

Cristian-Mihail TEODORESCU

Born in 1966, married, four children

Hirsch: 35 (Google Scholar), 31 (Web of Science)

Head of the Surfaces and Interfaces Group

National Institute of Materials Physics,

Professor and PhD Advisor, **Faculty of Physics, University of Bucharest**

Atomiștilor 405A,

077125 Măgurele-Ilfov

Romania

phone + 40-21-3690170; +40-724-291045

fax +40-21-3690177

e-mail teodorescu@infim.ro

Google Scholar ID: teodorescum, ResearcherID: N-3796-2017

ORCID: 0000-0003-1384-9049



EDUCATION :

1984: Baccalaureate, “Gheorghe Lazăr” High-school Bucharest, 10/10.

1990: M. Sc. (Engineer), University of Bucharest (Romania), Department of Applied Physics, 9.88/10.

Dissertation title: *Geometric effects and measurement methods of galvanomagnetic effects on circular samples*, advisor Dr. Bogdan Logofătu, presented also at the CAS'90 International Semiconductor Conference, Sinaia, 1990.

1995: Ph. D, Université Paris Sud Orsay (France), Chemical Physics, “très honorable”.

Thesis title: *Study of evolution of inner-shell excitations from free atoms to solids. X-ray photoabsorption of metal and insulating clusters*, advisor Dr. Jean-Marc Esteve, 6 papers resulting (J. Phys. B 1993 and 1997, Nucl. Instrum. Meth. Phys. Res. A 1994, J. Electr. Spectrosc. Relat. Phenom. 1999 and 2000, Phys. Rev. B 2001, main author for all these papers)

2015: Habilitation in Physics, University of Bucharest, Faculty of Physics.

Habilitation thesis title: *Ferromagnetic and ferroelectric surfaces and interfaces*.

POSITIONS:

1990–1991: Physicist, Institute of Physics and Technology of Materials, Bucharest-Magurele PO Box MG7, 76900, Romania.

1991–1995: Ph.D student, Laboratoire de Spectroscopie Atomique et Ionique, Bât. 350, Université Paris Sud, 91405 Orsay, France.

1995–1996: post-doctoral fellowship, LURE, Bât. 209d, Centre Universitaire Paris Sud, BP 34, 91898 Orsay, France.

1996–1998: research scientist, Universität Osnabrück, Barbarastr. 7, 49069 Osnabrück, Germany.

1999–2001: beamline scientist (CNRS), LURE, Bât. 209d, Centre Universitaire Paris Sud, BP 34, 91898 Orsay, France.

2001–2005: senior scientist III, National Institute of Material Physics (NIMP), Atomiștilor 405A, 077125 Măgurele-Ilfov, Romania.

2001–2002 : post-doctoral fellowship, Daresbury Laboratory, Warrington Cheshire, WA4 4AD, U.K.

2005–2009: senior scientist II, NIMP.

2009–to date: senior scientist I, NIMP.

2010–2011: Department head, Nanoscale Condensed Matter Physics, NIMP Bucharest (35–40 people).

2011–2021: Group leader, Surfaces and Interfaces, NIMP Bucharest (29 people).

2021–to date: Department head, Surfaces and Interfaces, NIMP Bucharest (24 people).

2015– to date: Professor, PhD Advisor, University of Bucharest, Faculty of Physics, Atomiștilor 405, 077125 Măgurele-Ilfov, Romania (8 PhD students, 3 graduated).

2018 – to date: President of the Scientific Council of NIMP.

LANGUAGES : Romanian (native), French (fluent), English (fluent), German (fair).

PROGRAMMING : Igor, Basic, Pascal, Fortran, Mathematica, IEEE-488 interfaces; MS Office, CorelDraw

AWARDS :

- Third prize, International Physics Olympiad, Sigtuna, Sweden, 1984.
- “Radu Grigorovici” Prize of the Romanian Academy, awarded in 2015 for results obtained in 2013.

