


PERSONAL INFORMATION

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Date of birth 16/12/1951 | Nationality Romanian

 WORK
EXPERIENCE

01/10/1975–01/03/1980

Physicist

Metalurgical Enterprise, 132 Tutora, Iasi (Romania)

- As a physicist I performed metallographic analyzes for all types of raw metal materials (carbon steel and high alloyed steels for tubes and tools, bronze, brass, zinc, etc. materials) and metal produces (tubes, high speed tools, etc) in order to certify their quality. As a consequence of fact that I obtained expertise in Technical Control Quality and Alloys Thermal Treatments, I was selected in 1977 to be the leader of Technical Quality Control Lab. I was responsible of metallographic, spectral and chemical analysis and mechanical testing of tubes and also of thermal treatments of metallurgical tools. Some of my investigation results on the welded tubes were published in the journal „Matalurgia” in 1980. Due to my expertise I was invited to have classes of Structural Theory of Metal Properties at the sections of Metallurgy and Foundry from the Mechanics Faculty of Gheorghe Asachi Technical University of Iasi.

01/03/1980–01/10/1990

Scientific Researcher

Faculty of Physics, Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

As a scientific researchers in the period 1980-1990 I was responsible or a member in 14 scientific projects with different enterprises and institutions. I was responsible with the design and elaboration of an equipment for the nondestructive control with eddy currents of welded pipes for refrigerators and their quality improvement by annealing (for the Research Center of Metalurgical Enterprise) with the improvement of an equipment for the centrifugal foundry of bronze (for the Metalurgical Enterprise), an equipment for the nondestructive control with ultrasounds of polymer products (Plastic Mass Enterprise Iasi), of the quality of synthetic fibers by inserting natural and synthetic zeolites in their composition (a collaboration with the Chemical Faculty of Alexandru Ioan Cuza of Iasi for Synthetic Fibers Iasi), of the quality of detergents by introduction of zeolite materials in their composition and of the quality of liquid dielectrics by introducing their purification in magnetic fields and controlling their composition (Chemical Research Center Ramnicu Valcea). I was a member of a team in realization of five research projects focused on the study of zeolite materials structure, magnetic thin films, analysis of electronic circuits functioning, etc. Some of my scientific results were presented in four papers published in scientific journals and were disseminated in national and international conferences. I had also some teaching activities at the laboratories of Electricity and Magnetism, Molecular Physics and Solid State Physics..

01/10/1990–01/10/2003

Lecturer

Faculty of Physics, Alexandru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

Courses, laboratories and seminars of General Physics, Solid State Theory, Atmosphere Physics, Solid State Physics. I introduced new laboratories and seminars for these disciplines: 5 labs for Atmosphere Physics (license 4th year, Faculty of Physics), 11 for General Physics (1st year Faculty of Geology and Faculty of Geochemistry), 4 seminars (license 4th year, Faculty of Physics), 4 labs for Solid State Physics (license 3rd year Faculty of Physical Chemistry). Some of these laboratories works were included in the book entitled „Fizică generală. Lucrări de laborator. Întrebări. Probleme”, Editura Gama, Iași, 1997, 150 p, ISBN 973-979-37-9-7, Felicia Iacomi, Diana Mardare, Mihaela Bucescu.

The scientific activity was developed in the frame of 13 scientific projects. I was responsible for the study of the electrical, magnetic and optical properties of natural and synthetic zeolites modified by different chemical treatments. I published on this subject 14 papers and I participated to important national and international conferences. I finished my PhD thesis and got PhD in 1999 and in 2001 I published the my original results in „Zeolii Naturali. Structură. Proprietăți. Utilizări” Ed. Univ. Aurel Vlaicu Arad, 2001, author Felicia Iacomi. In 2003 I was invited to give a lecture entitled „The Science of the Advanced Zeolite Materials” at Summer School „Physics of Advanced Materials” organized at Univ. „Aristotle” Thessaloniki, Greece. As a member of the semiconductor research team, I was involved in the experimental work on semiconductor thin films and heterojunctions.

