

## **Publications list 2005-present**



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**Hirsch index: 13**

1. Maria Coros, **Florina Pogacean**, Lidia Magerusan, Crina Socaci, Stela Pruneanu, **A brief overview on synthesis and applications of graphene and graphene-based nanomaterials**, **FRONTIERS OF MATERIALS SCIENCE**, 2019, 13(1), 23-32(Impact Factor=2,019)
2. **Florina Pogacean**, Maria Coros, Lidia Magerusan, Valentin Mirel, Alexandru Turza, Gabriel Katona, Raluca-Ioana Stefan-van Staden, Stela Pruneanu, **Exfoliation of graphite rods via pulses of current for graphene synthesis: sensitive detection of 8-hydroxy-2'-deoxyguanosine**, **Talanta**, 2019,196, 182-190. (Impact Factor=4,244)
3. Lidia Magerusan, **Florina Pogacean**; Maria Coros; Crina Socaci; Stela Pruneanu, Cristian Leostean; Ioan Ovidiu Pana, **Green methodology for the preparation of chitosan/graphene nanomaterial through electrochemical exfoliation and its applicability in Sunset Yellow detection**, **ELECTROCHIMICA ACTA**, 2018, 283, 578-589. (Impact Factor=5,116)
4. Maria Stefan, Adriana Popa, Ovidiu Pana, Cristian Leostean, Dana Toloman, Diana Lazar, **Florina Pogacean**, Sergiu Macavei, Simona Gutoiu, **Efficient photocatalytic removal of RhB using magnetic Fe<sub>3</sub>O<sub>4</sub>-SnO<sub>2</sub> nanocomposites containing Sn<sup>2+</sup> interstitial impurities**, **JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS**, 2018, 29, 16, 14132-14143. (Impact Factor=2,324)

5. **Florina Pogacean**, Maria Coros, Lidia Magerusan, Marcela-Corina Rosu, Crina Socaci, Stefan Gergely, Raluca-Ioana Stefan van Staden, Marioara Moldovan, Codruta Sarosi, Stela Pruneanu, **Sensitive detection of hydroquinone using exfoliated graphene-Au/glassy carbon modified electrode**, *NANOTECHNOLOGY*, 2018, 29, 9, pag 095501. (Impact Factor=3,404)
6. Maria Coros, **Florina Pogacean**, Lidia Magerusan, Marcela-Corina Rosu, Alin Sebastian Porav, Crina Socaci, Attila Bende, Raluca-Ioana Stefan-van Staden, Stela Pruneanu, **Graphene-porphyrin composite synthesis through graphite exfoliation: The electrochemical sensing of catechol**, *SENSORS AND ACTUATORS B-CHEMICAL*, 2018, 256, 665-673. (Impact Factor=5,667)
7. **Pogacean Florina**, Marcela-Corina Rosu, Maria Coros, Lidia Magerusan, Marioara Moldovan, Codruta Sarosi, Alin-Sebastian Porav, Raluca-Ioana Stefan-van Staden, Stela Pruneanu,, **Graphene/TiO<sub>2</sub>-Ag Based Composites Used as Sensitive Electrode Materials for Amaranth Electrochemical Detection and Degradation**, *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*, 2018, 165, 8, B3054-B3059. (Impact Factor=3,662).
8. Marcela-Corina Rosu, Maria Coros, **Florina Pogacean**, Lidia Magerusan, Crina Socaci, Alexandru Turza, Stela Pruneanu, **Azo dyes degradation using TiO<sub>2</sub>-Pt/graphene oxide and TiO<sub>2</sub>-Pt/reduced graphene oxide photocatalysts under UV and natural sunlight irradiation**, *SOLID STATE SCIENCES*, 2017, 70, 13-20. (Impact Factor=1,861).
9. Lidia Magerusan, Crina Socaci, Maria Coros, **Florina Pogacean**, Marcela Corina Rosu, Gergely, Stela Pruneanu, Cristian Leostean, Ioan Ovidiu Pana, **Electrochemical platform based on nitrogendoped graphene/chitosan nanocomposite for selective Pb<sup>2+</sup> detection**, *NANOTECHNOLOGY*, 2017, 28, 11, 114001. (Impact Factor=3,404).
10. Marcela-Corina Rosu, Ernoke Pall, Crina Socaci, Lidia Magerusan, **Florina Pogacean**, Maria Coros, Alexandru Turza, Stela Pruneanu, **Cytotoxicity of methylcellulose-based films containing graphenes and curcumin on human lung fibroblasts**, *PROCESS BIOCHEMISTRY*, 2017, 52, 243-249. (Impact Factor=2,616).
11. **Florina Pogacean**, Alexandru Radu Biris, Crina Socaci, Maria Coros, Lidia Magerusan, Marcela-Corina Rosu, Mihaela Diana Lazar, Gheorghe Borodi, Stela Pruneanu, **Graphene-bimetallic nanoparticle composites with enhanced electro-catalytic detection of bisphenol A**, *NANOTECHNOLOGY*, 2016, 27, 48, 484001, (Impact Factor=3,404).

