



## Curriculum vitae Europass



### Personal information

Surname(s) / First name(s) **PĂTROI Eros-Alexandru**

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Nationality Romanian

Date and place of birth 02/06/1978, Pitesti

**Employment/ Occupational field** **National Institute for R&D in Electrical Engineering ICPE-CA Bucharest  
Advanced Materials Department**

### Management work experience

Dates **April 2015 – present**

Occupation or position held Head of Magnetic Materials Laboratory within Advanced Materials Department

Main activities and responsibilities Coordination of the scientific strategy and of the international scientific collaborations within the laboratory, in order to optimize the technical and economic efficiency- coordination of the subordinate personnel  
Maintaining and improving the quality management system

Name and address of employer National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research, 313, Splaiul Unirii, 030138 Bucharest, Romania

Dates **August 2006 – May 2010**

Occupation or position held Head of Electromagnetic Compatibility Laboratory – Anechoic Chamber

Main activities and responsibilities Development of the laboratory infrastructure  
Coordination of the scientific strategy within the laboratory, in order to optimize the technical and economic efficiency- coordination of the subordinate personnel  
Maintaining and improving the quality management system

Name and address of employer National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research, 313, Splaiul Unirii, 030138 Bucharest, Romania

Dates **June 2011 - present**

Occupation or position held Labor union president

Main activities and responsibilities Union representation before administrative bodies or legislative, executive and judicial authorities, before administrative leadership of the unit, as well before the trade unions, national and international, social and nongovernmental

Name and address of employer SL ICPE-CA Bucuresti,  
313, Splaiul Unirii, 030138 Bucharest, Romania

## Scientific work experience

Dates	<b>January 2016- present</b>
Occupation or position held	Senior researcher I
Main activities and responsibilities	Research in the field of electrical engineering related magnetic materials Development of some new metallic materials with improved magnetic and structural properties Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns Research on composite magnetic materials used in electromagnetic compatibility
Name and address of employer	National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research- Advanced Materials Department, 313, Splaiul Unirii, 030138 Bucharest, Romania
Type of business or sector	Scientific Research
Dates	<b>September 2011 – January 2016</b>
Occupation or position held	Senior researcher II
Main activities and responsibilities	Research in the field of electrical engineering related magnetic materials Development of some new metallic materials with improved magnetic and structural properties. Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns Research on composite magnetic materials used in electromagnetic compatibility
Name and address of employer	National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research- Advanced Materials Department, 313, Splaiul Unirii, 030138 Bucharest, Romania
Type of business or sector	Scientific Research
Dates	<b>May 2010-September 2011</b>
Occupation or position held	Senior researcher III
Main activities and responsibilities	Research in the field of electrical engineering related magnetic materials Development of some new metallic materials with improved magnetic and structural properties. Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns Research on composite magnetic materials used in electromagnetic compatibility
Name and address of employer	National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research- Advanced Materials Department, 313, Splaiul Unirii, 030138 Bucharest, Romania
Type of business or sector	Scientific Research
Dates	<b>January 2009 -May 2010</b>
Occupation or position held	Senior researcher III
Main activities and responsibilities	Research in the field of electrical engineering related magnetic materials Magnetic characterization of the materials (VSM, AGFM, histerezisgraph). Development of some new metallic materials with improved magnetic and structural properties. Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns Research on composite magnetic materials used in electromagnetic compatibility
Name and address of employer	National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research- Micro- and nano-structured magnetic materials group, 313, Splaiul Unirii, 030138 Bucharest, Romania
Type of business or sector	Scientific Research
Dates	<b>January 2007- January 2009</b>
Occupation or position held	Junior Researcher
Main activities and responsibilities	Research in the field of electrical engineering related magnetic materials Magnetic characterization of the materials (VSM, AGFM, histerezisgraph). Development of some new metallic materials with improved magnetic and structural properties. Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns Research on composite magnetic materials used in electromagnetic compatibility
Name and address of employer	National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research- Micro- and nano-structured magnetic materials group, 313, Splaiul Unirii, 030138 Bucharest, Romania
Type of business or sector	Scientific Research

