

Alecs A. Matei (30), has graduated the Faculty of Materials Science and Engineering at Politehnica, University of Bucharest in 2011. His bachelor diploma thesis was focused on studies over the influence of chemical composition and heat treatment parameters on the fracture behavior of a low alloy steel toughness. His master thesis (UPB, 2013) dealt with theoretical and experimental studies on structural characterization of thin films deposited by PVD techniques by X-ray diffractometry . Currently he is a PhD student at Politehnica University of Bucharest and his main research interests are related to X-ray diffraction (lattice parameters, phase identification, quantitative analysis, crystallite size and microstrain estimations, texture, thin films layer thickness and layer orientation), measurement uncertainty estimation and calculation, confocal laser scanning microscopy and atomic force microscopy. He will defend his thesis in March 2017, and further on he intends to pursue postdoctoral research work on correlative imaging of advanced materials using far-field and near-field microscopies, combined with X-Ray Diffractometry.

Selected Research Projects in which Marius participated as a Team Member:

- PN-II-RU-TE-2014 "Correlation and integration of microscopy and nanoscopy data by advanced computer vision methods (MICRONANO)" (2015-2017)

Selected Publications in Thomson-Reuters indexed Journals (ISI):

1. A comparative study of corrosion inhibitors on hot-dip galvanized steel, I.A. Kartsonakis, S.G.Stanciu, **A.A. Matei,** R. Hristu, A. Karantonis, C.A. Charitidis, *Corrosion Science*, 112, 289-307 (2016)
2. Evaluation of the protective ability of typical corrosion inhibitors for magnesium a lloys towards the Mg ZK30 variant, I.A. Kartsonakis, S.G.Stanciu, **A.A. Matei,** E.K. Karaxi, R. Hristu, A. Karantonis, C.A. Charitidis, *Corrosion Science*, vol. 100, pp. 194-208, (2015)
3. Structural characterization and adhesion appraisal of TiN and TiCN coatings deposited by CAE-PVD technique on a new carbide composite cutting tool, **A.A. Matei**, I. Pencea, S.G. Stanciu**,** R. Hristu, I. Antoniac, E. Ciovica, C.E.Sfat, G.A. Stanciu, *Journal of Adhesion Science and Technology*, 2015, 29 (23), 2576-2589, (2015)
4. **Matei, A. A.**, I. Pencea, M. Branzei, D. E. Trancă, G. Ţepeş, C. E. Sfăt, E. Ciovica, A. I. Gherghilescu, and G. A. Stanciu. "Corrosion resistance appraisal of TiN, TiCN and TiAlN coatings deposited by CAE-PVD method on WC–Co cutting tools exposed to artificial sea water." *Applied Surface Science* 358 (2015): 572-578.
5. Nonlinear optical imaging of defects in cubic silicon carbide epilayers, R. Hristu, S. G. Stanciu**,** D. E. Tranca, **A.A. Matei**, G. A. Stanciu, *Scientific Reports*, 4, 5258 (2014)