



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Roxana Strungaru-Jijie**

Address(es) -

E-mail roxana.jijie@yahoo.com
roxanajijie@uaic.ro

Work experience

Dates **20/02/2023 - present**

Occupation or position held **Senior Researcher III (CS III)**

Main activities and responsibilities Toxicological effects of pharmaceuticals, micro(nano)plastics alone or co-exposed with heavy metals under controlled laboratory conditions to model organisms (e.g. *Danio rerio*) in the range of environmentally relevant concentrations
Evaluation of the neuroprotective and antioxidant potential of chemical compounds
Photocatalytic degradation of contaminants in aqueous solutions

Name and address of employer RAMTECH Center, Department of Exact and Natural Sciences, Institute of Interdisciplinary Research, "Alexandru Ioan Cuza" University of Iasi, 11 Carol I, 700506 Iasi, Romania

Type of business or sector Research

Dates **01/05/2021 – 17/02/2023**

Occupation or position held **Scientific researcher (CS)**

Main activities and responsibilities Toxicological effects of pesticides, pharmaceuticals, micro(nano)plastics alone or co-exposed with heavy metals under controlled laboratory conditions to model organisms (e.g. *Danio rerio*) in the range of environmentally relevant concentrations

Name and address of employer Department of Exact and Natural Sciences, Institute of Interdisciplinary Research, "Alexandru Ioan Cuza" University of Iasi, 11 Carol I, 700506 Iasi, Romania

Type of business or sector Research

Dates **15/02/2021 – 30/04/2021**

Occupation or position held **Scientific researcher (CS)**

Main activities and responsibilities Presence of small plastic debris in aquatic ecosystems

Name and address of employer Marine Biological Station "Prof. dr. I. Borcea", "Alexandru Ioan Cuza" University of Iasi, Nicolae Titulescu Street, No. 163, 9007018 Agigea, Romania

Type of business or sector Research

Dates **02/10/2018 – 14/02/2021**

Occupation or position held **Researcher** in the project ***Integrated and sustainable processes for environmental clean-up, wastewater reuse and waste valorization***, PN-III-P1-1.2-PCCDI-2017-0245, Contract 26PCCDI/2018, Coordinator: Dr. Mircea NICOARĂ

Main activities and responsibilities	Research activity on preparation of liquid and solid samples for identification and quantification of toxic metals by using HR-GF CS-AAS and FL-AAS techniques. Developing ecological scenarios for the aquatic risk assessment of toxic metals.
Name and address of employer	Alexandru Ioan Cuza University of Iasi, Department of Research of Faculty of Biology, Carol I B-vd., No. 20A, Iași, 700506, Romania
Type of business or sector	Research
Dates	02/01/2017 – 30/06/2018 (18 months)
Occupation or position held	PostDoctoral research Fellow (EU FLAG-ERA – Graphitivity „Graphene-based optoelectrochemical sensor for the simultaneous monitoring of the electrical and chemical activity of single cells”; ANR-15GRFL-003-02, with Dr. Rabah Boukherroub and Dr. Sabine Szunerits)
Main activities and responsibilities	Functionalized carbon-based nano-materials for bio-medical applications
Name and address of employer	CNRS, UMR8520 Institut d'électronique de microélectronique et de nanotechnologie (IEMN), Cite Scientifique, Avenue Henri Poincare, CS 60069, 59 62 Villeneuve d'Ascq Cedex, France
Type of business or sector	Research
Dates	01/10/2014 – 31/12/2016
Occupation or position held	Assistant researcher in the project Synthesis of transient complex molecular systems in laboratory plasmas with relevance for molecular astrophysics of hot cores , Coordinator: Dr. Ionut TOPALA
Main activities and responsibilities	Research activity on plasma technologies for space science: electrical and optical diagnosis of plasma sources, plasma polymerization, plasma treatment, stability of simple amino acids relevant to astronomical media exposed to atmospheric pressure plasmas
Name and address of employer	Alexandru Ioan Cuza University of Iasi, Faculty of Physics, Iasi Plasma Advanced Research Center (IPARC), 11 Carol I Blvd., Iasi 700506, Romania
Type of business or sector	Research

Education and training

Dates	October 2013 – October 2016
Title of qualification awarded	PhD student
Principal subjects/occupational skills covered	<i>Synthesis and characterization of complex nano-structures at the interface with biological media</i> Scientific coordinators: dr. Rabah BOUKHERROUB (France) and dr. Nicoleta DUMITRASCU (Romania) <i>Double degree : Physique (Romania) and Materials Science (France)</i>
Name and type of organisation providing education and training	Alexandru Ioan Cuza University of Iasi, Faculty of Physics, 11 Carol I Blvd., Iasi 700506, Romania Université Lille 1, Institut d'Electronique, de Microélectronique et de Nanotechnologie (IEMN), UMR CNRS8520, Université Lille1, Avenue Poincaré-BP 60069, 59652 Villeneuve d'Ascq, France
Dates	October 2011 – June 2013
Title of qualification awarded	Master degree <i>Effects of atmospheric pressure plasma on biological molecules and tissues</i> Supervisors: dr. Valentin POHOAȚĂ and dr. Ionuț TOPALĂ
Principal subjects/occupational skills covered	Plasma Physics, Spectroscopy and Self-organization (in english)
Name and type of organisation providing education and training	Alexandru Ioan Cuza University of Iasi, Faculty of Physics, 11 Carol I Blvd., Iasi 700506, Romania
Dates	October 2008 – June 2011
Title of qualification awarded	Bachelor degree
Principal subjects/occupational skills covered	Medical Physics Temperature effects on protein structure Supervisors: dr. Nicoleta DUMITRASCU and dr. Ionuț TOPALĂ

