Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Valentin Serban Teodorescu**
E-mail(s)	
Nationality	Romanian
Date of birth	17/12/1948
Gender	Male

Work experience

Dates	1996 → present
Occupation or position held	Physicist, Senior researcher I
Main activities and responsibilities	Electron Microscopy in Materials Science
Name and address of employer	National Institute of Materials Physics 105bis, Atomistilor Street, R-077125 Magurele (Romania)
Dates	1992 - 1996
Occupation or position held	Physicist, Senior researcher II
Main activities and responsibilities	Electron Microscopy in Materials Science
Name and address of employer	Institute of Materials Physics and Technology 105bis, Atomistilor Street, R-077125 Magurele (Romania)
Dates	1990 - 1992
Occupation or position held	Physicist, Senior researcher III
Main activities and responsibilities	Electron Microscopy in Materials Science
Name and address of employer	Institute of Materials Physics and Technology 105bis, Atomistilor Street, R-077125 Magurele (Romania)
Dates	1976 - 1990
Occupation or position held	Physicist, Researcher
Main activities and responsibilities	Electron Microscopy in Materials Science

Name and address of employer	Institute of Materials Physics and Technology 105bis, Atomistilor Street, R-077125 Magurele (Romania)
Dates	1975 - 1976
Occupation or position held	Physicist, Researcher
Main activities and responsibilities	Electron Microscopy in Materials Science
Name and address of employer	Institute of Atomic Physics 105bis, Atomistilor Street, Magurele (Romania)
Dates	1971 - 1975
Occupation or position held	Physicist, Assistant Researcher
Main activities and responsibilities	Electron Microscopy in Materials Science
Name and address of employer	Institute of Atomic Physics Magurele (Romania)

Education and training

Dates	1986
Title of qualification awarded	PhD in Solid State Physics
Name and type of organisation providing education and training	Central Institute of Physics Bucharest (Romania)
Dates	1966 - 1971
Title of qualification awarded	MSc in Solid State Physics
Principal subjects / occupational skills covered	Solid state Physics
Name and type of organisation providing education and training	University of Bucharest Bucharest (Romania)
Dates	1963 - 1966
Title of qualification awarded	Baccalaureate
Name and type of organisation providing education and training	Lyceum “Dimitrie Camtemir” Bucharest (Romania)

Professional experience by working stages abroad:

- University of Antwerp (RUCA), Electron Microscopy Laboratory for Materials Science(EMAT), Antwerp, Belgium, EC Research Fellow, 1993 (**3 months**, mai – july 1993), European Commission Research Grant, Research Fellow, Belgium Govermment Grant (**6 months**, nov 1995- iune 1996).
- University Claude Bernard Lyon1, Department of Materials Physics (DPM) France Government Grant (**3 months**, nov 1994-ian 1995) , Region Rhone-Alpes Grant (**3 months**, mai 1995 – july 1995)
- Institute of Catalysis, Lyon, France, Electron Microscopy Laboratory , associate CNRS visiting researcher (july1997- feb1998, **8 months**)
- Institute of Chemistry and Physics of Materials of Strasbourg, associate CNRS visiting researcher (dec 1998- feb 1999, **3 months**)
- University Claude Bernard Lyon1, Department of Materials Physics (DPM) , invited researcher (2000, 2001, 2002, **3 months each year**), invited professor (2004, 2005, **3 months each year**)

Personal skills and competences

* Advanced electron microscopy characterization method, TEM, HRTEM, XTEM , SAED, MED, EDX, STEM, etc)

* Advanced methods for TEM specimen preparation (ion thinning, tripode method polishing, XTEM preparation, extraction replicas, etc)

* Conventional and non-conventional material preparation techniques (vacuum evaporation, sol-gel, hydrothermal synthesis, PLD, laser annealing, RF -sputtering)

* Complementary characterization techniques by XRD.

Mother tongue(s) **Romanian**

Other language(s)

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

(*) Common European Framework of Reference (CEF) level

Organisational skills and competences

Project manager for 4 national projects:

CERES project: TRADIMIRLA 2004-2006: "Structural transformation characteristics of laser irradiation processes on low dimensions materials"

CEEX project : NANORCIS 2005-2008 "Methods and mechanisms of crystalline nanoparticles synthesis with controlled shape and dimensions for applications in bionanotechnology, sensors, special coating and catalysis "

PN2 project: PROLAF 2007-2010 "Laser processing of thin nanostructured oxide films for transparent and conventional electronics"

PN2 IDEI project 289/2011 ¨ Microstructural transformations of thin films by pulsed laser irradiation at fluences lower than the ablation threshold¨

Project coordinator and as partner team leader, in other 5 projects financed via National Romanian Programs, by the Romanian Ministry of Education and Research.