12. Lidia Magerusan, **Florina Pogacean**, Crina Socaci, Maria Coros, Marcela-Corina Rosu, Stela Pruneanu, **Charge transfer-resistance in nitrogen-doped/undoped graphene: Its influence on the electro-catalytic reduction of H<sub>2</sub>O<sub>2</sub>**, **ELECTROCHIMICA ACTA**, 2016, 220, 664-671. (Impact Factor=5,116).
13. Marcela Rosu, Crina Socaci, Veronica Floare-Avram, Gheorghe Borodi, **Florina Pogacean**, Maria Coros, Lidia Magerusan, Stela Pruneanu, **Photocatalytic performance of graphene/TiO<sub>2</sub>-Ag composites on amaranth dye degradation**, **MATERIALS CHEMISTRY AND PHYSICS**, 2016, 179, 232-241. (Impact Factor=2,21).
14. Crina Socaci, **Florina Pogacean**, Alexandru Radu Biris, Maria Coros, Marcela Corina Rosu, Lidia Magerusan, Gabriel Katona, Stela Pruneanu, **Graphene oxide vs. reduced graphene oxide as carbon support in porphyrin peroxidase biomimetic nanomaterials**, **TALANTA**, 2016, 148, 511-517. (Impact Factor=4,244).
15. Lidia Magerusan, Crina Socaci, **Florina Pogacean**, Marcela-Corina Rosu, Alexandru Radu Biris, Maria Coros, Alexandru Turza, Veronica Floare-Avram, Gabriel Katona, Stela Pruneanu, **Enhancement of peroxidase-like activity of N-doped graphene assembled with iron-tetrapyridylporphyrin**, **RSC ADVANCES**, 2016, 6, 83, 79497-79506, (Impact Factor=2,936).
16. Maria Coros, **Florina Pogacean**, Marcela-Corina Rosu, Crina Socaci, Gheorghe Borodi, Lidia Magerusan, Alexandru Radu Biris, Stela Pruneanu, **Simple and cost-effective synthesis of graphene by electrochemical exfoliation of graphite rods**, **RSC ADVANCES**, 2016, 6, 4, 2651-2661, , (Impact Factor=2,936).
17. Diana Olteanu, Adriana Filip, Crina Socaci, Alexandru Radu Biris, Xenia Filip, Maria Coros, Marcela Corina Rosu, **Florina Pogacean**, Camelia Alb, Ioana Baldea, Pompei Bolfa, Stela Pruneanu, **Cytotoxicity assessment of graphene-based nanomaterials on human dental follicle stem cells**, **COLLOIDS AND SURFACES B-BIOINTERFACES**, 2015, 136, 791-798, (Impact Factor=3,997).
18. **Florina Pogacean**, Crina Socaci, Stela Pruneanu, Alexandru Radu Biris, Maria Coros, Lidia Magerusan, Gabriel Katona, Rodica Turcu, Gheorghe Borodi, **Graphene based nanomaterials as chemical sensors for hydrogen peroxide - A comparison study of their intrinsic peroxidase catalytic behavior**, **SENSORS AND ACTUATORS B-CHEMICAL**, 2015, 213, 474-483. (Impact Factor=5,667)

