

CURRICULUM VITAE

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Lecturer

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EDUCATION

- Nov. 2006 - Nov. 2007. Research stage at University Ghent, Department of Polymer & Biomaterials, Ghent, Belgium, promoter Prof. Etienne Schacht, research topics: functionalization of polymer biomaterials. Synthesis and characterization of bioconjugation intermediates with high selective reactivity.
- Mai 2005 – June 2006. Marie Curie research stage at University of Technology Dresden, Institute of Analytical Chemistry, Dresden, Germany, promoter Professor Reiner Salzer, working on surface functionalization of biosensor surfaces (design of SPR imaging sensors for early detection of cancer). Design and construction of a Surface Plasmon Resonance Imaging modular device (including studies on the optimization of the sensitivity and reproducibility of the device).
- Febr. 2002 – Dec. 2002. PhD fellow at University Angers, INSERM U922 (formerly INSERM EMI 0335), Angers, France, promoter Prof. Daniel Chappard. Development of biomaterials for bone regeneration. *In vitro* and *in vivo* biomineralization assessment. Synthesis and characterization of polymer scaffolds with controlled interconnected porosity for bone repair.
- 2003, Ph.D.in Chemistry, Polytechnic University of Bucharest, Romania
- 2003, PhD in Biological and Medical Engineering, University Angers, France
- 2000, B.S. in Chemical Engineering, Polytechnic University of Bucharest, Romania.

PROFESSIONAL APPOINTMENTS

- 2002 - present, Assistant-Lecturer, and actually Lecturer, Polytechnic University of Bucharest, Faculty of Industrial Chemistry, Department of Polymer Chemistry and Technology.

AREAS OF RESEARCH

- synthesis and characterization of polymer biomaterials (2 fellowships and 4 national research grants awarded as project director);
- synthesis and applications of interpenetrating polymer networks based on natural and synthetic polymers;
- synthesis of surface nano-structured biomaterials with controlled properties;
- synthesis and characterization of hydrogels;

- chemical or/and physical immobilization of bioactive species on/in polymers; controlled drug release;
- synthesis and characterization of porous polymer scaffolds.

PEER REVIEW COMMITTEES

- Acta Biomaterialia
- Reactive and Functional Polymers
- Journal of Materials Science
- Materials
- Colloid and Polymer Science
- Journal of Colloid and Interface Science
- Current Pharmaceutical Design

MEMBERSHIPS

- 2007 - present European Society for Biomaterials
- Secretary of the Young Scientist Forum at the European Society for Biomaterials <http://www.esbiomaterials.eu/index.php?cid=YSF&op=4>
- 2008 - present Romanian Society for Biomaterials
- Secretary of the Romanian Society for Biomaterials <http://www.srb.ro/?language=1&id=35>
- Representative Young Scientist Forum – Romania

PUBLICATIONS (selection):

1. Book chapter:

- 1) **Stancu, I.C.**, SPR Imaging label-free control of biomineral nucleation!?, capitol de carte invitat în *Intelligent and Biosensors*, Editor: Vernon S. Somerset, Editura IN TECH, 2010, Croatia, ISBN 978-953-7619-58-9

2. Articles (selection):

- 1) **Stancu I.C.**, Dragusin D.M., Vasile E., Trusca R., Antoniac I., Vasilescu D.S., Porous calcium alginate-gelatin interpenetrated matrix and its biomineralization potential, *Journal of Materials Science: Materials in Medicine*, 22: 451–460, 2011
- 2) **Stancu I.C.**, A. Lungu, E. Rusen, A. Mocanu, P.Z. Iordache, D.M. Dragusin, C. Cotrut, E. Vasile, H. Iovu, Multifunctional PAMAM-surface nanostructured particles organized in multimeric clusters. Potential smart delivery vehicles of bioactive species through a high selective amine-thiol bioconjugation strategy, *Digest Journal of Nanomaterials and Biostructures*, 5(4): 1077-1087, 2010
- 3) **Stancu, I.C.**, Gelatin Hydrogels with PAMAM Nanostructured Surface and High Density Surface-Localized Amino Groups, *Reactive and Functional Polymers*, 70, 314-324, 2010
- 4) Zecheru T., Rotariu T., Rusen E., Marculescu B., Miculescu F., Alexandrescu L., Antoniac I., **Stancu I.C.**, Poly(2-hydroxyethyl methacrylate-co-dodecyl methacrylate-co-acrylic acid): synthesis, physico-chemical characterisation and nafcillin carrier, *Journal of Materials Science: Materials in Medicine*, 21(10), 2793-2804, 2010

- 5) Mabileau, G., Aguado, E., **Stancu, I.C.**, Cincu, C., Basle, M.F., Chappard, D., Effects of FGF-release from a hydrogel polymer on bone mass and microarchitecture, *Biomaterials*, 29(11), 1596-1600, 2008
- 6) **Stancu, I.C.**, Layrolle, P., Libouban, H., Filmon, R., Legeay, G., Cincu, C., Basle, M.F., Chappard, D., Preparation of macroporous poly (2-hydroxyethyl) methacrylate with interconnected porosity, *Journal of Optoelectronics and Advanced Materials*, 9(7), 2125-2129, 2007
- 7) **Stancu, I.C.**, Fernandez-Gonzalez, A., Salzer, R., SPR imaging antimucin-mucin bioaffinity based biosensor as label free tool for early cancer diagnosis. Design and detection principle, *Journal of Optoelectronics and Advanced Materials*, 9(6), 1883-1889, 2007
- 8) Mabileau, G., **Stancu, I.C.**, Honoré, T., Legeay, G., Cincu, C., Baslé, M.F., Chappard, D., Effects of the chain length off cross-linkers on poly(2-hydroxyethyl methacrylate) (pHEMA) swelling and biomechanical properties, *Journal of Biomedical Materials Research, A*, 77(1), 35-42, 2006
- 9) **Stancu, I.C.**, Filmon, R., Grizon, F., Zaharia, C., Cincu, C., Basle, M. F., Chappard, D., The in vivo calcification of methacryloyloxyethyl phosphate copolymers does not favour osteoconduction, *Journal of Biomedical Materials Research*, 69 A, 584-589, 2004
- 10) **Stancu, I.C.**, Filmon, R., Cincu, C., Marculescu, B., Zaharia, C., Tourmen, Y., Basle, M. F., Chappard, D., Synthesis of methacryloyloxyethyl phosphate copolymers and in vitro calcification capacity, *Biomaterials*, 25(2), 205-213, 2004