



## Europass Curriculum Vitae

### Informații personale

Nume / Prenume

Tanasescu, Speranta

Adresă(e)

Telefon(oane)

Fax(uri)

E-mail(uri)

Naționalitate(-tăj)

Română

Data nașterii

Sex Feminin

### Experiență profesională

Perioada

- Postul actual (din ianuarie 2000)
- 1980-present
- 1973-1980
- 1968-1973

Funcția sau postul ocupat

- Coordonatorul Laboratorului de Termodinamica Chimica - Institutul de Chimie Fizica "Ilie Murgulescu" al Academiei Romane, Bucuresti, Romania
- CS I - Institutul de Chimie Fizica "Ilie Murgulescu" al Academiei Romane, Bucuresti, Romania
- CS II - Institutul de Chimie Fizica "Ilie Murgulescu" al Academiei Romane, Bucuresti, Romania
- Asistent de cercetare - Institutul de Chimie Fizica "Ilie Murgulescu" al Academiei Romane, Bucuresti, Romania

Activități și responsabilități principale

Seful Laboratorului de Termodinamica Chimica

CS I

Conducator de doctorat in Domeniul Chimie

Numele și adresa angajatorului

Institutul de Chimie Fizica "Ilie Murgulescu" al Academiei Romane, Romania, Splaiul Independentei 202, P.O.Box. 12-194, 060021 Bucuresti, ROMANIA

Tipul activității sau sectorul de activitate

Cercetare, Institutie a Academiei Romane

### Educație și formare

Perioada

- 1979
- 1975
- 1972
- Octombrie 1963 – Julie 1968

Calificarea / diploma obținută	<ul style="list-style-type: none"> <li>Teza de doctorat in domeniul Chimiei Fizice -1979</li> <li>Specializare- <i>Electrode Processes in Solid State Ionics</i></li> <li>Premiul "Gh.Spacu" prize al Academiei Romane – 1972, pentru o serie de lucrari sub titlul "Studiul proprietatilor termodinamice si termochimice ale oxizilor de uraniu"</li> <li>Licență în chimie fizică – 1968</li> </ul>																								
Disciplinele principale studiate / competențe profesionale dobândite	Chimie Fizica, Termodinamica Chimica, Electrochimia stării solide																								
Numele și tipul instituției de învățământ / furnizorului de formare	<ul style="list-style-type: none"> <li>Institutul de Chimie Fizica "Ilie Murgulescu" al Academiei Române</li> <li>NATO Advanced Study Institute Programme (Ajaccio-Corsica), 1975</li> <li>Academia Română</li> <li>Universitatea Bucuresti, Facultatea de chimie, Sectia de Chimie Fizica</li> </ul>																								
Nivelul în clasificarea națională sau internațională	ISCED Level 6																								
<b>Aptitudini și competențe personale</b>																									
Limba(i) maternă(e)	Română																								
Limba(i) străină(e) cunoscută(e)	<b>Engleză, Franceza</b>																								
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(*) Nivelul Cadrului European Comun de Referință Pentru Limbi Străine																									
Competențe și abilități sociale	<ul style="list-style-type: none"> <li>- spirit de echipă, lucrând în cadrul consorțiilor proiectelor naționale și internaționale;</li> <li>- aptitudini pentru o bună comunicare ca urmare a experienței castigate în activitatea de sef de laborator și conducător de doctorat.</li> </ul>																								
Competențe și aptitudini organizatorice	<p>Coordonatorul Laboratorului de Termodinamică Chimică  Conducător de doctorat în Domeniul Chimie</p> <ul style="list-style-type: none"> <li>- aptitudini pentru conducere (în prezent responsabil pentru o echipă de 15 persoane);</li> <li>- o bună experiență în managementul (conducerea) proiectelor și a echipei de cercetare.</li> <li>- conducător de doctorat pentru 6 Teze de doctorat susținute</li> <li>- crearea/ dezvoltarea de domenii sau direcții de cercetare științifică: • Inițierea unei direcții noi de cercetare privind studiul termodinamic al interacțiilor la interfața bio-nano și dezvoltarea de studii în domeniul "Nanosafety"; • inițierea unei direcții noi de cercetare privind studiul transformarilor de fază la temperaturi înalte și presiuni scazute. Laboratorul de Termodinamică Chimică este în prezent un laborator de referință pentru studiile de Termodinamică și Termochimie din România.</li> </ul>																								
Competențe și aptitudini tehnice	<p><b>Domenii de cercetare:</b></p> <p><i>Chimie Fizică, Termodinamică Chimică, Electrochimia stării solide, Termochimia compusilor de interes biologic, Termodinamica Interacțiilor dintre nanomateriale și biomolecule cu aplicații în Nanomedicina și domeniul de utilizare sigură a nanomaterialelor (Nanosafety).</i></p> <p><b>Experiența de lucru aditională</b></p> <p>Aplicații ale materialelor ceramice, compozite, aliaje; micro și nano- materiale cu proprietăți speciale electrice și magnetice; electrolizi solizi, celule de combustie; senzori electrochimici</p>																								
Competențe și aptitudini de utilizare a calculatorului	<p>Posibilitatea de procesare a datelor, aplicații prin utilizarea de softuri specifice, căutarea în baze de date, obținerea informațiilor științifice prin utilizarea internetului.</p> <ul style="list-style-type: none"> <li>- bună cunoaștere a instrumentelor Microsoft Office ™ (Word™, Excel™, PowerPoint™ etc);</li> <li>- cunoașterea de bază a aplicațiilor de design grafic (Origin™).</li> </ul> <p>Acestea au fost dobândite prin instruire și muncă individuală</p>																								

