



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Petre Osiceanu**

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Nationality Romanian

Date of birth 11.07.1949

Gender male

Work experience

Dates **1977-present** : Institute of Physical Chemistry "Ilie Murgulescu"-Bucharest, Romanian Academy, Surface Chemistry and Catalysis Laboratory
1973-1977 : Institute of Atomic Physics Bucharest –Magurele , Nuclear Reactions Laboratory

Occupation or position held **Scientific researcher, senior scientist**

Main activities and responsibilities - Expertise in surface, interface and thin films analysis. The head of the XPS group involved in this field at the Institute of Physical Chemistry – Romanian Academy, Bucharest
- Nuclear research in U235 fission cross section with thermal neutrons at the Institute of Atomic Physics Bucharest – Magurele, Romania
- Teaching intensive courses in "surface, interface and thin films characterization"
- Scientific and technical support for PhD activities in surface science and related fields.

Name and address of employer Institute of Physical Chemistry "Ilie Murgulescu"-Bucharest, Romanian Academy, Spaiul Independentei 202, ZIP Code 060021, Bucharest - Romania

Education and training

PhD : "Contributions to the surface study of some 3d transitions elements and their chemical compounds by electron spectroscopy" , Thesis (1988)
B.Sc.: Bucharest University – Physics Department - "Atomic and Nuclear Physics" - 1973

Dates **Working stages and training sessions:**

- ICTP Trieste – Italy, "Synchrotron radiation and applications" 1991
- IMEC Leuven – Belgium, "Methods for surface investigation", 1992
- IMEC Leuven – Belgium, Surface and interface investigation by XPS in clean room conditions – „Silicon based materials", 1993
- Technological University – Eindhoven - Netherland , - Physics and Catalysis Department- "Complementary methods in surface science: XPS, LEED, ISS", 1994
- Institute for Solid State Physics – Bremen University - Germany "Nanostructures II-VI for quantum systems with applications in LED devices", 2007
- Demo sessions on surface science and technology XPS equipments at the following Companies: Thermo-Fisher VG Scientific – England, Kratos Shimadzu – England, PHI- ULVAC – USA, (2010)
- Demo sessions held at the "Quantera SXM" XPS equipment spot: Institute of Physical Chemistry – Romanian Academy, Bucharest

Title of qualification awarded **-PhD degree**
- Romanian Academy Award "N.Teclu"1996 for contributions on the topic: "Surface composition and stoichiometry of some 3d transition elements and silicon compounds"

