

LIST OF PUBLICATIONS

1. PAPERS and PROCEEDINGS

93. 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>
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
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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).
84. N. Pavel, T. Dascalu, G. Salamu, M. Dinca, N. Boicea, and A. Birtas, "Ignition of an automobile engine by high-peak power Nd:YAG/Cr⁴⁺:YAG laser-spark devices," Opt. Express **23**(26), 33028-33037 (2015).
83. M. Mernea, A. Ionescu, I. Vasile, C. Nica, G. Stoian, T. Dascalu, and D. F. Mihailescu, "In vitro human serum albumin glycation monitored by Terahertz spectroscopy," Opt. Quantum. Electron. **47**(4), 961-973 (2015).
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).
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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

117. O. Grigore, A. Craciun, N. Pavel, T. Dascalu, "Vector vortex beams generated by polarization conversion in uniaxial crystals," International Conference on Laser, Plasma and Radiation - Science and Technology, June 7-10, 2022 Bucharest, Romania; poster presentation P1-06.
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