➤ **Experienta in activitati de evaluare**

**Evaluator Expert:** FP6 Programme - Marie Curie projects, Slovak Research & Development Agency (the "SRDA"), Bulgarian National Science Fund (BSF), National Science Center – Poland (NCN panel NZ7), National R&D Programs (CNCSIS, CEEX, PN II)

**Raportor Stiintific pentru 3 proiecte castigatoare SIINN – ERA NET:** - nanOxiMet (Oxidant generating capacity as a metric to allow grouping of nanomaterials and prediction of human health effects) (2014-2016); - Nano\_Safe\_Leather (The effect on human health of Ag/TiO<sub>2</sub>nm-treated leathers for footwear industry) (2015-2017); - NANOAers (Fate of aerosolized Nanoparticles: The influence of surface active substances on lung deposition and respiratory effects) (2016-2020)

**Referent al jurnalelor:** Journal of Chemical Thermodynamics, Journal of the Electrochemical Society, Thermochimica Acta, Journal of Materials Science, Journal of Alloys and Compounds, Journal of Solid State Electrochemistry, International Journal of Water Resources and Environmental Engineering, Journal of Solid State Chemistry, Journal of Thermal Analysis and Calorimetry, Physical Chemistry Chemical Physics, Acta Materialia, Revue Roumaine de Chimie, Revista de Chimie etc.

Permis(e) de conducere

**Informații suplimentare**

-

➤ **Lucrari publicate:**

- Peste 150 publicatii in Jurnale ISI si alte jurnale Academice, 3 patente, 2 procese tehnologice, peste 80 comunicari la manifestari stiintifice nationale si internationale, 19 studii si repoarte publicate pe Internet, ca si peste 70 lucrari coordonate si rapoarte stiintifice.

Datele originale au fost incluse in Gmelin Handbuch der Anorganischen Chemie, in Network of Center for Rare Earth and Magnetics/Rare-earth Information Center (CREM/RIC), in Bibliography on Thermodynamic Properties of Materials at High Temperatures and Rare-Earths Japanese Journal, ca si in alte importante baze de date: EMBASE, Elsevier BIOBASE, GEOBASE or COMPENDEX, Comparative Toxicogenomics Database (CTD) si au fost citate in PhD Theses si lucrari stiintifice.

- Seminarii si conferinte "invitate" la: "Max Planck" Inst. for Solid State Research, Inst. of Metallurgy and Materials Science "Aleksander Krupkowski", Polish Academy of Sciences, Krakow, National Inst. R&D for Isotope and Molecular Technologies Cluj Napoca, Dep. of Materials, Institute of Nonmetallic Materials, Switzerland.