Personal skills and competences

Mother tongue(s) Romanian

Other language(s) English, French

Subject area

Materials Science, Chemistry, Medicine, Biochemistry, Physics and Astronomy

Professional skills and competences

- **electrical and optical diagnosis of plasma sources**
- **effects of atmospheric pressure plasma on biological molecules and tissues**
- **deposition and characterization of organic plasma coatings using an atmospheric pressure dielectric barrier discharge for biomedical applications**
- **synthesis and characterization of hybrid nano-platforms with antibacterial activities**
- **photodynamic and photothermal inactivation of pathogenic bacteria**
- **synthesis, characterization and optimization of electrochemical biosensors based on graphene-polymer nanocomposites**
- **synthesis and characterization of controlled release drug systems based on graphene and carbon dots**
- **identification and quantification of toxic metals in water, sediment and biota samples**
- **determination of nitrites and nitrates in drinking water**
- **effects of environmental pollutants mixtures on model organisms (zebrafish, *Danio rerio*) in the range of environmentally relevant concentrations based on biochemical biomarkers and fish behavior**
- **evaluation of the neuroprotective and antioxidant potential of chemical compounds**
- **photocatalysis**
- **Characterization techniques**
 - ❖ *chemical composition:*
 - Fourier transform infrared spectroscopy (BOMEM MB-Series 104 spectrometer and Thermo Fisher Scientific Inc. Nicolet 8700 FTIR spectrometer),
 - X-ray photoelectron spectroscopy (Software CasaXPS)
 - ❖ *surface properties*
 - Atomic force microscopy (NT-MDT Solver Pro-M type apparatus),
 - Scanning electron microscopy (microscope ULTRA 55)
 - ❖ *microscopy*
 - Optical Microscope (Leica AF6000 LX fluorescence microscope equipped with an iXon 885 Camera)
 - ❖ *spectroscopy*
 - UV-Vis absorption spectroscopy (Perkim Elmer Lambda UV/Vis 950 dual-beam spectrophotometer and Thermo Scientific Evolution 300 UV-Vis spectrophotometer, Spectrophotometer Analytik Jena *Specord 210 Plus*)
 - Fluorescence spectroscopy (Cary Eclipse spectrometer)
 - ❖ *wettability*
 - Water contact angle (Digidrop instrument - GBX)
 - ❖ *fish behavior*
 - Noldus Track 3D software Noldus EthoVision XT 13 Base + Multiple Arena Module with hardware key
 - EthoVision XT ver.11.5 multi-purpose and Cross Maze for zebrafish
 - ❖ *others*
 - Zeta-potential and particle size analysis (Zeta-sizer Nano-ZS)
 - Thermogravimetric analysis (TGA 209 F3 Tarsus Nezsch)
 - High-performance liquid chromatography (Shimadzu TLC2010-HT)
 - Cyclic voltammetry (CV) and differential pulse voltammetry (DPV) (Autolab potentiostat 30)
 - High-resolution continuum source atomic absorption spectrometry (HR-CS AAS, Analytik Jena contra 600)
 - Flameless Atomic Absorption Spectrometry (FL-AAS GBC GF 3000)

Research activity
(List of publications)

Cell culture and microbiology knowledges

Cell lines: THp-1, HeLa, U-87 MG and HEK-293, cell morphology, cytotoxicity assays

Bacteria strains: Gram negative (pathogenic and nonpathogenic *Escherichia coli*) and Gram positive (*Staphylococcus aureus* and *Staphylococcus epidermidis*), bacterial growth, bacterial viability assays

ISI papers: 44 (17 first author, 6 review papers)

Total number of citations (without self-citations): 1,111; Hirsch index: 20 (according to Web of Science Core Collection)

- UEFISCDI ID (UEF-ID): U-1900-062M-0088
- Scopus Author ID: 55388457900
- ORCID: 0000-0003-0354-943X

Conferences

International conferences:**32 (9 oral presentations)**

National conferences : **9 (2 oral presentations)**

Research grants

Project manager

- **Studies on the impact of heavy metals in mixture with other organic compounds on aquatic environment and on photocatalytic degradation of contaminants in aqueous solutions**, Research project funded by the Alexandru Ioan Cuza University of Iasi, project number GI-UAIC-2021-11, Funding amount: 50,000 lei (10,000 euros), funding period: 24 months (03.01.2022 – 31.12.2023).

