, L. Gheorghe, **M. Greculeasa**, A. Achim, C. Gheorghe, and S. Hau, "Growth and optical properties of Sm<sup>3+</sup> doped  $\text{Ca}_3(\text{Nb},\text{Ga})_5\text{O}_{12}$  and  $\text{Ca}_3(\text{Li},\text{Nb},\text{Ga})_5\text{O}_{12}$  single crystals," (TIM 17 Physics Conference), 25 - 27 May 2017, Timisoara, Romania (poster presentation)
1. S. Hau, C. Gheorghe, L. Gheorghe, A. Achim F. Voicu, **M. Greculeasa**, M. Enculescu, and O. Toma, "Crystal growth and spectroscopic investigation of Sm<sup>3+</sup> doped CNNG and CLNGG single crystals," (6th International Balkan Workshop on Applied Physics and Materials Science), 7-9 July, 2016, Constanta, Romania/ S1 P58 (poster presentation)