

	
<b>Curriculum vitae Europass</b>	
<b>Personal information</b>	
Surname / First name	<b>Pruneanu Stela Maria</b>
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<b>Employments/ Occupational field</b>	Senior Researcher (CS I) at National Institute for Research and Development of Isotopic and Molecular Technologies, 67-103 Donat Street, Cluj-Napoca, ROMANIA, 400293.
<b>Education</b>	<ul style="list-style-type: none"> <li>• B.Sc. in Physics, Babes-Bolyai University , Cluj-Napoca, Romania (1982-1987)</li> <li>• Ph.D. in Physical Chemistry at Babes-Bolyai University, Cluj-Napoca, Transilvania, Romania (1996-1999); <b>Thesis Title "Electroconducting Organic Polymers. Characterization and Applications"</b> (Supervisor- Prof.Dr.Doc. Liviu Oniciu)</li> </ul>
<b>Research activity</b>	<p><b>Electrochemical studies of porous aluminum oxide growth in organic and inorganic acids (1987-1992)</b></p> <ul style="list-style-type: none"> <li>• preparation of alumina membranes having different pore diameter (10-100 nm)</li> <li>• preparation of gold and platinum nanowires, using alumina membranes as template</li> </ul> <p><b>Electrochemical and optical studies on conducting polymers (polypyrrole, polyaniline) 1993-1998</b></p> <ul style="list-style-type: none"> <li>• cyclic voltammetry</li> <li>• electrochemical quartz crystal microbalance- EQCM</li> <li>• impedance spectroscopy</li> <li>• UV-Vis absorption spectroscopy</li> </ul> <p><b>Carbon nanotubes and DNA-templated nanowires (1999-2010)</b></p> <ul style="list-style-type: none"> <li>• electrochemical investigation of biomolecule oxidation (DNA, glucose-oxidase, haemoglobin) using carbon nanotubes modified electrodes</li> <li>• preparation and characterization of glucose biosensors, using carbon nanofibres</li> </ul>

Research Stay	<p>and MWCNT as support for enzyme immobilization</p> <ul style="list-style-type: none"> <li>• electrochemical investigation of direct transfer of electrons between glucose-oxidase and multi wall carbon nanotubes</li> <li>• immobilization of DNA and avidin-biotin on self-assembled monolayers (Au-SAM) or carbon nanotubes modified electrodes (studied by differential pulse voltammetry and impedance spectroscopy)</li> <li>• investigation of DNA hybridization, using electrochemical method (differential pulse voltammetry)</li> <li>• Synthesis of metallic and polymeric nanowires using DNA as a template</li> </ul> <p><b>Graphene-based composites (2010-present)</b></p> <ul style="list-style-type: none"> <li>• Preparation of graphene-modified electrodes for electrochemical detection of pharmaceutical pollutants (e.g. carbamazepine, s-captopril; amaranth) and ssDNA oxidation</li> </ul> <ul style="list-style-type: none"> <li>○ <b>PhD student (Soros scholarship)</b> – Eotvos-Lorand University, Budapest, Hungary, April – May 1997</li> <li>○ <b>PostDoc Researcher</b>-Teesside University, UK, Feb. 2004 – July 2006</li> <li>○ <b>PostDoc Researcher</b> – Newcastle University, UK, Aug. 2006 – June 2008</li> </ul>
Research projects	<p><b><u>I. International Projects</u></b></p> <ol style="list-style-type: none"> <li>1. <b>FP 6</b> Project, Newcastle University, UK <b>NUCAN</b> (Nucleic Acid Based Nanostructures),, September 2007 – June 2008- <b>Team member (Post Doc)</b></li> <li>2. <b>EPSRC</b> Project- Newcastle University, UK, ‘<b>Molecular Self Repair</b>’ (EP/D053080), August 2006 – August 2007- <b>Team member (Post Doc)</b></li> <li>3. <b>Network of excellence : Nano2Life</b>, Newcastle University, UK, August 2006 –June 2008- <b>Team member (Post Doc)</b></li> <li>4. European Regional Development Fund- Teesside University, UK; North East England Objective 2 Programme 2000-2006; Measure 2.4-Technology Transfer Package, 70/203/011C- Microarray sensor system unit, February 2004 – July 2006 -<b>Team member (Post Doc)</b></li> </ol> <p><b><u>II. National Projects</u></b></p> <ol style="list-style-type: none"> <li>1. PN-II-ID-PCE-2011-3-0125 “Graphene-metal nanoparticles based electrodes for detection of pharmaceutical pollutants”, <b>Project Director (2011-2016)</b></li> <li>2. PN-II-PT-PCCA-2013-4-1282 “New composite materials based on biocompatible polymers and graphene for dental applications”, <b>Project Director (2014-2016)</b></li> <li>3. Programme “Nucleu” “Study of supramolecular structures with biofunctionalized nanoparticles”, <b>Project Responsible (2012-2013)</b></li> </ol>