Team member

- **Researcher** in the project **Integrated and sustainable processes for environmental clean-up, wastewater reuse and waste valorization**, PN-III-P1-1.2-PCCDI-2017-0245, Contract 26PCCDI/2018, Coordinator: Prof. dr. habil. Mircea NICOARĂ
- **PostDoctoral research Fellow**, EU FLAG-ERA – Graphitivity „Graphene-based optoelectrochemical sensor for the simultaneous monitoring of the electrical and chemical activity of single cells”, director project Dr. Rabah Boukherroub.
- **Assistant researcher** in the project **Synthesis of transient complex molecular systems in laboratory plasmas as with relevance for molecular astrophysics of hot cores (2013-2016)**, Funding agency: Romanian Space Agency, under the programme Space Technology and Advanced Research, grant no. 96/11.12.2013 (under implementation), director project dr. Ionut Topala.
- **RESEARCHERS' NIGHT in ROMANIA 2013: Science. The great escape (2013)**, Funding agency: European Commission under FP7, grant no. 609771 (RNR 2013).
- **Development, diagnostic and modelling of cold plasma jets at atmospheric pressure for direct treatment of living tissues (2011-2013)**, Funding agency: UEFISCDI, Romania-Cyprus Bilateral cooperation.
- **Effects of atmospheric pressure cold discharge plasmas to bacteria and cell cultures (2013-2014)**, Funding agency: UEFISCDI, Romania-Slovakia Bilateral cooperation.

Awards

- **2nd prize** for the paper titled: *Optical properties study of human skin in the UV-Vis spectral range*;
- **ICPAM-9 Prize for the best poster contribution for the paper titled:** *Application of spectroscopic techniques for studying the effects of non-thermal plasma on biomacromolecules*;
- **French government scholarship** for a joint PhD program;
- **Excellence Award** (2017) – from Alexandru Ioan Cuza University of Iasi for the quality of scientific research carried out during doctoral studies (2013 - 2016);
- **Excellence Award** (2022) – from Alexandru Ioan Cuza University of Iasi for the quality of scientific research carried out during 2021;
- **3rd prize** at the 8th edition of the Rada Mihalcea Awards for Young Researchers in Science and Engineering.

Organisational skills and competences

Member in the LOC of Scientific Conferences:

- International Conference on Global Research and Education (inter-Academia) 2011
- International Conference on Phenomena in Ionized Gases 2015

Others

Specializations and short research visits:

Mars – June 2016, August - November 2015, February - May 2014, three PhD mobilities at Institut d'Electronique, de Microélectronique et de Nanotechnologie (IEMN, UMR 8520), Université Lille 1 Sciences et Technologies, France

Financial Support - France Government represented by Campus France

2 February – 2 June 2015: ERASMUS + Study Mobility at Institut d'Electronique, de Microélectronique et de Nanotechnologie (IEMN, UMR 8520), Université Lille 1 Sciences et Technologies, France

24– 28 November 2014, visiting researcher at the National Institute of Research - Development of Biological Sciences , Bucharest , Romania

15 - 21 November 2013 and **15 -28 November 2012** visiting researcher at the University of Cyprus, Department of Electrical and Computer Engineering – The bilateral project Romania – Cyprus, titled Development, Diagnostics and Modelling of Cold Plasma Jets at Atmospheric Pressure for Direct Treatment of Living Tissues (MEDPLASMA) 2012 -2013

21 -28 September 2011: participation at the Summer School *Plasma diagnostics by electrical probes and laser*, Sucevita, Romania

15 June – 15 July 2010: ERASMUS Mobility at Institut Européen des Membranes, Montpellier, France

22/03/2023

CS III dr. Roxana Strungaru-Jijie



List of publications

ISI papers: 44 (first/ corresponding author: 17, 6 review papers)

Total number of citations (without self-citations): 1,111; Hirsch index: 20 (according to Web of Science Core Collection)

