Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Radu-Paul APETREI**
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Nationality	Romanian
Gender	Male

Present employment / Occupational field

Faculty of Physics, "Al. I. Cuza" University of Iasi / University lecturer

Work experience

Dates	***Oct. 2017 - present***
Occupation or position held	University lecturer
Main activities and responsibilities	Education and research
Name and address of employer	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania
Type of business or sector	Higher Education Institution
Dates	***2006 – Sept. 2017***
Occupation or position held	University assistant
Main activities and responsibilities	Education and research
Name and address of employer	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania
Type of business or sector	Higher Education Institution
Dates	***2003 - 2006***
Occupation or position held	University instructor
Main activities and responsibilities	Education and research
Name and address of employer	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania
Type of business or sector	Higher Education Institution
Dates	***01.06. 2014 – 13.12.2015***
Occupation or position held	PostDoc researcher
Main activities and responsibilities	Research
Name and address of employer	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania
Type of business or sector	Higher Education Institution

Education and training

Dates	***2003-2012***
Title of qualification awarded	PhD in Physics
Principal subjects/occupational skills covered	Thin films deposition, Plasma diagnostics
Name and type of organisation providing education and training	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania

Dates	***2002-2004***
Title of qualification awarded	MSc in Plasma Physics
Principal subjects/occupational skills covered	Plasma Physics
Name and type of organisation providing education and training	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania

Dates	***1998-2002***
Title of qualification awarded	BSc - Physics
Principal subjects/occupational skills covered	Physics
Name and type of organisation providing education and training	Faculty of Physics, "Al. I. Cuza" University of Iasi, 11 Carol I Bd., 700506 Iaşi, Romania

Personal skills and competences

Mother tongue(s): **Romanian**

Other language(s)

Self-assessment	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
English	C2	Independent user	C2	Independent user	C2	Independent user	C2	Independent user	C1	Independent user
French	C1	Independent user	C1	Independent user	B2	Independent user	B1	Independent user	B2	Independent user

(*) Common European Framework of Reference for Languages

Social skills and competences

- Easily communicate with interlocutors
- Team work and scientific research experience acquired as member in 11 grants

Organisational skills and competences

- Member of the local organizing committee of ICPAM-8,June 4-7, 2008, Iasi, Romania
- Member of the local organizing comittee of XXXII International Conference on Phenomena in Ionizad Gases, (ICPIG 2015), July 26-31, 2015, Iasi, Romania

Technical skills and competences

- contributions to the achievement of a experimental device for plasma diagnostics using electrical methods (cold and emissive probes, electrostatic analyzer) and optical methods (optical emission spectroscopy)
- contributions to the achievement of a experimental device for preparation and characterization of magnetron sputtered thin films

Computer skills and competences

- Using the computer in the current activity, competent in Origin, Maple etc.

Driving licence: Type B

Additional information

Member of the European Physical Society
Member of the Romanian Physical Society

Teaching activities
Courses: Oscilations and Waves; Diagnostic and treatment techniques using ultrasound, Non-invasive treatment techniques.
Seminaries and practical works: Mechanics, Oscilations and Waves, Diagnostic and treatment techniques using ultrasound, Non-invasive treatment techniques.

Scientific research activity

- a) *Field(s) of expertise/ number of published papers:* plasma diagnostics using electrical methods (cold and emissive probes, electrostatic analyzer) and optical methods (optical emission spectroscopy), preparation and characterization of magnetron sputtered thin films / 18 ISI papers
- b) *Scientific grants (total number):* 11 (1-manager, 10-research team member)
- c) ISI citations (excluding self-citations): 115.
- d) *h* –index: 7.

