



PERSONAL INFORMATION

Sorin Ionut Vizireanu



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Sex Masculin | Date of birth 24/10/1976 | Nationality Romanian

POSITION WITHIN THE PROJECT

Senior Scientist I

03/2020-present

Senior Scientist I

National Institute for Lasers, Plasma and Radiation Physics, Bucharest-Magurele, 409 Atomistilor Street, 77125, Romania. <http://www.infim.ro>

- Data processing and investigation in the field of plasma physics, plasma setup design (various type of gas discharges configurations as magnetrons, plasma sources working at low and atmospheric pressure -including submerge in liquid plasma). Plasma deposition, functionalization and investigation of thin films and carbon nanostructures obtained by plasma processing. Testing the applications of the as-synthesized and/or plasma treated nano-materials. Proposals and leading research projects. Dissemination, elaboration and publication of scientific papers.

Research

WORK EXPERIENCE

WORK EXPERIENCE

08/2014-03/2020

Senior Scientist II

01/2017-06/2017

Head of Low Temperature Plasma Physics Laboratory

National Institute for Lasers, Plasma and Radiation Physics, Bucharest-Magurele, 409 Atomistilor Street, 77125, Romania. <http://www.infim.ro>

- Data processing and investigation in the field of plasma physics, plasma setup design (different type gas discharges configurations as magnetrons, plasma sources working at low and atmospheric pressure -including submerge in liquid plasma). Plasma deposition, functionalization and investigation of thin films and carbon nanostructures obtained by plasma processing. Testing the applications of the as-synthesized and/or plasma treated nano-materials. Proposals and leading research projects. Dissemination, elaboration and publication of scientific papers.

Research

- 08/2004-08/2014 **Senior Scientist III**
 National Institute for Lasers, Plasma and Radiation Physics, Bucharest-Magurele, 409 Atomistilor Street, 77125, Romania. <http://www.Inflpr.ro>
- Data processing and investigation in the field of plasma physics, plasma setup design. Deposition, functionalization and investigation of thin films and nanostructured carbon. Plasma treatment of various nanostructured carbon materials. Proposals and leading research projects. Dissemination and elaboration of scientific papers

Research

- 06/2004-08/2008 **Research Scientist**
 National Institute for Lasers, Plasma and Radiation Physics, Bucharest-Magurele, 409 Atomistilor Street, 77125, Romania. <http://www.Inflpr.ro>
- Measurements and data processing in the field of plasma physics, plasma setup design. Deposition and investigation of thin films and nanostructured carbon materials.

Research

- 12/2000-06/2004 **Research assistant**
 National Institute for Lasers, Plasma and Radiation Physics, Bucharest-Magurele, 409 Atomistilor Street, 77125, Romania. <http://www.Inflpr.ro>
- Deposition of carbonic and metal/metal oxides materials. Measurements and processing of data acquisition in the field of low-temperature plasmas.

Research

- 12/2000–12/2001 **Research beginner**
 National Institute for Lasers, Plasma and Radiation Physics, Bucharest-Magurele, 409 Atomistilor Street, 77125, Romania. <http://www.Inflpr.ro>
- Plasma physics experiments

Research

EDUCATION AND TRAINING

- 2010-March 2013 **Post-Doctoral stage in Nanomaterials** ISCED 6
 Petrol – Gaze University, Ploiesti, Romania
- Plasma synthesis and postsynthesis treatment of carbon nanomaterials
- 2001-2008 26 September **PhD degree in Physics, with distinction Summa Cum Laude -subject "Depositions of carbon material by plasma techniques"** ISCED 6
 University of Bucharest
- Plasma Physics Studies
- 01/09-30/11/2003 **Research stage** ISCED 6
 Institute of Physics, Slovak Academy of Sciences, Department of Multilayers", Bratislava, Slovakia in the project 5th Framework Program of the European Union
- Physics Studies- materials characterizations
- 21/01 - 6/03/2003 **Research stage** ISCED 6

Hacettepe University, Institute for Pure & Applied Science Bioengineering, Food Engineering Department” Ankara -Turkey, in the project 527- Plasma Polymers and Related Materials

