

ARTICOLE PUBLICATE

Articole publicate in jurnale

1. L. Nalbaru, M. Arnold, C.M. Ticos, Conical Coil Focusing of Laser-Plasma Accelerated Proton Beams for Applications, *Physical Review Accelerators and Beams* 28, 114701 (2025).
2. D. Nistor, A.D. Dumitru, C. Derycke, O. Chalus, D. Ursescu, C. Ticos. Assessing Optical Damage Risks by Simulating the Amplification of Back-Reflection in a Multi-Petawatt Laser system, *High Power Laser Science and Engineering*, *High Power Laser Science and Engineering* 13, e65 (2025).
3. A. Magureanu, S. Balascuta, P. Ghenuche, M. O. Cernaianu, L. Tudor, V. Nastasa, D.G. Ghita, B. Diaconescu, D. Doria, C.M Ticos, Image-based diagnostics of the plasma produced in 1 PW laser experiments, *Romanian Reports in Physics* 77, 405 (2025).
4. R. Iovanescu, R.P. Daia, E.I. Slusanschi, C.M. Ticos, Electron Filament Structures of Injected Electrons in LWFA, *IEEE Transactions on Plasma Science* 53(4), 780-787 (2025).
5. M. Patrascoiu, L. Tudor, B. Diaconescu, G. Ghita, G.O. Dontu, C.M. Ticos, Particle steering system for laser-plasma accelerated protons, *University Politehnica of Bucharest Scientific Bulletin-series A-Applied Mathematics and Physics*, 87(2), 173-184 (2025).
6. D. Nistor, A. Magureanu, C.M. Ticos, A geometrical model for plasma mirror alignment in high-power laser experiments, *University Politehnica of Bucharest Scientific Bulletin-series A-Applied Mathematics and Physics* 87(2), 127-138 (2025).
7. M.L. Mitu, D. Ticos, N. Udrea, A. Scurtu, C.M. Ticos, Machine learning-based prediction of microparticle dynamics in externally driven strongly-coupled dusty plasmas, *Machine Learning: Science and Technology* 6 (4), 045009 (2025).
8. C. Romanitan, J. Mickevičius, N. Djourellov, A.B. Serban, O. Brincoveanu, A. Kadys, T. Malinauskas, I. Mihalache, E.M. Pavelescu, Interplay between extended and point structural defects in BGaN/SiC epitaxial layers grown by MOCVD, *J. Alloys Compd.* 1045, 184763, (2025).
9. M. Mogildea, G. Mogildea, S.I. Zgura, G. Chiritoi, C. Ionescu, V. Craciun, P. Prepelita, N. Mihailescu, A. Paraschiv, B.S Vasile, C.D. Constantinescu, Synthesis of the Titanium Oxides Using a New Microwave Discharge Method, *International Journal of Molecular Sciences* 26 (5), 2173 (2025).
10. N. Vujadinović , I. Traparić, M. Ivković, J. Ciganović, A. Anghel, C. Porosnicu, I. Mihailescu, Detection of hydrogen isotopes in fusion-relevant targets 2 using laser ablation and microwave-induced plasma, *The European Physical Journal Plus*, 141:157 (2026).
11. Magureanu, G. Dorcioman, S.A. Irimiciuc, A. Zubarev, G. Bleotu, P. Garoi, R. Udrea, C. Jalba, C. Gheorghiu, D.G. Ghita, M.-D. Mihai, D. Iancu, B. Diaconescu, D. Ursescu, V. Craciun, C.M. Ticos, Development of Ultra-Low Density Foam Targets for Enhanced Laser-Plasma Proton Acceleration, *Physics of Plasmas*, in press (2026).

12. D. Nistor, A. Naziru, A. Magureanu, D. Matei, C. Derycke, O. Chalus, V. Nastasa, I. Dancus, M. Gugiu, D. Ursescu, T. Jitsuno, B. Diaconescu, Th. Asavei, S. Balascuta, M. Cernaianu, V. Gaciu, D. G. Ghita, A.M. Lupu, M. Patrascoiu, M. Tataru, L. Tudor, C. M. Ticos, P. Ghenuche, D. Doria, Commissioning of the Back-Reflection Monitoring System for Multi-Petawatt Irradiation of Solid Targets at ELI-NP, High Power Laser Science and Engineering, High Power Laser Science and Engineering, in press (2026).

