

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: **Inginerie Chimică și Biotehnologii**

Departamentul: **Chimie Anorganică, Chimie Fizică și Electrochimie**

Nume Prenume: **Ciobotaru Ioana-Alina**

Gradul didactic: **Șef de lucrări**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Studii și cercetări privind obținerea și caracterizarea unor filme de silani, sub îndrumarea Prof.dr.ing. Dănuț-Ionel Văireanu.

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. Anca Cojocaru, Ioana Maior, Simona Căprărescu, Ioana-Alina Ciobotaru, Dănuț-Ionel Văireanu, *Electrochimia aplicată în ingineria economică*, 2015, Editura Electra, ISBN: 978-606-507-081-3;
2. Danut-Ionel Vaireanu, Anca Cojocaru, Ioana Maior, Ioana-Alina Ciobotaru, *Food packaging interactions in metal cans, Reference Module in Food Science*, Elsevier, 2018, ISBN 9780081005965

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. Ioana-Alina Ciobotaru, Oana Camelia Mic, Danut-Ionel Vaireanu*, The Use of Some Natural Extracts as Environmentally Friendly Carbon Steel Corrosion Inhibitors, *Applied Sciences*, 2024, 14(24), 11528; <https://doi.org/10.3390/app142411528>
2. Ioana-Alina Ciobotaru, Fidan Bahtiar Ismail, Roxana Budei, Anca Cojocaru, Danut-Ionel Vaireanu *, The effect of anodization and thermal treatment on mixed-oxide layer formation on Ti-Zr alloy, *Coatings* 2024, 14(9), 1217, doi: 10.3390/coatings14091217
3. Ioana Alina Ciobotaru, Maria Stoicanescu, Roxana Budei, Anca Cojocaru, Danut-Ionel Vaireanu, Considerations Regarding Sandblasting of Ti and Ti6Al4V Used in Dental Implants and Abutments as a Preconditioning Stage for Restorative Dentistry Works, *Applied Sciences*, 2024, 14(16), 7365; <https://doi.org/10.3390/app14167365>
4. Ioana Maior, Anca Cojocaru, Ioana Alina Ciobotaru, Dănuț-Ionel Văireanu, Gabriela-Elena Badea, Influence of Deacetylation Degree of Chitosan on the Anticorrosive Properties of Carbon Steel Coatings, *Macromolecular Symposia*, 2022, 404(1), 2100435.
5. Dragos Vladimir Budei, Danut-Ionel Vaireanu, Petronela Prepelita, Gianina Popescu-Pelin, Mihaela Mincu, Ioana-Alina Ciobotaru, A comparative morphological study of titanium dioxide surface layer dental implants, *Open Chemistry*, vol.19, nr. 1, p.189–198, <https://doi.org/10.1515/chem-2021-0197>, WOS: 000632703200001
6. Anca Cojocaru, Ioana Maior, Ioana Alina Ciobotaru, Dănuț-Ionel Văireanu, The Influence of Chitosan Biopolymer on Aluminum Corrosion Resistance in Chloride Ions Environment, *Macromolecular Symposia Special Issue:Progress on Polymers and Composites Products and Manufacturing Technologies — POLCOM 2020 Part II*, vol. 396, nr. 1, 2021
7. Ioana-Alina Ciobotaru, Florin-Mihai Benga, Irina-Elena Ciobotaru, Danut-Ionel Vaireanu, Overcoming Practical Barriers in Reconditioning Li-Polymer Batteries, *Revista de Chimie*, vol. 71, nr. 4, 2020, p. 366-372;