- Physics Studies- materials synthesis and characterizations

1999-03/2001 **Post-university classes in Informatics** ISCED 6
 Petrol – Gaze University, Ploiesti, Romania
 ▪ Computer science specializations

1999-03/2001 **MSc degree in Atomics, Molecular and Astrophysics of Physic** ISCED 6
 University of Bucharest, Romania
 ▪ Physics Studies - Specialization

10/1995-06/1999 **Bachelor in Physics** ISCED 5
 University of Bucharest, Romania
 ▪ Physics Studies - Specialization

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---------|------------------|------------------|--------------------|-------------------|------------------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | Proficient user | Proficient user | Proficient user | Proficient user | Proficient user |
| C1. | | | | | |
| French | Independent user | Independent user | Independent user | Independent user | Independent user |
| B1. | | | | | |

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

- Team spirit: I am a good team person, with initiative, used to dead-lines, long hours work and under stress: I have worked in various research teams, with different structures;
- Intercultural skills: I adapt easily to new people, situations or environments: I have worked in various research teams.

Organisational / managerial skills

- Good sense of organisation: I have been actively involved in organising conferences/workshops and research seminars;
- Project management skills proved by participation at national and international projects.
- Good leadership skills: as project leader or project coordinator from INFLPR.
- 1)-03/2010-03/2013-post-doctoral project in nanomaterials domain, theme: Synthesis and plasma postsynthesis treatments of carbon nanostructures, funded by European Social Funds through POSDRU/89/1.5/S/54785.
- 2)-08/2010-07/2013, I lead a young researcher team project TE_228/2010/ Plasma functionalization of carbon nanowalls for the control of superhydrophobicity and the attachment of nanoparticles and the biological entities.
- 3) 08/2018-09/2022, Leader of Pr4 component in PCCDI 33-Plasma portable system for local chemical decontamination.
-
- 6 partnership projects (where I'm responsible from INFLPR). These projects are carried along with Polytechnica of Bucharest, University of Bucharest and National Institute for Electrical Engineering ICPE-CA, ICECHIM etc as project coordinators.
- i)-09/2012-12/2016, Developing new graphene-polymer composites biomaterials for scaffold fabrication with applicability in bone repair by coupling multiscale molecular modeling and experiments, Polygraph, project PN-IIPCCA-140-2012/MCT,
- ii)-07/2014–12/2016, New multifunctional nanostructured coatings for orthopedic implants, acronym Nano-Coat, PN-II-PT-PCCA-253-2014/ MCT,
- iii)-07/2014–09/2017, Redox battery with fast loading capacity, as main energy source for electrical vehicles, EV-Bat acronym, PN-II-PT-PCCA-220-2014/ MCT.
- iv)-01/2017-07/2018, Nanocellulose based biocomposites with integrated antibacterial activity by submerged liquid plasma, CELLAB-SLP, PN-III-P2-2.1-PED-2016-0287/ MCT.
- v) 08/2018-09/2022 PCCDI 80, EMERG2Ind "Emerging Technologies for the industrial assimilation and development of 2D structures (graphenes and non-graphenes)
- vi) 08/2020-09/2022 PED 271/2020 Plasma Dent “ Cold plasma for fluoride retention improvement and biofilm modulation in dental application”

Job-related skills

- Plasma sources and plasma setup design (working at low and atmospheric pressure, including submerge under liquid plasma- for deposition and treatments)
- Plasma processing of carbon nanostructures (nanofibers, nanotubes and nanowalls);
- Plasma investigation during carbon synthesis;
- Plasma treatment and plasma functionalization of nanostructures;
- Materials characterization, processing and interpreting the results of FTIR, XRD, XRR, EDX, SEM, TEM, AFM, UV-Vis, Raman Spectroscopy and contact angle measurements.

Digital competence

| SELF-ASSESSMENT | | | | |
|------------------------|-----------------|------------------|------------------|------------------|
| Information processing | Communication | Content creation | Safety | Problem solving |
| Proficient user | Proficient user | Independent user | Independent user | Independent user |

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Competence and ability to use computer software in Windows/Linux platform, MS Office, Corel Draw, Adobe Acrobat, Adobe Photoshop, OriginLab, CASA XPS, Web page design.

