

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Facultatea: **Inginerie Chimică și Biotehnologii**

Departamentul: **Chimie Analitică și Ingineria Mediului**

Nume Prenume: **Oprea Madalina**

Gradul didactic: **Asistent Universitar**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Materiale polimerice pentru aplicații în hemodializă și osteointegrare (Polymeric membranes for applications in hemodialysis and osseointegration), conducător de doctorat Prof. Dr. Ing. IOAN STEFAN VOICU, data susținerii 13.10.2023

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

M. Oprea, Organs on a chip, in Bioartificial Organs, Bianca Boarca, Madalina Elena Grigore, Alexandra Elena Stoica Eds. 2019, Vol. 1, pp. 71-90, Lambert Academic Publishing, ISBN 978-613-9-44476-2.

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

Oprea, M., Pandele, A. M., Nechifor, A. C., Nicoara, A. I., Antoniac, I. V., Semenescu, A., Voicu, S.I., Enachescu, C.I., Fratila, A. M. *Improved Biomineralization Using Cellulose Acetate/Magnetic Nanoparticles Composite Membranes*. Polymers, 2025, 17(2), 209, WOS:001403857600001, IF=4,7.

Oprea, M., Ionita, M. *Antisense oligonucleotides-based approaches for the treatment of multiple myeloma*. International Journal of Biological Macromolecules, 2024, 291, 139186, WOS:001402691200001, IF=7,7.

Panaitescu, D.M.; **Oprea, M.**; Frone, A.N.; Trica, B.; Popa-Tudor, I.; Ghiurea, M.; Nicolae, C.-A.; Gabor, A.R.; Oprica, G.M.; Usurelu, C.D.; Damian, C.M.; Constantinescu-Aruxandei, D.; Oancea, F. *Valorization of spent lignocellulosic substrate of edible mushrooms into cellulose nanofibers for bionanocomposites production*. Journal of Polymers and the Environment, 2024, 32(12), 6618-6635, WOS:001316821500001, IF=4,7

Cojocaru, E.; **Oprea, M.**; Vlasceanu, G.M.; Nicolae, M.C.; Popescu, R.-C.; Mereuta P.-E.; Toader, A.G.; Ionita, M. *Dual nanofiber and graphene reinforcement of 3D printed biomimetic supports for bone tissue repair*. RSC Advances 2024, 14(44), 32517-32532, WOS: 001334589900001, IF=3.9

Oprea, M.; Voicu, S.I. *Cellulose acetate-based membranes for the removal of heavy metals from water in the context of circular economy*. Industrial Crops and Products 2023, 206, 117716, WOS:001104267600001, IF=5,6.

Oprea, M.; Voicu, S.I. *Cellulose acetate-based materials for water treatment in the context of circular economy*. Water 2023, 15(10), 1860, WOS:000997086000001, IF=3.

Oprea, M.; Pandele, A.M.; Nicoara, A.I.; Nicolescu, A.; Deleanu, C.; Voicu, S.I. *Crown ether-functionalized cellulose acetate membranes with potential applications in osseointegration*. International Journal of Biological Macromolecules 2023, 230, 123162, WOS:000922684900001, IF=7,7

Oprea, M.; Fikai, A.; Ilie, C.; Trusca, R.; Oprea, O.C.; Serbanescu, O.S.; Voicu, S.I. *Zinc-loaded cellulose acetate membranes with potential biomedical applications*. UPB Scientific Bulletin Series B: Chemistry and Materials Science 2022, 84(2), 15-30, WOS:000805934600002, IF=0,3.

Pandele, A.M.; **Oprea, M.**; Dutu, A.A.; Miculescu, F.; Voicu, S.I. *A novel generation of polysulfone/crown ether-functionalized reduced graphene oxide membranes with potential applications in hemodialysis*. Polymers 2021, 14(1), 148, WOS:000743145100001, IF=4,7.