8. Oana-Claudia Ciobotea-Barbu, Ioana-Alina Ciobotaru, Anca Cojocaru, Florin-Mihai Benga, Danut-Ionel Vaireanu, SEM, EDS and electrical capacitance study on electrodeposited Ni-Cu layers, *Revista de Chimie*, vol. 70, nr. 9, 2019, p. 3210-3212, WOS:000489958900024;
9. Oana-Claudia Ciobotea-Barbu, Ioana-Alina Ciobotaru, Danut-Ionel Vaireanu, D.G. Dumitras, Calin Nicolae, XRD, Raman and SEM surface analysis on Ni-Cu electrodeposited layers, *Journal of Optoelectronics and Advanced Materials*, vol. 21, nr. 7-8, 2019, p. 536-540, WOS:000495888700016;
10. Oana-Claudia Ciobotea-Barbu, Ioana-Alina Ciobotaru, Anca Cojocaru, Florin-Mihai Benga, Danut-Ionel Vaireanu, Practical Considerations Regarding the Electrodeposition of Ni-Cu Layers as Potential Supercapacitors Plates, *Revista de Chimie*, vol. 70, nr. 7, 2019, p. 2335-2339, WOS:000485843500007;
11. Oana Claudia Ciobotea-Barbu, Ioana-Alina Ciobotaru, Florin-Mihai Benga, Danut-Ionel Vaireanu, The influence of the deposition parameters on the properties of Ni-Cu deposition, *Revista de Chimie*, vol. 70, nr. 1, 2019, p. 45-49, WOS:000460428100010;
12. Ioana-Alina Ciobotaru, Oana Claudia Ciobotea-Barbu, Florin-Mihai Benga, Danut-Ionel Vaireanu, Characterisation of reinforced BTSE films deposited on anodized aluminium substrate, *Revista de Chimie*, vol. 69, nr. 11, 2018, p. 2964-2968, WOS:000451931500002;
13. Florin-Mihai Benga, Danut-Ionel Văireanu, Ioana-Alina Ciobotaru, Irina-Elena Ciobotaru, A novel jump-start system based on reconditioned li-polymer batteries, *Revista de Chimie*, vol. 69, nr. 4, 2018, p. 351-353, WOS:000433223000020;
14. Ioana-Alina Ciobotaru, Irina-Elena Ciobotaru, Dănuț-Ionel Văireanu, Florin-Mihai Benga, Food-packaging interactions investigated by electrochemical impedance spectroscopy, *Journal of Food Process Engineering*, vol. 41, nr. 1, 2018; e12615. <https://doi.org/10.1111/jfpe.12615>, WOS:000424647200024;
15. Ioana-Alina Ciobotaru, Oana Claudia Ciobotea-Barbu, Dănuț-Ionel Văireanu, Irina-Elena Ciobotaru, The influence of the curing temperature on the properties of some silane films, *Revista de Chimie*, vol. 68, nr. 7, 2017, p. 1413-1418, WOS:000409234600001;
16. Ioana-Alina Ciobotaru, Ioana Maior, Dănuț-Ionel Văireanu, Anca Cojocaru, Simona Căprărescu, Irina-Elena Ciobotaru, The determination of the optimum hydrolysis time for silane films deposition, *Applied Surface Science*, nr. 371, 2016, p. 275-280, DOI:10.1016/j.apsusc.2016.02.221, WOS:000375052200034;
17. Petcu Cristian, Purcar Violeta, Radu Anita-Laura, Ianchis Raluca, Elvira Alexandescu, Sarbu Andrei, Ion-Ebrasu Daniela, Miron Alexandra Raluca, Modrogan Cristina, Ciobotaru Alina Ioana, Removal of zinc ions from model wastewater system using bicopolymer membranes with fumed silica, *Journal of Water Process Engineering*, 8, 2015, p. 1–10, WOS:000375052200034;
18. Ioana Maior, Ioana-Alina Ciobotaru, Simona Căprărescu, Anca Cojocaru, Dănuț-Ionel Văireanu, Electrochemical studies on modified organo-silanes composite coatings for aluminium corrosion inhibition, *Studia UBB Chemia*, LX, 3, 2015, p. 87-98, WOS:000369162200008;
19. Irina-Elena Ciobotaru, Ioana-Alina Ciobotaru, Dănuț-Ionel Văireanu, Solar powered PEM electrolyser used as ozone generator for tertiary water treatment, *UPB Scientific Bulletin, seria B*, vol. 76, nr. 4, 2014, p. 27-33, ISSN 1454-2331;
20. Ioana-Alina Ciobotaru, Irina-Elena Ciobotaru, Danut-Ionel Vaireanu, Electrochemical production of active chlorine using platinised platinum electrodes, *Technium: Romanian Journal of Applied Sciences and Technology*, vol. 2: Proceedings of the Technium Conference 2020, 2020, pp. 12-16, ISSN: 2668-778X;
21. Ioana Maior, Anca Cojocaru, Gabriela-Elena Badea, Ioana-Maria Nicola, Ioana-Alina Ciobotaru, Andrada-Elena Alecu, Anticorrosion protective coatings by adsorbed natural extract inhibitor for mild steel corrosion in neutral solutions, *Analele Universității din Oradea - Fascicula Chimie*, Vol. XXV(25), 2018, p. 23-28, ISSN: 1224-7626;