Driving licence B

ADDITIONAL INFORMATION

Patents:

- 1. RO125409-A0_10/10/2009. Inducing Hydrogen into RF plasma and laser processing of structural fault in silicon in order to transfer mono-crystalline layers with thicknesses under 50 nm, cu autorii C. Ghica, L. C. Nistor, V. S. Teodorescu, S. Vizireanu, N. D. Scarisoreanu.
- 2. RO131328-A2_30/08/2016, Process for preparing ceramic foams based on red mud consists of gelling composition consisting of aqueous suspension of red mud, S. Apostol; F. Bacalum; R. Birjega; B. Cojocar; D. Cosasu; V. Dragut; A. Florea; M. Florea; I. A. Gradinaru; T. Iordache; E. L. Mara; A. G. Olaru; A. L. Radu; T. Sandu; A. Sarbu; L. Sarbu; T. Valea; S. Vizireanu; A. Zaharia; R. Zavoianu.
- 3. WO2016059024-A1; EP3206728-A1_23/08/2017, Growing carbon nanowalls on substrate of implantable medical device used to treat cardiac disease, I. Junkar, M. Modic, A. Vesel, Gh. Dinescu, S. Vizireanu, S.-D. Stoica, K. S. Kleinschek, M. Mozetic.
- 4. RO133620-A2/2019, A00177/13/03/2018. Method for preparing nano-composites for manufacturing biodegradable biomedical devices, involves surface treating micro- and nano-cellulose with plasma followed by dispersing in water, ultra sound-treating by using ultrasound probe, D. Panaitescu; A. N. Frone; I. Chiulan; C. A. Nicolae; S. Vizireanu; M. D. Ionita; E. R. Ionita; G. Dinescu.
- 5. OSIM A/00635/13.10.2020, Procedeu de obținere a ansamblelor membrană-electrod-strat de difuzie a gazului pe bază de nanopereți de grafene depuși în plasmă pentru pile de combustie performante, A. M. I. Trefilov, S. Vizireanu, B. I. Bită, I. Stamatina, G. Dinescu.

Honours and awards

- Romanian Academy Award in Physics -DRAGOMIR HURMUZESCU 2012, for the contribution at synthesis and characterizations of carbon nanowalls based on graphene structures