Principal subjects/occupational skills covered	<p>Fundamental and applied research in surface physics, chemistry and technology</p> <p>Training and teaching courses for Phd and Post-doc students:</p> <ul style="list-style-type: none"> - „Modern methods for surface, interface and thin film characterisation” held at the Institute of Physical Chemistry Bucharest – Romania - Intensive training in the electron spectroscopy field for non-expert scientists and engineers 																														
<p>Personal skills and competences</p> <p>Mother tongue(s)</p> <p>Other language(s)</p> <p>Self-assessment</p> <p>European level (*)</p> <p>Language</p> <p>Language</p>	<p>Romanian</p> <p>English, French</p> <table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th colspan="2">Writing</th> </tr> <tr> <th colspan="2">Listening</th> <th colspan="2">Reading</th> <th colspan="2">Spoken interaction</th> <th colspan="2">Spoken production</th> </tr> </thead> <tbody> <tr> <td>C2</td> <td>English</td> <td>C2</td> <td></td> <td>C2</td> <td></td> <td>C2</td> <td></td> </tr> <tr> <td>C2</td> <td>French</td> <td>C2</td> <td></td> <td>C2</td> <td></td> <td>C2</td> <td></td> </tr> </tbody> </table> <p>(*) Common European Framework of Reference for Languages</p>	Understanding		Speaking		Writing		Listening		Reading		Spoken interaction		Spoken production		C2	English	C2		C2		C2		C2	French	C2		C2		C2	
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C2	English	C2		C2		C2																									
C2	French	C2		C2		C2																									
Social skills and competences	<ul style="list-style-type: none"> • Friendly, versatile, able to work in either team or independently • Capabilities to continuously learn, teach and cooperate • Communication skills 																														
Organisational skills and competences	<p>Scientific management, assistance and support</p> <ul style="list-style-type: none"> - Scientific management - European Programme „INFRANANOCHEM” at the Institute of Physical Chemistry – Romanian Academy, Bucharest, Romania (2007-2010) Scientific and managerial activity for the Project: „XPS-LAB Multitechniques” Scientific and managerial activity for the Project „Scanning Electron Microscopy-SEM” - Assistance and scientific support to the „Macromolecular Chemistry Department”, Polytechnical University Bucharest: the project for surface investigation by XPS method using the equipment VG-Kalpa and to the Institute „Petre Poni” Iasi – Romanian Academy for a similar equipment (2009 – 2010) - Reviewer for scientific journals: “Applied Surface Science” – ELSEVIER, “The European Physical Journal – Applied Physics” (EPJAP)/EDP Sciences, “Thin Solid Films” - ELSEVIER 																														
Technical skills and competences	<ul style="list-style-type: none"> - Home made Appearance Potential Spectrometer for surface and thin film investigations involving deep knowledge of fundamentals, engineering and design. - Scientific and managerial leading of the tender for acquiring an XPS equipment (600.000 Euros) in the frame of the EU project INFRANANOCHEM. 																														
Computer skills and competences	<p>-Multimedia tools</p> <ul style="list-style-type: none"> - Software development for the study of the DoS in the Conduction Band - Data processing and interpretation software in XPS – Auger fields 																														
Other skills and competences	<p>- Interdisciplinary physics , gardening, literature, arts and sports.</p> <p><i>Prominent example, the essay:</i></p> <p>P. Osiceanu</p> <p><i>„Eminescu and the fundamental concepts of the modern physics: Time, Space, Univers” (in Romanian)</i></p> <p><i>Updated Electronic Edition(2013) on the web site</i></p> <p>www.icf.ro/individual/lab04/osiceanu/Eminescu_Studiu_Edition.pdf</p>																														
Additional information	<p>Member in International Organisations</p> <ul style="list-style-type: none"> - National representative of the European Council of the Synchrotron Radiation Society (1990-1992) - National representative in IUVSTA –Applied Surface Science Division (1992-1998) - Contact person: ISO-TC201”Surface Chemical Analysis” - Member in national societies of physics and chemistry 																														

Relevant recent work:

1. Petre Osiceanu
„Short and extended guides for practical surface, interface and thin film analysis by XPS”
Revised Electronic Edition (2013) on the web site:
www.icf.ro/individual/lab04/osiceanu/xps_short_guide.pdf
2. Petre Osiceanu
”Methods for surface , interface and thin film analysis : XPS (ESCA) – Auger” (in Romanian)
Revised Electronic Edition (2013) on the web site:
www.icf.ro/individual/lab04/osiceanu/XPS_ESCA_book2009.pdf
3. Petre Osiceanu
„Eminescu and the fundamental concepts of the modern physics: Time, Space, Univers”
(essay in Romanian)
Updated Electronic Edition (2013) on the web site:
[www.icf.ro/individual/lab04/osiceanu/Eminescu Studiu Eedition.pdf](http://www.icf.ro/individual/lab04/osiceanu/Eminescu_Studiu_Eedition.pdf)
4. Petre Osiceanu, Gavril Sabau
“XPS analysis on geological samples: case studies on Rosia Montana and other Romanian geo-sites”
(in Romanian)
Electronic Edition (2013) on the web site http://www.icf.ro/groups/xps/XPS_Geology.pdf
5. Todan, L., Anghel, E.M., Osiceanu, P., Turcu, R.V.F., Atkinson, I., Simon, S., Zaharescu, M.,
“Structural characterization of some sol-gel derived phosphosilicate glasses”,
Journal of Molecular Structure, **1086**, (2015), 161-171
6. Vasilescu, C., Drob, S.I., Osiceanu, P., Drob, P., Moreno, J.M.C., Preda, S., Ivanescu, S., Vasilescu, E.,
“Surface analysis, microstructural, mechanical and electrochemical properties of new Ti-15Ta-5Zr alloy”, **Metals and Materials International**, **21**, Issue 2, (2015), 242-250
7. Vasilescu, C., Drob, S.I., Osiceanu, P., Calderon-Moreno, J.M., Drob, P., Vasilescu, E.,
“Characterisation of passive film and corrosion behaviour of a new Ti-Ta-Zr alloy in artificial oral media: In time influence of pH and fluoride ion content”, **Materials and Corrosion**, (2015), DOI: **10.1002/maco.201408025**

