

# Ioan Stefan Voicu

## Curriculum Vitae January 2021

### Prof. Dr. Habil. Eng.



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### Current positions

- Professor, Dr. Habil. Eng., University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science, Department of Analytical Chemistry and Environmental Engineering;
- Project Team Leader in Advanced Polymers Materials Group, University Politehnica of Bucharest;
- Member of the Senate of the University Politehnica of Bucharest (2020-2024);
- Member of the Ethics and Academic Integrity Commission, University Politehnica of Bucharest (2020-2024);
- Member of the Doctoral School Council University Politehnica of Bucharest, Faculty of Applied Chemistry and Materials Science.

### Professional experience

- **University POLITEHNICA of Bucharest, Faculty of Applied Chemistry and Materials Sciences, Professor**, Department of Analytical Chemistry and Environmental Engineering (since Oct. 2019), **Associate Professor**, Department of Analytical Chemistry and Environmental Engineering (Oct. 2017 – Sep. 2019); **Lecturer**, Department of Analytical Chemistry and Environmental Engineering (Oct. 2011 – Sep. 2017); **University Assistant**, Analytical Chemistry and Instrumental Analysis Department (since Oct. 2009); **Researcher** (Oct. 2006 – Sep. 2009); Member of the Professorial Council (2012-2016);
- **Honeywell Romania SRL, Research Scientist**, Automation and Control Solutions Division, Sensors and Wireless Laboratory Bucharest (Apr. 2006 – Dec. 2007);
- **National Institute for Research and Development in Chemistry ICECHIM, Research Assistant**, Polymers Department (Jan. 2006 – Oct. 2006).

- **Aectra SRL, Sales and Marketing Representative** for General Electric Plastics, DuPont de Nemour, General Electric-Bayer Silicones, Avantec (Nov. 2003 – Oct. 2004).

## Education

- **Habilitation in Chemical Engineering:** University Politehnica of Bucharest, public defence of Habilitation Thesis on July 14<sup>th</sup>, 2016 awarded by Ministerial Order
- **Postdoctoral Researcher:** University Politehnica of Bucharest, May 2010 - Mar. 2013, Membrane nanomaterials based on conductive polymers and carbon nanotubes;
- **Ph.D. in Chemical Engineering:** University Politehnica of Bucharest, Oct. 2005 - Sep. 2008, Research advisor: Prof. Dr. Eng. Gheorghe NECHIFOR, Functionalized Polymeric Materials with Directed Selectivity;
- **M.Sc.:** University Politehnica of Bucharest, Oct. 2005 - Jul. 2007, Analytical Control of the Environment Quality and Depollution Techniques, Dissertation title: Polymeric composite membranes polysulfone-polyaniline for environmental decontamination techniques;
- **Dipl.-Eng.:** University Politehnica of Bucharest, Oct. 2000 – Jul. 2005, Organic Compounds Technology, Dissertation title: Synthesis of macroheterocyclic ligands in water.

## Courses and Qualifications

- Enschede, Netherlands (7-16 April 2010), Nanomemcourse – Nanomaterials for water and health (Organized by European Membrane Society and Twente University, Enschede);
- Leuven, Belgium (7-11 September 2008), XXV Summer School of the European Membrane Society – Solvent resistant membranes (Organized by European Membrane Society and Centre for Surface Chemistry and Catalysis - Katholieke Universiteit Leuven);
- Genova, Italy, (11-14 September 2007), XXIV Summer School of the European Membrane Society – Membrane for Reactive Processes (Organized by European Membrane Society and Dipartimento di Chimica e Chimica Industriale - Universita degli Studi di Genova);
- Bucharest, Romania (14-19 June 2010), XXVII Summer School of the European Membrane Society - Systems membranes-complex roadmaps toward functional devices and coupled processes (Organized by European Membrane Society and University POLITEHNICA of Bucharest).

## Awards and Prizes

1. **Highly Cited Paper** in November/December 2019 for A. Muhulet, F. Miculescu, **S.I. Voicu\***, F. Schütt, V.K. Thakur, Y.K. Mishra, Fundamentals and Scopes of Doped Carbon Nanotubes Towards Energy and Biosensing Applications, **Materials Today Energy** 9 (2018) 154-186, doi: 10.1016/j.mtener.2018.05.002, in the top 1% of its academic field, according to Thomson Reuters ISI;
- **Highly Cited Paper** in January 2018 – January 2021 for ‘V.K. Thakur, S.I. Voicu\*, Recent Advances in Cellulose and Chitosan Membranes for Water Purification: A Concise

- Review, Carbohydrate Polymers, 2016, 146, 148-165, DOI: 10.1016/j.carbpol.2016.03.030', in the top 1% of its academic field, according to Thomson Reuters ISI;
- **Highly Cited Paper** in November/December 2016 for 'M. Miculescu, V.K. Thakur, F. Miculescu, S.I. Voicu, Graphene based polymer nanocomposite membranes: A Review, Polymers for Advanced Technologies, 2016, 27(7), 844-859, DOI: 10.1002/pat.3751', according to Thomson Reuters ISI;
  - 2011, **IN TEMPORE OPPORTUNO** Prize, awarded by University Politehnica of Bucharest;
  - 2010, **Best Paper Award**, IEEE International Semiconductor Conference, for paper "V. Luntraru, V. Danciulescu, A.C. Nechifor, S.I. Voicu, G. Nechifor, Invertase immobilization onto dispersed magnetic particles. Synthesis and characterization, Proceedings of International Semiconductors Conference (CAS), 2010, pg: 309-312, DOI: 10.1109/SMICND.2010.5650721, ISBN: 978-1-4244-5783-0";
  - 2010, **Oral Presentation Award XXVII** Summer School of the European Membrane Society - Systems membranes-complex roadmaps toward functional devices and coupled processes for presentation "Polysulfone composite membranes with applications in electronics";
  - 2005, **1<sup>st</sup> Prize**, Student's scientific research session, 'Politehnica' University of Bucharest, Organic chemistry section, "Macro-heterocyclic compounds";
  - 2003, **3<sup>rd</sup> Prize**, Student's scientific research session, 'Politehnica' University of Bucharest, Organic chemistry section, "Organic Synthesis in Water";
  - 2002, **Mention Prize**, Student's scientific research session, 'Politehnica' University of Bucharest, Physical chemistry section, "The electro-polymerization reactions. Base for metal-polymer accumulators".
  - **19 UEFISCDI Prizes** for published papers (PN-III-P1-1.1-PRECISI-2019-32931, PN-III-P1-1.1-PRECISI-2019-32967, PN-III-P1-1.1-PRECISI-2019-33870, PN-III-P1-1.1-PRECISI-2018-24803, PN-III-P1-1.1-PRECISI-2018-24381, PN-III-P1-1.1-PRECISI-2018-23241, PN-III-P1-1.1-PRECISI-2018-22629, PN-III-P1-1.1-PRECISI-2018-22647, PN-III-P1-1.1-PRECISI-2017-20313, PN-III-P1-1.1-PRECISI-2017-20060, PN-III-P1-1.1-PRECISI-2017-20060, PN-III-P1-1.1-PRECISI-2016-12861, PN-III-P1-1.1-PRECISI-2016-12462, PN-III-P1-1.1-PRECISI-2016-12464, PN-III-P1-1.1-PRECISI-2016-11593, PN-II-RU-PRECISI-2015-9-9859, PN-II-RU-PRECISI-2014-8-6547, PN-II-RU-PRECISI-2013-7-3873, PN-II-RU-PRECISI-2013-7-2348).

