



## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **Nicoleta Georgiana APOSTOL (GHEORGHE)**  
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E-mail [nicoleta.gheorghe@infim.ro](mailto:nicoleta.gheorghe@infim.ro)  
Nationality Romanian  
Date of birth 23.03.1985  
Gender Female

### Work experience

Dates 07.2011-present  
Occupation or position held Scientific Researcher  
Main activities and responsibilities Thin layer growth by Molecular Beam Epitaxy, characterization of surfaces by means of specific techniques: Auger and XPS spectroscopy, Reflection High Energy Electron Diffraction-RHEED, Low Energy Electron Diffraction-LEED, Scanning Tunneling Microscopy-STM; Analysis by EXAFS and XANES spectroscopy;  
Name and address of employer National Institute of Materials Physics, 105 bis Atomistilor Street, 077125, Magurele, Romania  
Type of business or sector National Institute

Dates 01.2009 – 06.2011  
Occupation or position held Assistant researcher  
Main activities and responsibilities Thin layer growth by Molecular Beam Epitaxy, characterization of surfaces by means of specific techniques: Auger and XPS spectroscopy, Reflection High Energy Electron Diffraction-RHEED, Low Energy Electron Diffraction-LEED, Scanning Tunneling Microscopy-STM; Analysis by EXAFS and XANES spectroscopy;  
Name and address of employer National Institute of Materials Physics, 105 bis Atomistilor Street, 077125, Magurele, Romania  
Type of business or sector National Institute

Dates 04.2006 – 12. 2008  
Occupation or position held Technician (part-time)  
Main activities and responsibilities Working with equipment of thermal analysis TG-DTA and DSC; Working with FTIR; Data processing; Optical microscopy for monitoring phase transitions in liquid crystals; Documentation in liquid crystals, IR spectroscopy and thermal analysis;  
Name and address of employer National Institute of Materials Physics, 105 bis Atomistilor Street, 077125, Magurele, Romania  
Type of business or sector National Institute

### Education and training

Dates 2010 - present  
Title of qualification awarded PhD student  
Principal subjects/occupational skills covered Thesis Title: "Study of oxidic systems and/or mezoporous semiconductors. General characterization and specific features determined by electron spectroscopy and x-ray absorption spectroscopy"

Name and type of organisation providing education and training | Romanian Academy, Romania

Dates | 2008 - 2010

Title of qualification awarded | Master in Physics

Principal subjects/occupational skills covered | Optical, spectroscopy, plasma and lasers

Name and type of organisation providing education and training | Bucharest University, Romania

Dates | 2003 – 2008

Title of qualification awarded | Bachelor in Physics

Principal subjects/occupational skills covered | Physics

Name and type of organisation providing education and training | Bucharest University, Romania

Mother tongue(s) | **Romanian**

Other language(s)

Self-assessment

*European level (\*)*

**English**

**French**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C2	Proficient user	B2	Independent user	B2	Independent user	B2	Independent user
A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user

(\*) [Common European Framework of Reference for Languages](http://www.cedefop.europa.eu/en/intermediate)

Social skills and competences | Team spirit.

Computer skills and competences | Competent with most Microsoft Office programmes and IGOR program