➤ **Premii:**

Premiul "Gh. Spacu" al Academiei Romane - 1972, pentru seria de lucrari intitulata "Studiul proprietatilor termodinamice si termochimice ale oxizilor de uraniu"

➤ **Membru al asociatiilor profesionale:**

- Membru al Grupului de Initiativa al Platformei Nationale de Nanomedicina RO-NANOMED, 2006
- Membru al European Platform of NANOMEDICINE, (ETP NanoMed), incepand cu 2006
- Membru al „Safety and Characterization” Working Group si “Topic Proposer” of ETPN
- Membru al Associated Phase Diagram and Thermodynamics Committee (APDIC) incepand cu 2003
- Membru of European Materials Research Society, 2003
- Member of the Romanian Chemical Society
- Member of the experts group „Task force on SAFETY”, 2016-action organized by EC.

➤ **Membru al comitetelor de organizare:**

- Membru al “Organizer Committee” of the 11<sup>th</sup> International Conference “Advanced Materials and Processing”, Edinburgh, England, 6-7 September 2017 (<http://materials.conferenceseries.com/organizing-committee.php>)
- Membru al “Organizer Committee” of the Chemical Thermodynamics section, International Conference of Physical Chemistry, editions ROMPHYSCHM-12 (2006), ROMPHYSCHM-13 (2008), ROMPHYSCHM-14 (2010), ROMPHYSCHM-15 (2013), ROMPHYSCHM-16 (2016).
- Membru al “Scientific Committee of the Central and Eastern European Conference on Thermal Analysis and Calorimetry”, CEEC-TAC1, 7-10 September 2011, Craiova, Romania and CEEC-TAC4, 28-31 August 2017, Chisinau-Moldova.
- Memberu al “Scientific Committee of the 2<sup>nd</sup> International Conference Advances in Engineering and Management”, ADEM 2012, 13<sup>th</sup>-14<sup>th</sup> December 2012, Drobeta-Turnu-Severin
- President of the Organizer Committee of 10<sup>th</sup> Workshop of the Associated Phase Diagram and Thermodynamics Committee (Poland, Czech Republic, Slovakia, Hungary, Bulgaria, Serbia and Montenegro, Slovenia and Romania), 28-30 September 2007, Bucharest, Romania

- Member of international publishers:

- Academic Editor al Editurii InTechOpen (Notification of appointment March 01, 2019)
- Honorary Rosalind Member of London Journals Press. Membership ID#JE03251 (notificare din 23 oct. 2020)
- Membru permanent al Board member within Frontiers in Energy Research, sectiunea Fuel Cells

## Anexe

Selectie: publicatii recente ISI, capitole in carti, carti si studii dedicate domeniului "Nanosafety"  
**Conducator de doctorat Dr. S. Tanasescu: Teze de doctorat coordonate (si sustinute) in ultimii ani**  
Selectie: proiecte nationale si internationale coordonate in calitate de Director de proiect sau  
**Responsabil stiintific**