19. Camelia Berghian-Grosan, Alexandru Radu Biris, Maria Coros, **Florina Pogacean**, Stela Pruneanu, **Electrochemical and spectroscopic studies Of ssDNA damage induced by hydrogen peroxide using graphene based nanomaterials**, *TALANTA*, **2015**, **139**, 209-217. (Impact Factor=4,277)
20. Stela Pruneanu, Alexandru Radu Biris, **Florina Pogacean**, Crina Socaci, Maria Coros, Marcela Corina Rosu, Fumiya Watanabe, Alexandru Sorin Biris, **The influence of uric and ascorbic acid on the electrochemical detection of dopamine using graphene-modified electrodes**, *ELECTROCHIMICA ACTA*, **2015**, **154**, 197-204. (Impact Factor=5,116)
21. **Florina Pogacean**, Alexandru Radu Biris, Crina Socaci, Veronica Floare-Avram, Marcela Corina Rosu, Maria Coros, Stela Pruneanu, **Electrochemical Degradation of Carbamazepine using Modified Electrode with Graphene-AuAg Composite**, **10TH INTERNATIONAL CONFERENCE PROCESSES IN ISOTOPES AND MOLECULES (PIM 2015)**, **2015**, AIP Conference Proceedings,1700, 060003.
22. Stela Pruneanu, Alexandru R. Biris, **Florina Pogacean**, Maria Coros, Ganesh K. Kannarpady, Fumiya Watanabe, Alexandru S. Biris, **The study of adenine and guanine electrochemical oxidation using electrodes modified with graphene-platinum nanoparticles composites**, *ELECTROCHIMICA ACTA*, **2014**, **139**, 386-393. (Impact Factor=4,086)
23. **Florina Pogacean**, Alexandru R. Biris, Maria Coros, Fumiya Watanabe, Alexandru S. Biris, Simona Clichici, Adriana Filip, Stela Pruneanu, **Electrochemical oxidation of adenine using platinum electrodes modified with carbon nanotubes**, *PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES*, **2014**, **59**, 181-185. (Impact Factor=1,856)
24. **Florina Pogacean**, Alexandru R. Biris, Maria Coros, Mihaela D. Lazar, Fumiya Watanabe, Ganesh K. Kannarpady, Al Said Said A. Farha, Alexandru S. Biris, Stela Pruneanu, **Direct electrochemical oxidation of S-captopril using gold electrodes modified with graphene-AuAg nanocomposites**, *INTERNATIONAL JOURNAL OF NANOMEDICINE*, **2014**, **9**, 1111-1125. (Impact Factor =4,195)
25. Maria Coros, Alexandru Radu Biris, **Florina Pogacean**, Lucian Barbu Tudoran, Camelia Neamtu, Fumiya Watanabe, Alexandru Sorin Biris, Stela Pruneanu, **Influence of chemical oxidation upon the electro-catalytic properties of graphene-gold nanoparticle composite**, *ELECTROCHIMICA ACTA*, **91**, 137-143, **2013**. (Impact Factor=4,086)