01/10/2003–01/10/2007

Associated Professor

Faculty of Physics, Aleadru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

Classes, laboratories and seminars of Materials Technology (license 4th year Technological Physics), Magnetic Nuclear Resonance in medicine and biology (Master II, section Medical Physics and Biophysics), Actual Problems of Metals and Alloys Physics (Master II, section Advanced Materials and Nanotechnologies), Advanced Materials (Master II, section Advanced Materials and Nanotechnologies), Physical Processes in Nanostructured Materials, Nanotechnologies (Master II, section Advanced Materials and Nanotechnologies), Methods for the Study of Crystalline Structure of Solid State (Master I, section Advanced Materials and Nanotechnologies) and Solid State Physics (license 3rd year Faculty of Physical Chemistry). I introduced new labs and seminars for these new courses: 10 labs for Materials Technology, 7 labs for Methods for the Study of Crystalline Structure of Solid State, 6 labs for Solid State Physics. In this period I was involved in 13 research projects. For five of them I was responsible as a Manager. The research activity was focused on functional materials for advanced applications in optoelectronics, smart textiles, catalysis (methanation reaction), organic electronics. As a member of a research team I was involved in research studies on magnetism of clusters in interaction, on functional properties of titanium dioxide and on transport phenomena in semiconductor thin films.

Invited talks and lectures:

- Structural properties of advanced zeolite materials, F. Iacomi, Summer School „Physics of Advanced Materials”, 2004, „Aristotle” University, Thessaloniki, Greece;
- Zeolite materials as host matrices for semiconductor clusters, Summer School „Physics of Advanced Materials”, 2004, „Aristotle” University, Thessaloniki, Greece;
- The effect of Cr and Fe doping on the magnetic and hydrophilic properties of titania, 2005, Technische Universität Braunschweig, Germany;
- Studies on Some Oxide Diluted Magnetic Semiconductors, 2007, 8th IBWAP Constanta.

The research results are the subject of 13 scientific papers published in important journals: Surface Science, Thin Solid Films, Applied Surface Science, Physica Status Solidi, Materials Science and Engineering, etc. and were disseminated in national and international conferences (CAS, ICPAM, EMRS, ECOSS, BPU etc.). I received Best Paper Award at CAS Sinaia, Romania in 2005. In 2007 I published the book Spectroscopia vibratională a materialelor zeolitice, Ed. Stef, Iasi.

1.10.2007-1.10.2017

Professor

Faculty of Physics, Aleadru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

Courses and laboratories

Solid State Physics, Intelligent Multifunctional Materials, Low Dimensional Systems, Modern Methods in the Study of Solid State Structures, Spintronics, Transparent and Conductive Oxide Semiconductor Thin Films.

PhD supervisor

16 PhD Theses work since 2008 - 8 of them got PhD degree (R.F. Bosinceanu (2011) – Magnetic and transport properties of some ferromagnetic systems with low dimensionality; G. Calin (2012) – Obtaining and characterization of intelligent nanostructured systems based on metals, oxides and polymers; C. Tabacaru (2012) - Contributions to the study of functional nanocomposite materials and structures; Gh. Zoderiu (2013) – The study of some thin films and multilayered structures for functional applications; M. Irimia (2013)- The study of some thin films and multilayers structures with possible applications in transparent and spintronic applications; G.G. Nedelcu (2014) – Advanced materials with medical applications, A. Carlescu (2015) – The study of some thin films with possible applications in modern electronics) – 8 of them are working on their PhD thesis elaboration.

Research activity and projects

My present research field includes thin films for transparent electronics, spintronics and gas sensing, studies on nanostructured inorganic and organic semiconductors, hybrid nanocomposites for advanced applications

I was responsible for thin films and nanostructures for advanced applications in optoelectronics, spintronics and sensors (PN-II-CT-RO-FR-2012-1-0065); Processes and devices based on oxide thin films and polymers for transparent electronics and optoelectronics (PNII 12-128/2008 ELOTRANSP); Processing and characterization of some oxide functional thin films and nanostructures for advanced applications (Theme no. 54, 04-4-1069-2009/2014 IUCN Dubna); Thin films and nanostructures for medical and spintronic applications (no. 68, Theme 04-4-1121-2015 IUCN Dubna); Synthesis and characterization of some nanoparticles, nanocomposites and thin films for medical applications (nr.70, theme 04-4-1121-2015/2017).

Published papers: 43 ISI coted papers and 14 proceeding papers.