- 1 V. Tiron, **R. Jijie**, I. Dumitru, N. Cimpoesu, I. Burducea, D. Iancu, A. Borhan, S. Gurlui, G. Bulai, *Piezo-ferroelectric response of bismuth ferrite based thin films and their related photo/piezocatalytic performance*, **Ceramics International** (2023), in press.
(IF: 5.532, AIS: 0.552, **Q1**, n= 9)
- 2 **R. Jijie**✉, E. Paduraru, I.-A. Simionov, C. Faggio, A. Ciobica, M. Nicoara, *Effects of Single and Combined Ciprofloxacin and Lead Treatments on Zebrafish Behavior, Oxidative Stress, and Elements Content*, **International Journal of Molecular Sciences** (2023) 24(5) 4952, 10.3390/ijms24054952.
(IF: 6.208, AIS: 1.064, **Q1**, n= 6)
- 3 E. Paduraru, D. Iacob, V. Rarinca, G. Plavan, D. Ureche, **R. Jijie**✉, M. Nicoara✉, *Zebrafish as a Potential Model for Neurodegenerative Diseases: A Focus on Toxic Metals Implications*, **International Journal of Molecular Sciences** (2023) 24(4) 3428, 10.3390/ijms24043428.
(IF: 6.208, AIS: 1.064, **Q1**, n= 7, **Review**)
- 4 O. D. Ilie*, R. Duta, I.M. Balmus, A. Savuca, A. Petrovici, I. B. Nita, L. M. Antoci, **R. Jijie***, C. T. Mihai, A. Ciobica, M. Nicoară, R. Popescu, R. Dobrin, C. Solcan, A. Trifan, C. Stanciu, B. Doroftei, *Assessing the Neurotoxicity of a Sub-Optimal Dose of Rotenone in Zebrafish (Danio rerio) and the Possible Neuroactive Potential of Valproic Acid, Combination of Levodopa and Carbidopa, and Lactic Acid Bacteria Strains*, **Antioxidants** (2022) 11(10) 2040 [10.3390/antiox11102040](https://doi.org/10.3390/antiox11102040), WOS: 000872070800001 (IF: 7.675, AIS: 0.921, **Q1**, n= 17)
- 5 V. Tiron, M. A. Ciolan, G. Bulai, G. Mihalache, F. D. Lipsa, **R. Jijie**✉, *Efficient Removal of Methylene Blue and Ciprofloxacin from Aqueous Solution Using Flower-like Nanostructured ZnO Coating under UV Irradiation*, **NANOMATERIALS** (2022) 12(13) 2193, [10.3390/nano12132193](https://doi.org/10.3390/nano12132193), WOS: 000824074700001.
(IF: 5.719, AIS: 0.738, 1 citation, **Q1**, n= 6)
- 6 O.D. Ilie, R. Duta, **R. Jijie**✉, I.B. Nita, M. Nicoara, C. Faggio, R. Dobrin, I. Mavroudis, A. Ciobica, B. Doroftei, *Assessing Anti-Social and Aggressive Behavior in a Zebrafish (Danio rerio) Model of Parkinson's Disease Chronically Exposed to Rotenone*, **Brain Sciences** (2022) 12(7) 898, [10.3390/brainsci12070898](https://doi.org/10.3390/brainsci12070898), WOS:000831393600001.
(IF: 3.333, AIS: 0.738, 2 citations, **Q3**, n= 10)
- 7 E. Paduraru, D. Iacob, V. Rarinca, A. Rusu, **R. Jijie**, O. D. Ilie, A. Ciobica, M. Nicoara, B. Doroftei, *Comprehensive Review Regarding Mercury Poisoning and Its Complex Involvement in Alzheimer's Disease*, **International Journal of Molecular Sciences** (2022) 23(4) 1992, WOS:000762712900001, [10.3390/ijms23041992](https://doi.org/10.3390/ijms23041992).
(IF: 6.208, AIS: 1.064, 5 citations, **Q1**, **Review**, n= 9)
- 8 E. Paduraru, E.-I. Flocea, C.C. Lazado, I.-A. Simionov, M. Nicoara, A. Ciobica, C. Faggio✉, **R. Jijie**✉, *Vitamin C Mitigates Oxidative Stress and Behavioral Impairments Induced by Deltamethrin and Lead Toxicity in Zebrafish*, **International Journal of Molecular Sciences** (2021) 22(23) 12714, WOS:000734866500001, [10.3390/ijms222312714](https://doi.org/10.3390/ijms222312714).
(IF: 6.208, AIS: 1.064, 13 citations, **Q1**, n= 8)