OTHER:

- Leader of R&D projects of about 7.5 M€ (2004–2019), including a PCCE project (2010–2013) of about 1.6 M€ and a PCCDI project (2018–2020) of about 1.1 M€.
- Director of an infrastructure project (POS-CCE SMIS 2665, 2009–2011) of about 10.5 M€. Setup of four surface science laboratories. Deputee Director of a second infrastructure project (2014–2015) of similar worth.
- Author and co-author of 160 papers in ISI journals, about 40 papers published in journals with high impact factor (over 5), about 2900 citations, over 2100 citations without self-citations, h-index 31 (Web of Science) or 35 (Google Scholar), 7 book chapters.
- Editorial Boards: Open Physics (De Gruyter), Physics (MDPI), Journal of Optoelectronics and Advanced Materials, Optoelectronics and Advanced Materials – Rapid Communications, Digest Journal of Nanomaterials and Biostructures.
- 1 national (RO) patent awarded, 6 patent applications in various stages of evaluation.

RESEARCH SKILLS:

Keywords : synchrotron radiation, surface science, clusters and nanoparticles, reactivity, structure, ferroelectrics, magnetism, photocatalysis, catalysis, graphene.

Techniques:

- Photoelectron spectroscopy (PES): X-ray photoelectron spectroscopy (XPS) or electronic structure for chemical analysis (ESCA), core-level and valence-band PES, photoelectron diffraction (PED), Fermi surface mapping, angle-resolved PES, angle-resolved ultraviolet photoelectron spectroscopy (ARUPS), spin-resolved PES.
- Surface science techniques: low energy electron diffraction (LEED), reflection high energy electron diffraction (RHEED), Auger electron spectroscopy, secondary ion mass spectroscopy (SIMS), sample preparations in UHV, molecular beam epitaxy (MBE), positron annihilation-induced Auger electron spectroscopy (PAES).
- Photoelectron spectromicroscopy, low energy electron microscopy (LEEM), photoelectron microscopy (PEEM), NanoESCA.
- X-ray absorption: extended X-ray absorption fine structure (EXAFS), X-ray absorption near-edge structure (XANES), near-edge absorption fine structure (NEXAFS), X-ray absorption spectroscopy (XAS), X-ray fluorescence.
- Scanning tunneling microscopy / spectroscopy (STM/STS).
- Coincidence spectroscopy: photoelectron-photoion-photoion coincidences (PEPIPICO), zero electron kinetic energy (ZEKE) spectroscopy, threshold electron spectroscopy.
- Magnetism: magneto-optical Kerr effect (MOKE), vibrating sample magnetometry (VSM), superconducting quantum interference device (SQUID), X-ray magnetic (circular, linear) dichroism (XMCD, XMLD).
- X-ray diffraction.
- Development of various devices apparatuses for UHV, surface science, low temperatures, cluster production and analysis.

Current fields of interest :

- Ferroelectric thin films; molecular reactions on ferroelectric surfaces; catalytic and photocatalytic properties of ferroelectric surfaces.
- Band bending at free ferroelectric surfaces and at Schottky contacts.
- Diluted magnetic semiconductors.

- Magnetic metal / semiconductor heterostructures.
- Multiferroic heterostructures.
- Interfaces between graphene and insulators or ferroelectrics.
- Photocatalysts for air and water decontamination.
- Nanoparticles with biological applications (core-shell systems, iron oxide nanoparticles).
- Positron annihilation-induced Auger electron spectroscopy (PAES).
- Theoretical aspects of ferroic (ferroelectric, ferromagnetic, multiferroic) ordering.

OTHERS:

Science fiction writer, 3 books published (2008, 2010 and 2014), one book in press, several national literary awards, founder and President of the Romanian Society for Science Fiction and Fantasy (SRSFF).