26. Stela Pruneanu, **Florina Pogacean**, Alexandru Radu Biris , Maria Coros, Fumya Watanabe Enkeleda Dervishi, Alexandru Sorin Biris, Electro-catalytic properties of graphene composites containing gold or silver nanoparticles, **ELECTROCHIMICA ACTA**, 89, 246-252, **2013**. (Impact Factor=**4,086**)
27. Camelia Berghian-Grosan, Alexandru Radu Biris, Stela Pruneanu, Mihaela Diana Lazar, **Florina Pogacean**, Fumya Watanabe, Alexandru Sorin Biris, **Electrochemical Oxidation of Adenine on Graphene-Platinum Nanoparticles Modified Electrode**, **PROCESSES IN ISOTOPES AND MOLECULES (PIM 2013)**, **2013**, **1565**, **219-223**, AIP Conference Proceedings.
28. Radu Alexandru Biris, Stela Pruneanu, **Florina Pogacean**, Mihaela Diana Lazar; Gheorghe Borodi, Stefania Ardelean, Enkeleda Dervishi, Fumya Watanabe, Alexandru Sorin Biris, **Few-layer graphene sheets with embedded gold nanoparticles for electrochemical analysis of adenine**, **INTERNATIONAL JOURNAL OF NANOMEDICINE**, 8, 1429-1438, **2013**. (Impact Factor=**4.370**)
29. Stela Pruneanu, Alexandru Radu Biris, **Florina Pogacean**; Diana Mihaela Lazar, Stefania Ardelean, Fumya Watanabe, Enkeleda Dervishi, Alexandru Sorin Biris, **Novel Multifunctional Graphene Sheets with Encased Au/Ag Nanoparticles for Advanced Electrochemical Analysis of Organic Compounds**, **CHEMPHYSICHEM**, 13(16), 3632-3639, **2012**. (Impact Factor= **3.349**)
30. Stela Pruneanu, Liliana Olenic, **Florina Pogacean**, Lucian Barbu Tudoran, Valentin Canpean, Adriana Vulcu, Camelia Grosan, Alexandru Sorin Biris, **Nanostructures Based On Metallic Nanoparticles And Biomolecules**, **PROCESSES IN ISOTOPES AND MOLECULES (PIM 2011)**, AIP Conference Proceedings 1425, 144-147, **2012**.
31. Stela Pruneanu , **Florina Pogacean**, Alexandru Radu Biris, Stefania Ardelean, Valentin Canpean, Gabriela Blanita, Enkeleda Dervishi, Alexandru Sorin Biris, **Novel Graphene-Gold Nanoparticle Modified Electrodes for the High Sensitivity Electrochemical Spectroscopy Detection and Analysis of Carbamazepine**, **JOURNAL OF PHYSICAL CHEMISTRY C**, 115 , 47, 23387-23394, **2011**. (Impact Factor =**4,085**)
32. Stela Pruneanu, **Florina Pogacean** Camelia Grosan, Eleonora Maria Pica, Bolundut, Liviu , Alexandru Radu Biris, **Electrochemical investigation of atenolol oxidation and detection by using a multicomponent nanostructural assembly of amino acids and gold nanoparticles**, **CHEMICAL PHYSICS LETTERS**, 504(1-3), 56-61, **2011**. (Impact Factor =**2,337**)

33. **Florina Pogacean**, Ioan Baldea, Liliana Olenic, Stela Pruneanu, Alexandru Sorin Biris, **Kinetic Determination of Drug Particles Concentration via Enzyme-Catalyzed Decomposition of Hydrogen Peroxide**, **PARTICULATE SCIENCE AND TECHNOLOGY**, 29, 6, 493-502, **2011**. (Impact Factor =0,545)
34. Dana Vlascici, Stela Pruneanu, Liliana Olenic, **Florina Pogacean**, Vasile Ostafe, ; Vlad Chiriac, ; Eleonora Maria Pica, Liviu Calin Bolundut, ; Luminita Nica, ; Eugenia Fagadar-Cosma, , **Manganese(III) Porphyrin-based Potentiometric Sensors for Diclofenac Assay in Pharmaceutical Preparations**, **SENSORS**, 10, 8850-8864, **2010**. (Impact Factor =1,771)
35. Ana Maria Orza, Liliana Olenic, Stela Pruneanu, **Florina Pogacean**, Alexandru Sorin Biris, **Morphological and electrical characteristics of amino acid-AuNP nanostructured two-dimensional ensembles**, **CHEMICAL PHYSICS**, 373, 3, 295-299, **2010**. (Impact Factor =2,92)
36. Claudia Muresanu, Lucian Copolovici, **Florina Pogacean** , **A kinetic method for para-nitrophenol determination based on its inhibitory effect on the catalatic reaction of catalase**, **CENTRAL EUROPEAN JOURNAL OF CHEMISTRY**, 3, 4, 592-604, **2005**. (Impact Factor =0,991)

