



## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **SBARCEA BEATRICE GABRIELA**  
Address(es) Bd. Theodor Pallady, no. 30C, Bl. T2, et.5, ap. 57, district 3, Bucharest, Romania  
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E-mail gabi\_bea@yahoo.com, gabriela.sbarcea@icpe-ca.ro  
Nationality Romanian  
Date of birth 22/06/1980  
Gender female

**Employment/ Occupational field** **National Institute for R&D in Electrical Engineering ICPE-CA Bucharest  
Laboratory for Electrical Materials and Products Characterization (CIMPE)/  
research**

### Work experience

Dates 2010-present  
Occupation or position held Researcher III  
Main activities and responsibilities Researches in the field of characterization of metallic, ceramic and carbon materials specific of electrical engineering using a large area of characterization techniques: X-ray diffraction, Optical Microscopy, determination of physical properties: methods for density, granulometry, conductivity, micro-hardness measurement

Name and address of employer National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research Bucharest, Splaiul Unirii, no. 313, zip code 030138  
Type of business or sector Research and Development  
Dates 2007-2010  
Occupation or position held Assistant junior researcher  
Main activities and responsibilities Researches in the field of characterization of metallic, ceramic and carbon materials specific of electrical engineering using a large area of characterization techniques: X-ray diffraction, Optical Microscopy

Name and address of employer National Institute for Research & Development in Electrical Engineering ICPE - Advanced Research Bucharest, Splaiul Unirii, no. 313, zip code 030138  
Type of business or sector Research and Development  
Dates 2006-2007  
Occupation or position held Physics teacher  
Main activities and responsibilities Teaching physics lesson  
Name and address of employer High School Azuga  
Type of business or sector Education

### Education and training

Dates 2009-2012

Title of qualification awarded	PhD
Principal subjects/occupational skills covered	Post-graduate studies in materials science field, " <b>Contributions for improvement the structural and optical properties of transparent conducting oxide thin films</b> "
Name and type of organisation providing education and training	"Politehnica" University of Bucharest, Faculty of Applied Chemistry and Material Science
Level in national or international classification	Post-graduate studies
Dates	2006-2008
Title of qualification awarded	Master degree in Biophysics and Medical Physics
Principal subjects/occupational skills covered	Biophysics and Medical Physics specialization, thesis: " <b>Lipid films analysis using X-ray diffraction</b> ".
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	2002-2006
Title of qualification awarded	B.A. Medical Physics
Principal subjects/occupational skills covered	Medical Physics specialization, thesis: " <b>Treatment plan in radiotherapy</b> "
Name and type of organisation providing education and training	University of Bucharest, Faculty of Physics
Level in national or international classification	University education

### Personal skills and competences

Mother tongue(s) **Romanian**

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

Self-assessment  
*European level (\*)*

**English**

**French**

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

(\*) [Common European Framework of Reference for Languages](#)

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

Organisational skills and competences  
Project Responsible (2008 – 2009) at 2 national research projects  
Participant (2007 – 2017) at over 30 national and international research projects

Technical skills and competences  
Ability to use complex characterization techniques:  
X-ray diffraction, Optical Microscopy, Hardness testing  
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, Adobe Photoshop

Other skills and competences	<ul style="list-style-type: none"> <li>- PhD research stage : <ul style="list-style-type: none"> <li>April 2011 – July 2011 - Institute of Applied Physics, Linz, Austria, regarding: Preparation of transparent conductive oxide thin films using Pulsed Laser Deposition technique (PLD). Characterization with X ray diffraction, Elipsometry, UV-VIS Spectrometry, Atomic Force Microscope</li> </ul> </li> <li>- Training in the field of X ray diffraction: <ul style="list-style-type: none"> <li>June 23-27 2008 - DIFFRAC plus Basic course, Karlsruhe, GERMANY</li> <li>July 25-28 2011 – DIFFRAC plus Leptos - Stress and Texture course, Karlsruhe, GERMANY</li> <li>October 24-28 2011 - DIFFRAC plus Topas - Rietveld course, Karlsruhe, GERMANY</li> </ul> </li> </ul>
Driver licence	<ul style="list-style-type: none"> <li>- Since 2007</li> </ul>