- 9 S. Strungaru, C. Pohontiu, M. Nicoară, C. Teodosiu, E. Baltag, **R. Jijie**, G. Plavan, O. Pacioglu and C. Faggio, *Response of aquatic macroinvertebrates communities to multiple anthropogenic stressors in a lowland tributary river*, **Environmental Toxicology and Pharmacology** (2021) 87:103687, WOS:000696700600007, [10.1016/j.etap.2021.103687](https://doi.org/10.1016/j.etap.2021.103687).
(IF: 5.785, AIS: 0.665, 16 citations, **Q1**, n= 9)
- 10 I. A. Simionov, D. S. Cristea, S.M. Petrea, A. Mogodan, **R. Jijie**, E. Ciornea, M. Nicoara, M. Rahoveanu, V. Cristea, *Predictive Innovative Methods for Aquatic Heavy Metals Pollution based on Bioindicators in Support of Blue Economy in the Danube River Basin*, **SUSTAINABILITY** 13(16) (2021) 896, WOS:000690238300001, [10.3390/su13168936](https://doi.org/10.3390/su13168936).
(IF: 3.889, AIS:, 1 citation, **Q2**, n= 9)
- 11 **R. Jijie**✉, G. Mihalache, M. Balmus, S. Strungaru, E. Baltag, A. Ciobica, M. Nicoara and C. Faggio, *Zebrafish as a Screening Model to Study the Single and Joint Effects of Antibiotics, Pharmaceuticals* 14(6) (2021) 578, WOS:000665935700001, [10.3390/ph14060578](https://doi.org/10.3390/ph14060578).
(IF: 5.215, AIS: 0.896, 20 citations, **Q1**, **Review**, n= 8)
- 12 I. A. Simionov, D. S. Cristea, S. M. Petrea, A. Mogodan, M. Nicoara, G. Pavan, E. S. Baltag, **R. Jijie**, S. A. Strungaru, *Preliminary investigation of lower Danube pollution caused by potentially toxic metals*, **Chemosphere** 264 (2021) 128496, WOS:000599817400073, [10.1016/j.chemosphere.2020.128496](https://doi.org/10.1016/j.chemosphere.2020.128496).
(IF: 8.943, AIS: 1.007, 9 citations, **Q1**, n= 9)
- 13 O. D. Ilie, E. Paduraru, M. A. Robea, I. M. Balmus, **R. Jijie**, M. Nicoara, A. Ciobica, I. B. Nita, R. Dobrin and B. Doroftei, *The Possible Role of Bifidobacterium longum BB536 and Lactobacillus rhamnosus HN001 on Locomotor Activity and Oxidative Stress in a Rotenone-Induced Zebrafish Model of Parkinson's Disease*, **Oxidative Medicine and Cellular Longevity** (2021) 9629102, WOS:000715738700002, [10.1155/2021/9629102](https://doi.org/10.1155/2021/9629102).
(IF: 7.310, AIS:, 5 citations, **Q2**, n=10)
- 14 Y. Tadjenanta, N. Dokhan, A. Barrasa, A. Addad, **R. Jijie**, S. Szunerits, R. Boukherroub, *Graphene oxide chemically reduced and functionalized with KOH-PEI for efficient Cr(VI) adsorption and reduction in acidic medium*, **Chemosphere** 258 (2020) 127316 WOS:000566446500054, [10.1016/j.chemosphere.2020.127316](https://doi.org/10.1016/j.chemosphere.2020.127316).
(IF: 7.086, AIS: 1.023, 50 citations, **Q1**, n=7)
- 15 M. A. Robea, **R. Jijie**, M. Nicoara, G. Plavan, A. S. Ciobica, C. Solcan, G. Audira, C. Hsiao, S. A. Strungaru, *Vitamin C Attenuates Oxidative Stress and Behavioral Abnormalities Triggered by Fipronil and Pyriproxyfen Insecticide Chronic Exposure on Zebrafish Juvenile*, **Antioxidants** 9(10) (2020) 944; WOS:000584087300001, [10.3390/antiox9100944](https://doi.org/10.3390/antiox9100944).
(IF: 6.313, AIS: 0.910, 13 citations, **Q1**, n= 9)
- 16 M. Balmus, R. O. Cojocariu, A Ciobica, S. Strungaru, **R. Strungaru-Jijie**, A. Cantemir, C. Galatanu, L. Gorgan, *Preliminary Study on the Tears Oxidative Stress Status and Sleep Disturbances in Irritable Bowel Syndrome Patients*, **Oxidative Medicine and Cellular Longevity** 2020, (2020) 4690713, WOS:000540531300002, [10.1155/2020/4690713](https://doi.org/10.1155/2020/4690713).
(IF: 6.543, AIS: 1.203, 8 citations, **Q2**, n= 8)
- 17 **R. Jijie**, G. Solcan, M Nicoara, D. Micu, S. A. Strungaru, *Antagonistic effects in zebrafish (Danio rerio) behavior and oxidative stress induced by toxic metals and deltamethrin acute exposure*, **Science of The Total Environment** 698 (2020) 134299, WOS:000500580700106, [10.1016/j.scitotenv.2019.134299](https://doi.org/10.1016/j.scitotenv.2019.134299).
(IF: 7.963, AIS: 1.304, 40 citations, **Q1**, n= 5)