<p><b>Computer skill and competences</b></p>	<p>4. <b>Grant –CNCSIS</b> Research on preparation and characterization of chalcogenide membranes for Cooper and Cyanide Ion-Selective Electrodes, <b>Grant Director, 2001.</b></p> <p>Competent with Microsoft Office (Word, Excell, Power Point, Table Curve, Origin, Chem Windows), Internet</p>
<p><b>Publications in ISI journals</b></p>	<ol style="list-style-type: none"> <li>1. Graphene based nanomaterials as chemical sensors for hydrogenperoxide – comparison study of their intrinsic peroxidase catalyticbehavior, Florina Pogacea Crina Socaci, <b>Stela Pruneanu</b>, Alexandru R. Biris, Maria Coros, Lidia Magerusa Gabriel Katona, Rodica Turcu, Gheorghe Borodi, Sensors and Actuators B 213 (2011) 474–483; IF = 3.840</li> <li>2. Electrochemical and spectroscopic studies of ssDNA damage induced by hydrogen peroxide using graphene based nanomaterials, Camelia Berghian-Grosan, Alexandru Radu Biris, Maria Coros, Florina Pogacean, <b>Stela Pruneanu</b>, Talanta 138(2015)209–217; IF = 3.511</li> <li>3. The influence of uric and ascorbic acid on the electrochemical detection of dopamin using graphene-modified electrodes, <b>Stela Pruneanu</b>, A. R. Biris, F. Pogacean, C. Socaci, M. Coros, M.C. Rosu, F. Watanabe, A.S. Biris, Electrochimica Acta 154 (2011) 197–204, IF= 4.086;</li> <li>4. The study of adenine and guanine electrochemical oxidation using electrodes modified with graphene-platinum nanoparticles composites, <b>Stela Pruneanu</b>, A. R. Biris, F. Pogacean, M. Coros, G. K. Kannarpady, F. Watanabe, A. S. Biris, Electrochimica Acta 139 (2014) 386–393, IF= 4.086;</li> <li>5. Electrochemical oxidation of adenine using platinum electrodes modified with carbon nanotubes, F. Pogacean, A. R. Biris, M. Coros, F. Watanabe, A. S. Biris, S. Clichici, A. Filip, <b>Stela Pruneanu</b>, Physica E 59 (2014) 181–185, IF= 1.856;</li> <li>6. Direct electrochemical oxidation of S-captopril using gold electrodes modified with graphene-AuAg nanocomposites, F. Pogacean, A. R. Biris, M. Coros, M. D. Lazar, F. Watanabe, G. K. Kannarpady, S. A. Farha Al Said, A. S. Biris, <b>Stela Pruneanu</b>, International Journal of Nanomedicine 9 (2014) 1111–1125, IF= 4.195;</li> <li>7. Catalytic one-step synthesis of Pt-decorated few-layer graphenes, A. R. Biris, M. I. Lazar, <b>Stela Pruneanu</b>, C. Neamtu, F. Watanabe, G. K. Kannarpady, E. Dervishi, A. S. Biris, RSC Adv. 3 (2013) 26391-26402, IF= 3.708;</li> <li>8. Single-step synthesis of gold nanowires using biomolecules as capping agent/templating applications for tissue engineering, A. Orza, <b>Stela Pruneanu</b>, O. Soritau, G. Borodi, A. Florea, Ș. Bâlici, H. Matei, Liliana Olenic, Particulate Science and Technology: An International Journal 6 (2013) 658-662, IF= 0.482;</li> <li>9. Application in electrochemistry of graphene-modified electrodes, M. Coros, F. Pogacean, A. R. Biris, A. S. Biris, <b>Stela Pruneanu</b>, Micro and Nanosystems 5 (2013) 127-137;</li> <li>10. Few-layer graphene sheets with embedded gold nanoparticles for electrochemical analysis of adenine, A.R. Biris, <b>Stela Pruneanu</b>, F. Pogacean, M. D. Lazar, G. Borodi, S. Ardelean, E. Dervishi, F. Watanabe, A. S. Biris, International Journal of Nanomedicine 9 (2014) 1111–1125, IF= 4.195;</li> </ol>

- Nanomedicine 8 (2013) 1429-1438, IF= 4.195;