22. Ioana-Alina Ciobotaru, Oana-Claudia Ciobotea-Barbu, Danut-Ionel Vaireanu, Considerations regarding the optimization procedure of the electrodeposition of nickel-copper films used for supercapacitors and/or rechargeable batteries plates, Bulletin of Romanian Chemical Engineering Society, vol.6 , nr.1, 2019, p.56-64, ISSN 2360-4697;
23. Ioana-Alina Ciobotaru, Oana-Claudia Ciobotea Barbu, Anca Cojocaru, Ioana Maior, Florin-Mihai Benga*, Danut-Ionel Vaireanu, Electrochemical studies on reinforced BTSE coatings deposited on anodized aluminium, Bulletin of Romanian Chemical Engineering Society, vol. 5, nr. 1, 2018, p.75-82, ISSN 2360-4697;
24. Ioana-Alina Ciobotaru, Florin-Mihai Benga, Oana Claudia Barbu, George Costin Lazar, Claudiu Campureanu, Traian Rus, Danut-Ionel Vaireanu, Conductivity cell constant revisited, Bulletin of Romanian Chemical Engineering Society, vol. 3, nr. 1, 2016, p.35-47, ISSN 2360-4697;

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Selecție cu maximum 20 lucrări în volume de conferințe

1. Ioana-Alina Ciobotaru, Oana Camelia Mic, Danut-Ionel Vaireanu, The use of *Citrus x Clementine* Peel Extract as a Corrosion Inhibitor of Carbon Steel in NaCl aggressive media, RICCCCE 23 – 23rd Romanian International Conference on Chemistry and Chemical Engineering 2024, Constanța - Mamaia, ROMANIA - September 4 – 7, 2024.
2. Danut-Ionel Vaireanu, Florin-Mihai Benga, Ioana-Alina Ciobotaru, Anca Cojocaru, Ioana Maior, Is the use of lithium-based rechargeable batteries a care free operation?, RICCCCE 22 – 22nd Romanian International Conference on Chemistry and Chemical Engineering 2022, 7-9 September 2022, Sinaia, Romania
3. Ioana-Alina Ciobotaru, Florin-Mihai Benga, Anca Cojocaru, Ioana Maior, Danut-Ionel Vaireanu, An Integrated System for Rechargeable Batteries Reconditioning and Recycling Management, RICCCCE 22 – 22nd Romanian International Conference on Chemistry and Chemical Engineering 2022, 7-9 September 2022, Sinaia, Romania.
4. Danut-Ionel Vaireanu, Ioana-Alina Ciobotaru, Anca Cojocaru, Ioana Maior, Florin-Mihai Benga, Symposium of the Young Chemical Engineers (SICHEM), 17-18 noiembrie 2022, București, Romania;
5. Ioana-Alina CIOBOTARU, Florin-Mihai BENGHA, Danut-Ionel VAIREANU, Anca COJOCARU, Ioana MAIOR- Electric vehicles: eco-friendly or not? Symposium of the Young Chemical Engineers (SICHEM), 17-18 noiembrie 2022, București, Romania;
6. Anca COJOCARU, Ioana MAIOR, Ioana Alina CIOBOTARU, Danut Ionel VAIREANU, Gabriela Elena BADEA - Plant extracts as sustainable corrosion inhibitors for metals and alloys in aggressive media, Symposium of the Young Chemical Engineers (SICHEM), 17-18 noiembrie 2022, București, Romania;
7. Ioana MAIOR, Ioana-Maria NICOLA, Anca COJOCARU, Adrian-Ionuț NICOARĂ, Ioana- Alina CIOBOTARU, Dănuț-Ionel VĂIREANU - Studies of nickel / gold electroplating on cooper substrate in different electrolytes, Symposium of the Young Chemical Engineers (SICHEM), 17-18 noiembrie 2022, București, Romania;
8. Ioana-Alina Ciobotaru, Ioana Maior, Study on the corrosion behavior of damaged aluminium and tin cans, ADFOODCHEM – Advances in Food Chemistry 2021, 15-17 aprilie 2021;
9. Ioana Maior, Anca Cojocaru, Ioana-Alina Ciobotaru, Gabriela –Elena Badea, A. Fodor, Effect of Additives on the Corrosion Inhibition of Steel by Chitosan Coatings in Food Packaging Applications, ADFOODCHEM – Advances in Food Chemistry 2021, 15-17 aprilie 2021;
10. 9. Ioana-Alina Ciobotaru, Anca COJOCARU, Ioana MAIOR, Dănuț-Ionel VAIREANU, Overcoming Practical Challenges in Assessing the Ionic Conductivity in Polymer conducting Membranes, Simpozionul Național de Chimie, Contribuții la creșterea calității învățământului și cercetării în domeniul chimiei” Craiova, XII EDITION, Analele Universității din Craiova, Seria Chimie, 28 Noiembrie 2020;