Driving licence | category B, from 2007

**Annexes** | Publication list

## Publication list

1. *Involvement of cyan and ester groups in surface interactions of aerosil - cyanophenyl alkylbenzoate systems with high silica density. FTIR and TGDTA investigations*, L. Frunza, S. Frunza, I. Zgura, T. Beica, N. Gheorghe, P. Ganea, D. Stoenescu, A. Dinescu, A. Schonhals, **Spectrochim. Acta, Part A** **75**, 1228-1235, (2010).
2. *Mesoporous Tin-Triflate Based Catalysts for Transesterification of Sunflower Oil*, M. Verziu, J. El Haskouri, D. Beltran, P. Amoros, D. Macovei, N.G. Gheorghe, C.M. Teodorescu, S.M. Coman, V. I. Parvulescu, **Top. Catal.** **53**, 763-772 (2010).
3. *Atomic structure and magnetic properties of cobalt doped ZnO thin films prepared by the sol-gel method*, J. Neamtu, G. Georgescu, T. Malaeru, N.G. Gheorghe, R. M. Costescu, I. Jitaru, J. Ferre, D. Macovei, C.M. Teodorescu, **Digest J. Nanomater. Biostr.** **5**, 873-885 (2010).
4. *Novel Pd heterogeneous catalysts for cycloisomerisation of acetylenic carboxylic acids*, F. Neatu, L. Protesescu, M. Florea, V.I. Parvulescu, C.M. Teodorescu, N. Apostol, P.Y. Toullec, V. Michelet, **Green Chemistry** **12**, 2145-1219 (2010).
5. *Structural investigations of Ge nanoparticles embedded in an amorphous SiO<sub>2</sub> matrix*, I. Stavarache, A.-M. Lepadatu, N.G. Gheorghe, R.M. Costescu, G. Stan, D. Marcov, A. Slav, G. Iordache, T. F. Stoica, V. Iancu, V. S. Teodorescu, C. M. Teodorescu, and M. L. Ciurea, **J. Nanopart Res.** **13**, 221-232 (2011).
6. *Nanostructured gold layers. III. Functionalization of gold layers obliquely deposited onto polystyrene substrate*, I. Zgura, T. Beica, S. Frunza, L. Frunza, C. Cotarlan-Simioniuc, F. Ungureanu, N. Gheorghe, O. Rasoga, T. Velula, C. Zaharia, **J. Optoelectron. Adv. Mater.** **12** (8), 1729-1738 (2011).
7. *Substrate-target distance dependence of structural and optical properties in case of Pb(Zr,Ti)O<sub>3</sub> films obtained by Pulsed Laser Deposition*, A.C. Galca, V. Stancu, M.A. Husanu, C. Dragoi, N.G. Gheorghe, L. Trupina, M. Enculescu, E. Vasile, **Appl. Surf. Sci.** **257**, 5938-5943 (2011)
8. *Enhanced contamination of Si(001) when analyzed by AES with respect to XPS*, N.G. Gheorghe, G.A. Lungu, R.M. Costescu, D.G. Popescu, C.M. Teodorescu, **Optoelectron. Adv. Mater. - Rapid Commun.** **6** (2), 508-513 (2011).
9. *Significantly different contamination of atomically clean Si(001) when investigated by XPS and AES*, N.G. Gheorghe, G.A. Lungu, R.M. Costescu, C.M. Teodorescu, **Phys. Stat. Solidi B** **248**, 1919-1924 (2011).
10. *Spectroscopic analysis of the interstitial anions in some layered double hydroxide materials*, L. Frunza, N. Gheorghe, F. Iova, P. Ganea, F. Neatu, V.I. Parvulescu, **Revista de Chimie** **62**, 766-772 (2011).
11. *X-ray Absorption Fine Structure Investigations on Heat-Treated Cr-doped Titania Thin Films*, D. Mardare, V. Nica, V. Pohoata, D. Macovei, N.G. Gheorghe, D. Luca, C.M. Teodorescu, **Thin Solid Films**, 1348-1352 (2011).
12. *Reactivity, magnetism and local atomic structure in ferromagnetic Fe layers deposited on Si(001)*, N.G. Gheorghe, M.A. Husanu, G.A. Lungu, R.M. Costescu, D. Macovei, C.M. Teodorescu, **J. Mater. Sci.** **47**, 1614-1620 (2012)