### **Chapter in Book**

1. **Florina Pogacean**, Stela Pruneanu, Liliana Olenic, *New hybrid materials with applications in microelectronics*, Recent Res. Devel. Mat. Sci., 9, **2012**: 117-135 ISBN: 978-81-308-0466-8.
2. Stela Pruneanu, Maria Coros, **Florina Pogacean**, *Bio-Functionalized Metallic Nanoparticles with Applications in Medicine, Handbook of Nanoparticles*, **2015**, DOI 10.1007/978-3-319-13188-7\_36-1, Springer International Publishing.

### **Patents**

1. Valer Almasan, Liliana Olenic, **Florina Pogacean**, Stela Pruneanu, **Procedeu de realizare a unui electrod de carbune sticlos, modificat cu un ansamblu nanostructurat pe baza de nanoparticule de aur si L-cisteina, (Fabrication of a glassy carbon electrode modified by gold nanoparticles and L-cysteine)**, RO-Nr. 129261-A2, 30.01.2017.
2. Stela Pruneanu, Alexandru Radu Biris, Diana Mihaela Lazar, Maria Coros, **Florina Pogacean**, **Procedeu de preparare a unui material compozit pe baza de grafene si nanoparticule**

**bimetalice, (Preparation of a composite material based on graphene and bimetallic nanoparticles), RO-Nr.130085, 30.03.2018.**

3. Magerusan Lidia, Socaci Crina, Coros Maria, Rosu Marcela Corina, **Pogacean Florina**, Pruneanu Stela Maria, **Prepararea, proiectarea si aplicatiile electrochimice ale unui nou material nanocompozit pe baza de chitosan si Grafene N-Dopate la detectia ionilor metalici,( Preparation, design and applicability of a new chitosan N-doped graphene nanocomposite in electrochemical heavy metal ion detection)**, sent to OSIM –May 2016. (Registration number: A/00311 - 04.05.2016)
4. Rosu Marcela Corina, Coros Maria, Socaci Crina, Magerusan Lidia, **Pogacean Florina**, Pruneanu Stela Maria, **Materiale composite pe baza de TiO<sub>2</sub>-Pt/ Oxid de grafena si TiO<sub>2</sub>-Pt/ Oxid de grafena redus pentru fotodegradarea colorantilor de tip azoic din ape,(Composite materials based on TiO<sub>2</sub>-Pt/graphene oxide and TiO<sub>2</sub>-Pt/reduced graphene oxide for photodegradation of azo-dyies from water)** sent to OSIM – October 2016. (Registration number: A/00731 - 14.10.2016)
5. Coros Maria, Socaci Crina, Pruneanu Stela Maria, **Pogacean Florina**, Rosu Marcela Corina, Magerusan Lidia, **Procedeu de preparare electrochimică a unui nou material compozit pe bază de grafene si porfirină si aplicația acestuia, (Method for electrochemical synthesis of new composite material based on graphene and porphyrin and its application)** sent to OSIM –April 2016. (Registration number: A/00208 - 05.04.2017)
6. Valentin Mirel, **Florina Pogacean**, Maria Coros, Stela Maria Pruneanu, **Sistem de control al procesului de exfoliere electrochimică a grafitului în scopul obținerii de grafene, (Electronic system for controlling the electrochemical exfoliation of graphite and synthesis of graphene)** sent to OSIM –April 2018. (Registration number: A/00904 -16.11.2018 )