11. Influence of chemical oxidation upon the electro-catalytic properties of graphene-go nanoparticle composite, M. Coros, A. R. Biris, F. Pogacean, L. B. Tudoran, C. Neamt F. Watanabe, A. S. Biris, **Stela Pruneanu**, *Electrochimica Acta* 91 (2013) 137-143 IF= 4.086;
  12. Electro-catalytic properties of graphene composites containing gold or silver nanoparticles, **Stela Pruneanu**, F. Pogacean, A. R. Biris, M. Coros, F. Watanabe, I. Dervishi, A. S. Biris, *Electrochimica Acta* 89 (2013) 246–252; IF=4.086;
  13. Modified gold electrodes based on thiocytosine/guanine-gold nanoparticles for uric acid and ascorbic acid determination, A. Vulcu, C. Grosan, L. M. Muresan, **Stela Pruneanu**, L. Olenic, *Electrochimica Acta* 88 (2013) 839–846, IF= 4.086;
  14. Electrochemical oxidation of adenine on graphene-platinum nanoparticles modified electrode, C. Berghian-Grosan, A. R. Biris, **Stela Pruneanu**, M. D. Lazar, F. Pogacean, F. Watanabe, A. S. Biris, *AIP Conf. Proc.* 219 (2013) 1565;
  15. Impedimetric investigation of gold nanoparticles - guanine modified electrode, A. Vulcu, **Stela Pruneanu**, C. Berghian-Grosan, L. Olenic, L. M. Muresan, L. Barbu Tudoran, *AIP Conf. Proc.* 273 (2013) 1565;
  16. Novel multifunctional graphene sheets with encased Au/Ag nanoparticles for advanced electrochemical analysis of organic compounds, **Stela Pruneanu**, A. R. Biris, I. Pogacean, D. M. Lazar, S. Ardelean, F. Watanabe, E. Dervishi, A. S. Biris, *ChemPhysChem*, 13 (2012) 3632-3639, IF= 3.349;
  17. Structural and electrochemical characterization of novel leucine-gold nanoparticle modified electrode, C. Berghian Grosan, C. Varodi, A. Vulcu, L. Olenic, **Stela Pruneanu**, V. Almasan, *Electrochimica Acta* 63 (2012) 146–152, IF= 3.777;
  18. Nanostructures based on metallic nanoparticles and biomolecules, **Stela Pruneanu**, I. Olenic, F. Pogacean, L.B. Tudoran, V. Canpean, A. Vulcu, C. Grosan, A. S. Biris, *AIP Conf. Proc.* 1425 (2012) 144-147;
  19. Novel graphene-gold nanoparticle modified electrodes for the high sensitivity electrochemical spectroscopy detection and analysis of carbamazepine, **Stela Pruneanu**, F. Pogacean, A. R. Biris, S. Ardelean, V. Canpean, G. Blanita, E. Dervishi, A. S. Biris, *J. Phys. Chem. C* 115 (2011) 23387–23394, IF= 4.805;
  20. Kinetic determination of drug particles concentration via enzyme-catalyzed decomposition of hydrogen peroxide, F. Pogacean, I. Baldea, L. Olenic, **Stela Pruneanu**, A. S. Biris, *Particulate Science and Technology* 29 (2011) 493-502, IF= 0.545;
  21. Electrochemical investigation of atenolol oxidation and detection by using multicomponent nanostructural assembly of amino acids and gold nanoparticles, **Stela Pruneanu**, F. Pogacean, C. Grosan, E. M. Pica, L. C. Bolundut, A. S. Biris, *Chem Phys. Lett.* 504 (2011) 56-61, IF= 2.337;
  22. Manganese (III) porphyrin-based potentiometric sensors for diclofenac assay in pharmaceutical preparations, D. Vlascici, **Stela Pruneanu**, L. Olenic, F. Pogacean, V. Ostafe, V. Chiriac, E. M. Pica, L. C. Bolundut, L. Nica, E. Fagadar-Cosma, *Sensors* 10 (2010) 8850-8864, IF= 1.771;
  23. Morphological and electrical characteristics of amino acid-AuNP nanostructured two-dimensional ensembles, A. Orza, L. Olenic, **Stela Pruneanu**, F. Pogacean, A.S. Biris, *Chemical Physics* 373 (2010) 295-299, IF= 2.017;

	<p>24. Carbon and diamond paste microelectrodes based on Mn(III) porphyrins for the determination of dopamine, S. C. Balasoiu, R.-I. Stefan-van Staden, J. F. van Stader <b>Stela Pruneanu</b>, G.