

PUBLICATION LIST

Articles published in ISI indexed journals

- I.B. Cozar, **A. Colniță**, T. Szöke-Nagy, A. M. R. Gherman, N. E. Dina. **Label-Free Detection of Bacteria using Surface-Enhanced Raman Scattering and Principal Component Analysis**, Analytical Letters, 52(1) (2019) 177–189 (IF=1.206).
- **A. Colniță** et al., **Single-step fabrication of homoepitaxial silicon nanocones by molecular beam epitaxy**, Applied Surface Science, 436 (2018) 1163–1172 (IF=4.439).
- A. Calborean, I. Grosu, **A. Colniță**, D. Marconi, **Design complexity of DPN patterning with Cr³⁺ and Co²⁺ metallic ions on Au(111) thin film**, Journal of Alloys and Compounds, 747 (2018) 149-155 (IF=3.779).
- **A. Colniță** et al., **Characterization and Discrimination of Gram-Positive Bacteria Using Raman Spectroscopy with the Aid of Principal Component Analysis**, Nanomaterials, 7(9) 248 (16 pagini) (IF=3.553).
- N. E. Dina, H. Zhou, **A. Colniță** et al., **Rapid single-cell detection and identification of pathogens by using surface-enhanced Raman spectroscopy**, Analyst, 10 (2017) 1782-1789 (IF=3.885).
- N. E. Dina, **A. Colniță** et al., **A critical review on ultrasensitive, spectroscopic-based methods for high-throughput monitoring of bacteria during infection treatment**, Critical Reviews in Analytical Chemistry, 47(6) (2017) 499-512 (IF=4.00).
- R.T. Brătfălean, D. Marconi, **A. Colniță**, **Characterization of the Topography and Thickness of Gallium Thin Films by Scanning Tunneling Microscopy**, Instrumentation Science & Technology, 44 (2016) 629-641 (IF=0.525).
- **A. Colniță**, D. Marconi, I. Turcu, **Fabrication of Interdigitated Electrodes Using Molecular Beam Epitaxy and Optical Lithography**, Analytical Letters 49 (2016) 378-386. (IF=1.031).
- D. Marconi, **A. Colniță**, I. Turcu, **The Influence of Deposition Rate on the Structure and Morphology of Gold/Silicon(111) Growth by Molecular Beam Epitaxy**, Analytical Letters 49 (2016) 400-410 (IF=1.031).
- A. I. G. Petrehele, D. Rusu, **A. Ungurean**, G. L. Turdean, E. Indrea, L. David, M. Rusu, **Structural and physico-chemical study of new Keggin polyoxometalates with mixed addenda**, Chemistry Magazine 65 (2014) 265-271. (IF= 0.677).
- D. Marconi, **A. Ungurean**, **The effect of substrate temperature on structural and morphological properties of Au/Si(1 1 1) thin films**, Applied Surface Science 288 (2014) 166-171. (IF= 2.538).
- **A. Ungurean**, M. Oltean, L. David, N. Leopold, J. P. Prates Ramalho, V. Chiș, **Adsorption of sulfamethoxazole molecule on silver colloids: A joint SERS and DFT study**, Journal of Molecular Structure 1073 (2014) 71-76. (IF=1.599).

- **A. Ungurean**, N. Leopold, L. David, V. Chiș, **Vibrational spectroscopic and DFT study of trimethoprim**, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 102 (2013) 52–58. (IF= 2.129).

Articles published in non-ISI journals

- N. E. Dina, **A. Colniță** et al., **Rapid Single-cell Detection and Identification of Bacteria by Using Surface-enhanced Raman Spectroscopy**, Procedia Technology, proceeding volume BIOSENSORS 2016, 27 (2017) 203–207.
- D. Rusu, D. Mare, C. Berindean, **A. Ungurean**, O. Baban, L. David, **Spectroscopic studies of lacunary polyoxotungstates Cerium (III) complexes based on α -B-[Bi^{III}W₉O₃₃]⁹⁻ units**, Studia UBB Physica 57(LVII) 1 (2012) 87 - 92.

BOOK CHAPTERS

- L. Buimaga-larinca, D. Marconi, **A. Colniță**, C. Morari, I. Turcu, **"Molecular Devices: From Rational Design to Functional Units"**, in "Nanotechnologies and nanomaterials for various applications", ISBN 978-973-27-2954-8, edited by Maria Zaharescu, Marius Enăchescu; Dan Dascălu, Editura Academiei Române, Bucuresti, Romania (2018).
- N. E. Dina, **A. Colniță**, „**The Intricate Nature of SERS - Real Life Applications and Challenges**” (Chapter 15), in “Raman Spectroscopy and Applications”, ISBN 978-953-51-4920-0, Print ISBN 978-953-51-2907-3, edited by Khan Maaz, Publisher InTech - open science, Croatia (15.02.2017).
- **A. Colniță**, D. Marconi, I. Turcu, „**A Review-Application of Molecular Beam Epitaxy**”, in “Biophysics for Biomedical and Environmental Sciences”, ISBN 978-606-19-0768-7, Print ISBN 978-953-51-2907-3, edited by Monica Florescu, Transilvania University of Brasov Press, Brașov, Romania (2016).
- D. Marconi, **A. Colniță**, I. Turcu, „**A Hybrid Top-Down, Bottom-Up Approach to Fabrication of High Quality Interdigitated Electrodes**”, in “Biophysics for Biomedical and Environmental Sciences”, ISBN 978-606-19-0768-7, Print ISBN 978-953-51-2907-3, edited by Monica Florescu, Transilvania University of Brasov Press, Brașov, Romania (2016).

APPLICATION PATENT

- **National applications patent no A00976 Data 28.11.2018. Title: Procedeu de detecție prin spectroscopie Raman amplificată de suprafață (SERS) într-un sistem de curgere microfluidic utilizând un spot de argint ca substrat amplificator SERS.** Authors: N. E. Dina, **A. Colniță**, D. Marconi, T. Szöke-Nagy, A.M.R Gherman, N. Leopold, A. Ștefancu.