Invited talks:

- Some Hybrid Composites for Smart Systems, ICPAM 2008 Iasi, Romania;
- Some recent developments in oxide thin films doped with 3d ions, ROCAM 2009, Brasov, Romania;
- Smart nanocomposites for functional applications, F. Iacomi, NMM 2010 Iasi, Romania;
- Introduction in ultrasound physics, Exploratory Workshop „Sonographic Investigation of joins” 2011, Apollonia University from Iasi, Romania;
- Effect of doping on the structural and functional properties of ZnO thin films, F. Iacomi, TCM-2012, Heraklion, Greece;
- Studies on the effect of Co content and UV irradiation on the structure and gas sensing properties of ZnO thin films, TIM-12 Physics Conference 2012, Timisoara, Romania;
- Functional properties of Mn doped nanostructured titanium oxide powders and thin films, TIM-13 Physics Conference 2013, Timisoara, Romania;
- Advanced nanostructures for medical applications, Congres International „Pregatim viitorul promovand excelenta”, 2014, Iasi, Romania;
- Studies on some oxide nanocomposites and thin films, IBWAP 2014, Constanta, Romania;
- ESR studies on inter-particle interactions in some iron oxide nanocomposites, EMRS fall meeting 2014, Warshow, Poland;
- Oxide thin films for transparent electronic, spintronic and sensor devices TIM14 Physics Conference Physics without frontiers 2014, Timisoara, Romania;
- Oxide Thin Films for Optoelectronic and Spintronic Devices, EMN Meeting on Optoelectronics, 2015, Beijing, China;
- Oxide Thin Films and Nanostructures for transparent electronics, spintronics and sensors, ROCAM 2015, Buchares, Romania;
- Materials structure and their investigation, De Montford University, 2015, Leicester, UK.
- Studies on some iron oxide nanoparticles, nanocomposites and thin films for advanced applications, invited presentation to SANS YUMO, 2016, Dubna, Russia.
- Functional thin films and nanostructures for advanced applications, Shizuoka University, Hamamatsu, Japonia, Erasmus+;
- Hybrid nanocomposites for advanced applications, CMSMS'17, Dubna, Russia;
- Structural and EPR studies of some perovskite and double perovskite-type oxide nanopowders and thin films, CMRNS-Dubna, Constanta, 2017, Romania;
- EPR investigation of some ferrite nanoparticles and thin films, IBWAP 2017, Constanta, Romania;
- Studies on some emerging layered hybrid nanocomposites, ROCAM 2017, Bucharest, Romania;
- Tuning the photocatalytic properties of gold nanoparticles by exposure to green light; AdvPhotoCat-E 2017, Heraklion, Greece.

1.10.2017 - present

Professor Emeritus

Faculty of Physics, Aleadru Ioan Cuza University of Iasi, 11 Carol I Blvd., 700506 Iasi, Romania

Courses and laboratories

Low Dimensional Systems at Master II and Advanced Functional Materials at doctoral school.

PhD supervisor

10 PhD students - 3 got the PhD degree (M. Andries (2018) – Nanoparticles in colloidal suspensions with impact on some biological media, E. Puscasu (2018)- Nanostructured materials for biomedical and technical applications, A. Cocean (2019) - Contributions to the study of laser induced physico-chemical phenomena in controlled atmosphere - 7 PhD students work on the elaboration of PhD thesis.

Research activity and projects

My present research field includes thin films for transparent electronics, spintronics and gas sensing, studies on nanostructured inorganic and organic semiconductors, hybrid nanocomposites for advanced applications.

I am a member of the team of projects: New nanocomposite layers and thin films based on graphene and polymers for hybrid solar cells and medical applications, New resistive switching oxide thin films for nonvolatile memory devices, poz. 85 and 86 from IUCN Order no. 322/21/05.2018, theme no. 04-4-1121-2015/2020, and of the grant poz. 20 JINR-RO theme no. 04-4-1121-2015/2020.

Published papers: 5 ISI coted papers.

Conference organizer

I contribute as a General Chairperson to the organization of two international events in 2018 and 2020: 12th and 13th International Conference on Physics of Advanced Materials, ICPAM-12, ICPAM-13 and 3rd and 4th Autumn School on Physics of Advanced Materials,, PAMS-3, PAMS4 <https://www.icpam.ro/>.

Plenary talks:

- Functional hybrid nanocomposites, ICN:3I-2017, Roorkee, India
- Conductive thin films for transparent electronics, The 20th Takayanagi Kenjiro Memorial Symposium, Hamamatsu 2018, Japan.

Visiting professor

Research Institute of Electronics, Shizuoka University, Hamamatsu, Japan– Oktober 2018 – January 2019

The research results were published in

EDUCATION AND TRAINING

01/10/1970–20/07/1975

Graduated

Replace with EQF (or other) level if relevant

Faculty of Physics, Babes-Bolyai University, Cluj-Napoca (Romania)

- I was selected for the specialization Solid State Physics and I was involved in research activities on electron paramagnetic resonance and nuclear magnetic resonance investigations of single crystals doped with transitional elements, under the supervision of prof. dr. Alexandru Nicula. The title of my degree thesis: EPR and NMR studies on zeolite single crystals.

