



## LIST OF PAPERS: 2012

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<sup>4+</sup>:YAG Laser and Generation of 532-nm Green Light," *Laser Physics*, **22** (1), 68-73 (2012).
2. O. Toma, L. Gheorghe, and A.M. Vlaicu, "Synthesis and Characterization of Erbium Lithium Niobium Gallium Garnet," *Acta Physica Polonica A*, **121** (1), 193-195 (2012).
3. C. Gheorghe, L. Gheorghe, P. Loiseau, and G. Aka, "Spectroscopic features and laser performance at 1.06  $\mu\text{m}$  of Nd<sup>3+</sup> doped Gd<sub>1-x</sub>Lu<sub>x</sub>Ca<sub>4</sub>O(BO<sub>3</sub>)<sub>3</sub> single crystal," *J. Appl. Phys.*, **111** (1), 013102 (2012).
4. C. Gheorghe, A. Lupei, V. Lupei, and L. Gheorghe, "A comparative study of Nd<sup>3+</sup> and Sm<sup>3+</sup> ions doped into oxide host materials; correlation between structure and spectral properties," *Optoelectronics and Advanced Materials - Rapid Communications*, **6** (1-2), 44-48 (2012).
5. C. Gheorghe, A. Lupei, and F. Voicu, "Sm<sup>3+</sup>- doped Sc<sub>2</sub>O<sub>3</sub> polycrystalline ceramics: spectroscopic investigation," *Optoelectronics and Advanced Materials - Rapid Communications*, **6** (1-2), 49- 51 (2012).
6. S. Georgescu, O. Toma, A. M. Voiculescu, L. Gheorghe, and A. Achim, "Energy level scheme of Eu<sup>3+</sup>:La<sub>3</sub>Ga<sub>5</sub>SiO<sub>14</sub> (langasite)," *Optoelectronics and Advanced Materials - Rapid Communication*, **6** (2), 22-24 (2012).
7. 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<sup>4+</sup>:YAG lasers," *Quantum Electron.*, **42** (3), 211-215 (2012).
8. S. Georgescu, O. Toma, A. M. Voiculescu, C. Matei, and R. Birjega, "Infrared-excited bright green and red luminescence in La<sub>3</sub>Ga<sub>5.5</sub>Ta<sub>0.5</sub>O<sub>14</sub> doped with erbium and ytterbium," *Physica B - Condensed Matter*, **407** (7), 1124-1127 (2012).
9. G. Salamu, E. Osiac, C. Dascalu, N. Pavel, and T. Dascalu, "Simultaneous Dual-Wavelength Operation at 1.06 and 1.34  $\mu\text{m}$  in Nd-vanadate Laser Crystals," *Laser Physics*, **22** (5), 866-871 (2012).
10. C. Gheorghe, A. Lupei, F. Voicu, and M. Enculescu, "Sm<sup>3+</sup>- doped Sc<sub>2</sub>O<sub>3</sub> polycrystalline ceramics: spectroscopic investigation," *J. Alloys & Compounds*, **535**, 78-82 (2012).
11. V. Lupei, A. Lupei, C. Gheorghe, L. Gheorghe, A. Achim, and A. Ikesue, "Crystal field disorder effects in the optical spectra of Nd<sup>3+</sup> and Yb<sup>3+</sup>-doped CLNGG laser crystals and ceramics," *J. Appl. Phys.*, **112** (6), 063110 (2012).
12. S. Georgescu, A. M. Voiculescu, O. Toma, S. Nastase O. Toma, C. Matei, and R. Birjega, "Effect of aluminum substitution on the phase stability and luminescence properties of Eu-doped langanite nano-powders synthesized by a citrate sol-gel method," *Rom. Rep. Phys.* **64** (3), 737-742 (2012).
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14. C. Tiseanu, B. Cojocar, V. Parvulescu, M. Sanchez Dominguez, P. A. Primus and M. Boutonnet, "Order and disorder effects in nano-ZrO<sub>2</sub> investigated by micro-Raman and spectrally and temporarily resolved photoluminescence," *Phys. Chem. Chem. Phys.*, **14** (37), 12970-12981 (2012).



15. T.D. Pasatoiu, A.M. Madalan, M. Zamfirescu, C. Tiseanu, M. Andruh, "One- and two-photon induced emission in heterobimetallic ZnII-SmIII and ZnII-TbIII complexes with a side-off compartmental ligand," *Phys. Chem. Chem. Phys.*, **14** (32), 11448-11456 (2012).
16. C. Tiseanu, V. Parvulescu, M. Sanchez Dominguez, M. Boutonnet, "Temperature induced conversion from surface to bulk sites in  $\text{Eu}^{3+}$ - impregnated  $\text{CeO}_2$ ," *J. Appl. Phys.* **112** (1), 013521 (2012).
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18. A. Lupei, C. Tiseanu, C. Gheorghe, and F. Voicu, "Optical spectroscopy of  $\text{Sm}^{3+}$  in  $\text{C}_2$  and  $\text{C}_{3i}$  sites of  $\text{Y}_2\text{O}_3$  ceramics," *Appl. Phys. B*, **108** (4), 908-918 (2012).
19. V. Lupei, "Pump intensity dependence of emission quantum efficiency in Nd-doped materials," *Rom. Rep. Phys.*, **64** (S), 1291-1305 (2012).
20. A. L. Carabăţ, D. Berger, S. Georgescu, S. Năstase, S. Stoleriu, and C. Matei, "Influenţa condiţiilor de precipitare asupra cristalizării şi morfologiei ortofosfatului de lantan dopat cu europiu (Influence of precipitation conditions on the crystallization and morphology of europium-doped lanthanum orthophosphate)," *Revista Română de Materiale (Romanian Journal of Materials)*, **42**(3), 294-298 (2012).
21. L. Petrescu, O. Cinteza, A.M. Voiculescu, T. Rosu, I. Enculescu, E. Matei, S. Georgescu, R. Birjega, S. Avram, and D. Mihailescu, "Interaction of  $\text{NaYF}_4:\text{Er}:\text{Yb}$  Nanoparticles with Phospholipid Monolayers as Models of Biological Membranes," *Revista de Chimie*, **63** (9), 956-961 (2012).
22. O. Toma, S. Georgescu, L. Gheorghe, "Energy levels of  $\text{Er}^{3+}$  in calcium lithium niobium gallium garnet," *Romanian Rep. Phys.*, **64** (S), 1381-1390 (2012).
23. A. M. Voiculescu, S. Georgescu, S. Nastase, C. Matei, D. Berger, C. Matei, A. Stefan, O. Toma, "Upconversion luminescence of  $\text{Er}^{3+}/\text{Yb}^{3+}$  co-doped nanolangasite synthesized by a modified Pechini route," *J. Sol-Gel Science & Technol.*, **64** (3), 667-672 (2012).
24. O. Toma, L. Gheorghe, R. Birjega, "Solubility Limits of Erbium in Partially Disordered Crystals Langanite and Langatate," *Rom. Journ. Phys.*, **57** (9-10), 1375-1381 (2012).