

Lista completă a lucrărilor publicate

(în ordinea publicării începând cu cele mai recente)

1. **R.-M. Apetrei**, N. Guven, P. Camurlu, Discriminative detection of glucose and urea with a composite polymer nanofiber based matrix, **ChemistrySelect** 2024, 9, e202303424.
<https://doi.org/10.1002/slct.202303424>
2. Merih Zeynep Çetin, **Roxana-Mihaela Apetrei**, Nese Guven, Pinar Camurlu, Ultrasensitive Catechol Detection via Core-Shell Nanofibers: Effect of Type of Conducting Polymer and MWCNT Reinforcement, **J. Electrochem. Soc.**, 170, 107503, 2023. DOI 10.1149/1945-7111/acff1e
3. Andreea Veronica Dediu Botezatu, **Roxana-Mihaela Apetrei**, Iuliana Florina Costea (Nour), Vasilica Barbu, Leontina Grigore-Gurgu, Florina Botez, Rodica Mihaela Dinica, Bianca Furdui, Geta Cârâc, Synthesis and characterization of novel chitosan derivatives (containing dipyridinium quaternary salts) with antimicrobial potential, **Carbohydrate Research**, Volume 534, 2023.
<https://doi.org/10.1016/j.carres.2023.108964>.
4. **Roxana-Mihaela Apetrei**, Nese Guven, Pinar Camurlu in *Chapter 14 - Functionalized nanofibers as sensors for monitoring food quality*, **Functionalized Nanofibers: Synthesis and Industrial Applications**, Elsevier 2023, pp. 401-436 DOI: 10.1016/B978-0-323-99461-3.00025-X
5. Ayhan Altun, **Roxana-Mihaela Apetrei**, Pinar Camurlu, Catechol biosensor design based on Ferrocene-derivatized 2,5-dithienyl pyrrole copolymer with 3,4-ethylenedioxythiophene, **Biointerface research in applied chemistry** 13 DOI: 10.33263/BRIAC131.037
6. Merih Zeynep Çetin, Nese Guven, **Roxana-Mihaela Apetrei**, Pinar Camurlu, Highly sensitive detection of glucose *via* glucose oxidase immobilization onto conducting polymer-coated composite polyacrylonitrile nanofibers, **Enzyme and Microbial Technology** 164
<https://doi.org/10.1016/j.enzmitec.2022.110178>
7. Elif Merve Ozer, **Roxana Mihaela Apetrei**, Pinar Camurlu, Trace-level phenolics detection based on composite PAN-MWCNTs nanofibers, **ChemBioChem** 2022, 23, e202200139
<https://doi.org/10.1002/cbic.202200139>
8. **Roxana-Mihaela Apetrei**, Nese Guven, Pinar Camurlu, *Biosensing efficiency of nanocarbon-reinforced polyacrylonitrile nanofibrous matrices*, **Journal of the Electrochemical Society** 169
<https://doi.org/10.1149/1945-7111/ac52ff>
9. Simonas Ramanavicius, Megha A. Deshmukh, **Roxana-Mihaela Apetrei**, Almira Ramanaviciene, Ieva Plikusiene, Inga Morkvenaite-Vilkonciene, Hanuman N. Thorat, Mahendra D. Shirsat, Arunas Ramanavicius in *Chapter 15-Conducting polymers-versatile tools in analytical systems for the determination of biomarkers and biologically active compounds*, **The detection of biomarkers** 2022 (407-437) <https://doi.org/10.1016/B978-0-12-822859-3.00002-X>
10. Nese Guven, **Roxana-Mihaela Apetrei**, Pinar Camurlu, *Next step in 2nd generation glucose biosensors: Ferrocene-loaded electrospun nanofibers*, **Materials Science and Engineering C** 128(1):112270. DOI: 10.1016/j.msec.2021.112270