05/06/1999

Ph.D. in Physics

Alexandru Ioan Cuza University, Iasi (Romania)

The PhD thesis entitled " Study of natural zeolite structure as a function of state parameters" under the supervision of prof.dr. Alexandru Nicula and prof.dr. Ilie D. Bursuc was focused (for the first time in Romania) on the investigation of structure, electrical, optical and magnetic properties of Romanian zeolite deposits from Transilvania area, chemically modified, in order to find potential applications

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	B1	B1	B1	B1	B1
Russian	B1	B1	B1	B1	B1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

My communication skills with my colleagues, collaborators, PhD students and students were gained through my experience as a researcher, professor, conference speaker and project manager. I established collaborations with researchers, PhD students and postdoc students from Università della Calabria, Cosenza Italy; Technological Educational Institute of Crete, Heraklion, Greece; De Montford University, Leicester, UK; Aix Marseille University, Marseille, France and Shizuoka University in the frame of Erasmus program and of academic agreement with Institute of Fundamental and Frontier Sciences, University of Electronic Science and Technology of China. I have also collaborations with Tokyo University of Science. I have good collaborations with researchers from Babes-Bolyai University Cluj-Napoca, Technical University Cluj-Napoca, INCDTIM Cluj-Napoca, Gheorghe Asachi Technical University Iasi, Petru Poni Institute of Macromolecular Chemistry Iasi, University of Bucharest, IMT Bucharest, METAV-CD Bucharest, West University Timisoara, Ovidius University Constanta/

Organisational / managerial skills

- Coordinator of Advanced Experimental and Theoretical Research Center on Condensed Matter Physics (TERA2CMP) and leader of the Condensed Matter Physics&Advanced Functional Applications Research Group.

I am union leader for Faculty of Physics and vice president with professional problems at UNIO syndicate of Alexandru Ioan Cuza University.
 General chairperson of International Conference on Physics of Advanced Materials – ICPAM, and of Autumn School on Physics of Advanced Materials-PAMS, organized every 2 years

Job-related skills

My expertise includes deposition (magnetron sputtering, thermal vacuum evaporation, pin coating) and structural, composition and functional characterization of thin films (XRD, XPS, EPR, effect Hall, UV-VIS, etc) for transparent electronics, spintronics and gas sensing, synthesis and characterization of nanoparticles, nanostructures and hybrid nanocomposites for advanced applications.

PhD supervisor of 16 PhD students – 11 got the PhD degree, 5 are elaborating their PhD thesis.

As a tutor, I was responsible for the training of 6 postdoc students in the field of my expertise. I was responsible for the research programs of three PhD students and one postdoc student in the frame of Erasmus+ and Eugen Ionescu programs.

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Independent user	Independent user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- I am familiar with ORIGIN, Crystallographica, MindLab, XPSPEAK, Carine, etc. programs

Books Published books and chapters:

1. Felicia Iacomi. Diana Mardare. Mihaela Bucescu, Fizica generala". Lucrari de laborator. Întrebari. Probleme, Editura Gama, Iasi, 1997, 150 p, ISBN 973-979-37-9-7;
2. F. Iacomi, Spectroscopia vibrationala a materialelor zeolitice, Editura Stef, Iasi, 2007, 274 p. SBN 978-973-8961-99-9;
3. F. Iacomi, Zeolitii naturali. Structura. Proprietati..Utilizari,. Ed. Univ. „A.Vlaicu", Arad, 2001, ISBN 973-8363-13-6, 272p;
4. Co-author to chapter 3, Imbracaminte functionala - Functii inteligente ale echipamentelor de protectie", C.Loghin (editor) - vol.I. Editura PIM, Iasi, 2008, ISBN 978-606-520-126;
5. Co-author to chapter 4, chapter 5 and chapter 10 Imbracaminte functionala - Modelarea si simularea functiilor de protectie", C.Loghin (editor) vol.II Editura PIM, Iasi, 2008, ISBN 978-606-520-127
6. Co-author to chapter 2, chapter 3 and chapter 5 Imbracaminte functionala - Proiectarea materialelor textile compozite",vol.III C.Loghin, L.Ciobanu (editori), Editura PIM, Iasi, 2008, ISBN 978-606-520-128

