

LIST OF PUBLICATIONS

1. PAPERS and PROCEEDINGS

92. A. Craciun and T. Dascalu, "A method to generate vector beams with adjustable amplitude in the focal plane," Appl. Sci. **10**(7), art. 2313 (2020).
91. 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).
90. C.A. Brandus, T. Dascalu, "Cavity design peculiarities and influence of SESAM characteristics on output performances of a Nd:YVO₄ mode locked laser oscillator," Opt. & Laser Techn. **111**, 452-458 (2019).
89. 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
88. 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).
87. T. Dascalu, G. Croitoru, O. Grigore, N. Pavel, "High-peak power passively Q-switched Nd:YAG/Cr⁴⁺:YAG composite laser with multiple-beam output," Photonics Research, **4**(6), 267-271 (2016).
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85. O. Grigore, O. Calborean, G. Cojocaru, R. Ungureanu, M. Mernea, M.P. Dinca, S. Avram, D.F. Mihailescu, and T. Dascalu, "High-intensity THz pulses application to protein conformational changes," Rom. Rep. Physics **67**(4), 1251-1260 (2015).
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82. C.A. Brandus, L. Gheorghe, T. Dascalu, "Efficient laser operation at 1.06 μm in co-doped Lu³⁺, Nd³⁺:GdCa₄O(BO₃)₃ single crystal," Opt. Mat. **42**, 376-380 (2015).
81. R. G. Ungureanu, O. V. Grigore, M. P. Dinca, G. V. Cojocaru, D. Ursescu, and T. Dascalu, "Multiple THz pulse generation with variable energy ratio and delay," Laser Phys. Lett. **12**(4), 045301 (2015).
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65. M. Mernea, O. Calborean, D. Zatreanu, O. Sandu, T. Dascalu, and D. Mihailescu, "Macromolecular crowding effects studied by THz spectroscopy and molecular modeling," 8th EBSA European Biophysics Congress, 23-27 August 2011, Budapest, Hungary. European Biophysics Journal with Biophysics Letters, **40** (Supplement: 1), 112-113 (August 2011).
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60. 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).
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53. T. Dascalu, "High Power Microchip Solid State Laser," The First International Conference on Industrial Applications of Lasers, INDLAS 2007, May 23-25, Bran, Romania; Proc. SPIE, vol. **7007**, 700706 (2008).
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46. T. Dascalu and T. Taira "Highly efficient pumping configuration for microchip solid-state laser," *Optics Express* **14** (2), 670-677 (2006).
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1. A. Lupei, V. Florea, T. Dascalu, and V. Lupei, "Saturation process for F_2^- color centers absorption in LiF," Opt. Commun. **79** (5), 309-313 (1990).

2. PRESENTATIONS AT INTERNATIONAL AND NATIONAL CONFERENCES

115. A. Craciun, T. Dascalu, "Accurate beam propagation methods assisted by ray-tracing," 2021 Conference on Lasers and Electro-Optics/Europe - European Quantum Electronics Virtual Conferences (CLEO@/Europe-EQEC 2021), 21-25 June 2021, presentation EJ-P.4 (poster presentation).
114. A. Craciun, O. Grigore, T. Dascalu, "Theoretical and experimental study of the vector beams generated with an axicon pair and uniaxial crystals," 2021 Conference on Lasers and Electro-Optics/Europe - European Quantum Electronics Virtual Conferences (CLEO@/Europe-EQEC 2021), 21-25 June 2021, presentation CL-P.5 (poster presentation).
113. O.-V. Grigore, A. Craciun, N. Pavel, T. Dascalu, "Exploring the topological charge and shape of an optical vortex generated with wavelength-detuned spiral phase plates," 2021 Conference on Lasers and Electro-Optics/Europe - European Quantum Electronics Virtual Conferences (CLEO@/Europe-EQEC 2021), 21-25 June 2021, presentation CA-P.15 (poster presentation).
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