



Dr. Claudiu-Augustin Ghiorghita

Scientific Researcher

Email: claudiu.ghiorghita@icmpp.ro

Tel.

Research topics

My research interests focus on the design of self-assembled systems based on natural and synthetic polyelectrolytes, and investigation of the mechanisms and kinetics underlying the loading/release of organic compounds (dyes, drugs, proteins/enzymes) into/from the developed matrices. Expertise in using the following instruments: Automated multilayer deposition device (*ND-R Rotatory Dip Coater*); Potentiometric titration device (*PCD-03 titrator*); Quartz Crystal Microbalance with Dissipation monitoring (QCM-D, QSense Pro).

Scientific research

Co-author of: 15 ISI articles, one book, 2 articles in proceedings, 3 invited lectures, 17 oral communications and 9 poster presentations. Team member in 2 research grants.

Selected publications

1. C.-A. Ghiorghita, F. Bucatariu, E. S. Dragan
Poly(N,N-dimethylamino)ethyl methacrylate/sodium alginate multilayers and their interaction with proteins/enzymes
Int. J. Biol. Macromol. 107(B) (2018) 1584-1590.
<https://doi.org/10.1016/j.ijbiomac.2017.10.030>
2. C.-A. Ghiorghita, F. Bucatariu, E. S. Dragan
Sorption/release of diclofenac sodium in/from free-standing poly(acrylic acid)/poly(ethyleneimine) multilayer films
J. Appl. Polym. Sci. 133 (2016) app.43752.
<https://doi.org/10.1002/app.43752>
3. F. Bucatariu, C.-A. Ghiorghita, A. I. Cocarta, E. S. Dragan
Cross-linked multilayer-dye films deposited onto silica surfaces with high affinity for pepsin
Appl. Surf. Sci. 390 (2016) 320-327
<https://doi.org/10.1016/j.apsusc.2016.08.057>
4. C.-A. Ghiorghita, F. Bucatariu, E. S. Dragan
Loading and release of a model cationic dye onto/from chitosan/poly(acrylic acid) polyelectrolyte multilayers
Cell. Chem. Technol. 48 (2014) 247-253.
5. M. Mihai, C.-A. Ghiorghita, I. Stoica, L. Nita, I. Popescu, G. Fundueanu
New polyelectrolyte complex particles as colloidal dispersions based on weak synthetic and/or natural polyelectrolytes
eXPRESS Polym. Lett. 5 (2011) 506-515.