**Dates** *August 2004- January 2007*

**Occupation or position held** Assistant junior researcher

**Main activities and responsibilities** Research in the field of electrical engineering related magnetic materials  
Magnetic characterization of the materials (VSM, AGFM, histerezisgraph).  
Development of some new metallic materials with improved magnetic and structural properties.  
Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns  
Research in composite magnetic materials used in electromagnetic compatibility

**Name and address of employer** National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research- Micro- and nano-structured magnetic materials group, 313, Splaiul Unirii, 030138 Bucharest, Romania

**Type of business or sector** Scientific Research

**Dates** *July 2002 – August 2004*

**Occupation or position held** Assistant junior researcher

**Main activities and responsibilities** Research in the field of electrical engineering related magnetic materials  
Magnetic characterization of the materials (VSM, AGFM, histerezisgraph).  
Development of some new metallic materials with improved magnetic and structural properties.  
Research and characterization of magnetic metallic thin films, nanostructures and nanopatterns  
Research in composite magnetic materials used in electromagnetic compatibility

**Name and address of employer** SC ICPE-CA SA Bucuresti,  
313, Splaiul Unirii, 030138 Bucharest, Romania

**Type of business or sector** Scientific Research

**Dates** *December 2001 – July 2002*

**Occupation or position held** Physicist

**Main activities and responsibilities** Research in the field of electrical engineering related magnetic materials  
Research in composite magnetic materials used in electromagnetic compatibility

**Name and address of employer** SC ICPE-CA SA Bucuresti,  
313, Splaiul Unirii, 030138 Bucharest, Romania

**Type of business or sector** Scientific Research

## **Education and training**

**Dates** *2015 (April – September)*

**Title of qualification awarded** Post-graduate studies in Organisational management

**Principal subjects/occupational skills covered** Organization Management

**Name and type of organisation providing education and training** Bucharest University of Economic Studies, Management Faculty

**Level in national or international classification** Post-graduate studies

**Dates** *2002-2008*

**Title of qualification awarded** PhD

**Principal subjects/occupational skills covered** Post-graduate studies in Electrical Engineering field  
Development of new hard magnetic materials (permanent magnets) characterization systems

**Name and type of organisation providing education and training** Joint supervision PhD- "Politehnica" University of Bucharest, Faculty of Electrical Engineering and L'Istituto Nazionale di Ricerca Metrologica (INRIM) Torino Italia

**Level in national or international classification** Post-graduate studies

**Dates** *2001-2003*

**Title of qualification awarded** Diploma of master in Technical and Applicable Magnetism

Principal subjects/occupational skills covered Post-graduate studies in technical and applicable magnetism field  
Magnetic measurements techniques, magnetic materials, magnetic sensors and actuators

Name and type of organisation providing education and training "Politehnica" University of Bucharest, Faculty of Electrical Engineering

Level in national or international classification Post-graduate studies

Dates **2001-2003**

Title of qualification awarded Diploma of master in electronics

Principal subjects/occupational skills covered Electronics and implementation of some materials in electronics

Name and type of organisation providing education and training University of Bucharest, Faculty of Physics

Level in national or international classification Post-graduate studies

Dates **1997-2001**

Title of qualification awarded Bachelor of Science - Physicist

Principal subjects/occupational skills covered Theoretical Physics, Electronics

Name and type of organisation providing education and training University of Bucharest, Faculty of Physics

Level in national or international classification Bachelor

### Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s) **English, Italian**

Self-assessment  
*European level (\*)*

**English**

**Italian**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user
B1	Independent user	B1	Independent user	B2	Independent user	B2	Independent user	B2	Independent user

(\*) [Nivelul Cadrului European Comun de Referință Pentru Limbi Străine](#)

Social skills and competences Experience of working in team  
Good communication skills

Organisational skills and competences I participated, over 15 years of research within the institute, in more than 50 national research projects, as **project manager**, responsible and / or member of research teams from the ICPE-CA, awarded by competition. I was also involved in developing over 10 international projects, as **project manager**, responsible and member of the research team.