Technical skills and competences	* Advanced electron microscopy characterization method, TEM, HRTEM, XTEM , SAED, MED, EDX, STEM, etc) * Advanced methods for TEM specimen preparation (ion thinning, tripode method polishing, XTEM preparation, extraction replicas, etc) * Conventional and non-conventional material preparation techniques (vacuum evaporation, sol-gel, hydrothermal synthesis, PLD, laser annealing, RF -sputtering) * Complementary characterization techniques by XRD.
Computer skills and competences	User of dedicated software for TEM (electron–diffraction, i-TEM), crystal structure modeling (Carine), image processing (Adobe Photoshop) text editing and graphic presentations (MS Office, Power Point) running on PC.
Driving licence(s)	B

Additional information

Awards	"Constantin Miculesu" Award of Physics of Romanian Academy (1978). Publications Co-author of 220 articles published in ISI journals. More than 100 comunications in international physics conferences with oral and poster contributions Hirsch index = 26. Total number of citations >2000. Cod Brainmap : U – 1700- 027U-1242 Cod ORCID : 0000-0002-2423-7761
Teaching Experience	- Advisor for MSc Diplomas at the Faculty of Physics, Bucharest University and Faculty of Materials Science – "Polytechnica University" Bucharest - Associate professor at Physics Faculty of Physics, Bucharest University Appointed by Romanian High Commission for Diplomas and Awards, from 2003 as a Promoter and Adviser for Ph.D. Thesis;.
Publications (last 7 years)	

1. Substrate impact on optical and microstructural properties of TiO2-PEG sol-gel films, Anastasescu, M;Teodorescu, VS; Buiu, O; Osiceanu, P; Calderon-Moreno, JM; Predoana, L;Preda, S; Nicolescu, M; Marin, A; Serban, B;Mihaila, M; Stoica, M; Zaharescu, M; Gartner, M;,CERAMICS INTERNATIONAL, (2014),40, pp.11803-11811,2.086,0.439

2. Electrical properties related to the structure of GeSi nanostructured films, Ciurea, ML;Stavarache, I;Lepadatu, AM;Pasuk, I;Teodorescu, VS; PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS , (2014),251, pp.1340-1346,1.605,0.50

3. Indium-tin nanoscaled oxides synthesized under hydrothermal supercritical and postannealing pathway: Phase dynamics and characterization , Diamandescu, L; Tarabasanu-Mihaila, D;Feder, M;Enculescu, M;Teodorescu, VS; Constantinescu,S;Popescu, T;Bartha, C; Pap, Z;,MATERIALS CHEMISTRY AND PHYSICS, (2014),143, pp.1540-1549,2.129,0.546

4. In vitro toxicity evaluation of Ti4+-stabilized gamma-Bi2O3 sillenites, Popescu, T; Lupu, AR;Feder, M; Tarabasanu-Mihaila,D;Teodorescu, VS;Vlaicu, AM;Diamandescu, L; TOXICOLOGY IN VITRO, (2014),28, pp.1523-1530,3.207,0.676

5. Si/SiO2 quantum dots cause cytotoxicity in lung cells through redox homeostasis imbalance, Stan, MS; Memet, I; Sima, C;Popescu, T;Teodorescu, VS; Hermenean, A; Dinischiotu, A; CHEMICO-BIOLOGICAL INTERACTIONS, (2014),220, pp.102-115,2.982,0.704

6. Annealing induced changes in the structure, optical and electrical properties of GeTiO2 nanostructured films , Stavarache, L;Lepadatu, AM;Teodorescu, VS;Galca, AC;Ciurea, ML;,APPLIED SURFACE SCIENCE, (2014),309, pp.168-174,2.538,0.55

7. Tuned Sensitivity Towards H2S and NH3 with Cu Doped Barium Strontium Titanate Materials Simion, CE ; Sackmann, A; Teodorescu, VS[1] ; Rusti, CF.; Piticescu, RM ; Stanoiu, A ELECTROCERAMICS XIV CONFERENCE ; Book Series: AIP Conference Proceedings Edited by:Pintilie, L; Mitoseriu, L; Alexe, M ; Volume: 1627 ; Pages: 92-97; Published: 2014 ; DOI: 10.1063/1.4901664

8. Multiscale investigation of USPIO nanoparticles in atherosclerotic plaques and their catabolism and storage in vivo , V.A. Maraloiu , Florence Appaix, · Alexis Broisat, · Dominique Le Guellec, · Valentin Serban Teodorescu ,· Catherine Ghezzi, · Boudewijn van der Sanden, · M.G. Blanchin ; Nanomedicine: nanotechnology, biology, and medicine · September 2015 ; Impact Factor: 6.16 · DOI: 10.1016/j.nano.2015.08.005