### Selectie - publicatii ISI

1. N. E. Yamani, E. Mariussen, M. Gromelski, E. Wyrzykowska, D. Grabarek, T. Puzyn, S. Tanasescu, M. Dusinska, E. Rundén-Pran, „Hazard identification of nanomaterials: In silico unraveling of descriptors for cytotoxicity and genotoxicity”, *Nano Today*, Volume 46, 101581, 2022 (IF = 18.962)
2. N. Jeliazkova, M.D. Apostolova, C. Andreoli, F. Barone, A. Barrick, C. Bossa, A. Botea-Petcu, A. Châte, I. De Angelis, M. Dusinska, A. Giusti, D. Gheorghe, M. Gromelski, K. Alstrup Jensen, P. Kohonen, E. Mariussen, A. Mech, A. Precupas, T. Puzyn, K. Rasmussen, E. Rundén-Pran, R. Sandu, N. Shandilya, S. Tanasescu, A. Haase, P. Nymark, *Towards FAIR Nanosafety Data*, *Nature NanoTechnology* (2021) 16(6), 644-654 DOI: 10.1038/s41565-021-00911-6 (IF: 39,213)
3. A. Balmori, R. Sandu, D. Gheorghe, A. Botea-Petcu, A. Precupas, S. Tanasescu, D. Sánchez-García, S. Borrós, “Revising protein Corona Characterization: Combining ITC and NanoDSC to Understand the Interaction of Proteins with porous Nanoparticles”, *Frontiers in Bioengineering and Biotechnology*, 2021, 9, 650281 (FI = 5.89)
4. A. Precupas, D. Gheorghe, A. Botea-Petcu, A.R. Leonties, R. Sandu, V.T. Popa, E. Mariussen, N. El Yamani, E. Rundén-Pran, V. Dumit, Y. Xue, M. Cimpan, M. Dusinska, A. Haase, S. Tanasescu\*, *Thermodynamic parameters at bio/nano interface and nanomaterial toxicity: A case study on BSA interaction with ZnO, SiO<sub>2</sub> and TiO<sub>2</sub>*, *Chemical Research in Toxicology* (2020) 33, 8, 2054-2071. (IF: 3,739)
5. A. Giusti, R. Atluri, R. Tsekovska, A. Gajewicz, M.D. Apostolova, C. L. Battistelli, E. A.J. Bleeker, C. Bossa, J. Bouillard, M. Dusinska, P. Gómez-Fernández, R. Grafström, M. Gromelski, Y. Handzhiyski, N.R. Jacobsen, P. Jantunen, K. A. Jensen, A. Mech, J. M. Navas, P. Nymark, A.G. Oomen, T. Puzyn, K. Rasmussen, J. Riego Sintes, B. Suarez-Merino, S. Tanasescu, H. Wallin, A. Haase, *Nanomaterial grouping: Existing approaches and future recommendations*, *NanolImpact* (2019) 16, 100182. (Review article) (IF: 5,478)
6. A. Mech, K. Rasmussen, P. Jantunen, L. Aicher, M. Alessandrelli, U. Bernauer, R. Draisici, M. Dusinska, A.G. Oomen, M.L. Polci, C. Riebeling, J. Sandström, B. Shivachev, S. Stateva, S. Tanasescu, R. Tsekovska, H. Wallin, M.F. Wilks, S. Zellmer & M.D. Apostolova, *Insights into possibilities for grouping and read-across for nanomaterials in EU chemicals legislation*, *Nanotoxicology* (2019) 5, 1-23. (Review article) (IF: 5.811)
7. C. Marinescu, A. Sofronia, E.M. Anghel, R. Baies, D. Constantin, A.M. Seciu, O. Gingu, S. Tanasescu, *Microstructure, stability and biocompatibility of hydroxyapatite - titania nanocomposites formed by two step sintering process*, *Arabian Journal of Chemistry* (2019) 12, 857-869. (IF: 4,981)
8. D. Gheorghe, A. Neacșu, I. Contineanu, E.M. Anghel, F. Teodorescu, I.E. Chican, S. Perisanu, S. Tanasescu, *Interplay between composition, structural dynamics and thermodynamic data in amino acid nitrates*, *Journal Thermal Analysis and Calorimetry* 2019, 138, 1233-1242 (IF: 2,783)
9. C.F. Rusti, V. Badilita, A.M. Sofronia, D. Taloi, E.M. Anghel, F. Maxim, C. Horoiu, C. Munteanu, R.M. Piticescu, S. Tanasescu\*, *Thermodynamic properties of Ba<sub>0.75</sub>Sr<sub>0.25</sub>TiO<sub>3</sub> nanopowders obtained by hydrothermal synthesis*, *Journal of Alloys and compounds* (2017) 693, 1000-1010. (IF: 4,650)
10. S. Tanasescu\*, A. Milea, O. Gingu, F. Maxim, C. Horoiu, S. Preda, G. Sima, *Correlation between thermodynamic properties, thermal expansion and electrical resistivity of Ag - 28 % Cu nanopowders processed by mechanical alloying route*, *Physical Chemistry Chemical Physics* (2015) 17, 28322-28330. (IF: 4,707)
11. S. Kumari Sahu, S. Tanasescu, B. Scherrer, C. Marinescu, A. Navrotsky, *Energetics of lanthanide cobalt perovskites: LnCoO<sub>3-δ</sub> (Ln = La, Nd, Sm, Gd)*, *Journal of Materials Chemistry A* (2015) 3, 19490-19496. (IF: 8,921)
12. A. Milea, O. Gingu, S. Preda, G. Sima, C. Nicolicescu, S. Tanasescu\*, *Thermodynamic measurements on Ag - 28% Cu nanopowders processed by mechanical alloying route*, *Journal of Alloys and Compounds* (2015) 629, 214-220. (IF: 3,426)
13. A. Sofronia, R. Baies, E. Anghel, C. Marinescu, S. Tanasescu\*, *Thermal and structural characterization of synthetic and natural nanocrystalline hydroxyapatite*, *Materials Science and Engineering: C* (2014) 43, 153-163. (IF: 3,417)
14. F. Maxim, I. Poenaru, F. Teodorescu, S. Tanasescu, *Barium Titanate Torus-Like Particles: Low-Temperature Synthesis and Formation Mechanism*, *Eur. J. Inorg. Chem.* (2014) 30, 5160-5167. (IF: 3,069)
15. A. Botea, V. Varazashvili, F. Maxim, F. Teodorescu, Z. Yág, J. Martynczuk, L.J. Gauckler, S. Tanasescu\*, *Thermodynamic data of Ba<sub>0.6</sub>Sr<sub>0.4</sub>Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>3-δ</sub> SOFC cathode material*, *Materials Research Bulletin* (2014) 57, 184-189. (IF: 2,515)
16. A. Neacșu, D. Gheorghe, I. Contineanu, S. Tanasescu, S. Perisanu, *A thermochemical study of serine stereoisomers*, *Thermochimica Acta* (2014) 595, 1-5. (IF: 2,396)
17. S. Tanasescu, Z. Yág, J. Martynczuk, F. Teodorescu, A. Botea, N. Totir, L.J. Gauckler, *Effects of A-site composition and oxygen nonstoichiometry on the thermodynamic stability of compounds in the Ba-Sr-Co-Fe-O system*, *Journal of Solid State Chemistry* (2013) 200, 354-362. (IF: 2,362)
18. S. Tanasescu, C. Marinescu, F. Maxim, A. Sofronia, N. Totir, *Evaluation of manganese and oxygen content in La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3-δ</sub> and correlation with the thermodynamic data*, *Journal Solid State Electrochemistry* (2011) 15, 189-196. (FI: 2,385)
19. B. Scherrer, A.S. Harvey, S. Tanasescu, F. Teodorescu, A. Botea, K. Conder, A.N. Grundy, J. Martynczuk, L.J. Gauckler, *Correlation between electrical properties and thermodynamic stability of ACoO<sub>3-δ</sub> perovskites (A = La, Pr, Nd, Sm, Gd)*, *Physical Review B* (2011) 84, (1-9), 085113 (IF: 3,896)