- 18 J. T. Pandra, Q. Pagneux, J. Bouckaert, **R. Jijie**, H. Sundh, R. Boukherroub, S. Szunerits, S.K. Linden, *Mucin modified SPR interfaces for studying the effect of flow on pathogen binding to Atlantic salmon mucins*, **Biosensors and Bioelectronics** 146 15(2019) 111736, WOS:000497250600011, [10.1016/j.bios.2019.111736](https://doi.org/10.1016/j.bios.2019.111736).
(IF: 10.257, AIS: 1.469, 5 citations, **Q1**, n= 8)
- 19 Y. Bencheikh, M. Harnois, **R. Jijie**, A. Addad, P. Roussel, S. Szunerits, T. Hadjersi, S. Abaidia, R. Boukherroub, *High performance silicon nanowires/ruthenium nanoparticles micro-supercapacitors*, **Electrochimica Acta** 311 (2019) 150-159, WOS:000467983100016, [10.1016/j.electacta.2019.04.083](https://doi.org/10.1016/j.electacta.2019.04.083).
(IF: 6.215, AIS: 0.877, 21 citations, **Q1**, n= 9)
- 20 M. Li, **R. Jijie**, A. Barras, P. Roussel, S. Szunerits, R. Boukherroub, *NiFe layered double hydroxide electrodeposited on Ni foam coated with reduced graphene oxide for high-performance supercapacitors*, **Electrochimica Acta** 302 (2019) 1-9, WOS:000459998000001, [10.1016/j.electacta.2019.01.187](https://doi.org/10.1016/j.electacta.2019.01.187).
(IF: 6.215, AIS: 0.877, 67 citations, **Q1**, n= 6)
- 21 H. Jafari, M. Amiri, E. Abdi, S. L. Navid, J. Bouckaert, **R. Jijie**, R. Boukherroub, S. Szunerits, *Entrapment of uropathogenic E.coli cells into ultra-thin sol-gel matrices on gold thin films: a low cost alternative for impedimetric bacteria sensing*, **Biosensors and Bioelectronics** 124-125(2019) 161-166, WOS:000451935500020, [10.1016/j.bios.2018.10.029](https://doi.org/10.1016/j.bios.2018.10.029).
(IF: 10.257, AIS: 1.469, 20 citations, **Q1**, n= 8)
- 22 M. Budimir, **R. Jijie**, R. Ye, A. Barras, S. Melinte, A. Silhanek, Z. Markovic, S. Szunerits and R. Boukherroub, *Efficient capture and photothermal ablation of planktonic bacteria and biofilms using reduced graphene oxide-polyethyleneimine flexible nanoheaters*, **Journal of Materials Chemistry B** 7 (2019) 2771-2781, WOS:000471328500014, [10.1039/c8tb01676c](https://doi.org/10.1039/c8tb01676c).
(IF: 5.344, AIS: 0.909, 25 citations, Cover Page, **Q1**, n= 9)
- 23 S. Strungaru¹, **R. Jijie**¹, M. Nicoara, G. Plavan and C. Faggio, *Micro-(nano) plastics in freshwater ecosystems: Abundance, toxicological impact and quantification methodology*, **TrAC Trends in Analytical Chemistry**, 110 (2019) 116-128, WOS:000454880400010, [10.1016/j.trac.2018.10.025](https://doi.org/10.1016/j.trac.2018.10.025).
(IF: 9.801, AIS: 1.772, 233 citations, **Review**, Most downloaded Trends in Analytical Chemistry Articles in January 2019, Highly Cited Paper, **Q1**, n= 5)
- 24 Altinbasak, **R. Jijie**, A. Barras, B. Golba, R. Sanyal, J. Bouckaert, D. Drider, R. Bilyy, T. Dumych, S. Paryzak, V. Vovk, R. Boukherroub, A. Sanyal, S. Szunerits, *Reduced Graphene Oxide Embedded Polymeric Nanofiber Mats: An, On-Demand' Photothermally-Triggered Antibiotic Release Platform*, **ACS Applied Materials & Interfaces** 10(48) 2018:41098-41106, WOS:000452694100017, [10.1021/acsami.8b14784](https://doi.org/10.1021/acsami.8b14784).
(IF: 8.456, AIS: 1.650, 52 citations, **Q1**, n= 14)
- 25 **R. Jijie**, A. Barras, J. Bouckaert, N. Dumitrascu, S. Szunerits and R. Boukherroub, *Enhanced antibacterial activity of carbon dots functionalized with ampicillin combined with visible light triggered photodynamic effects*, **Colloids and Surfaces B: Biointerfaces** 170 (2018) 347-354, WOS:000445989400041, [10.1016/j.colsurfb.2018.06.040](https://doi.org/10.1016/j.colsurfb.2018.06.040).
(IF: 3.973, AIS: 0.688, 66 citations, **Q1**, n= 6)
- 26 M. Amiri, M. Fallahi, A. Bezaatpour, **R. Jijie**, M. Nozari, M. Rouhi, R. Boukherroub, S. Szunerits, *Solution Processable Cu(II) macrocycle for the Formation of Cu₂O Thin Film on ITO and its Application for Water Oxidation*, **The Journal of Physical Chemistry C** (2018) 122 (29) 16510-16518, WOS:000440520500007, [10.1021/acs.jpcc.8b02808](https://doi.org/10.1021/acs.jpcc.8b02808).
(IF: 4.309, AIS: 1.017, 20 citations, **Q1**, n= 8)