### **Editor/conferences chair or member of organizing committee/reviewer**

- **Member of the Editorial Board, Coatings MDPI.**
- **Member of the Editorial Board, Journal of Functional Biomaterials (JFB) MDPI.**
- **Guest Editor, Membranes MDPI (ISI IF 2.350)**, Special Issue „Functionalized and composite membranes for biomedical applications“;
- **Guest Editor, SN Applied Sciences Springer**, Special Issue „Synthesis and Manufacturing of Materials for the Future“;
- **Guest Editor, Coatings MDPI (ISI IF 2.350)**, Special Issue „Membrane Processes for Water Purification“;
- **Guest Editor, Materials MDPI (ISI IF 2.467)**, Special Issue „Advanced Composite Biomaterials“;

- **Member of the Editorial Advisory Board** ‘Journal of Optoelectronics and Advanced Materials’ (INOE), IF 0.560;
- **Academic Editor** ‘Journal of Nanomaterials’ (Hindawi), IF 1.611;
- **Academic Editor** ‘Journal of Chemistry’ (Hindawi), IF 0.620;
- **Member of the Organizing Committee** of the Romanian International Conference on Chemistry and Chemical Engineering 2007, 2009, 2011, 2013, 2017;
- **Member of the Scientific Committee** of the International Conference “Biomaterials, Tissue Engineering & Medical Devices” BIOMMEDD’ 2016, Constanta, Romania;
- **Chairperson** at Romanian International Conference on Chemistry and Chemical Engineering 2009, 2011, 2017, Romania;
- **Chairperson** at International Seminar on Biomaterials and Regenerative Medicine 2015, Oradea, Romania;
- **Chairperson** at EMN Smart and Multifunctional Materials 2016, Berlin, Germany;
- **Reviewer** for 32 Thomson Reuters ISI Journals: Scientific Reports (Nature), ACS Applied Materials and Interfaces (American Chemical Society), The Journal of Physical Chemistry (American Chemical Society), ACS Environmental Science and Technology (American Chemical Society), RSC Advances (Royal Society of Chemistry), Current Opinion in Green and Sustainable Chemistry (Elsevier), Food Bioscience (Elsevier), Journal of Alloys and Compounds (Elsevier), Applied Surface Science (Elsevier), Comptes Rendus du Chimie (Elsevier), Chinese Chemical Letters (Elsevier), Heliyon (Elsevier), Journal of Membrane Science (Elsevier), Journal of Molecular Catalysis B (Elsevier), Vacuum (Elsevier), International Journal of Biological Macromolecules (Elsevier), Environmental Technology (Springer), Journal of Nanostructure in Chemistry (Springer), Cellulose (Springer), Applied Water Science (Springer), Applied Physics A (Springer), Journal of Polymers and Environment (Springer), Polymer Bulletin (Springer), Journal of Adhesion Science and Technology (Taylor and Francis), Chemical Engineering Communications (Taylor and Francis), Journal of Nanomaterials (Hindawi), Journal of Chemistry (Hindawi), Materials Express (ASP), Romanian Reports in Physics (IFIN-HH), Journal of Optoelectronics and Advanced Materials (INOE), Optoelectronics and Advanced Materials – Rapid Communications (INOE), U.P.B. Scientific Bulletin Series B (UPB).

### **Projects (project manager, responsible, fellowships)**

- **Project manager**, PCE 239/2021 (May 2021 – Apr. 2024), 1183559 RON ( $\approx$  242500 EUR), Hemodialysis combined with stimuli responsive drug delivery - a new generation of polymeric membranes for advanced biomedical applications (HemDelStim).
- **Project manager**, PED 314/2020 (August 2020 – Jul. 2022), 600000 RON ( $\approx$  122500 EUR), Surface acoustic wave biosensor based on functionalized graphene with monoclonal anti-alpha-fetoprotein antibody for hepatic cancer diagnostic; National Institute for Laser Plasma & Radiation Physics (INFLPR - partner); UPB Project value – 350000 RON ( $\approx$  71500 EUR).
- **Project manager**, RU-TE 20/2018 (May 2018 – Apr. 2020), 449500 RON ( $\approx$  100000 EUR), New generation of membrane systems with visual control of separation process efficiency based on modification of membrane colour surface.

- **Project manager**, RU-TE 303/2015 (Oct. 2015 – Sep. 2017), 540500 RON ( $\approx$  120000 EUR), Nanostructured membrane reactors for derivatization and doping of carbon nanotubes and graphenes.
- **Project manager** Grant CNCSIS Bd 013/2006 (Apr. 2006 – Dec. 2008), 34240 RON ( $\approx$  9000 EUR), Functionalized polymeric materials with directed selectivity;
- **Project manager** Grant CNCSIS Td 025/2007 (May. 2007 – Dec. 2008), 79000 RON ( $\approx$  22000 EUR), Micro and nano-structured functionalized materials, based on cyclodextrin molecularly imprinted polymers for pharmaceutical uses.
- **Project responsible** UPB partner PCCA 195/2014 (Sep. 2014 – Sep. 2017), administrated funds 300000 RON ( $\approx$  70000 EUR), Strategii terapeutice pentru imbunatatirea raspunsului de vindecare a osului prin utilizarea de implanturi pe baza de magneziu bioresorbabile cu acoperiri bioactive;
- **Project responsible** 15PCCDI/2018 (Mar. 2018 – Dec. 2020), Fabrication, calibration and testing for advanced integrated systems of sensors for applications in societal security, sub-project - Design, fabrication and evaluation of chemical-resistive sensors matrices for detection of explosives volatile compounds; sub-project value 1433333 RON ( $\approx$  308000 EUR), partners - National Institute for Laser Plasma & Radiation Physics (INFLPR-project coordinator), National Institute For Research And Development In Mine Safety And Protection To Explosion – Insemex Petrosani; UPB Project value – 300000 RON ( $\approx$  65000 EUR);
- **Project responsible** 39PCCDI/2018 (Mar. 2018 – Aug. 2020), Intelligent materials for medical applications, sub-project - New generation of hemodialysis composite membranes with derivatized graphene; sub-project value – 825205 RON ( $\approx$  177500 EUR), partners – National Institute for Laser Plasma & Radiation Physics (INFLPR) and Gr.T. Popa University of Medicine and Pharmacy; UPB Project value – 624485 RON ( $\approx$  135000 EUR);
- **Postdoctoral fellowship**, ESF Project POSDRU/89/1.5/S/54785 (May 2010 – Apr. 2013), 167165 RON ( $\approx$  39000 EUR) Membrane nanomaterials based on conductive polymers and carbon nanotubes;
- **EU Financial Support**, Training course, XXIV Summer School of the European Membrane Society – Membrane for Reactive Processes, Marie Curie FP 6, Project Nr. 29483 – 09/2007, 1000 EUR;
- **EU Financial Support**, Training Course, Nanomemcourse – Nanomaterials for water and health, Marie Curie FP 6, Project Nr. 29483 – 04/2010, 440 EUR.

### Affiliation at professional organizations

- Member of the American Chemical Society (2016-present);
- Member of the European Membrane Society (2008-2013, 2020-present);
- Member of SPIE Society (2011);
- Member of the American Nano Society (2010-present);
- Member of the Romanian Chemical Society (2006-present);
- Member of the Romanian Society of Biomaterials (2006-present).

