



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Mihai Anastasescu**

**Desired employment /
Occupational field** **Senior Researcher (CS1)
Physical-Chemistry**

Work experience

Dates	2018-present
Occupation or position held	Senior Researcher (first class – CS1)
Main activities and responsibilities	AFM, SEM, TEM Images analysis; Photoluminescence (PL); Hall Effect; Spectroscopic Ellipsometry in UV-VIS-NIR and Mid-IR, UV-Vis; Semiconductors; Films and thin layers; Multifunctional materials
Name and address of employer	Romanian Academy, Institute of Physical Chemistry "Ilie Murgulescu", 202 Spl. Independentei, Bucharest
Type of business or sector	Research
Dates	2014-2017
Occupation or position held	Senior Researcher (second class – CS2)
Main activities and responsibilities	Scanning microscopies (AFM, STM) and microscopy image processing; Ellipsometry data modeling; Multifunctional materials
Name and address of employer	Romanian Academy, Institute of Physical Chemistry "Ilie Murgulescu", 202 Spl. Independentei, Bucharest
Type of business or sector	Research
Dates	2007-2014
Occupation or position held	Scientific Researcher (third class – CS3)
Main activities and responsibilities	Oxide materials with multifunctional applications; AFM, Spectroscopic Ellipsometry (SE), Electrochemical-SE at solid/liquid interface under potentiostatic control
Name and address of employer	Romanian Academy, Institute of Physical Chemistry "Ilie Murgulescu", 202 Spl. Independentei, Bucharest
Type of business or sector	Research
Dates	1997-2007
Occupation or position held	Scientific Researcher (CS)
Main activities and responsibilities	Spectroscopic ellipsometry on thin films in air and at the solid/liquid interface under potentiostatic control; Electrochemical techniques; Vacuum techniques
Name and address of employer	Romanian Academy, Institute of Physical Chemistry "Ilie Murgulescu", 202 Spl. Independentei, Bucharest
Type of business or sector	Research
Dates	1995-1997
Occupation or position held	Research Assistant (AC)
Main activities and responsibilities	Work function measurements, Chemosorption, BET
Name and address of employer	Romanian Academy, Institute of Physical Chemistry "Ilie Murgulescu", 202 Spl. Independentei, Bucharest
Type of business or sector	Research

Education and training

Dates	1997-2005															
Title of qualification awarded	PhD															
Principal subjects/occupational skills covered	Chemistry (Physical Chemistry)															
Name and type of organisation providing education and training	Romani Academy – Institute of Physical Chemistry “Ilie Murgulescu”, Bucharest															
Level in national or international classification	ISCED 6															
Dates	1995-1996															
Title of qualification awarded	Master in Semiconductor Physics															
Principal subjects/occupational skills covered	Semiconductors Physics															
Name and type of organisation providing education and training	University of Bucharest / Faculty of Physics															
Level in national or international classification	ISCED 5															
Dates	1990-1995															
Title of qualification awarded	Bachelor															
Principal subjects/occupational skills covered	Solid State Physics															
Name and type of organisation providing education and training	University of Bucharest / Faculty of Physics															
Level in national or international classification	ISCED 5															
Personal skills and competences																
Mother tongue(s)	Romanian															
Other language(s)																
Self-assessment																
European level (*)																
English	<table><tr><th colspan="2">Understanding</th><th colspan="2">Speaking</th><th>Writing</th></tr><tr><th>Listening</th><th>Reading</th><th>Spoken interaction</th><th>Spoken production</th><th></th></tr><tr><td>C1 Proficient user</td><td>Proficient user</td><td>Proficient user</td><td>Proficient user</td><td>Proficient user</td></tr></table>	Understanding		Speaking		Writing	Listening	Reading	Spoken interaction	Spoken production		C1 Proficient user	Proficient user	Proficient user	Proficient user	Proficient user
Understanding		Speaking		Writing												
Listening	Reading	Spoken interaction	Spoken production													
C1 Proficient user	Proficient user	Proficient user	Proficient user	Proficient user												
French	<table><tr><td>B2 Independent user</td><td>Independent user</td><td>Independent user</td><td>Independent user</td><td>Independent user</td></tr></table>	B2 Independent user	Independent user	Independent user	Independent user	Independent user										
B2 Independent user	Independent user	Independent user	Independent user	Independent user												
	(*) Common European Framework of Reference for Languages															
Computer skills and competences	Good command of Microsoft Office, Origin, Image processing software (SPIP), Ellipsometry programs (Wollam-WASE), etc.															
Organisational skills and competences	Experience in national research projects and to work in multidisciplinary research teams: Team member in 11 International Projects, and 33 National Projects and Grants ; 1 Grant CNCSIS/2002 (director), 1 Grant PCCA/2014 (responsible); 1 Grant PED (director);															
Technical skills and competences	Atomic force microscopy (AFM), Scanning tunnelling microscopy in air (STM) and in electrochemical environment (EC-STM), <i>Ex-situ</i> (air) and <i>In-situ</i> (Single Crystal/Aqueous solution interface) Spectroscopic Ellipsometry in UV-VIS-NIR and Mid-IR; Work function measurements															