## Carti litografiate si in format electronic; Studii si documente de coordonare si suport publicate pe internet

### Carte publicata in strainatate in calitate de Editor Academic:

"Structure-Processing-Property Relationships in Stoichiometric and Nonstoichiometric Oxides", 2020, Academic Editor: Speranta Valeria Tanasescu, Ed.In Tech Open, DOI: 10.5772 / intechopen.77573; ISBN 978-1-78985-452-7; eBook (PDF) ISBN: 978-1-83969-130-0, <http://www.intechopen.com/books/structure-processing-properties-relationships-in-stoichiometric-and-nonstoichiometric-oxides>

Carte publicata: "Pile cu electrolit solid", Speranta Tănasescu, D.I. Marchidan. Ed. Științifică și Enciclopedică, București, 1983.

### Studii si Documente de coordonare si suport privind managementul si legislatia nanomaterialelor (domeniul "Nanosafety")

1. **Inventory of the harmonized national regulation oriented tasks:** S. Tanasescu, J. Hoeck, 2017, 66 pagini, coordonator volum: The Dutch National Institute for Public Health and the Environment (RIVM)

[https://www.rivm.nl/en/About\\_RIVM/Mission\\_and\\_strategy/International\\_Affairs/International\\_Projects/Completed/ProSafe/ProSafe\\_Deliverables:xVbzWzuS8eQnI9AI07Qmw/ProSafe\\_D4\\_04\\_DR\\_Inventory\\_of\\_the\\_harmonized\\_national\\_regulation\\_oriented\\_tasks.org](https://www.rivm.nl/en/About_RIVM/Mission_and_strategy/International_Affairs/International_Projects/Completed/ProSafe/ProSafe_Deliverables:xVbzWzuS8eQnI9AI07Qmw/ProSafe_D4_04_DR_Inventory_of_the_harmonized_national_regulation_oriented_tasks.org)

2. **Prosafe Safe by design (SbD) implementation concept**, K. Höhener, J. Hoeck, H. C. Lehmann, S. Tanasescu, 18 pagini, coordonator volum: The Dutch National Institute for Public Health and the Environment (RIVM), 2016 (restricted), 2019 (Public-Publication date 01/07/2019 - 14:43)