PUBLICATIONS:

Papers:

(* = corresponding author)

1. *Possible multiple scattering effects on the EXAFS phase shifts in metallic manganese*, D. Macovei, C.M. Teodorescu, **Rev. Roum. Physique** **36**, 945–951 (1991).
2. *Unresolvable Rydberg lines in x-ray absorption spectra of free atoms*, C.M. Teodorescu, R.C. Karnatak, J.M. Esteva, A. El Afif, J.P. Connerade, **J. Phys. B: At. Mol. Opt. Phys.** **26**, 4019–4039 (1993).
3. *EXAFS characterization of Dy and Pd-Dy on alumina catalysts*, D. Macovei, V. Pârvulescu, C.M. Teodorescu, **React. Kin. Catal. Lett.** **52**, 81–86 (1993).
4. *An approximation of the Voigt I profile for the fitting of experimental x-ray absorption data*, C.M. Teodorescu, J.M. Esteva, R.C. Karnatak, A. El Afif, **Nucl. Instrum. Meth. Phys. Res. A** **345**, 141–147 (1994).
5. *K edge absorption spectra of sodium clusters: theory and experiment*, C.M. Teodorescu*, **Rom. Rep. Phys.** **46**, 835–859 (1994).
6. *X-ray absorption and Mössbauer spectroscopy of antimony compounds. Experimental and theoretical aspects*, P.E. Lippens, J.M. Durand, J. Olivier-Fourcade, J.C. Jumas, I. Lefebvre, M. Lanoo, A. El Afif, C.M. Teodorescu, J.M. Esteva, R.C. Karnatak, M. Womes, **Rom. Rep. Phys.** **46**, 823–833 (1994).
7. *Thermal induced evolution of chlorine-containing precursors in impregnated Pd / Al₂O₃ catalysts*, C. Contescu, D. Macovei, C. Craiu, C.M. Teodorescu, J.A. Schwarz, **Langmuir** **11**, 2031–2040 (1995).
8. *K edge photoabsorption spectra in gas phase alkali halides*, A. El Afif, R.C. Karnatak, J.M. Esteva, C.M. Teodorescu, M. Womes, E. Bouisset, **Physica B** **208&209**, 115–116 (1995).
9. *Polarized XAS experiments on magnetic rare earth clusters*, A.M. Flank, P. Lagarde, R. Delaunay, M. Pompa, C.M. Teodorescu, **Physica B** **208&209**, 773–774 (1995).
10. *K edge absorption spectra of sulphur in vapour, molecular and polymerized solid phases*, J.M. Durand, J. Olivier-Fourcade, J.C. Jumas, M. Womes, C.M. Teodorescu, A. El Afif, J.M. Esteva, R.C. Karnatak, **J. Phys. B: At. Mol. Opt. Phys.** **29**, 5773–5784 (1996).
11. *Atomic structure of the reactive Fe /Si (111) 7 x 7 interface*, A. Mascaraque, J. Avila, C.M. Teodorescu, M.C. Asensio, E.G. Michel, **Phys. Rev. B.** **55**, R7315–R7318 (1997).
12. *Quantitative analysis of sodium 1s single and double excitation spectrum by using atomic profiles convolved by the instrumental function*, C.M. Teodorescu*, J.M. Esteva, R.C. Karnatak, A. El Afif, M. Womes, **J. Phys. B: At. Mol. Opt. Phys.** **30**, 4293–4313 (1997).
13. *Fe / Si (111) interface formation studied by photoelectron diffraction*, J. Avila, A. Mascaraque, C. Teodorescu, E.G. Michel, M.C. Asensio, **Surf. Sci.** **377-379**, 856–860 (1997).
14. *Retractable miniature cylindrical mirror analyzers*, C.M. Teodorescu, D. Gravel, E. Rühl, T.J. McAvoy, J. Choi, D. Pugmire, P. Pribil, J. Loos, P.A. Dowben, **Rev. Sci. Instrum.** **69**, 3805–3808 (1998).
15. *Sulfur 2p excitations and fragmentation of free sulfur aggregates*, C.M. Teodorescu, D. Gravel, E. Rühl, **J. Chem. Phys.** **109**, 9280–9287 (1998).
16. *Growth of epitaxial Co layers on Sb-passivated GaAs (110) substrates*, C.M. Teodorescu, J. Chrost, H. Ascolani, J. Avila, F. Soria, M.C. Asensio, **Surf. Rev. Lett.** **5**, 279–283 (1998).
17. *Initial stage of the growth of Fe on Si(111) (1 x 1) - H*, M.G. Martin, J. Avila, M. Gruyters, C. Teodorescu, P. Dumas, Y.J. Chabal, M.C. Asensio, **Appl. Surf. Sci.** **123-124**, 156–160 (1998).