### Research interests

Functionalized and composite polymeric membranes for biomedical applications (hemodialysis and osseointegration) and for other industrial applications, chemistry of carbon nanotubes and graphene for sensors.

### **Scientific and publishing activity**

Main scientific activity is related to the field of polymeric membranes (first reported covalent interaction between carbon nanotubes and membrane – Desalination, 2009, 241, 342-348; first reported membrane reactor for derivatization of carbon nanotubes – Digest Journal of Nanomaterials and Biostructures, 2013, 8(2), 875-884; derivatized membranes for osseointegration – ACS Sustainable Chemistry and Engineering, 2016, 4(3), 1765-1774 and Applied Surface Science, composite membranes with graphene – Composites Part B, 2015, 72, 108-115, Carbohydrate Polymers, 183, 50-61, 2018, Polymers for Advanced Technologies, 2016, 27(3), 350-357). I published 52 papers indexed in Thomson Reuters indexed journals with a total impact factor of 105,141; 3 granted US patents and 4 patent applications (3 US and 1 EU); 10 books and book chapters (6 chapters at Wiley, 1 chapter and 1 book as co-editor at Springer, 1 chapter at In Tech, 1 book as co-editor at Trans Tech), 31 oral communications (10 invited).

- H index on Web of Science – 25 (2000 citations)
- H index on Scopus – 25 (2300 citations)
- H index on Scholar Google – 29 (2800 citations)



## List of Publications

### Patents

3. B.C. Serban, **S.I. Voicu**, S.D. Costea, C. Cobianu, Matrix nanocomposite sensing film for SAW/BAW based hydrogen sulphide sensor and method for making same, US Patent Office, US 7,695,993 B2, Derwent Primary Accession Number: 2009-R27632 [46].
2. B.C. Serban, V.G. Dumitru, C. Cobianu, S.D. Costea, N. Varachiu, **S.I. Voicu**, Methods for use of a sensitive layer for hydrogen sulphide detection with SAW/BAW devices, US Patent Office, US 7,867,552 B2, Derwent Primary Accession Number: 2009-R27545 [05].
1. B.C. Serban, C. Cobianu, M. Bercu, N. Varachiu, M. Mihaila, C. Bostan, **S.I. Voicu**, Matrix nanocomposite containing aminocarbon nanotubes for carbon dioxide sensor detection, US Patent Office, US 7,913,541 B2, Derwent Primary Accession Number: 2008-N35121 [74].

### Books

4. A. Kumar, **S.I. Voicu**, V.K. Thakur Ed., *3D Printable Gel-inks for Tissue Engineering: Chemistry, Processing and Applications*, **Springer Nature**, in preparation, 2021.
3. **S.I. Voicu**, M. Miculescu Ed., *Advanced Composite Biomaterials*, **MDPI**, 186 pages, ISBN 978-3-0365-0765-1.
2. V.K. Thakur, M.K. Thakur, **S.I. Voicu** Ed., *Polymer Gels Perspectives and Applications*, **Springer**, 414 pages, ISBN 978-981-10-6079-3.
1. I.V. Antoniac, S. Cavalu, **S.I. Voicu** Ed., *Biomaterials and Regenerative Medicine (Key Engineering Materials)*, **Trans Tech Publication**, 2016, 334 pag., ISBN 978-3-03835-567-0.

### Book chapters

10. M. Necolau, A.M. Pandele, **S.I. Voicu\***, *Plant polysaccharides in nasal drug delivery in Plant Polysaccharides as Pharmaceutical Excipients*, **Elsevier**, invited, in preparation.
9. A. Kumar, Future perspectives for gel inks for 3D printing for tissue engineering in *3D Printable Gel-inks for Tissue Engineering: Chemistry, Processing and Applications*, **Springer Nature**, in preparation, 2021.
8. A.M. Pandele, C. Tuncel (Netoiu), **S.I. Voicu**, *Polymeric Composite Membranes Enabled by Carbon Nanotubes and Graphene for Water Purification*, Materials Science and Technology, **Wiley-VCH Verlag GmbH & Co. KGaA**, 2019, DOI:10.1002/9783527603978.mst0454
7. Miculescu F., Mocanu A.C., Stan G.E., Maidaniuc A., Miculescu M., **Voicu S.I.**, Antoniac I., *Bioceramics derived from marble and seashells as potential bone*

- substitution materials*, Bioceramics and Biocomposites: From Research to Clinical Practice, **Wiley**, April 2019, ISBN 978-1-119-04934-0
6. F. Miculescu, A.-C. Mocanu, A. Maidaniuc, C.-A. Dascalu, M. Miculescu, **S.I. Voicu**, R.-C. Ciocoiu, *Biomimetic calcium phosphates derived from marine and land bioresources, in Hydroxyapatite - Advances in Composite Nanomaterials, Biomedical Applications and Its Technological Facets*, **InTech**, 2018, pp.89-108, ISBN 978-953-51-3804-4.
  5. M.C. Corobea, Z. Vuluga, D. Florea, F. Miculescu, **S.I. Voicu\***, *Composites and nanocomposites based on Polylactic acid obtaining in Handbook of Composites from renewable Polymers*, **John Wiley & Sons**, February 2017, ISBN 978-1-119-22383-2.
  4. F. Miculescu, A. Maidaniuc, G.E. Stan, M. Miculescu, **S.I. Voicu**, A. Cîmpean, V. Mitran and D. Batalu, *Tuning Hydroxyapatite Particles' Characteristics for Solid Freeform Fabrication of Bone Scaffolds in Advanced Composites Materials*, **John Wiley & Sons**, 2016, pp. 321-398, ISBN: 978-1-119-24253-6.
  3. F. Miculescu, A. Maidaniuc, G.E. Stan, M. Miculescu, **S.I. Voicu**, L.T.Ciocan, *Thermal degradation and morphological characteristics of bone products, in Reactions and Mechanisms in Thermal Analysis of Advanced Materials*, **John Wiley & Sons**, 2015, pp. 393-410, ISBN 978-1-119-11757-5.
  2. **S.I. Voicu\***, M. Sandru, "Composite hybride membrane materials for artificial organs" in "Handbook of Bioceramics and Biocomposites", **Springer** 2015, pp. 407-429, ISBN 978-3-319-12459-9.
  1. **S.I. Voicu\***, "Pharmaceutical applications of polymeric membranes" in "Handbook of Pharmaceutical Polymers: Processing and Applications", **John Wiley & Sons**, 2015, pp. 173-194, ISBN 978-1-119-04138-2.