- 27 F. Chekin, A. Vasilescu, **R. Jijie**, S. Singh, S. Kurungot, M. Iancu, G. Badea, R. Boukherroub, S. Szunerits, *Sensitive electrochemical detection of cardiac troponin I in serum and saliva by nitrogen-doped porous reduced graphene oxide electrode*, **Sensors and Actuators B: Chemical** 262(2018) 180-17, WOS:000427460600023, [10.1016/j.snb.2018.01.215](https://doi.org/10.1016/j.snb.2018.01.215).
(IF: 6.393, AIS: 0.824, 80 citations, **Q1**, n= 7)
- 28 F. Chekin, K. Bagga, P. Subramanian, **R. Jijie**, S. Kurungot, R. Boukherroub, S. Szunerits, *Nucleic aptamer modified porous reduced graphene oxide/ MoS2 based electrodes for viral detection: Application to human papillomavirus*, **Sensors and Actuators B: Chemical** 262(2018) 991-1000, WOS:000427460600118, [10.1016/j.snb.2018.02.065](https://doi.org/10.1016/j.snb.2018.02.065).
(IF: 6.393, AIS: 0.824, 55 citations, **Q1**, n= 7)
- 29 **R. Jijie**, K. Kahlouche, A. Barras, N. Yamakawa, J. Bouckaert, T. Gharbi, S. Szunerits, R. Boukherroub, *Reduced graphene oxide/polyethylenimine based immunosensor for the selective and sensitive electrochemical detection of uropathogenic Escherichia coli*, **Sensors and Actuators B: Chemical** 260 (2018) 255-263, WOS:000424884300030, [10.1016/j.snb.2017.12.169](https://doi.org/10.1016/j.snb.2017.12.169).
(IF: 6.393, AIS: 0.824, 58 citations, **Q1**, n= 8)
- 30 A. Vasilescu, R. Ye, S. Boulahneche, S. Lamraoui, **R. Jijie**, M. Medjram, S. Gaspar, S. Singh, S. Kurungot, S. Melinte, R. Boukherroub, S. Szunerits, *Porous reduced graphene oxide modified electrodes for the analysis of protein aggregation. Part 2: Application to the analysis of calcitonin containing pharmaceutical formulation*, **Electrochimica Acta** 266(2018) 364-372, WOS:000427380600041, [10.1016/j.electacta.2018.02.038](https://doi.org/10.1016/j.electacta.2018.02.038).
(IF: 5.383, AIS: 0.810, 5 citations, **Q1**, n=12)
- 31 K. Kahlouche¹, **R. Jijie**¹, I Hosu, A. Barras, T. Gharbi, R. Yahiaoui, G. Herlem, M. Ferhat, S. Szunerits, R. Boukherroub, *Controlled modification of electrochemical microsystems with polyethylenimine/reduced graphene oxide using electrophoretic deposition: Sensing of dopamine levels in meat samples*, **Talanta** 178 (2018): 432-440, WOS:000416615500057, [10.1016/j.talanta.2017.09.065](https://doi.org/10.1016/j.talanta.2017.09.065).
(IF: 4.916, AIS: 0.762, 25 citations, **Q1**, n= 10)
- 32 **R. Jijie**, A Barras, T. Teslaru, I. Topala, V. Pohata, M. Dobromir, T. Dumych, J. Bouckaert, S. Szunerits, N. Dumitrascu, R. Boukherroub, *Aqueous Medium-Induced Micropore Formation in Plasma Polymerized Polystyrene: An effective route to Inhibit Bacteria Adhesion*, **Journal of Materials Chemistry B** 6(2018) 3674-3683, WOS:000434780000006, [10.1039/c7tb02964k](https://doi.org/10.1039/c7tb02964k).
(IF: 5.047, AIS: 0.916, 1 citation, **Q1**, n= 11)
- 33 C. Gerber, I. Mihaila, D. Hein, A. Nastuta, **R. Jijie**, V. Pohoata and I. Topala, *Time Behaviour of Helium Atmospheric Pressure Plasma Jet Electrical and Optical Parameters*. **Applied Sciences** 7(8) 2017, p.812, WOS:000408905900062, <https://doi.org/10.3390/app7080812>.
(IF: 1.689, AIS:0.338, 11 citations, **Q3**, n = 7)
- 34 **R. Jijie**, A. Barras, F. Teodorescu, R. Boukherroub and S. Szunerits, *Advancements on the molecular design of nanoantibiotics: current level of development and future challenges*, **Molecular Systems Design & Engineering** 2.4 (2017): 349-369, WOS:000412769000002, [10.1039/c7me00048k](https://doi.org/10.1039/c7me00048k).
(IF: 2.708, AIS: 0.844, 32 citations, **Q2**, **Review**, n= 5)
- 35 **R. Jijie**, A. Barras, R. Boukherroub, S. Szunerits, *Nanomaterials for transdermal drug delivery: beyond the state of the art of liposomal structures*, **Journal of Materials Chemistry B**, 5 (44) (2017), 8653-8675, WOS:000415354000002, <https://doi.org/10.1039/c7tb02529g>.
(IF: 4.776, AIS: 0.961, 47 citations, **Q1**, **Review**, n= 4)