8. Duta, M., Mihaiu, S., Munteanu, C., Anastasescu, M., **Osiceanu, P.**, Marin, A., Preda, S., Nicolescu, M., Modreanu, M., Zaharescu, M., Gartner, M., “*Properties of In-N codoped p-type ZnO nanorods grown through a two-step chemical route*”, **Applied Surface Science**, **344**, (2015), 196-204
9. Dohcevic-Mitrovic, Z.D., Paunović, N., Matović, B., **Osiceanu, P.**, Scurtu, R., Aškračić, S., Radović, M. “*Structural dependent room-temperature ferromagnetism in yttrium doped HfO₂ nanoparticles*”, **Ceramics International**, **41**, Issue 5, (2015), 6970-6977
10. Vasilescu, C., Drob, S.I., Calderon Moreno, J.M., **Osiceanu, P.**, Popa, M., Vasilescu, E., Marcu, M., Drob, P., “*Long-term corrosion resistance of new Ti-Ta-Zr alloy in simulated physiological fluids by electrochemical and surface analysis methods*”, **Corrosion Science**, **93**, (2015), 310-323
11. Gingasu, D., Mindru, I., Culita, D.C., Patron, L., Calderon-Moreno, J.M., **Osiceanu, P.**, Preda, S., Oprea, O., Parvulescu, V., Teodorescu, V., Walsh, J.P.S., “*Structural, magnetic and catalytic properties of cobalt chromite obtained through precursor method*”, **Materials Research Bulletin**, **62**, (2015), 52-64
12. Calderon-Moreno, J.M., Vasilescu, C., Drob, S.I., Ivanescu, S., **Osiceanu, P.**, Drob, P., Popa, M., Preda, S., Vasilescu, E., “*Microstructural and mechanical properties, surface and electrochemical characterisation of a new Ti-Zr-Nb alloy for implant applications*”, **Journal of Alloys and Compounds**, **612**, (2014), 398-410
13. Gartner, M., Stroescu, H., Marin, A., **Osiceanu, P.**, Anastasescu, M., Stoica, M., Nicolescu, M., Duta, M., Preda, S., Aperathitis, E., Pantazis, A., Kampylafka, V., Modreanu, M., Zaharescu, M., “*Effect of nitrogen incorporation on the structural, optical and dielectric properties of reactive sputter grown ITO films*”, **Applied Surface Science**, **313**, (2014), 311-319
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15. Spataru, T., **Osiceanu, P.**, Anastasescu, M., Patrinoiu, G., Munteanu, C., Spataru, N., Fujishima, A., “*Effect of the chemical termination of conductive diamond substrate on the resistance to carbon monoxide-poisoning during methanol oxidation of platinum particles*”, **Journal of Power Sources**, **261**, (2014), 86-92
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17. Pascu, R., Somacescu, S., Epurescu, G., Filipescu, M., Luculescu, C., Colceag, D., **Osiceanu, P.**, Birjega, R., Mitu, B., “*Pulsed laser deposition of yttria stabilized zirconia based heterostructure*”, **Thin Solid Films**, **553**, (2014), 98-103