18. *Effects of cluster size on inner valence-shell excitations in free atomic clusters*, A.A. Pavlychev, N.G. Fominykh, I.T. Steinberger, S. Rabe, B. Wassermann, D. Gravel, C.M. Teodorescu, E. Rühl, **J. Russ. Acad. Sci.** **8-9**, 97–102 (1998).
19. *Reducibility of ruthenium in relation with zeolite structure*, V.I. Pârvulescu, S. Coman, P. Palade, D. Macovei, C.M. Teodorescu, G. Filoti, R. Molina, G. Poncelet, F.E. Wagner, **Appl. Surf. Sci.** **141**, 164–176 (1999).
20. *Resonant excitation series at the Kr 3p and Xe 4p thresholds*, I.T. Steinberger, C.M. Teodorescu, D. Gravel, R. Flesch, B. Wassermann, G. Reichardt, C.W. Hutchings, A.P. Hitchcock, E. Rühl, **Phys. Rev. B** **60**, 3995–4004 (1999).
21. *Inner-shell excitation and fragmentation of sulfur aggregates*, C.M. Teodorescu*, D. Gravel, J. Choi, D. Pugmire, P.A. Dowben, N. Fominykh, A.A. Pavlychev, E. Rühl, **J. El. Spectrosc. Relat. Phenom.** **101–103**, 193–198 (1999).
22. *Inner-shell absorption spectra of potassium fluoride clusters*, C.M. Teodorescu*, M. Womes, J.M. Esteva, A. El Afif, R.C. Karnatak, A.M. Flank, P. Lagarde, **J. El. Spectrosc. Relat. Phenom.** **101–103**, 205–210 (1999).
23. *Epitaxial growth of bcc Co films on Sb-passivated GaAs(110) substrates*, C.M. Teodorescu*, M.G. Martin, N. Franco, H. Ascolani, J. Chrost, J. Avila, M.C. Asensio, **J. El. Spectrosc. Relat. Phenom.** **101–103**, 493–499 (1999).
24. *Sodium 1s photoabsorption spectra of Na and NaF clusters deposited in rare gas matrices*, C.M. Teodorescu*, J.M. Esteva, M. Womes, A. El Afif, R.C. Karnatak, A.M. Flank, P. Lagarde, **J. El. Spectrosc. Relat. Phenom.** **106**, 233–245 (2000).
25. *Evidence of bcc Mn epitaxial growth in Mn/M_xV_{1-x}(001) (M = Fe, Nb) superlattices*, P.Y. Friot, P. Turban, S. Andrieu, M. Piecuch, E. Snoeck, A. Traverse, E. Foy, C. Teodorescu, **Eur. Phys. J. B** **15**, 41–50 (2000).
26. *Crystal momentum dependence of the correlation satellite intensity in the 3p → 3d resonant photoemission of Bi₂Sr₂CaCu₂O_{2+δ}*, A. Goldoni, V. Corradini, U. del Pennino, P. Sangalli, F. Parmigiani, J. Avila, C. Teodorescu, **Europhys. Lett.** **50**, 347–353 (2000).
27. *Ferromagnetic hcp chromium in Cr/Ru(0001) superlattices*, M. Albrecht, M. Maret, J. Köhler, B. Gilles, R. Poinot, J.L. Hazemann, J.M. Tonnerre, C. Teodorescu, E. Bucher, **Phys. Rev. Lett.** **85**, 5344–5347 (2000).
28. *Structure of Fe layers grown on InAs(100)*, C. Teodorescu, F. Chevrier, V. Ilakovac, O. Heckmann, L. Lechevalier, R. Brochier, R.L. Johnson, K. Hricovini, **Appl. Surf. Sci.** **166**, 137–142 (2000).
29. *Na 1s excitations in vapor and solid sodium halides*, C.M. Teodorescu*, A. El Afif, J.M. Esteva, R.C. Karnatak, **Phys. Rev. B** **63**, 233106(1–4) (2001).
30. *Experimental evidence of long range magnetic order in the c(2x2) MnCu(100) surface alloy*, Y. Huttel, C.M. Teodorescu, F. Bertran, G. Krill, **Phys. Rev. B** **64**, 094405(1–4) (2001).
31. *Reduced magnetic moment per atom in small Ni and Co clusters embeded in AlN*, D. Zanghi, C.M. Teodorescu, F. Petroff, H. Fischer, C. Bellouard, C. Clerc, C. Pélissier, A. Traverse, **J. Appl. Phys.** **90**, 6367–6373 (2001).
32. *Electron accumulation layer on clean In-terminated InAs(001) (4x2) - c(8x2) surface*, P. De Padova, C. Quaresima, P. Perfetti, R. Larciprete, R. Brochier, C. Richter, V. Ilakovac, P. Bencok, C. Teodorescu, V.Y. Aristov, R.L. Johnson, K. Hricovini, **Surf. Sci.** **482–485**, 587–592 (2001).
33. *X-ray magnetic circular dichroism, photoemission and RHEED studies of Fe/InAs(100) interfaces*, C.M. Teodorescu*, F. Chevrier, R. Brochier, C. Richter, O. Heckmann, V. Ilakovac, P. De Padova, K. Hricovini, **Surf. Sci.** **482–485**, 1004–1009 (2001).
34. *NiMnSb/MgO/NiMnSb heterostructures grown by MBE*, P. Turban, S. Andrieu, E. Snoeck, B. Kierren, C. Teodorescu, **J. Magn. Magn. Mater.** **240**, 427–429 (2002).
35. *Reactivity and magnetism of Fe/InAs(100) interfaces*, C.M. Teodorescu, F. Chevrier, R. Brochier, V. Ilakovac, O. Heckmann, L. Lechevalier, K. Hricovini, **Eur. Phys. J. B** **28**, 305–313 (2002).
36. *Growth and characterization of single crystalline NiMnSb thin films and epitaxial NiMnSb/MgO/NiMnSb(001) trilayers*, P. Turban, S. Andrieu, B. Kierren, E. Snoeck, C. Teodorescu, A. Traverse, **Phys. Rev. B** **65**, 134417(1–13) (2002).
37. *Structural and magnetic properties of Cr in Cr/Ru(0001) multilayers*, M. Albrecht, M. Maret, J. Köhler, B. Gilles, R. Poinot, J.L. Hazemann, J.M. Tonnerre, C. Teodorescu, E. Bucher, **Phys. Rev. B** **66**, 205410(1–9) (2002).
38. *Magnetic V embedded in copper evidenced by x-ray magnetic circular dichroism*, Y. Huttel, G. van der Laan, C.M. Teodorescu, P. Bencok, S.S. Dhesi, **Phys. Rev. B** **67**, 052408(1–4) (2003).