13. *Interface characterization and atomic intermixing processes in Be/W bilayers deposited on Si(001) substrates with Fe buffer layers*, V. Kuncser, P. Palade, G. Schinteie, S.G. Sandu, L. Trupina, G.A. Lungu, N.G. Gheorghe, C.M. Teodorescu, C. Porosnicu, I. Jepu, C.P. Lungu, G. Filoti, **J. Alloys Compds.** **512**, 199-206 (2012)
14. *X-ray photoelectron spectroscopy of pulsed laser deposited Pb(Zr,Ti)O<sub>3-n</sub>*, C. Dragoi, N.G. Gheorghe, G.A. Lungu, L. Trupina, A.G. Ibanescu, C.M. Teodorescu, **Phys. Stat. Solidi A** **209**(6), p. 1049-1052 (2012).
15. *Matrix assisted pulsed laser evaporation of Mn<sub>12</sub>(Propionate) thin films*, M. Pervolaraki, F. Sima, G. Socol, C.M. Teodorescu, N.G. Gheorghe, M. Socol, I.N. Mihailescu, E.E. Moushi, A.J. Tasiopoulos, G.I. Athanasopoulos, Z. Viskadourakis, J. Giapintzakis, **Appl. Surf. Sci.** **258**(23), p. 9471-9474 (2012).
16. *Atomic structure and magnetism of PLD deposited TiO<sub>2</sub>: Fe*, R.M. Costescu, G.A. Lungu, G. Socol, N.G. Gheorghe, D. Macovei, C.C. Negrila, C. Logofatu, M.A. Husanu, D.G. Popescu, C.A. Tache, C.M. Teodorescu, **Dig. J. Nanomater. Biostr.** **7** (1), 73-78 (2011).
17. *Oxidation activity of horseradish peroxidase hosted in molecular sieves: spectroscopic investigations show hindering of the enzyme activity*, L. Frunza, N. Gheorghe, C. P. Ganea, R. Eckelt, H. Kosslick, **Reac. Kinet. Mech. Cat.** **105**(1), 195-205 (2012).
18. *Reactivity, magnetism and local atomic structure in ferromagnetic Fe layers deposited on Si(001)*, N.G. Gheorghe, M.A. Husanu, G.A. Lungu, R.M. Costescu, D. Macovei, D.G. Popescu, C.M. Teodorescu, **Digest J. Nanomater. Biostruct.** **7** (1), 373-384 (2012).
19. *Interface charge transfer of polypyrrole coated manganite nanoparticles and magnetization enhancement studied by XANES and EXAFS*, O. Pana, M. L. Soran, C. Leostean, S. Macavei, E. Gautron, C.M. Teodorescu, N.G. Gheorghe, O. Chauvet, **J. Appl. Phys.** **111**, 044309 (2012).
20. *Epitaxial ferromagnetic samarium and samarium silicide synthesized on Si(001)*, R.M. Costescu, N.G. Gheorghe, M.A. Husanu, G.A. Lungu, D. Macovei, I. Pintilie, D.G. Popescu, C.M. Teodorescu, **J. Mater. Sci.** **47**, p. 7225-7234 (2012).
21. *The Meyer-Neldel rule in Fe-doped TiO<sub>2</sub> amorphous films*, D. Mardare, A. Yildiz, R. Apetrei, P. Rambu, D. Florea, N.G. Gheorghe, D. Macovei, C.M. Teodorescu, D. Luca, **J. Mater. Res** **27**(17), p. 2271-2277 (2012).
22. *Structure, reactivity, electronic configuration and magnetism of samarium atomic layers deposited on Si(001) by molecular beam epitaxy*, N.G. Gheorghe, G.A. Lungu, M.A. Husanu, R.M. Costescu, D. Macovei, C.M. Teodorescu, **Appl. Surf. Sci.**, accepted (2012) DOI: 10.1016/j.apsusc.2012.08.016.
23. *Band ferromagnetism in systems with linear density of states*, G.A. Lungu, N.G. Apostol, M. Morariu, C.M. Teodorescu, **Digest J. Nanomater. Biostruct.** **7**(4), p. 1615-1626 (2012).
24. *Manganese-based room temperature ferromagnetism in gallium arsenide*, V. Vasilache, N.G. Apostol, G.A. Lungu, D. Macovei, C.M. Teodorescu, **Optoelectron. Adv. Mater. - Rapid Commun.** **6**(11-12), p. 1054-1060 (2012).
25. *Sn-Doped hydroxylated MgF<sub>2</sub> catalysts for the fast and selective saccharification of cellulose to glucose*, S. Wuttke, A. Negoii, N.G. Gheorghe, V. Kuncser, E. Kemnitz, V. Parvulescu, S.M. Coman, **ChemSusChem** **5**(9), p. 1708-1711 (2012).