Publications

- List of ISI papers

1. B. Mitu, **S. Vizireanu**, C. Petcu, G. Dinescu, M. Dinescu, R. Birjega, V.S. Teodorescu, Carbon material deposition by remote RF plasma beam, *Surface and Coatings Technology* 180, 238-243, 2004.
2. **S. Vizireanu**, B. Mitu, G. Dinescu, Nanostructured carbon growth by expanding RF plasma assisted CVD on Ni-coated silicon substrate, *Surface and Coatings Technology* 200, 1132– 1136, 2005.
3. G. Dinescu, **S. Vizireanu**, C. Petcu, B. Mitu, M. Bazavan, I. Iova, Spectral characteristics of a radiofrequency nitrogen plasma jet continuously passing from low to atmospheric pressure, *Journal of Optoelectronics and Advanced Materials*, 7, 5, 2477 – 2480, 2005.
4. B. Mitu, **S. Vizireanu**, R. Birjega, M. Dinescu, S. Somacescu, P. Osiceanu, V. Pârvulescu, G. Dinescu, Comparative properties of ternary oxides of ZrO₂-TiO₂-Y₂O₃ obtained by laser ablation, magnetron sputtering and sol-gel techniques, *Thin Solid Films* 515, 6484–6488, 2007.
5. **S. Vizireanu**, B.Mitu, G. Dinescu, L. Nistor, C. Ghica, A. Maraloiu, M. Stancu, G. Ruxanda, Varieties of nanostructured carbon grown by expanding radiofrequency plasma beam, *Journal of Optoelectronics and Advanced Materials* 9, 6, 1649 – 1652, 2007.
6. A. Malesevic, **S. Vizireanu**, R. Kemps, A. Vanhulsel. C. Van Haesendonck, G. Dinescu, Combined growth of carbon nanotubes and carbon nanowalls by plasma-enhanced chemical vapor deposition, *Carbon* 45, 2932–2937, 2007.
7. **S. Vizireanu**, L. Nistor, M. Haupt, V. Katzenmaier, C. Oehr, G. Dinescu, Carbon Nanowalls Growth by Radiofrequency Plasma-Beam-Enhanced Chemical Vapor Deposition, *Plasma Processes and Polymers* 5, 263-268, 2008.
8. G. Ruxanda, M. Stancu, **S. Vizireanu**, G. Dinescu, D. Ciuparu, Varieties of carbon nanostructures obtained by the AC arc discharge method, *Journal of Optoelectronics and Advanced Materials* 10, 8, 2047-2051, 2008.
9. **S. Vizireanu**, G. Dinescu, D. Stoica, R. Birjega, C. Ghica, V. Teodorescu, L. Nistor, R. Ganea, Fe-catalyzed carbon nanotubes growth on fluidized powders by remote radiofrequency plasma beam, *Journal of Optoelectronics and Advanced Materials* 10, 8, 2056-2060, 2008.
10. I. Luciu, **S. Vizireanu**, T. Acseente, E. R. Ionita, B. Mitu, G. Dinescu, Investigation of radiofrequency plasma jets at low and atmospheric pressure by optical emission spectroscopy, *Journal of Optoelectronics and Advanced Materials*, 10, 8, 2015-2019, 2008.
11. G. Dinescu, B. Mitu, **S. Vizireanu**, E. R. Ionita, I. Luciu, M.D. Ionita, C. Stancu, C.E. Stancu, T. Acseente, L. Nistor, L. Kravets, Materials processing with radiofrequency plasmas at low and atmospheric pressure, *Romanian Reports in Physics* 60, 3, 67, 2008.
12. **S. Vizireanu**, S. D. Stoica, B. Mitu, M.A. Husanu, A. Galca, L. Nistor, G. Dinescu, Radiofrequency plasma beam deposition of various forms of carbon based thin films and their characterization, *Applied Surface Science* 255, 5378–5381, 2009.
13. R. Birjega, **S. Vizireanu**, G. Dinescu, L.C. Nistor, R. Ganea, The effect of textural properties of the gamma-Al₂O₃:Ni catalyst template on the nanostructured carbon grown by PECVD, *Superlattices and Microstructures* 46, 297-301, 2009.
14. C. Ghica, L.C. Nistor, M. Stefan, D. Ghica, B. Mironov, **S. Vizireanu**, A. Moldovan, M. Dinescu, Specificity of defects induced in silicon by RF-plasma hydrogenation, *Applied Physics A* 98, 4, 777-785, 2010.
15. C.Ghica, L. C. Nistor, B. Mironov, **S. Vizireanu**, Hydrogen-plasma induced platelets and voids in silicon wafers, *Romanian Reports in Physics* 62, 329-340, 2010.
16. E.C. Stancu, M.D. Ionita, **S. Vizireanu**, A.M. Stanciuc, L. Moldovan, G. Dinescu, Wettability properties of carbon nanowalls layers deposited by a radiofrequency plasma beam discharge, *Materials Science and Engineering B* 169, 119-122, 2010.
17. **S. Vizireanu**, S.D. Stoica, C. Luculescu, L.C. Nistor, B. Mitu, G. Dinescu, Plasma techniques for nanostructured carbon materials synthesis. A case study: carbon nanowall growth by low pressure expanding RF plasma, *Plasma Sources Science and Technology* 19, 034016, 2010.
18. C. Ghica, L.C. Nistor, **S. Vizireanu**, G. Dinescu, A. Moldovan, M. Dinescu, Skin Layer Defects in Si by Optimized Treatment in Hydrogen RF Plasma, *Plasma Processes and Polymers*, 7, 986, 2010.