11. Ioana-Alina Ciobotaru, Florin-Mihai Benga, Danut-Ionel Vaireanu, Advantages and disadvantages of rechargeable batteries reconditioning versus recycling, Symposium of the Young Chemical Engineers (SICHEM), 17-18 septembrie 2020, București, Romania;
12. Ioana Maior, Ioana-Maria Nicola, Ioana-Alina Ciobotaru, Anca Cojocaru, Oana Cristina Parvulescu, The influence of the operating parameters on the applications of the titanium passivation process by anodizing, Symposium of the Young Chemical Engineers (SICHEM), 17-18 septembrie 2020, București, Romania;
13. Ioana-Alina Ciobotaru, Irina-Elena Ciobotaru, Danut-Ionel Vaireanu, Electrochemical production of active chlorine using platinised platinum electrodes, ID 2048, Technium Conference, Constanța, Romania, ISBN: 978-973-0-30915-7.
14. Anca Cojocaru, Ioana Maior, Ioana-Alina Ciobotaru, Alexandra Cojocaru-Greblea, Danut-Ionel Vaireanu, Eco-friendly corrosion inhibitors for steel in NaCl medium, 21th Romanian International Conference on Chemistry and Chemical Engineering, 4-7 septembrie 2019, Constanța - Mamaia, Romania.
15. Oana-Claudia Ciobotea-Barbu, Ioana-Alina Ciobotaru, Danut-Ionel Vaireanu, Calin Nicolae, XRD, Raman and SEM surface analysis on Ni-Cu electrodeposited layers, 4th International Workshop on Materials under Extreme Conditions SUPERMAT, 14-16 noiembrie 2018, București, Romania;
16. Florin-Mihai Benga, Ioana-Alina Ciobotaru, Irina-Elena Ciobotaru, Danut-Ionel Vaireanu, A reconditioning procedure of some Li-pol batteries, Symposium of the Young Chemical Engineers (SICHEM), 6-7 septembrie 2018, București, Romania;
17. Oana-Claudia Ciobotea Barbu, Ioana-Alina Ciobotaru, Danut-Ionel Vaireanu, Daniel Bîrgăoanu, The influence of the electrodeposition parameters on the properties of Ni-Cu deposits, Smart Specialization and Advanced Materials for Extreme Conditions, 20-22 noiembrie 2017, București, Romania;
18. Ioana-Alina Ciobotaru, Oana-Claudia Ciobotea Barbu, Florin-Mihai Benga, Ioana Maior, Danut-Ionel Vaireanu, Irina-Elena Ciobotaru, The effect of substrate anodisation on deposited BTSE silane films, 20th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), 6-9 septembrie 2017, Poiana Brașov, Romania;
19. Florin-Mihai Benga, Danut-Ionel Vaireanu, Ioana-Alina Ciobotaru, Anca Cojocaru, Irina-Elena Ciobotaru, A novel use for reconditioned Li-polymer rechargeable batteries, 20th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), 6-9 septembrie 2017, Poiana Brașov, Romania;

E. Brevete obținute în întreaga activitate

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