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19. Nicolas Brun, **Petre Osiceanu** and Magdalena M. Titirici, “*Bioresourced Nitrogen-doped Macrocellular Carbon Monoliths*”, **ChemSusChem** 2014, 7, 397-401
20. Dana Gingasu, Ioana Mindru, Daniela C. Culita, Luminita Patron, Jose Maria Calderon-Moreno, Silviu Preda, Ovidiu Oprea, **Petre Osiceanu**, Eufemio Morena Pineda, “*Investigation of nanocrystalline zinc chromite obtained by two soft chemical routes*”, **Materials Research Bulletin**, **49**, (2014), 151-159
21. Scurtu, R., Nechifor, G., Andronescu, C., Fruth, V., **Osiceanu, P.**, “*La_{0.8}Sr_{0.2}Ga_{0.83}Mg_{0.17}O_{3-δ} perovskites investigated by impedance spectroscopy and X-ray photoelectron spectroscopy*”, **UPB Scientific Bulletin, Series B: Chemistry and Materials Science**, **76**, Issue 2, (2014), 67-76
22. T. Spataru, L. Preda, **P. Osiceanu**, C. Munteanu, M. Anastasescu, M. Marcu, N. Spataru, “*Role of surfactant-mediated electrodeposited titanium oxide substrate in improving electrocatalytic features of supported platinum particles*”, **Applied Surface Science**, **288** (2014) 660-665
23. Vasilescu, C., Popa, M., Drob, S.I., **Osiceanu, P.**, Anastasescu, M., Calderon Moreno, J.M., “*Deposition and characterization of bioactive ceramic hydroxyapatite coating on surface of Ti-15Zr-5Nb alloy*”, **Ceramics International**, **40**, Issue 9 PART B, (2014), 14973-14982
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30. J.M. Calderon Moreno, **P. Osiceanu**, C. Vasilescu, M. Anastasescu, S. Iulian Drob, M. Popa, “Obtaining, structural and corrosion characterization of anodized nanolayers on Ti-20Zr alloy surface”, **Surface and Coatings Technology**, **235**, (2013), 792-802
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33. C. Vasilescu, P. Drob, E. Vasilescu, **P. Osiceanu**, S. I. Drob, M. V. Popa, „*Electrochemical and corrosion beaviour of a new titanium base alloy in simulated human electrolytes*”, **International Journal of Electrochemical Science**, **8**, (2013) 10733 -10745
34. Camelia Miron, Ion Sava, Ionut Jepu, **Petre Osiceanu**, Cristian Lungu, Liviu Sacarescu, Valeria Harabagiu, “*Surface modification of the polyimide films by electrical discharges in water*”, **Plasma Processes and Polymers**, **10**, Issue 9, (2013), 798-807
35. Neacsu, E.I., Constantin, V., Soare, V., **Osiceanu, P.**, Popa, M., Popescu, A.M., “*Corrosion protection of steel using ZnNiP electroless coatings*”, **Revista de Chimie**, **64**, Issue 9, (2013), 994-999
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39. Monica Popa, Cora Vasilescu, Silviu Iulian Drob, **Petre Osiceanu**, Mihai Anastasescu, Jose M. Calderon Moreno, “*Characterisation and corrosion resistance of anodic electrodeposited titanium oxide/phosphate films on Ti-20Nb-10Zr-5Ta bioalloy*”, **J. Braz. Chem. Soc.**, **24**, 7, (2013), 1123-1134

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44. S. Somacescu, V. Parvulescu, J. M. Calderon-Moreno, S-H Suh, **P. Osiceanu**, B.-L. Su, “*Uniform nanoparticles building $Ce_{1-x}Pr_xO_{2-\delta}$ mesoarchitectures: structure, morphology, surface chemistry and catalytic performance*”, **Journal of Nanoparticle Research**, **14**, Issue 6, (2012), 885
45. Tanta Spataru, **Petre Osiceanu**, Maria Marcu, Cecilia Lete, Cornel Munteanu, and Nicolae Spataru, “*Functional Effects of the Deposition Substrate on the Electrochemical Behavior of Platinum Particles*”, **Japanese Journal of Applied Physics**, **51**, (2012), 090119
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