19. C. Ghica, L.C. Nistor, V. S. Teodorescu, A. Maraloiu, **S. Vizireanu**, N. D. Scarisoreanu, M. Dinescu, Laser treatment of plasma-hydrogenated silicon wafers for thin layer exfoliation, *Journal of Applied Physics* 109, 063518, 2011.
20. C. Ghica, L. C. Nistor, **S. Vizireanu** and G. Dinescu, Annealing of hydrogen-induced defects in RF-plasma-treated Si wafers: ex situ and in situ transmission electron microscopy studies, *Journal of Physics D: Applied Physics* 44 295401, 2011.
21. **S. Vizireanu**, M. D. Ionita, G. Dinescu, I. Enculescu, M. Baibarac, I. Baltog, Post-synthesis Carbon Nanowalls Transformation under Hydrogen, Oxygen, Nitrogen, Tetrafluoroethane and Sulfur Hexafluoride Plasma Treatments, *Plasma Processes and Polymers* 9, 363, 2012.
22. **S. Vizireanu**, B. Mitu, C.R. Luculescu L.C. Nistor, G. Dinescu, PECVD synthesis of 2D nanostructured carbon material, *Surface and Coatings Technology* 211, 2, 2012.
23. Z. Gonzalez, **S. Vizireanu**, Gheorghe Dinescu, C. Blanco, R. Santamaria, Carbon Nanowalls thin films as nanostructured electrode materials in Vanadium Redox Flow Batteries, *Nano Energy* 1, 833-839, 2012.
24. **S. Vizireanu**, G. Dinescu, L.C. Nistor, M. Baibarac, G. Ruxanda, M. Stancu, D. M. Ciuparu, Stability of carbon nanowalls against chemical attack with acid solutions, *Physica E: Low-Dimensional Systems and Nanostructures*, 47, 59, 2013.
25. A. Achour, B. Belkerk, K. A. Aissa, **S. Vizireanu**, E. Gautron, M. Carette, P-Y. Jouan, G. Dinescu, L. Le Brizoual, Y. Scudeller, M-A. Djouadi, Thermal properties of carbon nanowalls layers measured by pulsed photothermal technique, *Applied Physics Letters* 102, 061903, 2013.
26. A. Marcu, I. Enculescu, **S. Vizireanu**, R. Birjega, C. Porosnicu, Single crystal ZnO nanowire luminescence shifting by nanostructured ZnO layers, *Digest Journal of Nanomaterials and Biostructures* 8, 597-605, 2013.
27. A. Achour, **S. Vizireanu**, G. Dinescu, Le Brizoual, M-A. Djouadi, M. Boujita, Electrochemical anodic oxidation of nitrogen doped carbon nanowall films: X-ray photoelectron and Micro-Raman spectroscopy study, *Applied Surface Science* 273, 49– 57, 2013.
28. **S. Vizireanu**, A. Lazea Stoyanova, M. Filipescu, D.-L. Cursaru, G. Dinescu, Carbon nanowalls as suitable layers for lubricity improvement, *Digest Journal of Nanomaterials and Biostructures* 8, 1145 - 1156, 2013.
29. E. C. Stancu, A.-M. Stanciuc, **S. Vizireanu**, C. Luculescu, L. Moldovan, A. Achour, G. Dinescu, Plasma functionalization of carbon nanowalls and its effect on attachment of fibroblast-like cells, *Journal of Physics D: Applied Physics* 47, 265203, 2014.
30. D. L. Cursaru, **S. Vizireanu**, S. Mihai, D. Ghita, S. D. Stoica, G. Dinescu, Friction and wear properties of carbon nanowalls coatings, *Digest Journal of Nanomaterials and Biostructures* 9, 1105-1114, 2014.
31. A. Lazea-Stoyanova, M. Enculescu, **S. Vizireanu**, V. Marascu, G. Dinescu, Effects of process parameters on growth of metal particles by atmospheric pressure plasma jet, *Digest Journal of Nanomaterials and Biostructures* 9, 1241-1247, 2014.
32. T.M. Dinh, A. Achour, **S. Vizireanu**, G. Dinescu, L. Nistor, A. Armstrong, D. Guay, D. Pech, Hydrous RuO₂/carbon nanowalls hierarchical structures for all-solid-state ultrahigh-energy-density micro-supercapacitors, *Nano Energy* 10, 288-294, 2014.
33. R. Ion, **S. Vizireanu**, C. E. Stancu, C. Luculescu, A. Cimpean, G. Dinescu, Surface plasma functionalization influences macrophage behavior on carbon nanowalls, *Materials Science Engineering C: Materials for Biomedical Applications* 48, 118-125, 2015.
34. M. Mozetic, A. Vesel, S.D. Stoica, **S. Vizireanu**, G. Dinescu, R. Zaplotnik, Oxygen atom loss coefficient of carbon nanowalls, *Applied Surface Science* 333, 207-213, 2015.