9. ***Structural and electrical properties of Nb doped TiO2 films prepared by the sol–gel layer-by-layer technique*** **, *M. Duta* · *S. Simeonov* · *V. Teodorescu* · *L. Predoana* · *S. Preda* · *M. Nicolescu* · *A. Marin* · *D. Spasov* · *M. Gartner* · *M. Zaharescu* · *A. Szekeres***; Materials Research Bulletin 74(2016)15-20, February 2016 ; Impact factor : 2.288 ; DOI: 10.1016/j.materresbull.2015.10.009

10. ***Atomic scale elemental mapping of light elements in multilayered perovskite coatings***, R.F. Negrea, V.S. Teodorescu, C. Ghica ; Applied Surface Science 355, pp. 250-255· July 2015

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11. Influence of substrate on hafnium silicate metal-insulator-metal capacitors grown by atomic layer deposition (Conference Paper) ; **Hutchinson, B.J.**[a] , **Teodorescu, V.S.**[b] , **Negrea, R.**[b] , **Sheehan, B.**[a] , **Carolan, P.**[a] , **O'Brien, S.**[a] , **Modreanu, M.**[a] , **Pemble, M.E.**[a] , **Povey, I.M.**[a] ***ECS Transactions*** , *Volume 66, Issue 5, 2015, Pages 269-275*, Symposium on Advanced CMOS-Compatible Semiconductor Devices 17 - 227th ECS Meeting; Chicago; United States; 24 May 2015 through 28 May 2015; Code 112362

12. Room temperature ammonia sensing with Barium Strontium Titanate under humid air background, Cristian E. Simion, André Sackmann, Valentin S. Teodorescu, Adelina Stănoiu ; Sensors and Actuators B Chemical 220 · July 2015 ; Impact Factor: 4.10 · DOI: 10.1016/j.snb.2015.07.045

13. ***NIR to Vis - NIR up - conversion and X-ray excited emission of Er doped high Z BiOCl*** ***Daniel Avram*** · ***Bogdan Cojocaru*** · ***Mihaela Florea*** · Valentin Teodorescu · ***Ion Tiseanu*** · ***Carmen Tiseanu*** , Optical Materials Express 05/2015; 5(5). DOI:10.1364/OME.5.000951 · ***2.84 Impact Factor***

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15. ***Advanced ceramics in the SnO2–ZnO binary system*** ***; Susana Mihaiu*** · ***Alexandra Toader*** · ***Irina Atkinson*** · ***Oana Cătălina Mocioiu*** · ***Cristian Hornoiu*** · Valentin Serban Teodorescu · ***Maria Zaharescu*** ; Ceramics International 04/2015; 41(3):4936-4945. DOI:10.1016/j.ceramint.2014.12.056 · ***2.61 Impact Factor***

16. ***Synthesis of Copper Particles by Non-thermal Atmospheric Pressure Plasma Jet*** **, *Andrada Lazea-Stoyanova*** · ***Angela Vlad*** · ***Aurel Mihai Vlaicu*** · Valentin Serban Teodorescu · ***Gheorghe Dinescu*** ; Plasma Processes and Polymers 02/2015; 12(8). DOI:10.1002/ppap.201400197, ***Impact Factor · 2.45***

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DOI: 10.1016/j.materresbull.2015.10.009

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31. Single layer of Ge quantum dots in HfO2 for floating gate memory capacitors
A.M.Lepadatu, C.Palade, A.Slav, A.V.Maraloiu, S.Lazanu, T.Stoica, C.Logofatu, V.S.Teodorescu, M.L.Ciurea Nanotechnology, 28(17), 175707, 2017 (impact factor 3.44)

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G. Patrinoiu, V. Etacheri, S. Somacescu, V.S.Teodorescu, R. Barjega, D.C. Culita, C.N. Hong, J.M. Calderon-Moreno, V. Pol, O. Carp**,**
Electrodinamica Acta 264: 191-202, 2018 ; doi: 10,1016/j.electacta. 2018.01.098 (impact factor 4.798)

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CE Simion, S. Somacescu, VS.Teodorescu, P.Osiceanu, A. Stanoiu,
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AM.Lepadatu, C.Palade, A.Slav. AV. Maraloiu, S.Lazanu, T.Stoica, C.Logofatu, VS.Teodorescu, ML.Ciurea Nanotechnology 28(17) ar nr 175707, 2017 ; **DOI: 10.1088/1361-6528/aa66b7 (impact factor 3.44)**

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