ISI papers

1. Cocean, I., Cocean, A., Pohoata, V., Iacomi, F., Gurlui, S, City water pollution by soot-surface-active agents revealed by FTIR spectroscopy, Appl.Surf. Sci. 499 (2020) 142487
2. Cocean, I. Cocean, A., Postolachi, C., Pohoata, V., Cimpoesu, N., Bulai, G., Iacomi, F., Gurlui, S., Alpha keratin amino acids BEHAVIOR under high FLUENCE laser interaction. Medical applications, Appl. Surf. Sci. 488, (2019) 418-426.
3. Cocean, A., Cocean, I., Cazacu, M.M., Bulai, G., Iacomi, F., Gurlui, S, Atmosphere self-cleaning under humidity conditions and influence of the snowflakes and artificial light interaction for water dissociation simulated by the means of COMSOL, Appl Surf Sci 443 (2018) 83-90.
4. Vasile, B.S., Daly, A.B., Craciun, D., Alexandrou, I., Lazar, S., Lemaître, A., Maaref, M.A.b, Iacomi, F.f, Craciun, V., Structural and physical properties of InAlAs quantum dots grown on GaAs, B: Condensed Matter 535 (2018) 262-267
5. Cocean, A., Pelin, V., Cazacu, M.M., Cocean, I., Sandu, I., Gurlui, S, Iacomi, F., Thermal effects induced by laser ablation in non-homogeneous limestone covered by an impurity layer, Applied Surface Science, 424 (2017) 324-329.
6. Ben Daly, A., Craciun, D., Laura Ursu, E., Lemaître, A., Maaref, M.A.. Iacomi, F., Vasile, B.S., Craciun, V., Optical and structural properties in type-II InAlAs/AlGaAs quantum dots observed by photoluminescence, X-ray diffraction and transmission electron microscopy, Superlattices and Microstructures, 110 (2017) 1-9..
7. Pascariu-Domeanu, P., Airinei, A., Olaru, N., Fifere, N., Doroftei, C., Iacomi, F., Preparation and characterization of some electrospun polysulfone nanocomposites reinforced with Ni doped SnO₂ nanoparticles, European Polymer Journal, 91 (2017) 326-336. Toloman, D., Popa, A, Stan, M., Socaci, C., Biris, A.R., Katona, G., Tudorache, F., Petrila, I. Iacomi, F., Reduced graphene oxide decorated with Fe doped SnO₂ nanoparticles for humidity sensor, Applied Surface Science, 402 (2017)) 410-417.
8. R. Danac, L. Leontie, A. Carlescu, S. Shova, V. Tiron, G.G. Rusu, F. Iacomi, S. Gurlui, O. Susu, G.I. Rusu, Electric conduction mechanism of some heterocyclic compounds, 4,4'-bipyridine and indolizine derivatives in thin films, Thin Solid Films, 612 (2016)358-368
9. M. Andries, D. Pricop, L. Oprica, D.-E. Creanga, F. Iacomi, The effect of visible light on gold nanoparticles and some bioeffects on environmental fungi, International Journal of Pharmaceutics, 505 (1-2) (2016) 255-261.
10. P. Pascariu, A. Airinei, M. Grigoras, L. Vacareanu, F. Iacomi, Metal-polymer nanocomposites based on Ni nanoparticles and polythiophene obtained by electrochemical method, Applied Surface Science, 352, (2015) 95-102.
11. G.G. Nedelcu, A. Nastro, L. Filippelli, M. Dobromir, F. Iacomi, Structural characterization of copolymer embedded magnetic nanoparticles, Applied Surface Science, 352 (2015) 109-116.
12. Sucheana, M; Tudose, IV; Ionita, S ; Sandu; Iacomi, F; Koudoumas, E, ZnO Nanostructures for Potential Applications in Organic Solar Cells, REVISTA DE CHIMIE, 6 12 (2015) 2044-2046.
13. Al Matameh, CM; Danac, R; Leontie, L; Tudorache, F; Petrila; Iacomi, F; Carlescu, A; Nedelcu, G; Mangalagiu, I, Synthesis And Electron Transport Properties Of Some New 4,7-Phenanthroline Derivatives In Thin Films, Environmental Engineering And Management Journal, 14 2 (2015) 421-431.