Technical skills and competences Ability to use complex characterization techniques:  
Magnetic measurements: Alternating Gradient Force Magnetometry, Vibrating Sample Magnetometry, Hysteresisgraph  
Good knowledge of control and quality assurance / certification

Computer skills and competences A good familiarity with instruments Microsoft Office (Word, Excel, Power Point),  
Elementary knowledge of application Origin

## Other skills and competences

### Internships and training courses in Electrical Engineering:

- September 2010 – June 2011 Entrepreneurship Course in Electrical Engineering; Project HRD / 32 / 3.1 / G / 16122: Encouraging entrepreneurship for starting business in electrical engineering
- Summer school "Models in magnetism: from basics aspects to practical use" Timișoara 1-10 September 2009
- Summer school "New magnetic materials and their functions" Cluj-Napoca 8-18 September 2007
- 2005 Public Manager course, within INCDIE ICPE-CA
- Preparation stage with the theme: "Development of Advanced Characterization Methods of Soft and Hard Magnetic Materials" Torino 18 September – 10 December 2005
- Summer school "New experimental approaches to Magnetism", Constanta 6-17 September 2005
- Doctoral training stage with the theme „Study of some advanced hard magnetic materials characterization techniques” Torino, 1 August 2005 – 30 August 2005
- Theoretical and practical training „Misure e materiali magnetici- XXI Corso” Torino 19-22 April 2005
- Doctoral training stage with the theme „Study of some advanced hard magnetic materials characterization techniques”, Torino 1-st February 2005 – 30 May 2005
- Doctoral training stage with the theme „Study of some advanced hard magnetic materials characterization techniques”, Torino 1-st February 2004 – 30 May 2004
- Autumn School „Nanophysics and nanotechnology for biology and medicine” Măgurele Bucuresti 14-16 October 2003
- Summer school "Magnetism of Nanostructured Systems and Hybrid Structures" Brașov 1-10 September 2003
- Theoretical and practical training „Campi elettromagnetici ambientali” Torino 5-13 June 2003
- Doctoral training stage with the theme „Study of some advanced hard magnetic materials characterization techniques”, Torino 1-st March 2003 – 30 June 2003
- Scholarship to IEN Galileo Ferraris with the theme „Losses in nanostructured and amorphous magnetic materials” Torino 1-st March 2002 – 30 May 2002

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### Internships and training courses in the field of trade union

Trade Union Academy Program, organized by the Friedrich Ebert Foundation in partnership with four trade union confederations in Romania - CNS Cartel Alfa, BNS, CSDR and CNSLR Fratia:

27-30 october 2011 - **Union rights**

10-13 november 2011 - **Economy and labor market**

24-27 november 2011 - **Health and safety at work**

15-18 december 2011- **Negotiation elements**

**Additional information  
Member of professional  
associations**

- Romanian Society of Hadronotherapy, from 2014
- Romanian Electromagnetic Compatibility ACER, from 2005
- Romanian Society of Ceramic Materials, from 2004
- Romanian Society for Protection against Non-Ionising Radiation, from 2007
- Alliance for Hydrogen and Fuel Cells-H2FC-EN, from 2005
- Romanian Society of Magnetic Materials - SRMM, from 2002
- Romanian Society of Materials „Teodor Segarceanu” (A.R.M.), from 2002