Serbanescu, O.S.; Pandele, A.M.; **Oprea, M.**; Semenescu, A.; Thakur, V.K.; Voicu, S.I. *Crown ether-immobilized cellulose acetate membranes for the retention of Gd (III)*. Polymers 2021, 13(22), 3978, WOS:000724513100001, IF=4,7.

Panaitescu, D.M.; Nicolae, C.A.; Melinte, V.; Scutaru, A.L.; Gabor, A.R.; Popa, M.S.; **Oprea, M.**; Buruiana, T. *Influence of microfibrillated cellulose and soft biocomponent on the morphology and thermal properties of thermoplastic polyurethanes*. Journal of Applied Polymer Science 2021, 138(37), 50951, WOS:000645944400001, IF=2,7.

Oprea, M.; Voicu, S.I. *Cellulose-based composites with graphene for tissue engineering applications*. Materials 2020, 13(23), 5347, WOS:000597469400001, IF=3,1.

Oprea, M.; Panaitescu, D.M.; *Nanocellulose hybrids with metal oxides for biomedical applications*. Molecules 2020, 20(18), 4045, WOS:000580078500001, IF=4,2.

Oprea, M.; Voicu, S.I. *Recent advances in applications of cellulose derivatives-based composite membranes with hydroxyapatite*. Materials 2020, 13(11), 2481, WOS:000551495800057, IF=3,1.

Oprea, M.; Panaitescu, D.M.; Nicolae, C.A.; Gabor, A.R.; Frone, A.N.; Raditoiu, V.; Trusca, R.; Casarica, A. *Nanocomposites from functionalized bacterial cellulose and poly(3-hydroxybutyrate-co-3-hydroxyvalerate)*. Polymer Degradation and Stability 2020, 179, 109203, WOS:000564495800005, IF=6,3.

Oprea, M.; Voicu, S.I. *Recent advances in composites based on cellulose derivatives for biomedical applications*. Carbohydrate Polymers 2020, 247, 116683, WOS:000565140200010, IF=10,7

Frone, A.N.; Batalu, D.; Chiulan, I.; **Oprea, M.**; Gabor, A.R.; Nicolae, C.A.; Raditoiu, V.; Trusca, R.; Panaitescu, D.M. *Morpho-structural, thermal and mechanical properties of PLA/PHB/Cellulose biodegradable nanocomposites obtained by compression molding, extrusion, and 3D printing*. Nanomaterials (Basel, Switzerland) 2019, 10(1), 51, WOS:000516825600051, IF=4,4.

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containing cellulose nanofibers. Journal of Thermal Analysis and Calorimetry 2019, 138, 2387-2398, WOS:000499703500003, IF=3.

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

Oprea, M., Voicu, S. I., Pandele, A. M., Panaitescu, D. M. *Ethanolamine, a novel linker for the covalent functionalization of cellulose acetate membranes*. In BOOK OF ABSTRACTS 2021 BPC-APMG.

Frone, A.N., Chiulan I., **Oprea, M.**, Stoian, A.S., Panaitescu, D.M., Gabor, A.R., Nicolae, C.A. *Effect of Different POSS Structures on Thermal and Morphological Properties of a Biodegradable Polyester*. In Open Access Extended Abstract MDPI 2019, 29(1), 87.

Brevete obținute în întreaga activitate

B.2. A.N. Frone, D.M. Panaitescu, M. Oprea – „Biocompozite polimerice cu efect antibacterian pentru aplicații biomedicale”, RO135357A2/25.05.2020

B.1. S.I. Voicu, M. Oprea, A.M. Pandele, A. Semenescu, M.C. Costoiu, F. Miculescu, I.V. Antoniac, I.M. Mates, L.I. Cioca -"Dialysis membrane with the ability of controlled release of active substances for the concomitant treatment of chronic renal dysfunction and liver cancer and the procedure for obtaining it", CBI OSIM A 00062/10.02.2023