11. Ayhan Altun, **Roxana-Mihaela Apetrei**, Pinar Camurlu, *Functional biosensing platform for urea detection: copolymer of Fc-substituted 2,5-di(thienyl)pyrrole and 3,4-ethylenedioxythiophene*, **Journal of the Electrochemical Society** 168(6) DOI:10.1149/1945-7111/ac0600
12. **Roxana-Mihaela Apetrei**, Pinar Camurlu, *Facile copper-based nanofibrous matrix for glucose sensing: Enzymatic vs. non-enzymatic*, **Bioelectrochemistry** 140:107751 DOI: 10.1016/j.bioelechem.2021.107751
13. Ayhan Altun, **Roxana-Mihaela Apetrei**, Pinar Camurlu, *Reagentless Amperometric Glucose Biosensors: Ferrocene-Tethering and Copolymerization*, **Journal of the Electrochemical Society** 167(10) <https://doi.org/10.1149/1945-7111/ab9c81>.
14. **Roxana - Mihaela Apetrei**, Pinar Camurlu, *The effect of Montmorillonite functionalization on the performance of glucose biosensors based on composite montmorillonite/PAN nanofibers*, **Electrochimica Acta** 353:136484 <https://doi.org/10.1016/j.electacta.2020.136484>
15. **Roxana - Mihaela Apetrei**, Pinar Camurlu, *Functional Platforms for (Bio)sensing: Thiophene-Pyrrole Hybrid Polymers (Review Article)*, **Journal of the Electrochemical Society** 16(3):037557 <https://doi.org/10.1149/1945-7111/ab6e5f>.
16. Ayhan Altun, **Roxana-Mihaela Apetrei**, Pinar Camurlu, *The effect of copolymerization and carbon nanoelements on the performance of poly(2,5-di(thienyl)pyrrole) biosensors*, **Materials science and engineering: C** 105:110069 <https://doi.org/10.1016/j.msec.2019.110069>.
17. **Roxana-Mihaela Apetrei**, Geta Carac, Gabriela Bahrim, Pinar Camurlu, *Utilization of enzyme extract self-encapsulated within polypyrrole in sensitive detection of catechol*, **Enzyme and microbial technology** 128, 34-39; <https://doi.org/10.1016/j.enzmtec.2019.04.015>.
18. **Roxana-Mihaela Apetrei**, Geta Carac, Almira Ramanaviciene, Gabriela Bahrim, Catalin Tanase, Arunas Ramanavicius. *Cell-Assisted Synthesis of Conducting Polymer - Polypyrrole - for the Improvement of Electric Charge Transfer through Fungal Cell Wall*, **Colloids and Surfaces B: Biointerfaces** 175, 671-679; <https://doi.org/10.1016/j.colsurfb.2018.12.024>.
19. **Roxana-Mihaela Apetrei**, Geta Cârâc, Gabriela Bahrim, Pinar Camurlu. *Sensitivity enhancement for microbial biosensors through cell self-coating with Polypyrrole*, **International Journal of Polymeric Materials and Polymeric Biomaterials** 68(17), 1058-1067; <https://doi.org/10.1080/00914037.2018.1525548>.
20. Aura Kisieliute, Anton Popov, **Mihaela Apetrei**, Geta Carac, Inga Morkvenaite-Vilkonciene, Almira Ramanaviciene, Arunas Ramanavicius. *Towards Microbial Biofuel Cells: Improvement of Charge Transfer by Self-Modification of Microorganisms with Conducting Polymer – Polypyrrole*, **The Chemical Engineering Journal** 356, 1014-1021; <https://doi.org/10.1016/j.cej.2018.09.026>
21. **Roxana-Mihaela Apetrei**, Geta Carac, Gabriela Bahrim, Almira Ramanaviciene, Arunas Ramanavicius. *Modification of Aspergillus niger by conducting polymer, Polypyrrole, and the evaluation of electrochemical properties of modified cells*, **Bioelectrochemistry** 121 (6) 2018, 46 –55. <https://doi.org/10.1016/j.bioelechem.2018.01.001>

22. **R.-M. Apetrei**, G.-E. Bahrim, G. Cârâc, *Spectroelectrochemical characteristics of Polypyrrole synthesized by different methods*, **Bulgarian Chemical Communications**, Volume 49 Special Issue C, 74 – 83, 2017.
23. Stirke A., **Apetrei R.M.**, Kirsnyte M., Dedelaite L., Bondarenka V., Jasulaitiene V., Pucetaite M., Selkis A., Carac G., Bahrim G., Ramanavicius A. *Synthesis of polypyrrole microspheres by Streptomyces spp.* **Polymer** 2016, 84, 99-106. <https://doi.org/10.1016/j.polymer.2015.12.029>
24. **Apetrei R.M.**, Cârâc G, Bahrim G.E., *Innovative Romanian Food Biotechnology* (IDB), 2015,17 (11), 1-24.