14. C. Doroftei, P. D. Popa, F. Iacomi, L. Leontie, The influence of Zn²⁺ ions on the microstructure, electrical and gas sensing properties of La_{0.8}Pb_{0.2}FeO₃ perovskite, *Sensors and Actuators B: Chemical*, 191 (2014) 239-245.
15. F. Tudorache, P.D. Popa, M. Dobromir, F.Iacomi, Studies on the structure and gas sensing properties of nickel-cobalt ferrite thin films prepared by spin coating, *Materials Science and Engineering B*, 178 (19) (2013) 1334-1338.
16. C. Doroftei, P.D. Popa, F.Iacomi, Selectivity between methanol and ethanol gas of La-Pb-Fe-O perovskite synthesized by novel method, *Sensors and Actuators, A: Physical*, 190 (2013) 176-180
17. C. Doroftei, P.D. Popa, F.Iacomi, The influence of nickel ions substitutes in barium stannates used as humidity capacitive sensors, *Journal of Optoelectronics and Advanced Materials*, 15 (1-2) (2013) 50-53
18. Rambu, A.P., Ursu, L., Iftimie, N., Nica, V., Dobromir, M., Iacomi, F. Study on Ni-doped ZnO films as gas sensors, *Applied Surface Science*, 280 (2013) 598-604.
19. Rambu, A.P., Doroftei, C., Ursu, L., Iacomi, F. Structure and gas sensing properties of nanocrystalline Fe-doped ZnO films prepared by spin coating method, *Journal of Materials Science*, 48 (12), (2013) 4305-4312
20. Yildiz, A., Iacomi, F, On the mechanism of electrical conduction in cobalt-doped zinc oxide nanocrystalline thin films, *Journal of the Physical Society of Japan*, 81 (5) (2012) 054602
21. A. Yildiz, B. Yurduguzel, B. Kayhan, G. Calin, M. Dobromir, F. Iacomi, Electrical conduction properties of Co-doped ZnO nanocrystalline thin films, *J Mater Sci: Mater Electron* 23 (2012) 425-430
22. C. Doroftei, P.D. Popa, I. F.Iacomi, Preparation and study of structural properties of zincdoped barium stannate, *Journal of Optoelectronics and Advanced Materials*, 14 (3-4) (2012) 413-417.
23. C. Doroftei, P.D. .Popa, F. Iacomi, Study of the influence of nickel ions substitutes in barium stannates used as humidity resistive sensors *Sensors and Actuators A: Physical* 173 (2012) 24.
24. C. Doroftei, P.D. Popa, F. Iacomi, Synthesis of nanocrystalline La-Pb-Fe-O perovskite and methanol-sensing characteristics, *Sensors and Actuators B: Chemical* 161 (2012) 977
25. A. Yildiz, F. Iacomi, M. Cazacu, A. Amironesei, G.I. Rusu, S. Simon, The MeyerNeldel Rule in ayered Silicone-Silver Nanocomposites, *Polymer Composites*, 32 (11) (2011) 1751 - 1756
26. F. Iacomi, G. Calin, C. Scarlat, M. Irimia, C. Doroftei, M. Dobromir, G.G. Rusu, N. Iftimie, A.V. Sandu, Functional properties of nickel cobalt oxide thin films, *Thin Solid Films* 520 (2011) 651-655
27. P. Prepelita, R. Medianu, F. F. Iacomi, I. Sandu, Physico-chemical Properties of CuInGa-ZnS Heterostructure Deposited, *Revista de Chimie*, 62 (9) (2011) 905-907
28. A.Yildiz, B. Kayhan, B. Yurduguzel, A. P. Rambu, F. Iacomi, S. Simon, Ni doping effect on electrical conductivity of ZnO nanocrystalline thin films, *Journal of Material Science: Materials in Electronics* 22 (9) (2011) 1473 - 1478
29. A. Amironesei, A. Airinei, D. Timpu, V. Cozan, A.P. Rambu, M. Irimia, F.F. Iacomi, G.I. Rusu, Electrical and optical properties of some polyazomethine thin films prepared by a spin-coating method, *Journal of Optoelectronics and Advanced Materials*, 13(7-8) (2011) 802 - 806
30. C. Dantus D.Timpu, D. Luca, F. Iacomi, UV irradiation influence on the structural and optical properties of CdO thin films, *European Physical Journal-Applied Physics*, 55(1) (2011) 10301
- C. Tabacaru, A.Carlescu, A.V.Sandu, M.I.Petcu, F. Iacomi, Effect of Annealing and Gamma Irradiation on Clay Mineral Properties, *Revista de Chimie* 62(4) (2011) 427-431
31. A.I. Amironesei, C. Tabacaru, I. Sandu, M. Cazacu, G.I.Rusu, F. Iacomi, Layered Silicone - Silver Composites, *Revista de Chimie*, 62 (4) (2011) 455-458
32. A. Yildiz, F. Iacomi, D. Mardare, Polaron transport in TiO₂ thin films, *Journal of Applied Physics*, 108(8) (2010) 083701
33. D. Mardare, F. Iacomi, N. Cornei, M. Girtan, D. Luca, Dumitru Undoped and Cr-doped TiO₂ thin films obtained by spray pyrolysis, *Thin Solid Films*, 518 (16) (2010) 4586-4589
34. P. Prepelita, R. Medianu, F.Garoi, N.Stefan, F.Iacomi, On the structural and electrical characteristics of zinc oxide thin films, *Thin Solid Films*, 518 (16) (2010) 4615-4618
35. M. Cazacu, A.Vlad, F. Iacomi, P. Budrugaec, A. Ioanid, Condensation Products of the Bifunctionalized Titanocene and Siloxane Derivatives, *Materiale Plastice*, 47(2) (2010) 135-140
36. M.Cazacu, A.Vlad, M. Alexandru, P.Budrugaec, C.Racles, F.Iacomi, Polydimethyldiphenylsiloxanes/silica interconnected networks: preparation and properties evaluation, *Polymer Bulletin*, 64(5) (2010) 421 - 434
37. M.Cazacu, C. Racles, A. Vlad, G.Calin, D.Timpu, F.Iacomi, New experimental insights into self-organization of poly(ferrocenyl-amide-siloxane), *Journal of Optoelectronics and Advanced Materials*, 12(2) (2010) 294-300
38. M. Alexandru, M. Cazacu, S. Vlad, F. Iacomi, Polydimethylsiloxane-silica Composites. Influence of the Silica on the Morphology and the Surface, Thermal, Mechanical Properties, *High Performance Polymers*, 21(4) (2009) 379-392
39. N. Iftimie, F. Iacomi, N. Rezlescu, High performance gas sensing materials based on nanostructured zinc oxide films, *Journal of Optoelectronics and Advanced Materials*, 10(7) (2008) 1810-1813