ISI WoS-ranked papers published after 2005

1. M. Dobromir, R.P. Apetrei, S. Rebegea, A.V.Manole, V. Nica, D. Luca, *Synthesis and characterization of RF sputtered WO_3/TiO_2 bilayers*, Surface and Coatings Technology **285** (2016) 197-202.
2. M. Dobromir, R.P. Apetrei, A.V. Rogachev, D.L. Kovalenko, D. Luca, *Synthesis and characterization of Nb-doped TiO_2 thin films prepared by RF magnetron sputtering*, Advanced Materials Research **1117** (2015) 139-142.
3. A. V. Manole, M. Dobromir, R. Apetrei, V. Nica, D. Luca, *Surface characterization of sputtered N:TiO_2 thin films within a wide range of dopant concentration*, Ceramics International **40** (2014) 9989-9995.
4. F. Gheorghiu, R. Apetrei, M. Dobromir, A. Ianculescu, D. Luca, L. Mitoseriu, *Investigation of Co-doped PZT films deposited by rf-magnetron sputtering*, Processing and Application of Ceramics **8** [3] (2014) 113-120.
5. M. Dobromir, A. Manole, V. Nica, R. Apetrei, M. Neagu, D. Luca, *Analyzing the Development of N-Doped TiO_2 Thin Films Deposited by RF Magnetron Sputtering*, Sensor Letters Vol. **11** (4), 675-678, (2013).
6. M. Dobromir, A. V. Manole, S. Rebegea, R. Apetrei, M. Neagu, D. Luca, *Characterization of rutile N-doped TiO_2 films prepared vy RF magnetron sputtering*, Key Engineering Materiales **543** (2013) pp 277-280.
7. M. Dobromir, A. Manole, R. Apetrei, D. Luca, *Characterization of RF-sputtered ultra-thin WO_3 films grown on TiO_z surface*, Technical Proceedings of the 2013 NSTI Nanotechnology Conference and Expo, NSTI-Nanotech 2013, VOL 1, pag. 198-201.
8. D. Mardare, A. Yildiz, R. **Apet**rei, P. Râmbu, D. Florea, N. G. Gheorghe, D. Macovei, C. M. Teodorescu, D. Luca, *The Meyer-Neldel rule in Fe-doped TiO2 amorphous films* , Journal of Materials Research **27** (2012) 2271-2277, ISSN: 0884-2914.
9. R. Frunză, D. Ricinschi, F. Gheorghiu, R. Apetrei, D. Luca, L. Mitoşeriu, M. Okuyama, *Preparation and characterisation of PZT films by RF-magnetron sputtering*, Journal of Alloys and Compounds **509** (2011) 6242-6246, ISSN: 0925-8388.
10. R. Apetrei, C. Catrinescu, D. Mardare, C.M. Teodorescu, D. Luca, *Photo-degradation activity of sputter-deposited nitrogen-depod titania thin films*,Thin Solid Films **518** (2009) 1040-1043, ISSN: 0040-6090.
11. R. Apetrei, C. Negrilă, D. Macovei, V. Dăscăleanu, C.-M. Teodorescu, D. Mardare, D. Luca, *Fabrication and characterization of nano-structured ferromagnetic $Ti_{1-x}Fe_xO_2$ thin films*, Nanotech Conference & Expo 2009, 03-07 mai 2009, Houston (Texas), SUA , VOL 1, TECHNICAL PROCEEDINGS, pag. 375-378, 2009C.
12. D. Luca, C.-M. Teodorescu, R. Apetrei, D. Macovei, D. Mardare, *Preparation and Characterization of Increased-Efficiency Photocatalytic $TiO_{2-x}N_x$ Thin Films*, Thin Solid Films **515** (2007) 8605–8610, ISSN: 0040-6090.
13. R. Apetrei, D. Alexandroaei, D. Luca, P. Balan, C. Lonita, R. Schrittwieser, G. Popa, *Pulsed Regime of a Hollow-Cathode Discharge Used in a Sputter Source* Japanese Journal of Applied Physics, Vol. **45**, No. 10B, 2006, p. 8132 – 8136, ISSN 0021-4922.
14. R. Apetrei, D. Alexandroaei, D. Luca, P Balan, C. Ionita, R. Schrittwieser and G. Popa, *Optical Emission Spectroscopy Diagnostic of Discharge Plasma in a Hollow-Cathode Sputtering Source*, Japanese Journal of Applied Physics, Vol. **45**, No. 10B, 2006, p. 8128–8131, ISSN 0021-4922.

