

## Annexe II

Articles publiés ou en cours de publications:

### Liste 1: PUBLICATIONS RELATIVES A LA THESE

1. **Sima F.**, Davidson P., Pauthe E., Gallet O., Anselme K., Mihailescu I.N., Bone marrow stromal cells response to human plasma fibronectin coatings grown by matrix assisted pulsed laser evaporation on hydroxyapatite layers, in preparation;
2. **Sima F.**, Davidson P., Pauthe E., Sima L.E., Gallet O., Mihailescu I.N., Anselme K. Fibronectin layers obtained by matrix assisted pulsed laser evaporation from saline buffer based cryogenic targets, *Acta Biomaterialia*, in press, corrected proof, doi:10.1016/j.actbio.2011.06.016;
3. **Sima F.**, Davidson P., Pauthe E., Gallet O., Anselme K., Mihailescu I.N. Thin films of vitronectin transferred by MAPLE, *Applied Physics A*, accepted, August 2011;
4. **Sima F.**, Mutlu E.C. Eroglu M.S., Sima L.E., Serban N, Ristoscu C, Petrescu S.M., Toksoy Oner E., Mihailescu I.N., *Levan Nanostructured Thin Films by MAPLE Assembling*, *Biomacromolecules*, 12, 2251, 2011;
5. **Sima F.**, Axente E., Ristoscu C., Mihailescu I.N., Kononenko T.V, Nagovitsin I.A., Chudinova G., Konov V.I., Socol M, Enculescu I, Sima L.E., Petrescu S.M., Tailoring immobilization of immunoglobulin by excimer laser for biosensor applications, *Journal of Biomedical Materials Research-A*, 96A (2), 384 - 394, 2011;
6. **Sima F.**, Ristoscu C., Caiteanu D., Mihailescu C.N., Stefan N., Mihailescu I.N., Prodan G., Ciupina V., Palcevskis E., Krastins J., Sima L.E., Petrescu S.M. Biocompatibility and bioactivity enhancement of Ce stabilized ZrO<sub>2</sub> doped HA coatings by controlled porosity change of Al<sub>2</sub>O<sub>3</sub> substrates, *Journal of Research: B*, 96B (2), 218-224, 2011;
7. György E., **Sima F.**, Mihailescu I.N., Smausz T., Hopp B., Predoi D., Ciuca S., Sima L.E., Petrescu S.M., Biomolecular urease thin films grown by laser techniques for blood diagnostic applications, *Materials Science and Engineering: C*, 30, (4), 537-541, 2010;
8. György E., **Sima F.**, Mihailescu I.N., Smausz T., Megyeri G., Kékesi R., Hopp B., Zdrentu L., Petrescu S.M., Immobilization of urease by laser techniques: Synthesis and application to urea biosensors, *J Biomed Mater Res A*. Volume: 89A, 1, 186-191, 2009;
9. Smausz T., Megyeri G., Kékesi R., Vass C., György E., **Sima F.**, Mihailescu I. N., Hopp B., Comparative study on Pulsed Laser Deposition and Matrix Assisted Pulsed Laser Evaporation of urease thin films, *Thin Solid Films*, 517, 15, 4299-4302, 2009;
10. **Sima F.**, Ristoscu C., Popescu A., Mihailescu I.N., Kononenko T., Simon S., Radu T., Ponta O., Mustata R., Sima L.E., Petrescu S.M., Bioglass –polymer thin coatings obtained by MAPLE for a new generation of implants, *Journal of Optoelectronics and Advanced Materials*, Topical Issue: Interfaces, Thin Solid Films and Biomolecular Layers, p. 1170 – 1174, 11, 9, 2009;
11. **Sima F.**, Ristoscu C., Stefan N., Dorcioman G., Mihailescu I.N., Sima L.E., Petrescu S.M., Palcevskis E., Krastins J., Zalite I., Shallow hydroxyapatite coatings pulsed laser deposited onto Al<sub>2</sub>O<sub>3</sub> substrates with controlled porosity: correlation of morphological characteristics with in vitro testing results, *Applied Surface Science*, 255, 10, 5312-5317, 2009;
12. Bigi A., Boanini E., Capuccini C., Fini M., Mihailescu I.N., Ristoscu C., **Sima F.**, Torricelli P., Biofunctional alendronate–Hydroxyapatite thin films deposited by Matrix Assisted Pulsed Laser Evaporation, *Biomaterials*, 30, 31, 6168-6177, 2009;
13. Capuccini C., Torricelli P., **Sima F.**, Boanini E., Ristoscu C., Bracci B., Socol G., Fini M., Mihailescu I.N., Bigi A., Strontium-substituted hydroxyapatite coatings synthesized by pulsed-laser deposition: In vitro osteoblast and osteoclast response, *Acta Biomaterialia*, 4, 6, 1885-1893, 2008;