### ISI quoted papers

#### 2021

68. **S.I. Voicu\***, V.K. Thakur, *Graphene-Based Composite Membranes for Nano filtration: Performances and Future Perspectives*, **Emergent Materials**, 2021.
67. A. Palla-Papavlu, **S.I. Voicu**, M. Dinescu, *Sensitive Materials and Coating Technologies for Surface Acoustic Wave Sensors*, **Chemosensors**, 2021, 9(5), 105.
66. **S.I. Voicu\***, V.K. Thakur, *Aminopropyltriethoxysilane As A Linker for Cellulose-Based Functional Materials: New Horizons and Future Challenges*, **Current Opinion in Green and Sustainable Chemistry, Invited Paper**, 2021.
65. I. Chiulan, E.B. Heggset, **S.I. Voicu**, G. Chinga-Carrasco, *Photopolymerization of biobased polymers in a biomedical engineering perspective*, **Biomacromolecules**, 2021, 22(5), 1795-1814.
64. **S.I. Voicu\***, M. Miculescu, *Advanced Composite Biomaterials*, **Materials**, 2021, 14(3), 625, Editorial.
63. A.C. Mocanu, F. Miculescu, G.E. Stan, A. M. Pandele, M.A. Pop, R.C. Ciocoiu, **S.I. Voicu**, L.T. Ciocan, *Fiber-Templated 3D Calcium-Phosphate Scaffolds for Biomedical*



*Applications: The Role of the Thermal Treatment Ambient on Physico-Chemical Properties*, **Materials**, 2021, 14(9), 2198.

62. A.C. Mocanu, F. Miculescu, M. Miculescu, R.C. Ciocoiu, A.M. Pandele, G.E. Stan, A. Cimpean, **S.I. Voicu**, L.T. Ciocan, *Comprehensive analysis of compatible natural fibre as sacrificial porogen template for tailored ceramic 3D bioproducts destined for hard tissue reconstruction*, **Ceramics International**, 2021, 47(4), 5318-5334.

## 2020

61. F. Miculescu, C. Luta, A.E. Constantinescu, A. Maidanius, A.C. Mocanu, M. Miculescu, **S.I. Voicu**, L.T. Ciocan, *Considerations and Influencing Parameters in EDS Microanalysis of Biogenic Hydroxyapatite*, **Journal of Functional Biomaterials**, 2020, 11(4), 82
60. M. Oprea, **S.I. Voicu\***, *Cellulose Composites with Graphene for Tissue Engineering Applications*, **Materials**, 13(23) (2020) 5347
59. A.M. Pandele, O.S. Serbanescu, **S.I. Voicu\***, *Polysulfone composite membranes with carbon nanotubes or graphene. Synthesis and applications*, **Coatings**, 2020.
58. O.S. Serbanescu, **S.I. Voicu\***, V.K. Thakur, *Polysulfone functionalized membranes: Properties and challenges*, **Materials Today Chemistry**, 2020.
57. A.M. Pandele, H. Iovu, C. Orbeci, C. Tuncel, A. Niculescu, C. Deleanu, **S.I. Voicu\***, *Surface Modified Cellulose Acetate Membranes for the Reactive Retention of Tetracycline*, **Separation and Purification Technology**, 2020.
56. M. Oprea, S.I. Voicu, *Recent advances in composites based on cellulose derivatives for biomedical applications*, **Carbohydrate Polymers**, 2020.
55. M. Oprea, **S.I. Voicu\***, *Recent advances in applications of cellulose derivatives-based composite membranes with hydroxyapatite*, **Materials**, 2020.
54. O.S. Sebanescu, A.M. Pandele, F. Miculescu, **S.I. Voicu\***, *Synthesis and characterization of cellulose acetate membranes with self-indicating properties by changing the membrane surface color for separation of Gd (III)*, **Coatings**, 2020.
53. C.-A. Dascalu, F. Miculescu, A.-C. Mocanu, A. E. Constantinescu, T. M. Butte, A. M. Pandele, R.-C. Ciocoiu, **S.I. Voicu**, L.T. Ciocan, *Novel Synthesis of Core-Shell Biomaterials from Polymeric Filaments with Bioceramic Coating for Biomedical Applications*, **Coatings**, 2020.
52. A. Muhulet, C. Tuncel, F. Miculescu, A.M. Pandele, C. Bobirica, C. Orbeci, L. Bobirica, A. Palla-Papavlu, **S.I. Voicu\***, *Synthesis and characterization of polysulfone-doped TiO<sub>2</sub> MWCNT composite membranes by sonochemical method*, **Applied Physics A**, 2020.
51. A. Maidaniuc, F. Miculescu, R.C. Ciocoiu, T. Butte, I. Pasuk, G.E. Stan, **S.I. Voicu**, L.T. Ciocan, *Effect of the processing parameters on surface, physico-chemical and mechanical features of bioceramics synthesized from abundant carp bones*, **Ceramics International**, 2020.
50. A.M. Pandele, A. Constantinescu, I.C. Radu, F. Miculescu, **S.I. Voicu\***, L.T. Ciocan, *Synthesis and characterization of PLA - microstructured hydroxyapatite composite films*, **Materials**, 2020.

49. R. Zhao, S. Chen, W. Zhao, L. Yang, B. Yuan, S.I. **Voicu**, I.V. Antoniac, X. Yang, X. Zhu, X. Zhang, *A bioceramic scaffold composed of strontium-doped three-dimensional hydroxyapatite whiskers for enhanced bone regeneration in osteoporotic defects*, **Theranostics** 2020; doi:10.7150/thno.40103.

## 2019

48. C.-A. Dascaľu, A. Maidaniuc, A.M. Pandele, **S.I. Voicu**, T. Machedon-Pisu, G.E. Stan, A. Cĩmpean, V. Mitran, I.V. Antoniac, F. Miculescu, *Synthesis and characterization of biocompatible polymer-ceramic film structures as favorable interface in guided bone regeneration*, **Applied Surface Science** 494 (2019) 335-352, doi: 10.1016/j.apsusc.2019.07.098
47. M.D. Raicopol, C. Andronescu, **S.I. Voicu**, E. Vasile, A.M. Pandele, *Cellulose acetate/layered double hydroxide adsorptive membranes for efficient removal of pharmaceutical environmental contaminants*, **Carbohydrate Polymers** 214 (2019) 204-212, doi: 10.1016/j.carbpol.2019.03.042
46. V. Satulu, B. Mitu, A.M. Pandele, **S.I. Voicu**, L. Kravets, G. Dinescu, *Composite polyethylene terephthalate track membranes with thin teflon-like layers: Preparation and surface properties*, **Applied Surface Science** 476 (2019) 452-459, doi: 10.1016/j.apsusc.2019.01.109.
45. A.-C. Mocanu, G.E. Stan, A. Maidaniuc, M. Miculescu, I.V. Antoniac, R.-C. Ciocoiu, **S.I. Voicu**, Valentina Mitran, Anisoara Cĩmpean, Florin Miculescu, *Naturally-Derived Biphasic Calcium Phosphates through Increased Phosphorus-Based Reagent Amounts for Biomedical Applications*, **Materials** 2019, 12, 381, doi:10.3390/ma12030381

## 2018

44. A. Muhulet, F. Miculescu, **S.I. Voicu\***, F. Schũtt, V.K. Thakur, Y.K. Mishra, *Fundamentals and Scopes of Doped Carbon Nanotubes Towards Energy and Biosensing Applications*, **Materials Today Energy** 9 (2018) 154-186, doi: 10.1016/j.mtener.2018.05.002.
43. F. Miculescu, A. Maidaniuc, M. Miculescu, N.D. Batalu, R.C. Ciocoiu, **S.I. Voicu\***, G.E. Stan, V.K. Thakur, *Synthesis and Characterization of Jellified Composites from Bovine Bone-Derived Hydroxyapatite and Starch as Precursors for Robocasting*, **ACS OMEGA**, 3(1), 1338-1349, 2018, DOI: 10.1021/acsomega.7b01855, WOS:000427933200143.
42. A.M. Pandele, P. Neacsu, A. Cimpean, A.I. Staras, F. Miculescu, A. Iordache, **S.I. Voicu\***, V.K. Thakur, O.D. Toader, *Cellulose acetate membranes functionalized with resveratrol by covalent immobilization for improved Osseointegration*, **Applied Surface Science**, 438, 2-13, 2018, DOI: 10.1016/j.apsusc.2017.11.102, WOS:000425731200002.
41. M. Ioniťa, L.E. Crica, **S.I. Voicu**, S. Dinescu, F. Miculescu, M. Costache, H. Iovu, *Synergistic effect of carbon nanotubes and graphene for high performance cellulose acetate membranes in biomedical applications*, **Carbohydrate Polymers**, 183, 50-61, 2018, DOI: 10.1016/j.carbpol.2017.10.095, WOS: 000423715000006.