- 36 F. Halouane¹, **R. Jijie**¹, D. Meziane, C. Li, SK Singh, J Bouckaert, J Jurazek, S Kurungot, A Barras, M. Li, R. Boukherroub, S. Szunerits, *Selective isolation and eradication of E. coli associated with urinary tract infections using anti-fimbrial modified magnetic reduced graphene oxide nanoheaters*, **Journal of Materials Chemistry B** 5.40 (2017): 8133-8142, WOS:000413200500010, [10.1039/c7tb01890h](https://doi.org/10.1039/c7tb01890h).
(IF: 4.776, AIS: 0.961, 16 citations, **Q1**, n=12)
- 37 S. Boulahneche, **R. Jijie**, A. Barras, F. Chekin, S. K. Singh, J. Bouckaert, M. Medjram, S. Kurungot, R. Boukherroub and S. Szunerits, *On demand electrochemical release of drugs from porous reduced graphene oxide modified flexible electrodes*, **Journal of Materials Chemistry B** 5(32) (2017) 6557-6565, WOS:000407684800011, [10.1039/c7tb00687j](https://doi.org/10.1039/c7tb00687j).
(IF: 4.776, AIS: 0.961, 10 citations, **Q1**, n=10)
- 38 I. Mihaila, V. Pohoata, **R. Jijie**, A.V. Nastuta, I. Rusu and I. Topala, *Formation of positive ions in hydrocarbon containing dielectric barrier discharge plasma*, **Advances in Space Research** 58 (11) (2016) 2416-2423 WOS:000388059300017, [10.1016/j.asr.2016.08.010](https://doi.org/10.1016/j.asr.2016.08.010).
(IF: 1.401, AIS: 0.450, 2 citations, **Q3**, n=6)
- 39 M. Houcem, **R. Jijie**, G. Pan, D. Drider, D. Caly, J. Bouckaert, N. Dumitrascu, R. Chtourou, S. Szuneritz and R. Boukherroub, *A 980 nm driven photothermal ablation of virulent and antibiotic resistant Gram-positive and Gram-negative bacteria strains using Prussian blue nanoparticles*, **Journal of Colloid and Interface Science** 480 (2016) 63-68, WOS:000381244900008, [10.1016/j.jcis.2016.07.002](https://doi.org/10.1016/j.jcis.2016.07.002).
(IF: 4.233, AIS: 0.813, 44 citations, **Q1**, n =10)
- 40 **R. Jijie**, T. Dumych, L. Chengnang, J. Bouckaert, K. Turcheniuk, C. Hage, L. Heliot, B. Cudenneq, N. Dumitrascu, R. Boukherroub and S. Szunerits, *Particle-based photodynamic therapy based on Indocyanine green modified plasmonic nanostructures for inactivation of Crohn's disease-associated Escherichia coli*, **Journal of Materials Chemistry B**, 4 (2016) 2598-2605, WOS:000374098800009, [10.1039/c5tb02697k](https://doi.org/10.1039/c5tb02697k).
(IF: 4.543, AIS: 0.943, 15 citations, **Q1**, n=11)
- 41 V. Turcheniuk, V. Raks, R. Issa, R. Cooper, P. J. Cragg, **R. Jijie**, N. Dumitrascu, Mikhalovska, A. Barras, V. Zaitsev, R. Boukherroub, S. Szunerits, *Antimicrobial activity of menthol modified nanodiamond particles*, **Diamond & Related Materials** 57 (2015) 2-8, WOS:000361257800002, [10.1016/j.diamond.2014.12.002](https://doi.org/10.1016/j.diamond.2014.12.002).
(IF: 2.125, AIS: 0.482, 33 citations, **Q2**, n=12)
- 42 K. Hensel, K. Kučerová, B. Tarabová, M. Janda, Z. Machala, K. Sano, C. T. Mihai, M. Ciorpac, L. D. Gorgan, **R. Jijie**, V. Pohoata and I. Topala, *Effects of air transient spark discharge and helium plasma jet on water, bacteria, cells and biomolecules*, **Biointerphases** 10 (2) (2015) 029515, WOS:000357195600033, [10.1116/1.4919559](https://doi.org/10.1116/1.4919559).
(IF: 2.105, AIS: 0.664, 68 citations, **Q3**, n=12)
- 43 **R. Jijie**, C. Luca, V. Pohoata and I. Topala, *Effects of Atmospheric Pressure Plasma Jet on Pepsin Structure and Function*, **IEEE Transactions On Plasma Science**, 40 (11) (2012) 2980-2985, WOS:000311355100004, [10.1109/TPS.2012.2217509](https://doi.org/10.1109/TPS.2012.2217509).
(IF: 0.868, AIS: 0.363, 4 citations, **Q3**, n=4)
- 44 **R. Jijie**, V. Pohoata and I. Topala, *Thermal behavior of bovine serum albumin after exposure to barrier discharge helium plasma jet*, **Applied Physics Letters**, 101 (2012) 144103, WOS:000309603300107, [10.1063/1.4757130](https://doi.org/10.1063/1.4757130).
(IF: 3.794, AIS: 1.355, 10 citations, **Q1**, n= 3)