## List of papers:

1. Ichim, L ; **Sbarcea, B.G.** ; Patroi, D ; Dumitriu, C, “*Hybrid Bionic Coating on Ti with TiO<sub>2</sub> Nanotubes, Hydroxyapatite and Iron*”, REVISTA DE CHIMIE, Volume: 67, Issue: 11, Pages: 2198-2201, 2016
2. Tardei, C; Simonescu, CM; Onose, C ; Sava, BA; Boroica, L; **Sbarcea, B.G.** ”*EVALUATION OF LAB SCALE NANO-HYDROXYAPATITES FOR REMOVAL OF LEAD IONS FROM AQUEOUS SOLUTIONS*”, ROMANIAN JOURNAL OF MATERIALS, Volume: 46, Issue: 3, Pages: 289-295 , 2016
3. Andrei Cucos, Carmen Paraschiv, Sergiu Shova, Augustin Madalan, **Gabriela Sbârcea**, Virgil Marinescu, Marius Andruh „*Interplay of hydrogen bond and stacking interactions in the crystal structure of a new mononuclear zinc complex*, Revue Roumaine de Chimie, vol 60(10) , pg 991-995, 2015
4. Andrei Cucos, Carmen Paraschiv, Catalin Maxim, **Gabriela Sbârcea**, Marius Andruh, „ *A new two-dimensional supramolecular Zn(ii) system assembled via hydrogen bonds from the combination of terephthalic acid and triethanolamine*”, Revue Roumaine de Chimie, vol 60(10), pg 997-1003, 2015
5. Prepelita, P.; Craciun, V.; **Sbarcea, G.**; et al , *Relevance of annealing on the stoichiometry and morphology of transparent thin films*, APPLIED SURFACE SCIENCE Volume: 306 Pages: 47-51, 2014
6. Pinteaa, J.; Dumitru, A.; **Sbarcea, G.**; et al *Electrical properties of Lead Titanate Zirconate ceramics doped with niobium*, JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS Volume: 15 Issue: 1-2 Pages: 99-102, 2013
7. M.A. Bodea · **G. Sbarcea** · G.V. Naik · A. Boltasseva · T.A. Klar · J.D. Pedarnig, “*Negative permittivity of ZnO thin films prepared from aluminum and gallium doped ceramics via pulsed-laser deposition*”, Appl Phys A, 110, issue 4 pp. 929–934 , 2013
8. A. Cucos, Budrugeac , L. Miu, S. Mitrea, **G. Sbarcea**, Dynamic mechanical analysis (DMA) of new and historical parchments and leathers: Correlations with DSC and XRD, Thermochimica Acta 516, 19–28, 2011
9. Viorel BRÂNZOI, Mihai IORDOC, Florina BRÂNZOI, **Gabriela SBARCEA** , Virgil MARINESCU, SURFACE CHARACTERIZATION AND ELECTROCHEMICAL BEHAVIOR OF NEW BIOMEDICAL Zr-BASED METAL/CERAMIC COMPOSITE IN FETAL BOVINE SERUM , *Revue Roumaine de Chimie*, 55(9), 585-597, 2010
10. Paula Prioteasa, Florentina Golgovici, **Gabriela Sbarcea**, Liana Anicai, Teodor Visan , “*ELECTRODEPOSITION, STRUCTURE AND CORROSION BEHAVIOUR OF NI-MO ALLOY OBTAINED FROM AQUEOUS SOLUTIONS*”, *Revue Roumaine de Chimie*, Bucuresti, vol 61, nr.11, pg. 1046-1053, 2010
11. C. BANCIU, A. BĂRA, I. ION, D. PĂTROI, **G. SBÂRCEA**, Structural and functional properties of porous carbon fibers composites OPTOELECTRONICS AND ADVANCED MATERIALS – RAPID COMMUNICATIONS Vol. 4, No. 11, p. 1647 – 1650, November 2010
12. L. GHEORGHE, A. ACHIM, **B. SBARCEA**, S. MITREA, Synthesis and X-ray investigation of new Y<sub>1-x</sub>R<sub>x</sub>Ca<sub>4</sub>O(BO<sub>3</sub>)<sub>3</sub> (R = Sc, Lu) nonlinear materials OPTOELECTRONICS AND ADVANCED MATERIALS – RAPID COMMUNICATIONS Vol. 4, No. 3, p. 318 – 321, March 2010
13. Lucaci M., Biris Al. R., Orban R. L., **Sbarcea G. B.**, Tsakiris V., “*EFFECTS OF MECHANICAL ALLOYING ON THE HYDROGEN STORAGE PROPERTIES OF THE MG<sub>76</sub>TI<sub>12</sub>FE<sub>12-x</sub>NI<sub>x</sub> (X= 4, 8) MATERIALS*”, Journal of Alloys and Compounds, Volume 488, Issue 1, Pp. 163-168, 2009
14. Petronela Prepelita, R. Medianu, **Beatrice Sbarcea**, F. Garoi, Mihaela Filipescu, “*THE INFLUENCE OF USING DIFFERENT SUBSTRATES ON THE STRUCTURAL AND OPTICAL CHARACTERISTICS OF ZNO THIN FILMS*”, Applied Surface Science, Volume 256, Issue 6, Pp. 1807-1811, 2009