39. *A gas microstrip detector for XAS studies in the photon energy region of 250-1000 eV*, J.D. Lipp, J.E. Bateman, G.E. Derbyshire, I.W. Kirkman, G. van der Laan, R. Stephenson, C.M. Teodorescu, **J. Synchr. Rad.** **10**, 455–460 (2003).
40. *Magnetic instabilities in fcc Fe_xNi_{1-x} thin films*, E. Foy, S. Andrieu, M. Finazzi, R. Poinot, C.M. Teodorescu, F. Chevrier, G. Krill, **Phys. Rev. B** **68**, 094414(1–7) (2003).
41. *Atomic Structure and Magnetic Properties of Mn on InAs(100)*, K. Hricovini, P. De Padova, C. Quaresima, P. Perfetti, R. Brochier, C. Richter, V. Ilakovac, O. Heckmann, L. Lechevallier, P. Bencok, P. Le Fevre, C. Teodorescu, **Appl. Surf. Sci.** **212–213**, 17–25 (2003).
42. *Resonant photoemission and XMCD on Mn-based systems*, M.C. Richter, P. De Padova, C. Quaresima, P. Perfetti, R. Brochier, V. Ilakovac, O. Heckmann, L. Lechevallier, M. Zerrouki, C. Teodorescu, C.S. Fadley, N. Hamdan, K. Hricovini, **J. Alloys Compds.** **362**, 41–47 (2004).
43. *Structural and magnetic investigations of nickel clusters in C_{60} matrices*, C.M. Teodorescu*, D. Macovei, A. Lungu, **J. Optoelectr. Adv. Mater.** **6**, 1275–1285 (2004).
44. *Influence of the substrate surface termination on the properties of bcc-cobalt films: GaAs(110) versus Sb/GaAs(110)*, M. Izquierdo, M.E. Davila, C.M. Teodorescu, J. Chrost, H. Ascolani, J. Avila, M.C. Asensio, **Appl. Surf. Science** **234**, 468–474 (2004).
45. *Epitaxy and magnetic properties of surfactant-mediated growth of bcc cobalt*, M. Izquierdo, M. E. Dávila, J. Avila, H. Ascolani, C. M. Teodorescu, M. G. Martin, N. Franco, J. Chrost, A. Arranz, M. C. Asensio, **Phys. Rev. Lett.** **94**, 187601(1–4) (2005).
46. *Physical characterization of CdMnS nanocrystalline thin films grown by vacuum thermal evaporation*, F. Iacomi, I. Salaoru, N. Apetroaei, A. Vasile, C.M. Teodorescu, and D. Macovei, **J. Optoelectr. Adv. Mater.** **8**, 266–270 (2006).
47. *Ferromagnetic ordering of Mn diluted into InAs(100) probed by x-ray magnetic circular dichroism*, C. M. Teodorescu*, M. C. Richter, K. Hricovini, **J. Optoelectr. Adv. Mater.** **8**, 1200–1205 (2006).
48. *Increased surface hydrophilicity of titania thin films by doping*, D. Luca, D. Mardare, F. Iacomi, C. M. Teodorescu, **Appl. Surf. Sci.** **252**, 6122–6126 (2006).
49. *Thickness effect in $Pb(Zr_{0.2}Ti_{0.8})O_3$ ferroelectric thin films grown by pulsed laser deposition*, M. Lisca, L. Pintilie, M. Alexe, C.M. Teodorescu, **Appl. Surf. Sci.** **252**, 4549–4552 (2006).