-L. Radu, <i>Analytica Chimica Acta</i>, 668 (2010) 201-207, IF= 4.31;</p> <p>25. Template and template-free preparation of one-dimensional metallic nanostructures <b>Stela Pruneanu</b>, L. Olenic, S. A. Farha Al-Said, G. Borodi, A. Houlton, B. R. Horrocks, <i>Journal of Materials Science</i>, 45 (2010) 3151-3159, IF= 1.855;</p> <p>26. Templating Ag on DNA/polymer hybrid nanowires: Control of the metal growth morphology using functional monomers, S. A. Farha Al-Said, R. Hassanien, J. Hannan, M. A. Galindo, <b>Stela Pruneanu</b>, A. R. Pike, A. Houlton, B. R. Horrocks, <i>Electrochemistry Communications</i> 11 (2009) 550-553, IF= 4.243;</p> <p>27. Preparation of 1D nanostructures using biomolecules, <b>Stela Pruneanu</b>, L. Olenic, I. B. Tudoran, I. Kacso, S. A. Farha Al-Said, R. Hassanien, A. Houlton, B. R. Horrocks, <i>Journal of Physics: Conference Series</i> 182 (2009) 012014;</p> <p>28. Investigation of carbon nanofibres as support for bio-active substances, L. Olenic, C. Mihailescu, <b>Stela Pruneanu</b>, D. Lupu, A. R. Biris, P. Margineanu, <i>Journal of Material Science: Materials in Medicine</i> 20 (2009) 177-183, IF= 1.955;</p> <p>29. A novel isotherm, modeling self-assembled monolayer and structural changes, A. F. Henderson, L. N. Seetohul, A. K. Dean, P. Russell, <b>Stela Pruneanu</b>, Z. Ali, <i>Langmuir</i> 25 (2009) 931-938, IF= 3.898;</p> <p>30. Self-assembly of DNA-templated nanowires: spontaneous formation of nanopores <b>Stela Pruneanu</b>, L. Dong, T. A. Hollis, S. Al-Ghamdi, N. G. Wright, B. R. Horrocks, A. Houlton, <i>Advanced Functional Materials</i> 18 (2008) 2444-2454, IF= 6.808;</p> <p>31. Study of porphyrin chromophores as sensibilisators for photovoltaic solar cell, G. Mihailescu, L. Olenic, <b>Stela Pruneanu</b>, P. Ardelean, E. Indrea, S. Dreve, T. D. Silipas, <i>Journal of Optoelectronics and Advanced Materials</i> 10 (2008) 2252-2257, IF= 0.577;</p> <p>32. Impedimetric measurements for monitoring avidin-biotin interaction on self-assembled monolayer, <b>Stela Pruneanu</b>, A. Boughriet, A. Henderson, C. Malins, Z. Ali, L. Olenic, <i>Particulate Science and Technology Journal</i>, 26 (2008) 136-144, IF= 0.417;</p> <p>33. DNA-based inorganic and polymer nanowires: synthesis, characterization and electrical properties of nanoelectronic components, <b>Stela Pruneanu</b>, L. Dong, T. A. Hollis, N. G. Wright, M. A. Galindo, A. R. Pike, B. A. Connolly, B. R. Horrocks, A. Houlton, <i>DNA-BASED NANODEVICES Book Series: AIP Conference Proceedings</i> 1062 (2008) 33-42;</p>
<p><b>Chapter in Books</b></p>	<p>1. <b>Stela Pruneanu</b>, Maria Coros, Florina Pogacean, "Bio-Functionalized Metallic Nanoparticles with Applications in Medicine" Springer International Publishing, Online ISBN: 978-3-319-13188-7; 2015</p> <p>2. L. Olenic, <b>Stela Pruneanu</b>, V. Almasan, A. R. Biris, "Electrochemical and Adsorption Properties of Catalytically Formed Carbon Nanofibers" in "Nanofibers", Ed. IN-TECH, Kirchengasse 43/3, A-1070 Vienna, Austria, ISBN 978-953-7619-86-2</p> <p>3. F. Pogacean, <b>Stela Pruneanu</b>, L. Olenic, "New hybrid materials with applications in microelectronics" in <i>Recent Res. Devel. Mat. Sci.</i>, 9 (2012): 117-135 ISBN: 978-81-308-0466-8, <i>Research Signpost</i> 37/661 (2), Fort P.O.Trivandrum-695 023, Kerala,</p>

	<p style="text-align: center;">India</p> <p><b>Patents</b></p> <ol style="list-style-type: none"> <li>1. <b>Pruneanu Stela</b>, Pogacean F., Olenic L, Almasan V, <b>Fabrication of a glassy carbon electrode modified by gold nanoparticles and L-cysteine</b>, Registration No. OSIM: A/00635/04.07.2011</li> <li>2. <b>Pruneanu Stela</b>, Biris A.R., Lazar M.D., Coros M., Pogacean F., <b>Synthesis of a composite material based on graphene and bimetallic nanoparticles</b>, Registration No. OSIM: A 2013 00481</li> </ol> <p><b>Member of National Scientific Societies</b></p> <ul style="list-style-type: none"> <li>• Member of: Romanian Chemical Society; Romanian Physical Society</li> <li>• Referee at: Electrochimica Acta, Sensors, ACS Nano, Langmuir, Journal of Materials Science, Particulate Science and Technology</li> <li>• Evaluator for: <b>L'Agence Nationale de la Recherche, France</b></li> <li>• Citations in peer-review papers: 550 (without self-citation)</li> <li>• H index: 12</li> </ul>
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