14. **Sima F.**, Socol G., Axente E., Mihailescu I.N., Zdrentu L., Petrescu S.M., Mayer I., Biocompatible and bioactive coatings of Mn<sup>2+</sup>-doped  $\beta$ -tricalcium phosphate synthesized by pulsed laser deposition, *Applied Surface Science*, 254, 4, 1155-1159, 2007;
15. Cristescu R., Doraiswamy A., Patz T., Socol G., Grigorescu S., Axente E., **Sima F.**, Narayan R.J., Mihaiescu D., Moldovan A., Stamatina I., Mihailescu I.N., Chisholm B., Chrisey D.B., Matrix assisted pulsed laser evaporation of poly(d,l-lactide) thin films for controlled-release drug systems, *Applied Surface Science*, 253, 19, 7702-7706, 2007;
16. Grigorescu S., **Sima F.**, Axente E., Feugeas F., Mihailescu I.N., Behavior of pulsed laser deposited hydroxyapatite conditions, *Proceedings of SPIE Vol. 6606*, pag. 6606, 2007;

Liste 2: Autres publications:

17. Matei Ghimbeu C., **Sima F.**, Ostaci R.V., Socol G., Mihailescu I.N., Vix-Guterl C., Crystalline Vanadium Nitride Ultra-thin Films Obtained at Room Temperature by Pulsed Laser Deposition, *Surface and Coatings Technology*, In Press, Accepted Manuscript, doi:10.1016/j.surfcoat.2011.08.019, 2011;
18. Petkova T., Ilcheva V., Petkov E., Petkov P., Socol G., **Sima F.**, Ristoscu C., Mihailescu C.N., Mihailescu I.N., Popov C., Reithmaier J.P., Optical studies of (AsSe)<sub>100-x</sub>Sb<sub>x</sub> thin films, *Appl Phys A*, 104:959–962, 2011;
19. Floroian L., **Sima F.**, Florescu M., Badea M., Popescu A.C., Serban N., Mihailescu I.N., Double layered nanostructured composite coatings with bioactive silicate glass and polymethylmethacrylate for biomimetic implant applications, *Journal of Electroanalytical Chemistry* 648 (2) 111-118, 2010;
20. Dorcioman G., Ebrasu D., Enculescu I., Serban N., Axente E., **Sima F.**, Ristoscu C., Mihailescu I.N., Metal oxide nanoparticles synthesized by pulsed laser ablation for proton exchange membrane fuel cells, *Journal of Power Sources*, 195, 23, 2010;
21. Pervolaraki M., Athanasopoulos G. I., Giapintzakis J., Kizas C., Tasiopoulos A. J., **Sima F.**, Socol G., Mihailescu I. N., Mn<sub>12</sub> benzoate thin films on Si substrates fabricated by matrix assisted pulsed laser evaporation, *Journal of Optoelectronics and Advanced Materials* 12 (3) , 557 - 560, 2010;
22. Petkova T., Ilcheva V., Petkov P., Socol G., Ristoscu C., **Sima F.**, Mihailescu C. N., Mihailescu I. N., Popov C., Boev V., Reithmaier J. P., Stress study of thin As-Se-Ag films obtained by vacuum thermal evaporation and pulsed laser deposition, *Journal of Optoelectronics and Advanced Materials*, 12 (3) 650 - 653, 2010;
23. Floroian L., Mihailescu I., **Sima F.**, Stanciu G., Savu B., Evaluation of biocompatibility and bioactivity for polymethyl methacrylate – bioactive glass nanocomposite films obtained by matrix assisted pulsed laser evaporation, *U.P.B. Sci. Bull., Series A*, 72, 2, 133-148, 2010;
24. Berbecaru C., Alexandru H. V., Ianculescu A., Popescu A., **Sima F.**, Socol G., Mihailescu I. N., Bioglass thin films for biomimetic implants, *Applied Surface Science*, 255 (10), 5476 - 5479, 2009;
25. Popescu A.C., **Sima F.**, Duta L., Popescu C., Mihailescu I.N., Capitanu D., Mustata R., Sima L.E., Petrescu S.M., Janackovic D., Biocompatible and bioactive nanostructured glass coatings synthesized by pulsed laser deposition: In vitro biological tests, *Applied Surface Science*, 255, 5486–5490, 2009;
26. Ilcheva V., Petkova T., Petkov P., Boev V., Socol G., **Sima F.**, Ristoscu C., Mihailescu C.N., Mihailescu I.N., Popov C., Reithmaier J.P., Spectroscopic studies of (AsSe)<sub>100-x</sub>Ag<sub>x</sub> thin films, *Applied Surface Science*, 255, 9691–9694, 2009;
27. Pervolaraki M., Giapintzakis J., Socol G., Stefan N., **Sima F.**, Ristoscu C. G., Mihailescu I. N., Vlaicu A. M., Saint-Martin R., Revcolevschi A., Epitaxial-like thin films of