40. C. Dumitriu, **S.I. Voicu**, A. Muhulet, G. Nechifor, S. Popescu, C. Ungureanu, A. Carja, F. Miculescu, R. Trusca, C. Pirvu, *Cellulose acetate - titanium dioxide nanotubes membrane fraxiparinized through polydopamine*, **Carbohydrate Polymers**, 181, 215-223, 2018, DOI: 10.1016/j.carbpol.2017.10.082, WOS:000418661000027.
39. F. Miculescu, A. Maidaniuc, **S.I. Voicu\***, V.K. Thakur, G. Stan, L.T. Ciocan, *Progress in Hydroxyapatite-Starch Based Sustainable Biomaterials for Biomedical Bone Substitution Applications*, **ACS Sustainable Chemistry and Engineering**, 5(10), 8491-8512, DOI: 10.1021/acssuschemeng.7b02314, WOS:000412382700002.
38. F. Miculescu, A.C. Mocanu, G.E. Stan, M. Miculescu, A. Maidaniuc, A. Cîmpean, V. Mitran, **S.I. Voicu**, T. Machedon-Pisu, *Influence of the modulated two-step synthesis of biogenic hydroxyapatite on biomimetic products' surface*, **Applied Surface Science**, 438, 147-157, 2018, DOI: 10.1016/j.apsusc.2017.07.144, WOS:000425731200016.
37. A. Maidaniuc, F. Miculescu, S.I. Voicu, C. Andronescu, M. Miculescu, E. Matei, A.-C. Mocanu, I. Pencea, I. Csaki, T. Machedon-Pisu, L.T. Ciocan, *Induced wettability and surface-volume correlation of composition for bovine bone derived hydroxyapatite particles*, **Applied Surface Science**, 438, 158-166, 2018, DOI: 10.1016/j.apsusc.2017.07.074, WOS:000425731200017.
36. S. Arpad, C. Trambitas, E. Matei, E. Vasile, F. Pal, I.V. Antoniac, **S.I. Voicu**, T. Bataga, R. Fodor, *Effect of Osteoplasty with Bioactive Glass (S53P4) in Bone Healing - In vivo Experiment on Common European Rabbits (Oryctolagus cuniculus)*, **Revista de Chimie**, 69(2), 429-433, 2018, WOS:000427327700030.

## 2017

35. A. Maidaniuc, F. Miculescu, A.C. Mocanu, **S.I. Voicu**, M. Miculescu, A. Purcaru, A. Muhulet, C. Pop, M.E. Rada, *Sinterability study of bovine-derived hydroxyapatite and silver microcomposites*, **University Politehnica of Bucharest Scientific Bulletin Series B – Materials Science**, 79(1), 145-154, 2017, WOS:000405772200015.
34. P. Neacsu, A.I. Staras, **S.I. Voicu**, I. Ionascu, T. Soare, S. Uzun, V.D. Cojocaru, A.M. Pandele, S.M. Croitoru, F. Miculescu, C.M. Cotrut, I. Dan, A. Cîmpean, *Characterization and In Vitro and In Vivo Assessment of a Novel Cellulose Acetate-Coated Mg-Based Alloy for Orthopedic Applications*, **Materials**, 2017, 10, 686, DOI:10.3390/ma10070686.
33. A.M. Pandele, F.E. Comanici, C.A. Carp, F. Miculescu, **S.I. Voicu\***, V.K. Thakur, B.C. Serban, *Synthesis and characterization of cellulose acetate-hydroxyapatite micro and nano composites membranes for water purification and biomedical applications*, **Vacuum**, 146, 599-605, 2017, DOI: 10.1016/j.vacuum.2017.05.008, WOS:000416184600078.
32. F. Miculescu, A.-C. Mocanu, C.A. Dascalu, A. Maidaniuc, D. Batalu, A. Berbecaru, **S.I. Voicu\***, M. Miculescu, V.K. Thakur, L.T. Ciocan, *Facile synthesis and characterization of hydroxyapatite particles for high value nanocomposites and biomaterials*, **Vacuum**, 146, 614-622, 2017, DOI: 10.1016/j.vacuum.2017.06.008, WOS:000416184600080.
31. M. Ionita, G.M. Vlasceanu, A.Z. Watzlawek, **S.I. Voicu\***, J.S. Burns, H. Iovu, *Graphene and functionalized graphene: Extraordinary prospects for nanobiocomposite materials*,

**Composites Part B**, 121, 34-57, 2017, DOI: 10.1016/j.compositesb.2017.03.031, WOS: 000407413000004.

## 2016

30. M.C. Corobea, O. Muhulet, F. Miculescu, I.V. Antoniac, Z. Vuluga, D. Florea, D.M. Vuluga, M. Butnaru, D. Ivanov, **S.I. Voicu\***, V.K. Thakur, *Novel Nanocomposite Membranes from Cellulose Acetate and Clay-Silica Nanowires*, **Polymers for Advanced Technologies**, 2016, 27(12), 1586-1595, DOI: 10.1002/pat.3835, WOS: 000387663300005.
29. V.K. Thakur, **S.I. Voicu\***, *Recent Advances in Cellulose and Chitosan Membranes for Water Purification: A Concise Review*, **Carbohydrate Polymers**, 2016, 146, 148-165, DOI: 10.1016/j.carbpol.2016.03.030, WOS: 000375110500018.
28. **S.I. Voicu\***, R.M. Condruz, V. Mitran, A. Cimpean, F. Miculescu, C. Andronescu, M. Miculescu, V.K. Thakur, *Sericin Covalent Immobilization onto Cellulose Acetate Membranes*, **ACS Sustainable Chemistry and Engineering**, 2016, 4(3), 1765-1774, DOI: 10.1021/acssuschemeng.5b01756, WOS: 000371755400134.
27. M. Miculescu, V.K. Thakur, F. Miculescu, **S.I. Voicu\***, *Graphene based polymer nanocomposite membranes: A Review*, **Polymers for Advanced Technologies**, 2016, 27(7), 844-859, DOI: 10.1002/pat.3751, WOS: 000378733400001.
26. A. Maidaniuc, M. Miculescu, **S.I. Voicu**, L.T. Ciocan, M. Niculescu, C.M. Corobea, M. Rada, F. Miculescu, *The effect of micron sized silver particles concentration on the adhesion induced by sintering and on the antibacterial properties of hydroxyapatite micro composites*, **Journal of Adhesion Science and Technology**, 2016, 30(17), 1829-1841.
25. M. Ionita, L.E. Crica, **S.I. Voicu**, A.M. Pandele, H. Iovu, *Fabrication of Cellulose Triacetate/Graphene Oxide Porous Membrane*, **Polymers for Advanced Technologies**, 2016, 27(3), 350-357, DOI: 10.1002/pat.3646, WOS: 000369874300009.