**National prizes/awards received  
through a selection process  
(selection)**

- Bronze medal, Magnetic materials as thin layers based on AlNiCo alloys, D. Pătroi, E.A. Patroi, D. Bojin, M. M. Codescu, 44th International Exhibition of Inventions of Geneva, Switzerland, 2016
- Excellence diploma and gold medal, Security paper with electronic detection and validation, M. M. Codescu, R. Erdei, A. Iorga, W. Kappel, E. Manta, F. Oprea, **E.A. Pătroi**, Delia Patroi, V. Midoni, I. Zapodeanu, M. Burlacu, D. Buteica, P. Nechita, The International Exhibition of Research, Innovation and Inventions PRO INVENT, ed. XIV, 2016, Cluj Napoca, Romania
- Grand Prix of Technical University of Moldova, Security paper with electronic detection and validation, M. Codescu, R. Erdei, A. Iorga, W. Kappel, E. Manta, F. Oprea, **E.A. Pătroi**, Delia Patroi, V. Midoni, I. Zapodeanu, M. Burlacu, D. Buteica, P. Nechita, The International Exhibition of Research, Innovation and Inventions PRO INVENT, ed. XIV, 2016, Cluj Napoca, Romania
- Diploma for outstanding results in the research, development, innovation and capitalizing in practice granted by the National Center for Public Health, Chisinau, Rep. of Moldova for the invention: Security paper with electronic detection and validation, M. M. Codescu, R. Erdei, A. Iorga, W. Kappel, E. Manta, F. Oprea, **E.A. Pătroi**, Delia Patroi, V. Midoni, I. Zapodeanu, M. Burlacu, D. Buteica, P. Nechita, The International Exhibition of Research, Innovation and Inventions PRO INVENT, ed. XIV, 2016, Cluj Napoca, Romania
- Excellence diploma and gold medal, Metallic microwires for electromagnetic shielding fabric, **A.E. Patroi**, R. Erdei, M.M. Codescu, E. Manta, D. Patroi, A. Iorga, C. Morari, C. Loghin, The International Exhibition of Research, Innovation and Inventions PRO INVENT, ed. XIII, 2015, Cluj Napoca, Romania
- Gold medal and diploma, Security paper with electronic detection and validation, M. M. Codescu, R. Erdei, A. Iorga, W. Kappel, E. Manta, F. Oprea, **E.A. Pătroi**, Delia Patroi, V. Midoni, I. Zapodeanu, M. Burlacu, D. Buteica, P. Nechita, EIS „INFOINVENT”, 25-28 NOV. 2015, Chişinău, Rep. of Moldova
- Silver medal, Security paper with electronic detection and validation, M. M. Codescu, R. Erdei, A. Iorga, W. Kappel, E. Manta, F. Oprea, **E.A. Pătroi**, Delia Patroi, V. Midoni, I. Zapodeanu, M. Burlacu, D. Buteica, P. Nechita, The 64th World Exhibition of Innovations, Research and New Technologies, INNOVA, Eureka 2015, Brussels, Belgium
- Silver Medal, Metallic microwires for electromagnetic shielding fabric, **Pătroi Eros Alexandru**, Erdei Remus, Codescu Mirela Maria, Manta Eugen, Pătroi Delia, Iorga Alexandru, Morari Cristian, Loghin Carmen, The International Exhibition of Inventions and New Technologies – INVENTIKA 2014, Bucharest, Romania
- Silver Medal, Metallic microwires for electromagnetic shielding fabric, **Patroi E.A.**, Erdei R., Codescu M.M., Manta E., Patroi D., Iorga A., Morari C., The International Exhibition of Inventions – Bucharest 2011.
- The prize of National Authority for Scientific Research for the “Most Valuable Patent” - “Electrical Self-protective Conductor at Frost / Ice Depositions”, authors: Palii L. S., Kappel W., Codescu M. M., **Patroi E.A.**, Iorga A., Ionescu I., Racoviţan I., OSIM file No. A 2010 00690 / 02.08.2010
- Gold medal, Electrical Self-protective Conductor at Frost / Ice Depositions, Palii L. S., Kappel W., Codescu M. M., **Patroi E.A.**, Iorga A., Ionescu I., Racoviţan I., The International Exhibition of Inventions and New Technologies – INVENTIKA 2010, Bucharest, Romania
- Diploma of international Warsaw Invention Show IWIS 2010 CUP of IWIS, Electrical Self-protective Conductor at Frost / Ice Depositions”, Palii L. S., Kappel W., Codescu M. M., **Patroi E.A.**, Iorga A., Ionescu I., Racoviţan I.
- Silver medal, Hallbach cylinder, generator of rotational and homogenous magnetic field, W. Kappel, **Pătroi Eros-Alexandru**, R. Erdei The 38th International Exhibition of Inventions, Geneva, Switzerland, 2010
- The 2nd prize of National Authority for Scientific Research, as project manager, for the CEEX project No. 19/2005 „Anisotropic Nanocomposites for High Energy Permanent Magnets - NANOMAG”
- The ESTC 2006 Best Poster Award – High Energy Density Magnetic Materials for Electronic Packaging