Conference Proceedings

1. A. Magureanu, A. Zubarev, G. Dorcioman, P. Garoi, G. Bleotu, S.A. Irimiciuc, R. Udrea, D. Ursescu, V. Craciun, C.M. Ticos, Development of ultralow density double layer targets for laser-plasma interaction, Proceedings Vol. 13535, Research Using Extreme Light Infrastructures: New Frontiers with Petawatt-Level Lasers VI; 135350C (2025), SPIE Optics and Optoelectronics, 2025, Prague, Czech Republic, <https://doi.org/10.1117/12.3056400>
2. E.M. Pavelescu, C. Romanitan, I. Mihalache, R. G., M. Stoian, G. Craciun, S. Vulpe, C. Obreja, V. Feies, A. Dragulinescu, M. Vladescu, A.C. Iancu, C.M. Teodorescu, Maria de la Mata, M. Herrera, H. Tornatzky, S.I. Molina, E. Luna, Structural and optical properties of ultrathin B and BN layers grown on sapphire by molecular beam epitaxy, GR-Tue-P9 at the ICNS-15 Conference 6-12 July, Malmö, Sweden, poster presentation.

Prezentari orale la conferinte internationale

1. C.M. Ticos, A. Magureanu, G. Dorcioman, P. Garoi, S.A. Irimiciuc, R. Udrea, G. Bleotu, A. Zubarev, C. Jalba, D.G. Ghita, B. Diaconescu, C. Gheorghiu, V. Craciun, D. Ursescu, Ultra-Low Density Foam Targets for Enhanced Laser-Plasma Proton Acceleration, APS-DPP 2025, Nov. 17-21, Long Beach, California, USA, oral presentation.
2. E.-M. Pavelescu, D. Ticos, C. Romanitan, A. Matei, F. Comanescu, V. Tucureanu, V. Feies, A. Dragulinescu, M. Vladescu, C. Ticos, R.S. Goldman, A. Wakahara and K. Yamane, Improvement of photoluminescence from GaAsPN/GaP alloys by electron irradiation and rapid thermal annealing, ICDS-33 Conference Sept. 14-19 in Shanghai, China, oral presentation.
3. L. Badea, A. Magureanu, R. Udrea, S. A. Irimiciuc, A. Zubarev, P.-G. Bleotu, G. Dorcioman, P. Garoi, D. Craciun, D. Ursescu, C.-M. Ticos si V. Craciun, Pulsed Laser Deposition of Ultra-Low-Density Carbon Films to Enhance fs-Laser-Plasma Coupling, prezentat la 17th International Conference on Physics of Advanced Materials (ICPAM-17), 16-23 noiembrie 2025, Shizuoka University, Hamamatsu, Japonia- T2-SO3, oral presentation
4. A. Magureanu, G. Dorcioman, S.A. Irimiciuc, P. Garoi, P-G. Bleotu, A. Zubarev, D. Ursescu, Maria-Diana Mihai, C.M. Ticos, Bogdan S. Vasile, V. Craciun, Characteristics of ultra-low density double layer targets for high intensity fs-laser-plasma interaction, E-MRS Spring Meeting, May 26-30, 2025, Strasbourg, France, oral presentation
5. V. Craciun, D. Craciun, S.A. Irimiciuc, G. Dorcioman, P. Garoi, A. Trefilov, R. Udrea, V. Grumezescu, D. Ursescu, G. Bleotu, A. Magureanu, C. Ticos, V. Geanta, I. Voiculescu, J.C. Marza-Rosca, Pulsed laser deposition of thin films for advanced applications, 10th International Conference on Materials Science and Condensed Matter Physics, Chisinau | 1-4 Oct. 2024