Area of competence	Surface Science/Multifunctional materials: microscopy techniques (AFM) and image analysis; high vacuum techniques, work function measurements (diode method, vibrating capacitor method); spectroscopic ellipsometry; catalysis: volumetric BET specific surface measurement, electrochemistry: cyclic voltammetry, differential capacity measurements, ellipsometry and at the single-crystal / solution interface; Electrochemical Scanning tunneling microscopy (EC-STM); Modeling of ellipsometry data on thin films in UV-VIS-NIR and Mid-IR.
Other skills and competences	Referee for ISI Journals: Elsevier (Mat Sci Eng B, Appl Surf Sci, J Alloy Comp, Surf Coat Technol, J Saudi Chem Soc, Superlattices and Microstructures, Thin Solid Films, J Luminescence, etc), MDPI (Nanomaterials, Materials, Coatings, Gels, etc); Rev Roum Chim, Applied Physics Letters, Nanoscale Adv; J Mat Chem C; Catal Today, etc.
Publications	>150 ISI papers; 5 book chapters
Driving licence	B-type since 1993
Additional information	“I.G. Murgulescu” Prize of the Romanian Academy (2008) for the group of papers “Optical and micro-structural characterization of oxidic nanostructured films”
Annexes	Example of relevant publications from 2022 up to now: Hirsch-factor = 26 ; >2000 citations

Relevant publications (from 2022):

1. M. Anastasescu, R. Socoteanu, V. Bratan, S. Preda, C. Anastasescu, I.C. Gifu*, C.L. Nistor, R. Boscencu, E. Chifor, C. Negrila, I. Bordeianu, M. Zaharescu, I. Balint, *Assessment of SiO₂ nanotube activity to modify DL α -Tocopherol via 1O₂ generation under visible light irradiation*, **Micromachines** **2025**, **16(7)**, **784**
2. E.A. Ozon, M. Anastasescu, A.M. Musuc, A.M. Burloiu, R.P. Socoteanu, I. Atkinson, R.-A. Mitran, D.C. Culita, D. Lupuliasa, D.P. Mihai, C.E. Gird, R. Boscencu, *Formulation and Characterization of Carbopol – based Porphyrin Gels for Targeted Dermato-Oncological Therapy: Physicochemical and Pharmacotechnical Insights*; **Int. J. Mol. Sci.** **2025**, **26(8)**, **3641**
3. C. Anastasescu, S. Neagu, S. Preda, D. Culita, M. Stancu, C. Banciu, C. Munteanu, V. Bratan, J.M. Calderon-Moreno, R. State, M. Anastasescu*, M. Enache, I. Balint, M. Zaharescu, *Antibacterial activity of ZnSe, ZnSe-TiO₂ and TiO₂ particles tailored by lysozyme loading and visible light irradiation*, **Antioxidants** **2023**, **12(3)**, **691**
4. D. Pelinescu, M. Anastasescu, V. Bratan, V.-A. Maraloiu, C. Negrila, D. Mitrea, J.M. Calderon-Moreno, S. Preda, I.C. Gifu, A. Stan, R. Ionescu, I. Stoica, C. Anastasescu, M. Zaharescu, I. Balint, *Antibacterial Activity of PVA Hydrogels Embedding Oxide Nanostructures Sensitized by Noble Metals and Ruthenium Dye*, **Gels** **2023**, **9(8)**, **650**
5. I. Chifor, I. Bordeianu, C. Anastasescu, J.M. Calderon-Moreno, V. Bratan, D.-I. Eftemie, M. Anastasescu*, S. Preda, G. Plavan, D. Pelinescu, R. Ionescu, I. Stoica, M. Zaharescu, I. Balint, *Bioactive coatings based on nanostructured TiO₂ modified with noble metal nanoparticles and lysozyme for Ti dental implants*, **Nanomaterials** **12 (2022)** **3186**

12.06.2025