50. *Comparative Study of Magnetism and Interface Composition in Fe/GaAs(100) and Fe/InAs(100)*, C.M. Teodorescu, D. Luca, **Surf. Sci.** **600**, 4200–4204 (2006).
51. *Characterization of titania thin films prepared by reactive pulsed-laser ablation*, D. Luca, D. Macovei, C.M. Teodorescu, **Surf. Sci.** **600**, 4342–4346 (2006).
52. *Low temperature two-dimensional behaviour of spin and orbital moments in Ni monolayers grown on Cu(100)*, C.M. Teodorescu*, **Surf. Sci.** **601**, 4292–4296 (2007).
53. *Fe-doped TiO_2 Thin Films*, D. Mardare, V. Nica, C.M. Teodorescu, D. Macovei, **Surf. Sci.** **601**, 4479–4483 (2007).
54. *On the hydrophilicity of nitrogen-doped TiO_2 thin films*, D. Mardare, D. Luca, C.M. Teodorescu, D. Macovei, **Surf. Sci.** **601**, 4515–4520 (2007).
55. *Structure, morphology and magnetism of Fe-Au core-shell nanoparticles*, O. Pana, C.M. Teodorescu, O. Chauvet, C. Payen, D. Macovei, R. Turcu, M.L. Soran, N. Aldea, L. Barbu, **Surf. Sci.** **601**, 4352–4357 (2007).
56. *Preparation and characterization of increased-efficiency photocatalytic $TiO_{2-2x}N_x$ thin films*, D. Luca, C.M. Teodorescu, R. Apetrei, D. Macovei, D. Mardare, **Thin Solid Films** **515**, 8605–8610 (2007).
57. *Photocatalytic and structural properties of mixed titania and zirconia aerogels*, V. Danciu, L. Baia, V. Cosoveanu, M. Baia, F. Vasiliu, L. Diamandescu, C.M. Teodorescu, M. Feder, J. Popp, **Optoelectr. Adv. Mater. - Rapid Commun.** **2**, 76–80 (2008).
58. *Structural and photocatalytic properties of iron and europium doped TiO_2 nanoparticles obtained under hydrothermal conditions*, L. Diamandescu, F. Vasiliu, D. Tarabasanu-Mihaila, M. Feder, A. M. Vlaicu, C.M. Teodorescu, D. Macovei, I. Enculescu, V. Parvulescu, E. Vasile, **Mater. Chem. Phys.** **112**, 146–153 (2008).
59. *Band ferromagnetism in systems of variable dimensionality*, C.M. Teodorescu*, G.A. Lungu, **J. Optoelectr. Adv. Mater.** **10**, 3058–3068 (2008).
60. *EXAFS investigation of iron local environment in metal-doped titania photocatalysts prepared by hydrothermal and high-energy ball milling routes*, F. Vasiliu, L. Diamandescu, D. Macovei, C.M. Teodorescu, R. Nicula, **J. Mater. Sci.: Mater. Electron.** **20S1**, S211–S215 (2009).
61. *Fe- and Eu-doped TiO_2 photocatalytical materials prepared by high-energy ball milling*, F. Vasiliu, L. Diamandescu, D. Macovei, C.M. Teodorescu, D. Tarabasanu-Mihaila, A.M. Vlaicu, V. Parvulescu, **Top. Catal.** **52**, 544–556 (2009).