## Patents/patent requests

- **E.A. Pătroi**, R. Erdei, M. M. Codescu, E. Manta, D. Patroi, Metallic microwires for electromagnetic shielding fabric, **126211 B1/2015**
- W. Kappel, **Pătroi Eros-Alexandru**, R. Erdei, Halbach cylinder: rotational and uniform magnetic field generator, **122571 B1 / 2009**
- W. Kappel, M. M. Codescu, **Pătroi Eros-Alexandru**, N. Stancu, E. Manta, M.C. Valeanu, V.E. Kuncser, F. Tolea, M. Sofronie, Nano-composite isotropic permanent magnets and process for making the same, **125435 B1 /2013**
- Pătroi Delia, **Pătroi Eros-Alexandru**, Dionezie Bojin, Codescu Mirela-Maria, Constantinescu-Goldner Cătălin Methods for obtaining thin magnetic layers such as AlNiCo, **128389 B1/2015**
- Pătroi Delia, **Pătroi Eros-Alexandru**, Dionezie Bojin, Codescu Mirela-Maria, Magnetic materials as thin layers based on AlNiCo alloys, **128449 B1/2016**
- M. M. Codescu, R. Erdei, A. Iorga, W. Kappel, E. Manta, F. Oprea, **E.A. Pătroi**, D. Patroi, V. Midoni, I. Zapodeanu, M. Burlacu, D. Buteica, P. Nechita, Security paper with electronic detection and validation, **126675 B1/2015**
- L.S. Palii, W. Kappel, MM Codescu, **Pătroi Eros-Alexandru**, A. Iorga, I. Ionescu, I. Racovițan, Electrical Self-protective Conductor at Frost / Ice Depositions, **A00690/ 02.08. 2010**
- Holder Universitatea Tehnica „Gheorghe Asachi” Iasi, “ Element for electromagnetic shielding, linear matrix type seams” **A01226/ 29.11.2010** INCDIE ICPE-CA authors **Pătroi Eros-Alexandru** and Pătroi Delia
- Peter Ioan, Scutaru Gheorghe, Gavrilă Horia, Petrescu Lucian, Paltanea Gheorghe, Paltanea Veronica, Kappel Wilhelm, **Pătroi Eros-Alexandru**, Patroi Delia, Manta Eugen, Iorga Alexandru, Method for assessing the effect of how cutting iron sheets on losses in electric machines, **A/00335/ 11.05.2016**
- Malaeru Teodora, **Pătroi Eros-Alexandru**, Georgescu Gabriela, Manta Eugen, Patroi Delia, Method for obtaining vegetable oil magnetic nanofluid, **A/00619/7.09.2016**

