Articles in journals with impact factor:

1. Thermally Structured Gold Films for SERS Substrates—Patterns With and Without Solid-state Dewetting, Bratfalean, R. T.; Cozar B.I., Nuț C., PLASMONICS, Volume 16, pages 891-903, Published: JAN 11 2021.

2. Influence of Ar+ jet treatment and low substrate temperature on the solid-state dewetting of gold films , Bratfalean, R. T.; Marconi, D. , APPLIED SURFACE SCIENCE , Volume: 447, Pages: 78-86, Published: JUL 31 2018

3. Single-step fabrication of homoepitaxial silicon nanocones by molecular beam epitaxy , Colnita, Alia; Marconi, Daniel; Bratfalean, Radu Tiberiu; et al., APPLIED SURFACE SCIENCE , Volume: 436 Pages: 1163-1172, Published: APR 1 2018

4. Characterization of the topography and thickness of gallium thin films by scanning tunneling microscopy , Bratfalean, Radu T.; Marconi, Daniel; Colnita, Alia, INSTRUMENTATION SCIENCE & TECHNOLOGY , Volume: 44 Issue: 6 Pages: 629-641 Published: 2016

5. Narrowly peaked forward light scattering on particulate media: II. Angular spreading of light scattered by polystyrene microspheres , Turcu, Ioan; Bratfalean, Radu; Neamtu, Silvia, JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS, Volume: 10, Issue: 7, Article Number: 075007, Published: JUL 2008

6. Narrowly peaked forward light scattering on particulate media I. Assessment of the multiple scattering contributions to the effective phase function, Turcu, Ioan; Bratfalean, Radu, JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS, Volume: 10, Issue: 1, Article Number: 015002, Published: JAN 2008

7. Harmonic generation in a two-dimensional nonlinear quasi-crystal, Bratfalean, RT; Peacock, AC; Broderick, NGR; et al., OPTICS LETTERS, Volume: 30, Issue: 4, Pages: 424-426, Published: FEB 15 2005

8. Saturation effects in molecular spectroscopy using degenerate four-wave mixing, Bultitude, K; Bratfalean, R; Ewart, P, JOURNAL OF RAMAN SPECTROSCOPY, Volume: 34, Issue: 12, Pages: 1030-1036 Published: DEC 2003

9. Second-harmonic generation in hexagonally-poled lithium niobate slab waveguides, Gallo, K; Bratfalean, RT; Peacock, AC; et al., ELECTRONICS LETTERS, Volume: 39, Issue: 1, Pages: 75-76, Published: JAN 9 2003

10. Surface hexagonally poled lithium niobate waveguides, Busacca, AC; Sones, CL; Eason, RW; et al.,
FERROELECTRICS, Volume: 296, Pages: 3-8, Published: 2003

11. Temperature and wavelength tuning of second-, third-, and fourth-harmonic generation in a two-dimensional hexagonally poled nonlinear crystal, Broderick, NGR; Bratfalean, RT; Monro, TM; et al., JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, Volume: 19, Issue: 9, Pages: 2263-2272, Published: SEP 2002

12. Light-induced specular-reflectivity suppression at a gallium/silica interface, Albanis, V; Bratfalean, RT; Dhanjal, S; et al., OPTICS LETTERS, Volume: 25, Issue: 21, Pages: 1594-1596, Published: NOV 1 2000

13. Degenerate four-wave mixing for arbitrary pump and probe intensities, Bratfalean, RT; Lloyd, GM; Ewart, P, JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, Volume: 16, Issue: 6, Pages: 952-960, Published: JUN 1999

14. Pressure effects on the spectral line shape of broad-band degenerate four-wave mixing, Walker, DJW; Lloyd, GM; Williams, RB; et al., JOURNAL OF MODERN OPTICS, Volume: 45, Issue: 12, Pages: 2541-2549, Published: DEC 1998

15. Broadband degenerate four-wave mixing of OH for flame thermometry, Lloyd, GM; Hughes, IG; Bratfalean, R; et al., APPLIED PHYSICS B-LASERS AND OPTICS, Volume: 67, Issue: 1, Pages: 107-113, Published: JUL 1998

16. Spectral line shape of nonresonant four-wave mixing in Markovian stochastic fields, Bratfalean, R; Ewart, P , PHYSICAL REVIEW A , Volume: 56, Issue: 3, Pages: 2267-2279, Published: SEP 1997

17. The dependence of broadband four-wave mixing signal intensity on the length of the interaction region, Bratfalean, R; Ewart, P, JOURNAL OF MODERN OPTICS, Volume: 43, Issue: 12, Pages: 2523-2531, Published: DEC 1996

18. Attractors with DC not-equal DC(1) AND DC not equal DH, Bratfalean, R, PHYSICA D, Volume: 68, Issue: 2, Pages: 281-282, Published: OCT 1 1993.

Awarded patents:

30 Sept. 2020 – **Optical switch, based on gallium, with multiple aplications -** RO 126715.