## 2015

24. M.S. Corobea, M.G. Albu, R. Ion, A. Cimpean, F. Miculescu, I.V. Antoniac, V. Raditoiu, I. Sirbu, M. Stoenescu, **S.I. Voicu\***, M.V. Ghica, *Advanced modification of titanium surface with collagen and doxycycline, a new approach in dental implants*, **Journal of Adhesion Science and Technology**, 2015, 29(23), 2537-2550, WOS: 000360620800003.
23. F. Miculescu, A. Maidaniuc, **S.I. Voicu\***, M. Miculescu, A. Berbecaru, L.T. Ciocan, A. Purcaru, A. Semenescu, O. Preda, *Structural and morphological induced modifications in hydroxyapatite obtained by bone thermal treatments*, **Journal of Optoelectronics and Advanced Materials**, 2015, 17(9-10), 1361-1366, WOS: 000364600400021.
22. F. Miculescu, I. Jepu, G.E. Stan, M. Miculescu, **S.I. Voicu**, C. Cotrut, T. Machedon Pisu, S. Ciucă, *Tailoring the electric and magnetic properties of submicron-sized metallic multilayered systems by TVA atomic inter-diffusion engineered processes*, **Applied**

**Surface Science**, 2015, 358, 619-626, DOI: 10.1016/j.apsusc.2015.08.247, WOS: 000366220500016.

21. M. Ionita, E. Vasile, L.E. Crica, **S.I. Voicu**, A.M. Pandele, S. Dinescu, L. Predoiu, B. Galateanu, A. Hermenean, M. Costache, *Synthesis, characterization and in vitro studies of polysulfone/graphene oxide composite membranes*, **Composites Part B**, 2015, 72, 108-115, DOI: 10.1016/j.compositesb.2014.11.040, WOS: 000349729300013.
20. F. Miculescu, A. Purcaru, M. Miculescu, L.T. Ciocan, **S.I. Voicu**, A. Maidaniuc, A. Mocanu, M. Branzei, *Hydroxyapatite induced microstructure by cooling rate modification of cancellous bone thermal treatment*, **Journal of Optoelectronics and Advanced Materials**, 2015, 17(7-8), 1219-1224, WOS: 000359967600048.

## 2014

19. M.S. Corobea, M. Stoenescu, M. Miculescu, V. Raditoiu, R.C. Fierascu, I. Sirbu, Z. Vuluga, **S.I. Voicu\***, *Titanium functionalizing and derivatizing for implantable materials osseointegration properties enhancing*, **Digest Journal of Nanomaterials and Biostructures**, 2014, 9(4), 1339-1347, WOS: 000346138800006.
18. M. Miculescu, A. Muhulet, A. Nedelcu, **S.I. Voicu\***, *Synthesis and characterization of polysulfone - carbon nanotubes - polyethylene imine composite membranes*, **Optoelectronics and Advanced Materials – Rapid Communications**, 2014, 8(11-12), 1072-1076, WOS:000347510200017.
17. **S.I. Voicu\***, C.M. Ninciuleanu, O. Muhulet, M. Miculescu, *Cellulose acetate membranes with controlled porosity and their use for the separation of aminoacids and proteins*, **Journal of Optoelectronics and Advanced Materials**, 2014, 16(7-8), 903-908, WOS: 000340578000023.
16. E. Rusen, A. Mocanu, L.C. Nistor, A. Dinescu, I. Călinescu, G. Mustățea, **S.I. Voicu**, C. Andronescu, A. Diacon, *New design of antimicrobial membranes based on polymers colloids/MWCNT hybrid materials and silver nanoparticles*, **ACS Applied Materials and Interfaces**, 2014, 6(20), 17384-17393, DOI: 10.1021/am505024p, WOS: 000343684200008.

## 2013

15. **S.I. Voicu**, M.A. Pandele, E. Vasile, R. Rughinis, L. Crica, L. Pilan, M. Ionita, *The impact of sonication time through polysulfone/graphene oxide composite films properties*, **Digest Journal of Nanomaterials and Biostructures**, 2013, 8(4), 1389-1394, WOS: 000327818000005.
14. A.C. Nechifor, V. Panait, L. Naftanaila, D. Batalu, **S.I. Voicu\***, *Symmetrically polysulfone membranes obtained by solvent evaporation using carbon nanotubes as additives. Synthesis, characterization and applications*, **Digest Journal of Nanomaterials and Biostructures**, 2013, 8(2), 875-884, WOS: 000322737500042.

## 2012



13. **S.I. Voicu\***, A. Dobrica, S. Sava, A. Ivan, L. Naftanaila, *Cationic surfactants-controlled geometry and dimensions of polymeric membrane pores*, **Journal of Optoelectronics and Advanced Materials**, 2012, 14(11-12), 923-928, WOS:000312614800009.
12. O. Vasile, F. Miculescu, **S.I. Voicu**, *Correlation aspects between morphology, infrared and acoustic absorptions properties of various materials* **Optoelectronics and Advanced Materials – Rapid Communications**, 2012, 6(5-6), 631-638, WOS: 000306577000025.

**2011**

11. V.I. Luntraru, O. Gales, L. Iarca, E. Vasile, **S.I. Voicu\***, A.C. Nechifor, *Synthesis and characterization of magnetite - titanium dioxide - 4-Benzene-azo- $\alpha$ -naphthylamine and methylene blue composites*, **Optoelectronics and Advanced Materials – Rapid Communications**, 2011, 5(11), 1229-1232, WOS: 000298850300022.
10. C. Baicea, A.C. Nechifor, D.I. Vaireanu, O. Gales, R. Trusca, **S.I. Voicu\***, *Sulfonated poly (ether ether ketone) – activated polypyrrole composite membranes for fuel cells*, **Optoelectronics and Advanced Materials – Rapid Communications**, 2011, 5(11), 1181-1185, WOS: 000298850300011.

**2010**

9. A.C. Nechifor, M.G. Stoian, **S.I. Voicu\***, G. Nechifor, *Modified  $Fe_3O_4$  colloidal dispersed magnetic particles as carrier in liquid membranes*, **Optoelectronics and Advanced Materials – Rapid Communications**, 2010, 4(8), 1118-1123, WOS: 000281734800015.
8. **S.I. Voicu\***, F. Aldea, A.C. Nechifor, *Polysulfone-carbon nanotubes composite membranes. Synthesis and characterization*, **Revista de Chimie**, 2010, 61(9), 817-821, WOS: 000284137400001.

**2009**

7. **S.I. Voicu\***, N.D. Stanciu, A.C. Nechifor, D.I. Vaireanu, G. Nechifor, *Synthesis and Characterization of Ionic Conductive Polysulfone Composite Membranes*, **Romanian Journal of Information Science and Technology**, 2009, 12(3), 410-422, WOS: 000277059400011.
6. G. Nechifor, **S.I. Voicu**, A.C. Nechifor, S. Garea, *Nanostructure hybrid membrane polysulfone-carbon nanotubes for hemodialysis*, **Desalination**, 2009, 241, 342-348, DOI: 10.1016/j.desal. 2007.11.089, WOS: 000265227500046.
5. F.D. Balacianu, A.C. Nechifor, R. Bartos, **S.I. Voicu\***, G. Nechifor, *Synthesis and characterization of  $Fe_3O_4$  magnetic particles-multiwalled carbon nanotubes by covalent functionalization*, **Optoelectronics and Advanced Materials – Rapid Communications**, 2009, 3 (3), 219-222, WOS: 000265405200013.