**ISI Articles**  
(selection)

- S1** V. Larin, L. V. Panina, **Pătroi Eros-Alexandru**, D. Patroi, V. Bashev, N. Kutseva „Directed crystallization of glass-coated microwires” Phys. Status Solidi A, Vol. 213, Iss. 2, pp.384–389, doi: 10.1002/pssa.201532579, ISSN 1862-6300, 2016
- S2** D. Patroi, V.D. Zhaketov, Yu. V. Nikitenko, M.M.Codescu, **E.A. Patroi**, E.Manta, Neutron depolarization investigations of spring exchange interaction nanocomposites, Optoelectronics and Advanced Materials – Rapid Communications, vol.9, Iss. 9-10, ISSN: 18426573, 2015
- S3** F. Fiorillo, C. Beatrice, D. Son, H. Ahlers, R. Groessinger, F. Albertini, Y. P. Liu, A. Lin, **Pătroi Eros-Alexandru**, R. Shull, O. Thomas, M. J., Hall International comparison of measurements of hard magnets with the Vibrating Sample Magnetometer, J. Appl. Electromagnetics and Mechanics, Vol. 44, Iss. 3-4, pp. 245-252, 2014
- S4** Paltanea V. , Paltanea G.;Gavrila H., **Pătroi Eros-Alexandru**, Peter I., The influence of the metal sheet cutting technologies on the energy losses in non-oriented silicon iron alloys, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, Vol. 59, Iss.1, pp.47-55, 2014
- S5** Constantinescu, C.; **Eros Alexandru Pătroi**, E.; Codescu, M.; et al., Effect of nitrogen environment on NdFeB thin films grown by radio frequency plasma beam assisted pulsed laser deposition, Materials Science and Engineering B- Advanced Functional Solid-State Materials, Vol. 178, Iss. 4, pp. 267-271, doi: 10.1016 / j.mseb.2012.11.013, 2013
- S6** Bara, Adela; Banciu, Cristina; Bondar, Ana Maria; **Eros Alexandru Pătroi** et al., Carbon Mesophase-based Composites with Electro- Magnetic Properties Source, Revista de Chimie, Vol. 64, Iss. 2, pp. 174-181, 2013
- S7** Proteasa Paula, Codescu Mirela, **Pătroi Eros**, Pătroi Delia, Marinescu Virgil, Electroplating in magnetic field and characterization of NiCoMnP alloy films with permanent magnet, Optoelectronics and Advanced Materials – Rapid Communications vol. 7, Iss. 1-2, pp. 90 – 95 , ISSN: 18426573, 2013
- S8** Patroi D., Codescu M.M. , **Patroi E.A.**, Marinescu V., Structural and magnetic behavior of DC sputtered Alnico type thin films, Optoelectronics and Advanced Materials – Rapid Communications, vol. 5, nr. 10, pp. 1130 - 1133, ISSN: 18426573, 2011
- S9** Bozidar Cekic,Valentin Ivanovski, Mirela Codescu,Ana Umicevic, Tanja Barudzija and **Eros Alexandru Pătroi**, Mössbauer spectroscopic analysis of Nd<sub>2</sub>Fe<sub>14</sub>B/α-Fe hard magnetic nanocomposites Solid State Phenomena, Vol. 170 (2011), pp 154-159 (Trans Tech Publications, Switzerland doi: 10.4028 / [www.scientific.net/SSP.170.154](http://www.scientific.net/SSP.170.154) )
- S10** Wilhelm Kappel, Mirela Maria Codescu, Eugen Manta, **Eros Alexandru Pătroi**, Cristian Morari, Remus Erdei, New Composite Materials, Obtained from Ashes Wastes, with Potential Applications for Electromagnetic Shielding, Materials Science Forum Vol. 672 (2011), pp 245-250 (Trans Tech Publications, Switzerland doi:10.4028 / [www.scientific.net/MSF.672.245](http://www.scientific.net/MSF.672.245))
- S11** W. Kappel, A. Bara, C. Banciu, M. M. Codescu, C. Morari, **Eros Alexandru Pătroi**, E. Manta, Composites materials with applications in electromagnetic protection, Optoelectronics and Advanced Materials – Rapid Communications, Vol. 4, Iss. 12, pp. 2097 – 2102, 2010
- S12** Mirela Maria Codescu, E. Manta, **Eros Alexandru Pătroi**, W. Kappel, I. Zapodeanu, M.Burlacu, P.Nechita, V. Midoni, Securing element with ferromagnetic microwires, Optoelectronics and Advanced Materials – Rapid Communications, Vol 4, Iss. 9, pp. 1361-1365, 2010
- S13** Negoita Madalina, **Pătroi Eros Alexandru**, Onica Ciprian Viorel, Simulations on dilute magnetic semiconductor properties, Romanian Reports in Physics, Vol.62, Iss.1, pp. 115 – 120, 2010
- S14** Covaliu,C.I., Georgescu,G., Jitaru I., Neamtu,J., Malaeru, T., Oprea, O., **Pătroi Eros Alexandru**, Synthesis and characterization of hydroxyapatite coated magnetite for potential cancer treatment, Revista de Chimie, Vol. 60, Iss. 12, pp.1254-1257, 2009
- S15** Cristina Banciu, Adela Bara, Ioana Ion, Ana-Maria Bondar, Radu Mirea, Gratiela Stoian, **Eros Alexandru Pătroi**, Properties of Iron modified mesophase pitch, Journal of Optoelectronics and Advanced Materials, Vol. 10, Iss.12, pp. 3233 – 3236, 2008