35. C. Constantinescu, **S. Vizireanu**, V. Ion, G. Aldica, S.D. Stoica, A. Lazea-Stoyanova, A.-P. Alloncle, P. Delaporte, G. Dinescu G, Laser-induced forward transfer of carbon nanowalls for soft electrodes fabrication, *Applied Surface Science* 374, 49–55, 2016.
36. A. Palla Papavlu, M. Filipescu, **S. Vizireanu**, L. Vogt, S. Antohe, M. Dinescu, A. Wokaun, T. Lippert, Laser-induced forward transfer of hybrid carbon nanostructures, *Applied Surface Science* 374, 312–317, 2016.
37. M.D. Ionita, **S. Vizireanu**, S. D. Stoica, M. Ionita, A. M. Pandele, A. Cucu, I. Stamatina, L. C. Nistor, G. Dinescu, Functionalization of carbon nanowalls by plasma jet in liquid treatment, *European Physical Journal D* 70, 31, 2016.
38. R. Ion, **S. Vizireanu**, C. Luculescu, A. Cimpean, G. Dinescu, Vertically, interconnected carbon nanowalls as biocompatible scaffolds for osteoblast cells, *Journal of Physics D: Applied Physics* 49, 274004, 2016.
39. V. Satulu, M.D. Ionita, **S. Vizireanu**, B. Mitu, G. Dinescu, Plasma processing with fluorine chemistry for modification of surfaces wettability, *Molecules* 21, 1711, 2016.
40. Z. Ben Cheikh, F. El Kamel, O. Gallot-Lavallée, M. A. Soussou, **S. Vizireanu**, A. Achour, K. Khirouni, Hydrogen doped BaTiO₃ films as solid-state electrolyte for micro-supercapacitor applications, *Journal of Alloys and Compounds*, 721, 276-284, 2017.
41. H. Achour, A. Achour, S. Solaymani, M. Islam, **S. Vizireanu**, A. Arman, A. Ahmadpourian, G. Dinescu, Plasma surface functionalization of boron nitride nano-sheets, *Diamond and Related Materials* 77, 110-115, 2017.
42. **S. Vizireanu**, M.D. Ionita, R.E. Ionita, S. D. Stoica, C. M. Teodorescu, M. A. Husanu, N. G. Apostol, M. Baibarac, D. Panaitescu, G. Dinescu, Aging phenomena and wettability control of plasma deposited carbon nanowall layers, *Plasma Processes and Polymers* 14, 1700023, 2017.
43. Gentoiu, MA; Betancourt-Riera, R; Vizireanu, S; Burducea, I; Marascu, V; Stoica, SD; Bitu, BI; Dinescu, G; Riera, R; "Morphology, Microstructure, and Hydrogen Content of Carbon Nanostructures Obtained by PECVD at Various Temperatures"; *JOURNAL OF NANOMATERIALS* , 1374973 (2017).
44. Panaitescu, DM; Vizireanu S; Nicolae, C. A; Frone A. N; Casarica A; Carpen L. G; Dinescu G; "Treatment of Nanocellulose by Submerged Liquid Plasma for Surface Functionalization"; *Nanomaterials* 8, 467 (2018).
45. Stoica, SD; Vizireanu, S; Acsente, T; Dinescu, G; "Hybrid Nanomaterial Architectures: Combining Layers of Carbon Nanowalls, Nanotubes, and Particles"; *PLASMA CHEMISTRY AND PLASMA PROCESSING* (38) 695-706 (2018).
46. Achour, A; Islam, M; Solaymani, S; Vizireanu, S; Saeed, K; Dinescu, G.; "Influence of plasma functionalization treatment and gold nanoparticles on surface chemistry and wettability of reactive-sputtered TiO₂ thin films"; *APPLIED SURFACE SCIENCE* (458) 678-685 (2018)
47. Vizireanu, S; Panaitescu, DM; Nicolae, CA; Frone, AN; Chiulan, I; Ionita, MD; Satulu, V; Carpen, LG; Petrescu, S; Birjega, R; Dinescu, G; "Cellulose defibrillation and functionalization by plasma in liquid treatment"; *SCIENTIFIC REPORTS* 8, 15473 (2018).
48. Mihai, S; Cursaru, DL; Matei, D; Dinescu, A; Stoica, SD; Vizireanu, S; Dinescu, G; "CARBON NANOWALLS DECORATED WITH GOLD NANOPARTICLES FOR SURFACE-ENHANCED RAMAN SPECTROSCOPY"; *DIGEST JOURNAL OF NANOMATERIALS AND BIOSTRUCTURES* 13 (3) 743-749 (2018).
49. Guerra, A; Achour, A; Vizireanu, S; Dinescu, G; Messaci, S; Hadjersi, T; Boukherroub, R; Coffinier, Y; Pireaux, JJ; "ZnO/Carbon nanowalls shell/core nanostructures as electrodes for supercapacitors"; *APPLIED SURFACE SCIENCE* 481, 926-932 (2019).
50. Alin, CD; Grama, F; Papagheorghe, R; Brajnicov, S; Ion, V; Vizireanu, S; Palla-Papavlu, A; Dinescu, M; "Tuning the physicochemical properties of hernia repair meshes by matrix-assisted pulsed laser evaporation"; *APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING* 125 (6) 424 (2019).