**2007**

4. **S.I. Voicu\***, A.C. Nechifor, B. Serban, G. Nechifor, M. Miculescu, *Formylated Polysulphone Membranes for Cell Immobilization*, **Journal of Optoelectronics and Advanced Materials**, 2007, 9 (11), 3423-3426, WOS: 000251435200029.



**2006**

3. C. Corobea, D. Donescu, S. Rădițoiu, **S.I. Voicu**, G. Nechifor, *Materiale membranare. IV. Nanoparticule functionalizate pentru ultrafiltrarea coloidală a ionilor cuprici*, **Revista de Chimie**, 2006, 57, pg. 981-987, WOS: 000242185000018.
2. B. Șerban, M. Bercu, **Ș.I. Voicu**, A.C. Nechifor, C. Cobianu, *Sinteza și caracterizarea unei noi polianiline dopată cu sulfat acid de ciclodextrina*, **Revista de Chimie**, 2006, 57, pg. 978-980, WOS: 000242185000017.
1. M. Bumbac, B. Serban, C. Luca, G. Nechifor, **S. Voicu**, *Studii privind extractia sinergetică a cationilor alcalini  $\text{Na}^+$  și  $\text{K}^+$  în prezenta unor amestecuri p-tertbutilcalix[4]arena – eteri coroană*, **Revista de Chimie**, 2006, 57, pg. 927-930, WOS: 000242185000006.

**Oral communications**

32. Ceramic-Based Polymeric Composites for Osseointegration, in 3<sup>rd</sup> Materials Webinar ‘Ceramic and Composite Biomaterials for Bone Regeneration’, [online event](#), 4 June 2021.
31. New generation of membrane systems with visual control of separation process efficiency based on modification of membrane color surface, 7<sup>th</sup> Asian Conference on Coordination Chemistry - ACCC7, [Kuala Lumpur, Malaysia](#), 15-18 October 2019.
30. Advanced Functional Polymeric Membranes for Biomedical Applications, International Seminar on Biomaterials and Regenerative Medicine, [Craiova, Romania](#), 26-28 September 2019.
29. Polysulfone-doped carbon nanotubes composite membranes for the removal of pharmaceutical effluents, 10<sup>th</sup> International Conference on Environmental Engineering and Management - ICEEM 10, [Iasi, Romania](#), 18-21 September 2019.
28. Functionalization of Cellulose Acetate Membranes with Aminopropyl Triethoxy Silane. Synthesis, Characterization and Applications, Romanian International Conference for Chemistry and Chemical Engineering, [Poiana Brasov, Romania](#), 6-9 September 2017, Keynote Speaker.
27. Functionalized carbon nanotubes for gas sensors, Meeting on Carbon Nanostructures, [Rome, Italy](#), 13-17 May 2019, Invited Speaker
26. Biomedical Applications of Polymeric Membranes, Southwest Jiaotong University, Faculty of Medicine, [Chengdu, China](#), 02 April 2019, Invited Talk.
25. Biomedical Applications of Polymeric Membranes, Sichuan University, Centre for Biomaterials, [Chengdu, China](#), 27 March 2019, Invited Talk.
24. Polymeric membranes with self-indicator properties for separation efficiency, 11<sup>th</sup> International Conference on Materials Science & Engineering Bramat 2019, [Brasov, Romania](#), 13-16 March 2019.

23. New method for cellulose acetate membranes covalent functionalization using aminopropyl triethoxy silane as linker, Collaborative Conference on Materials Science and Technology, [Beijing, China](#), 23-28 September 2018
22. Reactive Retention Of Tetracycline Onto Functionalized Cellulose Acetate Membranes, MELPRO 2018, [Prague, Czech Republic](#), 12-17 May 2018
21. Functionalized cellulose acetate membranes. Synthesis, characterization and applications, ROMAT, [Bucharest, Romania](#), 16-18 November 2018, Invited Speaker
20. Functionalized Cellulose Acetate Membranes as Coatings for Biomedical Applications, European Conference on Nanofilms, [Cranfield, United Kingdom](#), 20-22 March 2018.
19. Applications of composite membranes with carbon nanotubes in environmental decontamination, Romanian International Conference for Chemistry and Chemical Engineering, [Poiana Brasov, Romania](#), 6-9 September 2017, Keynote Speaker.
18. Synthesis and Characterization of Polyetherimide-Doped Carbon Nanotubes With Ruthenium Oxide Or Titanium Dioxide Composite Membranes, International Conference on Composites/Nano Engineering ICCE-25, [Rome, Italy](#), 16-22 July 2017.
17. Biomedical applications of polymeric membranes, Technologies for the fabrication and characterization of 3D scaffolds for tissue engineering NoRoTech, [Bucharest, Romania](#), 8-9 June 2017.
16. Sonochemical synthesis of doped-carbon nanotubes-composite polymeric membranes as membrane reactors, Frontiers Forum on Nano science and Technology, FFSCI 2017, [Dubrovnik, Croatia](#), 4-7 May 2017, Invited Speaker
15. Composite polymeric membranes with carbon nanotubes, graphenes and silica nanowires. Synthesis, comparison and applications, Engineering with Membranes 2017, [Singapore, Singapore](#), 26-28 April 2017.
14. Resveratrol covalent immobilization onto cellulose acetate membranes for improved Osseointegration, 10th International Conference on Materials Science & Engineering Bramat 2017, Transilvania University of Brasov, [Brasov, Romania](#), 8-11 March 2017.
13. Bioactive compounds covalent immobilization onto cellulose acetate membranes for biomedical applications, 7th International Conference “Biomaterials, Tissue Engineering & Medical Devices” BIOMMEDD 2016, [Constanta, Romania](#), 15-17 September 2016, Invited Speaker.
12. Hybrid organic polymer – carbon nanotubes composite membranes, Synthesis and applications, EMN Smart and Multifunctional Materials, [Berlin, Germany](#), August 2016, Invited Speaker.
11. Hybrid Composite Polymeric Membranes with Carbon Nanotubes for Biomedical Applications, International Conference of 3D Modelling Techniques for BioMedical Engineering (MOBILE 2016), University Politehnica of Bucharest, [Bucharest, Romania](#), 13-14 June 2016, Invited Speaker.

