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Titluri stiintifice: Dr.

Pozitia actuala: Lector

Seconded National Expert – *Institute for Prospective and Technological Studies (IPTS),
European Commission*

Domenii de competenta:

Magnetic thin films: Growth and characterisation methods (conventional and enhanced Metal Organic Chemical Vapour Deposition, x-ray diffraction, Scanning Tunnelling Microscopy, Atomic force Microscopy, Vibrating Sample Magnetometry)

Semiconductors: Characterisation of semiconductors by SEM and STM based techniques (cathodoluminescence microscopy and spectroscopy, secondary electron and backscattered electron imaging, wavelength x-ray dispersive spectroscopy, scanning tunnelling spectroscopy)

Nanomaterials: Growth and characterisation of nanomaterials of technological interest (particularly magnetic semiconducting nanostructures)

Strategic Analysis: Follow up trends and developments in the area of Research Policy and of other policies related to Research in the European Union, countries associated to the EU RTD Framework Programme and main EU Trading partners.

Project Management: Contribute to the formulation, implementation and follow-up of studies, information gathering activities and analysis in the field of research policy (including institutional, networking and competitive actions). Define, negotiate and guide contractor and project partner activities in order to ensure timely and high quality deliverables. Define tasks and deliverables.

Cursuri tinute: Physics (I) – english, Mecanica, Electricitate, Optica si Fizica Cuantica, Materiale Avansate

Carti

PHYSICS - part I, (English edition) M.F. Chioncel – 2005, Ed. Univ. București, ISBN 973737043-0

Encyclopedia of Carbon Nanotubes - contributor, 2006, ISBN 2-9525946-0-0, Ed. NanoSPRIT

Article

- “Structural and cathodoluminescence assessment of transition metal oxide nanostructures grown by thermal deposition methods“ C. Díaz-Guerra, M.F. Chioncel, J. Piqueras **Superlattices and Microstructure** (In Press).
- “Shape-controlled synthesis and cathodoluminescence properties of elongated α -Fe₂O₃ nanostructures” - M. F. Chioncel, C. Díaz-Guerra and J. Piqueras, **Journal of Applied Physics** **104** (12), 124311 (2008).
- “Domain Structures of MOCVD Cobalt Thin Films“, M. F.Chioncel, H S Nagaraja, F Rossignol and P W Haycock, **Journal of Magnetism and Magnetic Materials**, 313 (2007) 135–141
- “Cobalt Thin Films Deposited by Photo assisted MOCVD Exhibiting Inverted Magnetic Hysteresis”, Mariana F.Chioncel and Peter W. Haycock, **Chemical Vapour Deposition** (2006), **12**, 670–678
- “Structural characterization of Cobalt thin films Grown by Metal-Organic CVD”, Mariana F. Chioncel and Peter W. Haycock, **Chemical Vapour Deposition** (2005), **11**, 235-243
- “Study of defects in In_xGa_{1-x}Sb bulk crystals”, C.Díaz-Guerra, M.F.Chioncel, J.Vincent, V.Bermúdez, J.Piqueras and E.Diéguez, **Physica Status Solidi C** **2**, (2005), **6**, 1897–1901
- “Cathodoluminescence characterization of InGaSb crystals”, M.F.Chioncel, C.Díaz-Guerra, J.Piqueras, J.Vincent, E.Dieguez, V.Bermudez – **Proceeding 24th MIEL** (2004), **2**, 491-494
- “Cathodoluminescence study of In_xGa_{1-x}Sb crystals grown by the Bridgman method”, M.F.Chioncel, C.Díaz-Guerra, J. Piqueras, J.Vincent, E.Dieguez, V.Bermudez”, **Journal of Crystal Growth**, (2004), **268**, 52 – 58
- “Assessment of InGaSb crystals by cathodo-luminescence microscopy and spectroscopy”, M.F.Chioncel, C.Diaz-Guerra, J.Piqueras, N.Duhanian, T.Duffar, **Journal of Optoelectronics and Advanced Materials** – (2004), **6(1)**, 237 - 241
- “Luminescence from indented Te - doped GaSb crystals”, M.F.Chioncel, C.Diaz-Guerra, J.Piqueras, **Semiconductor Science and Technology**, (2004), **19**, 490-493
- “Remanence studies of cobalt thin films exhibiting inverse hysteresis”, P.W.Haycock, M.F.Chioncel, J.Shah, **Journal of Magnetism and Magnetic Materials**, (2002), **242 – 245**, 1057 – 1060
- “Surface catalysed photo-assisted MOCVD of cobalt thin films for enhanced control of magnetic properties”, M.F.Chioncel, P.W.Haycock, F.Y.Ogrin, B.L. Ruthven, J.W.Bull, in: H.N.G. Wadley, G.H. Gilmer and W.G. Barker “**New Methods, Mechanisms and Models of Vapour Deposition**” (Materials Research Society, Warrendale, USA), 2000, 3 – 8