51. Achour, A; Islam, M; Vizireanu, S; Ahmad, I; Akram, MA; Saeed, K; Dinescu, G; Pireaux, JJ; "Orange/Red Photoluminescence Enhancement Upon SF6 Plasma Treatment of Vertically Aligned ZnO Nanorods"; NANOMATERIALS 9 (5) 794 (2019).
52. Achour, A; Solaymani, S; Vizireanu, S; Baraket, A; Vesel, A; Zine, N; Errachid, A; Dinescu, G; Pireaux, JJ; "Effect of nitrogen configuration on carbon nanowall surface: Towards the improvement of electrochemical transduction properties and the stabilization of gold nanoparticles"; MATERIALS CHEMISTRY AND PHYSICS 228, 110-117 (2019).
53. Stancu, EC; Vizireanu, S; Quade, A; Stanciuc, AM; Moldovan, L; Dinescu, G; "MODIFICATION OF CARBON NANOWALLS USING LOW PRESSURE PLASMA TO ENHANCE THE FIBROBLAST ATTACHMENT"; ROMANIAN JOURNAL OF PHYSICS 64 (43894) 504 (2019).
54. Cursaru, D.L; Giagkasa, N; Vizireanu, S; Mihai, S; Matei, D; Biță, B; Stancu, C; Manta, A.M; Ramadan, I; Improvement of antiwear properties by coating the steel surfaces and by lubricant additivition; Digest Journal of Nanomaterials and Biostructures 14, 907-915, (2019).
55. Panaitescu, DM; Vizireanu, S; Stoian, SA; Nicolae, CA; Gabor, AR; Damian, CM; Trusca, R; Carpen, LG; Dinescu, G; "Poly(3-hydroxybutyrate) Modified by Plasma and TEMPO-Oxidized Celluloses"; POLYMERS 12 (7) 1510 (2020)
56. Yehia, SA; Zarif, ME; Bită, BI; Teodorescu, M; Carpen, LG; Vizireanu, S; Petrea, N; Dinescu, G; "Development and Optimization of Single Filament Plasma Jets for Wastewater Decontamination"; PLASMA CHEMISTRY AND PLASMA PROCESSING 40(6), 1485-1505 (2020)
57. S.D. Stoica, S. Vizireanu, C.R. Luculescu, B. Mitu, G. Dinescu, Metastable growth regime for carbon nanowalls and carbon nanofibers in an 2 Ar/H2/C2H2 radiofrequency plasma jet, Plasma Sources Science and Technology 29(10), 105007 (2020). "
58. Bită, B; Vizireanu, S; Stoica, D; Ion, V; Yehia, S; Radu, A; Iftimie, S; Dinescu, G; On the Structural, Morphological, and Electrical Properties of Carbon Nanowalls Obtained by Plasma-Enhanced Chemical Vapor Deposition, Journal of Nanomaterials, 8814459 (2020).
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