10. Composite polymeric membranes with graphenes. Synthesis, characterization and applications, EMN Meeting on Membranes, [Dubai, United Arab Emirates](#), 5-8 April 2016, Invited Speaker.
9. The influence of filler in composite cellulose acetate membranes for proteins recovery, International Seminar on Biomaterials & Regenerative Medicine BIOREMED 2015, on September 17-20, 2015, [Oradea, Romania](#).
8. Cellulose derivatives-based membranes for biomedical applications, 6th International Conference "Biomaterials, Tissue Engineering & Medical Devices" Biommedd 2014, [Constanta, Romania](#), 15-18 September 2014.
7. The use of polysulfone-carbon nanotubes composite membranes in heavy metals removal, Romanian International Conference for Chemistry and Chemical Engineering, [Sinaia, Romania](#), 7-10 September 2011.
6. Polysulfone-carbon nanotubes composite membranes, C. Luca Symposium, Romanian International Conference for Chemistry and Chemical Engineering, [Sinaia, Romania](#), 7-10 September 2011.
5. Covalent enzyme immobilization onto carbon nanotubes using a membrane reactor, SPIE Microtechnologies, Nanotechnology section, [Prague, Czech Republic](#), 17-21 April 2011.
4. Polysulfone composite membranes with applications in electronics, XXVII Summer School of the European Membrane Society, [Bucharest, Romania](#), 14-19 June, 2010.
3. Polysulfone composite membranes for biomedical applications, Diaspora in cercetarea stiintifica si invatamantul superior din Romania - "Solutii Durabile la Provocari Emergente in Agricultura-Alimentatie cu Implicatii in Medicina Umana", Institutul National de Stiinte Biologice, 21-24 septembrie 2010, [Bucuresti, Romania](#).
2. Polysulfone membrane reactor for carbon nanotubes functionalization, Network Young Membranes, [Meze, France](#), September 2-4, 2009.
1. Polysulfone-doped polyaniline composite membranes. Synthesis and electrochemical characteristics, International Semiconductors Conference (CAS), [Sinaia, Romania](#), October 11-13, 2008.

### **Conference proceedings indexed in Thomson Reuters or Scopus**

15. **S.I. Voicu**, A. Muhulet, M. Miculescu, F. Miculescu and S. Vizireanu, *Polysulfone Membrane Reactors for Derivatization of Carbon Nanotubes*, Proceedings of TechConnect World Conference, Washington, 2016.
14. F. Miculescu, A. Maidaniuc, **S.I. Voicu**, M. Miculescu, D. Batalu, *Strategies for production of naturally-derived calcium phosphates particles*, Proceedings of TechConnect World Conference, Washington, 2016.
13. **S.I. Voicu**, *The influence of filler in composite cellulose acetate membranes for proteins recovery*, Key Engineering Materials, Vol. 695, pp 267-272, doi: 10.4028/www.scientific.net/KEM.695.267.

12. M.V. Ghica, A-A.Watzlawek, E. Olaret, **S. Voicu**, S. Marin, M.M. Marin, E. Danila, A.G. Simonca, M.G. Albu, C. Chelaru, C.E. Dinu-Pîrvu, *Collagen-niflumic acid spongiuous matrices for bone repairing*, Key Engineering Materials, Vol. 695, pp 170-177, doi:10.4028/www.scientific.net/KEM.695.170.
11. **S.I. Voicu**, A. Muhulet, I.V. Antoniac, M.S. Corobea, *Cellulose derivatives based membranes for biomedical applications*, Key Engineering Materials, Vol. 638, pp 27-30, doi: 10.4028/www.scientific.net/KEM.638.27.
10. A.C. Nechifor, A. Ivan, **S.I. Voicu**, V Danciulescu, R. Trusca, *In Situ Generation of Polyaniline Inside Zeolite Pores for Retention of Ions and for Controlled Drug Delivery*, Key Engineering Materials, Vol. 583, pp 91-94, doi: 10.4028/www.scientific.net/KEM.583.91.
9. **S.I. Voicu**, I. Antoniac, L. Naftanaila, G. Nechifor, *The Functionalization of Remaining Solvent in Polymeric Membrane Pores for Biomedical Applications*, Key Engineering Materials, Vol. 583, pp 87-90, doi: 10.4028/www.scientific.net/KEM.583.87.
8. **S.I. Voicu**, A.C. Nechifor, O. Gales, G. Nechifor, *Covalent enzyme immobilization onto carbon nanotubes using a membrane reactor*, Bioelectronics, Biomedical, and Bioinspired Systems V; and Nanotechnology V, Proceedings of SPIE Vol. 8068 (SPIE, Bellingham, WA 2011) 80680Y, 2011.
7. C. Baicea, A. Ivan, C. Trisca-Rusu, A.C. Nechifor, D.I. Vaireanu, **S.I. Voicu**, G. Nechifor, *Ionic conductive silica-polypyrrole composites obtained by in-situ polymerization*, Proceedings of International Semiconductors Conference (CAS), 2010, pg. 359-362, ISBN: 978-1-4244-5783-0, DOI: 10.1109/SMICND.2010.5650655.
6. V. Luntraru, V. Danciulescu, A.C. Nechifor, **S.I. Voicu**, G. Nechifor, *Invertase immobilization onto dispersed magnetic particles. Synthesis and characterization*, Proceedings of International Semiconductors Conference (CAS), 2010, pg: 309-312, ISBN: 978-1-4244-5783-0, DOI: 10.1109/SMICND.2010.5650721.
5. S. Sava, L. Iarca, C. Trisca-Rusu, A.C. Nechifor, **S.I. Voicu**, G. Nechifor, *New method for tio2 covalent-ionic functionalization with different molecules for induced properties*, Proceedings of International Semiconductors Conference (CAS), 2010, pg. 321-324, ISBN: 978-1-4244-5783-0, DOI: 10.1109/SMICND.2010.5650685.
4. C. Trisca-Rusu, A.C. Nechifor, **S.I. Voicu**, G. Nechifor, *Covalently immobilized crown ethers onto polysulfone membranes as materials for sensors*, Proceedings of International Semiconductors Conference (CAS), 2010, pg 205-208, ISBN: 978-1-4244-5783-0, DOI: 10.1109/SMICND.2010.5649081.
4. C. Trisca-Rusu, A.C. Nechifor, S. Mihai, C. Parvu, **S.I. Voicu**, G. Nechifor, *Polysulfone-functionalized multiwalled carbon nanotubes composite membranes for potential sensing applications*, Proceedings of International Semiconductors Conference (CAS), 2009, IEEE catalog number CFP08CAS-PRT, pg. 285-288, ISBN: 978-1-4244-4413-7, DOI: 10.1109/SMICND.2009.5336545.
3. C. Muscalu, R. David, S.A. Garea, A.C. Nechifor, D.I. Vaireanu, **S.I. Voicu**, G. Nechifor, *Polysulfone-polypyrrole ionic conductive composite membranes synthesized by phase*

- inversion with chemical reaction*, Proceedings of International Semiconductors Conference (CAS), 2009, IEEE catalog number CFP08CAS-PRT, pg. 557-560, ISBN: 978-1-4244-4413-7, DOI: 10.1109/SMICND.2009.5336648.
2. **S.I. Voicu**, N.D. Stanciu, A.C. Nechifor, D.I. Vaireanu, G. Nechifor, *Polysulfone-doped polyaniline composite membranes. Synthesis and electrochemical characteristics*, Proceedings of International Semiconductors Conference (CAS), 2008, IEEE catalog number CFP08CAS-PRT, pg. 245-248, ISBN: 978-1-4244-2004-9, DOI: 10.1109/SMICND.2008.4703392.
  1. B. Serban, M. Bercu, **S. Voicu**, M. Mihaila, G. Nechifor, C. Cobianu, *Calixarene-Doped Polyaniline for Applications in Sensing*, Proceedings of International Semiconductors Conference (CAS), 2006, IEEE catalog number 06TH8867, pg. 257-260, ISBN: 1-4244-0109-7, DOI: 10.1109/SMICND.2006.283991.