15. A. Marek, I. Pickova, P. Kudrna, M. Tichy, R. P. Apetrei, S. B. Olenici, R. Gstrein, R. Schrittwieser, C. Ionita, *Experimental investigation of the change of the electron saturation current of a dc-heated emissive probe*, Czechoslovak Journal of Physics, Vol. **56** (2006), Suppl. 2, p. B932 - B937, ISSN 0011-4626.
16. Pickova, A. Marek, P. Kudrna, M. Tichy, R. P. Apetrei, *Measurements with the emissive probe in the cylindrical magnetron*, Czechoslovak Journal of Physics, Vol. **56** (2006), Suppl. 2, p. B1002 - B1008, ISSN 0011-4626.
17. P. C. Balan, R. P. Apetrei, D. Luca, C. Ioniţă, R. Schrittwieser, G. Popa, *„Electrical and optical diagnosis of a cavity-hollow cathode post-discharge used as a sputtering source"*, Journal of Optoelectronics and Advanced Materials, Vol. **7**, No. 5, October 2005, p. 2459, ISSN 1454-4164.
18. A. Marek, P. Kudrna, M. Holyk, O. Bilyk, I. Pickova, M. Tichy, R.P. Apetrei *"2D Particle-In-Cell simulation of dc magnetized plasma in cylindrical configuration"*, Acta Physica Slovaca, Vol. **55**, No. 5, October 2005, p. 461, ISSN 0323-0465

Non-ISI ranked publications in international journals (after 2010, selection)

1. R. Schrittwieser, V. Tiron, I-I. Velicu, A. Nastuţă , C. Costin, Gh. Popa , Z. Kechidi , C. Ioniţă , D. Alexandroaei , R. Apetrei, M. Asandulesa , P. Balan, M. Dobromir, C. Douat, S. Jaksch, D. Luca, Ch. Maszl, A. Murawski, R. Niedrist, B. Olenici-Craciunescu, C. Rusu, G. B. Rusu, P. Scheier, I. Vojvodic, *Research on Hollow Cathodes*, Proc. The 19th International Balkan Workshop on Applied Physics– IBWAP 2019, 16-19 iul. 2019, Constanta, România, pag. 73-74.
2. M. Dobromir, C.T. Teodorescu-Soare , R. Apetrei, G. Stoian, V. Pohoata, D. Luca, *Synthesis and characterization of ZnO-loaded TiO2 nanotube array layers for enhanced photocatalytic application*, Proc. CPPA 2019 - 18th International Conference on Plasma Physics and Applications, 20-22 June 2019, Iasi, România, pag. 71.
3. M Dobromir, RP Apetrei, CT Teodorescu-Soare, A Semchenko, D. Kovalenko, D. Luca, *Investigations on Crystallinity and Surface Oxidation States of Nb:TiO_2 DC-Sputtered Films*, ACADEMIA 2017. Advances in Intelligent Systems and Computing, vol 660. pp 176-182, Springer
4. T. Potlog, D. Duca, M. Dobromir, R. Apetrei, D. Luca, *Characterization of transparent and conducting doped titanium dioxide for energy conversion*, EPFL-CONF-213289, pp 57-62, 2015 Lausanne, Switzerland.
5. M. Dobromir, R. P. Apetrei, A.V. Rogachev, D. L. Kovalenko, D. Luca, *Synthesis and Characterization of Nb-Doped TiO_2 Thin Films Prepared by RF Magnetron Sputtering*, Advanced Materials Research, vol. 1117, pp. 139-142.
6. R.P. Apetrei, M. Dobromir, C.T. Teodorescu-Soare, D. Luca, *Direct growth of Nb-doped TiO_2 thin films by RF magnetron sputtering on (100)Si and glass substrates*, Proc. The 14th International Conference on Global Research and Education – inter-Academia 2015, 28-30 sept. 2015, Hamamatsu, Japonia, pag. 196-197.
7. M. Dobromir, R.P. Apetrei, C.T. Teodorescu-Soare, V. Tiron, D. Luca, *Structural, morphological and optical properties of sputtered TiO_2/WO_3 bilayers*, Proc. The 32nd International Conference on Phenomena in Ionized Gases – ICPIG 2015, 26-31 iul. 2015, Iasi, România, P3.48.
8. M. Dobromir, R.P. Apetrei, A.V. Manole, A.V. Rogachev, D.L. Kovalenko, D. Luca, *Synthesis and Characterization of RF Sputterd Nb:TiO_2 Thin Films*, Proceedings Volume of The 13th International Conference on Global Research and Education – inter-Academia, 10-12 sept 2014, Riga, Letonia, pag. 96-97.
9. C. Ionita, R. Schrittwieser, A. Murawski, Ch. Maszl, M. Asanduleasa, A. Nastuta, G. Rusu, M. Dobromir, R. Apetrei, S. Jaksch, S.B. Oleneci-Craciunescu, C. Douat, I. Vpjvodic, P. Scheier, *Investigations of a Cavity-Hollow Cathode Sputtering Source for Titanium Thin Films*, 37th EPS Conference on Plasma Physics, EPS 2010, vol 1, p. 636 – 639.

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