40. E. Budianu, M.Purica, F. Iacomi, C.Baban, P.Prepelita, E.Manea, Silicon metal-semiconductor-metal photodetector with zinc oxide transparent conducting electrodes *Thin Solid Films*, 516(7) (2008) 1629-1633
41. M. Purica, F.Iacomi, C.Baban, P.Prepelita, N.Apetroaei, D.Mardare, D.Luca, Investigation of structural properties of ITO thin films deposited on different substrates *Thin Solid Films*, 515(24) (2007) 8674-8678.
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Patents Patent

Resistive acetone vapour sensor, to detect and measure concentration of acetone vapour in air
 Patent Number: RO129798-A2
 Patent Assignee: UNIV IASI CUZA ALEXANDRU IOAN
 Inventor(s): DOROFTEI C; IACOMI F D.

Projects As Manager and Partner Leader

- Theme 04-4-1121-2015/2017, IUCN Dubna, Oxide thin films and nanocomposite structures with tunable properties for advanced applications, nr. 58.
- Theme 04-4-1121-2015/2017, IUCN Dubna, The study of some nanocomposites based on graphene for applications in modern electronics and energy conversion and storage, nr. 59.
- Theme 04-4-1121-2015/2017, IUCN Dubna, "Synthesis and characterization of some nanoparticles, nanocomposites and thin films for medical applications", nr. 96/15.02.2016.
- PN-II-CT-RO-FR-2012-1-0065, "Thin films and nanostructures for advanced applications in optoelectronics, spintronics and sensors" - Partner UAIC
- PN II, nr.12-128/2008 Processes and devices based on thin oxide and polymeric layers for Transparent Electronics and Optoelectronics (ELOTRANSP), Partner UAIC, 2008-2011
- CEEX tip PC-D (NANOSIMAT), 16/07.10.2006, Multifunctional nanostructured silicone materials, partner UAIC, 2006-2008.
- CEEX -FOTONTECH, Nr, 16/07.10.2005 Developments of mixed technologies for micro / nano structures and photonic systems integrated with applications in communications, partner UAIC, 2005-2008.
- CEEX - GAZCOMET. Researches regarding the chemicalization of the gaseous product obtained by co-gasification to obtain gas with high methane content used as city gas, partner UAIC, 2006 - 2008.
- CEEX EPintel (Contract M1-C2-6060). The foundation of the directed synergy of nano / microcomponents integrated in composite textile materials in order to ensure intelligent functions of the protective equipment in aggressive environments, partner UAIC, 2006 - 2009.
- MATNANTECH, 88/22.10.2004. Development of new photonic processes and microstructures based on transparent and conductive thin layers on the substrate of semiconductor compounds AlIII BV and Si, partner UAIC, 2004-2006
- Project No. 3011/B2 1994. Study of the electrical, magnetic and optical properties of natural and synthetic zeolites .
- Contract Nr. 1088B/6, 1993. Study of the structure of natural zeolites by X-ray diffraction, IR and magnetic resonance.