62. *Photonic molecular effects associated to the sputtering process in a glow discharge optical emission spectrometer*, A. Surmeian, A. Groza, C. Diplasu, M. Ganciu, C.M. Teodorescu, A. Tempez, and P. Chapon, **Optoelectr. Adv. Mater. - Rapid Commun.** **3**, 40–43 (2009).
63. *Synthesis, structural characterization, and photocatalytic properties of iron-doped TiO₂ aerogels*, M. Popa, L. Diamandescu, F. Vasiliu, C.M. Teodorescu, V. Cosoveanu, M. Baia, M. Feder, L. Baia, V. Danciu, **J. Mater. Sci.** **44**, 358–364 (2009).
64. *Band ferromagnetism in systems of variable dimensionality II: the two-dimensional finite-temperature case*, G.A. Lungu and C.M. Teodorescu*, **J. Optoelectr. Adv. Mater.** **11**, 369–379 (2009).
65. *Photo-degradation activity of sputter-deposited nitrogen-doped titania thin films*, R. Apetrei, C. Catrinescu, D. Mardare, C.M. Teodorescu, D. Luca, **Thin Solid Films** **518**, 1040–1043 (2009).
66. *Preparation and characterization of iron oxides embedded in fullerite matrices*, G.A. Lungu, D. Macovei, C.M. Teodorescu*, **Digest J. Nanomater. Biostr.** **5**, 85–95 (2010).
67. *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).
68. *Nanostructured thin layers of vanadium oxides doped with cobalt, prepared by pulsed laser ablation: chemistry, local atomic structure, morphology, and magnetism*, C.M. Teodorescu*, G. Socol, C. Negrila, D. Luca, D. Macovei, **J. Exper. Nanosci.** **5**, 509–526 (2010).
69. *Cobalt doped ZnO prepared by electrochemistry: chemistry, morphology, and magnetism*, I. Enculescu, E. Matei, V. Vasilache, C.M. Teodorescu*, **Phys. Stat. Solidi A** **207**, 2517–2522 (2010).
70. *Analysis of electron traps at the 4H-SiC/SiO₂ interface; influence by nitrogen implantation prior to wet oxidation*, I. Pintilie, C. M. Teodorescu, F. Moscatelli, R. Nipoti, A. Poggi, S. Solmi, L. S. Løvlie B. G. Svensson, **J. Appl. Phys.** **108**, 024503(1–9) (2010).
71. *Chemical Imaging of Catalyst Deactivation during Biomass Conversion Processes: The Etherification of Biomass-based Alcohols with Alkenes over H-Beta Zeolites*, A.N. Parvulescu, D. Mores, E. Stavitski, C.M. Teodorescu, P.C.A. Bruijninx, R.J.M. Klein Gebbink and B.M. Weckhuysen, **J. Amer. Chem. Soc.** **132**, 10429–10439 (2010).
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