La<sub>5</sub>Ca<sub>9</sub>Cu<sub>24</sub>O<sub>41</sub> grown on MgO and SrTiO<sub>3</sub> substrates by Pulsed Laser Deposition, E-MRS fall meeting, Proceedings of Symposium I. Functional and Structural Ceramic Matrix Composites (CCMC). – p. 182-188, 2009;

28. Floroian L., Savu B., Stanciu G., Popescu A. C., **Sima F.**, Mihailescu I.N., Mustata R., Sima L.E., Petrescu S.M., Tanaskovic D., Janackovic Dj., Nanostructured bioglass thin films synthesized by pulsed laser deposition: CSLM, FTIR investigations and in vitro biotests, *Applied Surface Science*, 255, 5, 3056-3062, 2008;
29. Carradò A., Pelletier H. , **Sima F.**, Ristoscu C., Fabre A., Barrallier L., Mihailescu I. N., A perspective of pulsed laser deposition (PLD) in surface engineering: alumina coatings and substrates, *Key Engineering Materials*(384), 185 - 212, 2008;
30. Floroian L., Savu B., **Sima F.**, Mihailescu I. N., Tanaskovic D., Janackovic D., Synthesis and characterization of bioglass thin films, *Digest Journal of Nanomaterials and Biostructures*, 2, 3, 285-291, 2007;
31. Socol G., Axente E., Ristoscu C., **Sima F.**, Popescu A., Stefan N., Escoubas L., Ferreira J., Bakalova S., Szekeres A., Mihailescu I. N., Enhanced gas sensing of Au nanocluster – doped or –coated zinc oxide thin films, *Journal of Applied Physics*, 102, 083103, 2007;
32. Hineva T., Petkova T., Popov C., Petkov P., Reithmaier J. P., Fuhrmann-Lieker T., Axente E., **Sima F.**, Mihailescu C. N., Socol G., Mihailescu I. N., Optical study of thin (As<sub>2</sub>Se<sub>3</sub>)<sub>1-x</sub>(AgI)<sub>x</sub> films, *Journal of Optoelectronics and Advanced Materials*, 9, 2, 326 – 329, 2007;
33. Simeonov S., Bakalova S., Kafedjiiska E., Szekeres A., Grigorescu S., **Sima F.**, Socol G., Mihailescu I. N., Al/AlN/Si MIS structures with pulsed-laser-deposited AlN films as gate dielectrics: Electrical properties, *Romanian J. Information Sci.&Technol (ROMJIST)*, 10, 3 , 251-259, 2007;
34. Simeonov S., Bakalova S., Kafedjiiska E., Szekeres A., Grigorescu S., Popescu A., Cojanu C., **Sima F.**, Socol G., Mihailescu I.N., Characterization of Pulsed-Laser-Deposited AlN Films as a Gate Dielectric in AlN-Si Mis Structures, *IEEE CNF International Semiconductor Conference*, 2:261 – 264, 2006;
35. Miclea C., Tanasoiu C., Miclea C.F., Amarande L., Gheorghiu A. and **Sima F. N.**, Effect of iron and nickel substitution on the piezoelectric properties of PZT type ceramics, *Journal of the European Ceramic Society*, 25, 12, 2397-2400, 2005;

#### Chapitre:

1. Capuccini C., Boanini E., Bigi A., Gazzano M., **Sima F.**, Axente E., Mihailescu I. N. Strontium-Substituted Hydroxyapatite Thin Films Grown by Pulsed Laser Deposition, “Functionalized Nanoscale Materials, Devices, & Systems”, Edited by A. Vaseashta, and I. N. Mihailescu, SPRINGER SCIENCE + BUSINESS MEDIA B.V., p. 389-398, 2008.