Projects for enterprises as a leader

- Project No. 1012_12.04.1990. Establishment of thermal treatment parameters for welded tubes from special steels
- Project No. 4/27.01.1989. Possibilities of sulphate anion conductometric determination from sodium chloride electrolyze solutions
- Project No.13644/12.12.1986 Research regarding the obtaining of halogenated organic products and esters of electrotechnic use.
- Project No. 4949.15.04.1981. Undestructiv control equipment with eddy currents for the refrigerator tubes
- Project No. 1502/4.02.1983. Establishment of technological parameters involved in spin casting to manufacture aluminum bronze bushings.
- 18.Project No. 99/6.01.1982. Eddy current equipment for the undestructive controll of refrigerator tubes. ACT202

- Project No. 4949.15.04.1981. Undestructiv control equipment with eddy currents for the refrigerator tubes.

As a member in the project research team

- Project No. 1012_12.04.1990. Establishment of thermal treatment parameters for welded tubes from special steels
- Theme 04-4-1121-2015/2020, IUCN Dubna, New nanocomposite layers and thin films based on graphene and polymers for hybrid solar cells and medical applications, poz. 85 IUCN no. 322/21.05.2018.
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- Grant CNCSIS 1148 tema nr.2. Research on the properties of micro and nanostructured thin layers of titanium oxides with applications in ecology, 2006-2009
- Molecular Nanotechnologies (AMON). Research platform, 2006-2008.
- CEEX – NANOTICATPOL (CEX PC-D04-PT04-106). Nanomaterials and nanostructured films based on TiO₂ for photocatalytic applications in the field of degradation of organic pollutants of the environment, 2005-2008
- CEEX CLUMAGIN-CEEX-05-D11-32. Magnetism of clusters in interaction. Fundamental processes and applications, 2005-2008
- CERES 4-67/2004 Study of the effects of doping on the photocatalytic properties of TiO₂, 2004-2006.
- CERES, 4-100/2004, Study of the dynamics of condensation processes in plasma environment using time-of-flight spectrometry, 2004-2006.
- CNCSIS type A–623/200. Microscopic characterization of transport phenomena by protein structures of nanopores inserted in artificial biomembranes at the level of single molecule organization, 2004.
- Grant type A Code CNCSIS: 1341/2003 The study of transport phenomena and the optical properties of some semiconductor compounds in thin layers , 2004-2006.
- Grant type C code CNCSIS 104/1997. The study of transport phenomena and the optical and photoelectric properties of some semiconductor compounds in thin layers, 2000-2003.
- Grant type D-Master/doctorat, code CNCSIS 38/1997. Physical processes in semiconductor and magnetic thin layers , 2000-2003.
- BCUM, code CNCSIS 24/1977. Laboratory for investigating the properties of semiconductor and magnetic thin layers, 2000-2003.
- CNCSIS: 173/2000. Physical processes in thin layers and semiconductor heterojunctions. Study of the optical and photoelectric electrical properties of some semiconductor compounds (binary compounds, organic semiconductors, oxide semiconductors) in thin layers, 2000.
- CNCSIS 167/1999. Physical processes in thin layers and semiconductor heterojunctions. Study of electrical and optical structure and properties of thin layers and semiconductor heterostructures , 1999.
- CNCSIS:82/1998. Physical processes in thin layers and semiconductor heterojunctions. The study of transport phenomena and the optical properties of some semiconductor compounds in thin layers , 1998.
- CNCSIS:652/1997. Physical processes in thin layers and semiconductor heterojunctions. Study of the electrical and thermoelectric properties of some semiconductor materials in thin layers , 1997.
- Project No.27/3.04. 1991. Study of the electrical, magnetic and optical properties of some thin layers1991.
- Project No.111/1.12. 1989. Non-destructive control of PVC pipes, bars and plates and other polymers, 1989.
- Project No,1428/23.02.1985. Obtaining and studying the properties of magnetic media for storing digital information, for use in computer disk stacks, 1985
- Project No.10016/28.Oct.1985. Technology for obtaining porous acrylic fibers, 1985.
- Project No. 11194/23.10.1984. Diffractometric study of some zeolites , 1984.
- Project No. 553/18.01.1984. The study of thin layers detecting electromagnetic radiation , 1984.
- Project No 2539/8.03,1984. Software package, Felixc-256 versions, for analyzing the functioning of electronic

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