**S16** Valentin Ionita, George Epureanu, **Eros Alexandru Pătroi**, Extraction of hysteresis model parameters from magneto-optical experiments, Journal of Optoelectronics and Advanced Materials, Vol.10 Iss.7, pp. 1814-1818, 2008

**S17** P. Niculiță, S. Dănăilă-Guidea, O. Livadariu, E. Ristici, M. Popa, M. Ristici, **Eros Alexandru Pătroi**, M. Negoita, Testing the effect induced by the simultaneous treatment with magnetic field and laser light field, modulated at audio frequencies, on colonies of *Alternaria alternata*, Romanian Biotechnological Letters, vol 13, Iss. 2, pp. 3646 – 3650, 2008

**S18** Fausto Fiorillo, Cinzia Beatrice, Oriano Bottauscio, **Eros Alexandru Pătroi**, Measuring the Hysteresis Loop of Permanent Magnets with the Pulsed Field Magnetometer, IEEE Transaction on Magnetics, Vol. 43, Iss. 7, pp.3159-3164, 2007

**S19** W. Kappel, M. M. Codescu, M. Valeanu, N. Stancu, J. Pintea, F. Lifei, A. Jianu, D. Patroi, **Eros-Alexandru Patroi**, Influence of the recrystallization processes on the structure and magnetic properties of the Nd<sub>2</sub>Fe<sub>14</sub>B/ $\alpha$ Fe nanocomposites, Journal of Optoelectronics and Advanced Materials, Vol 9, Iss. 6, pp.1825-1828, 2007

**S20** Cinzia Beatrice, Oriano Bottauscio, Fausto Fiorillo, Eros Alexandru Pătroi, Hysteresis loop measurements in rare-earth based permanent magnets: the role of applied field rate and sample geometry, Journal of Optoelectronics and Advanced Materials, Vol 9, Iss.4, pp.1120-1126, 2007.

### **Books/Books chapters**

**C1** Hard magnetic materials through some advanced methods for characterization, Ed. Printech, Bucuresti, ISBN 978-606-521-552-8., 2010, Pătroi Eros-Alexandru

**C2.** Structuri textile pentru ecranare electromagnetica (Textile structures for electromagnetic shielding), chapter: Microfire feromagnetice (Ferromagnetic microwires), Ed.Performantica, ISBN: 978-973-730-763-7; 2010, Iasi, Editor Loghin Carmen Maria, authors: Pătroi Eros-Alexandru și Pătroi Delia

### **Associated management experience**

Member of:

- Scientific Council of ICPE-CA, 2011
- The managing committee of the ICPE-CA, as a representative of SL ICPE-CA, 2011- present
- Board of Administration of Kindergarten No. 255, District 3, Bucharest, as a representative of parents, September 2014 - present