[https://www.rivm.nl/en/About\\_RIVM/Mission\\_and\\_strategy/International\\_Affairs/International\\_Projects/Completed/ProSafe/ProSafe\\_Deliverables:xVbzWzuS8eQnI9AI07Qmw/ProSafe\\_Safe\\_by\\_Design\\_SbD\\_implementation\\_concept\\_final.org](https://www.rivm.nl/en/About_RIVM/Mission_and_strategy/International_Affairs/International_Projects/Completed/ProSafe/ProSafe_Deliverables:xVbzWzuS8eQnI9AI07Qmw/ProSafe_Safe_by_Design_SbD_implementation_concept_final.org)

3. **Working Report on the Status Quo of Nanomaterials Impact on Health and Environment**, H. Krug, M. Apostolova, M A Bake, G. Chambers, H. Chiriac, E. Herzog, V. Hand, J. Höck, P. Hoet, N. Lupu, D. McCormack, M. Remskar, G. Robillard, J. Smisterova, J. Stetkiewicz, S. Tanasescu, A. Tsatsakis, D. Vaughn, Peter Wick, J. Wörle-Knirsch, Technological University Dublin ARROW@TU Dublin Articles - School of Chemical and Pharmaceutical Sciences, 2008-06-09

<https://arrow.tudublin.ie/scschcpsart/18/>

4. **Report on Validated grouping approach**, NanoREG2, Deliverable D 1.7, Version 2, 11/10/2019, 30 pagini, M. Dusinska, T. Puzyn, M. Gromelski, P. Gómez-Fernández, I. Rodríguez-Llopis, R. Grall S. Chevillard, C. Carnovale S. Sabella, J.M. Navas, A. Haase, A. Giusti, F. Barone, D. Pietraforte, C. Bossa, A. Giuliani, C L Battistelli, S. Tanasescu, G Ionita, I Matei, F Teodorescu, R Tsekovska, M Apostolova, P Pandard, N Manier, J. Bouillard, P Nymark, R Grafström, A Chatel, K. Rasmussen

<https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5c834333c&appId=PPGMS>

### Capitole in carti:

1. **Thermodynamic Stability and Microscopic Behavior of  $Ba_xSr_{1-x}Co_{1-y}Fe_yO_{3-\delta}$  Perovskites**, F. Maxim, A. Botea-Petcu, F. Teodorescu, Ludwig J. Gauckler, S. Tanasescu, in the Book: Structure Processing Properties Relationships in Stoichiometric and Nonstoichiometric Oxides, editor Speranța Tănasescu, Editura IntechOpen, (2020) DOI:10.5772/IntechOpen.94028

<https://www.intechopen.com/books/structure-processing-properties-relationships-in-stoichiometric-and-nonstoichiometric-oxides/thermodynamic-stability-and-microscopic-behavior-of-ba-sub-x-sub-sr-sub-1-x-sub-co-sub-1-y-sub-fe-su>

2. **Structure-Processing-Property Relationships in Stoichiometric and Nonstoichiometric Oxides - Introductory Chapter**, S. Tanasescu, in the Book: Structure Processing Properties Relationships in Stoichiometric and Nonstoichiometric Oxides, editor Speranța Tănasescu, Editura IntechOpen, (2020) DOI:10.5772/IntechOpen.92861

<https://www.intechopen.com/books/structure-processing-properties-relationships-in-stoichiometric-and-nonstoichiometric-oxides/introductory-chapter-structure-processing-properties-relationships-in-stoichiometric-and-nonstoichio>

3. **Thermodynamic descriptors of the interaction at the bio/nano interface**, S. Tanasescu, D. Gheorghe, A. Precupăș, A. Botea-Petcu, R. Sandu, V.T. Popa, capitol in vol. 28 "Nanomaterials – Functional Properties and Applications" din seria "Micro- and nanoengineering", Editura Academiei Române, București, (2020) ISBN 978-973-27-3290-8. pp. 85-97, Eds.: M. Zaharescu, A. Ion, M. Enăchescu, N. Lupu, D. Dascălu, <https://www.link2nano.ro/acad/mne/>

4. **Key parameters controlling the stability and reactivity of micro and nanostructured materials: energetics of nanomaterials**, S. Tanasescu, F. Maxim, A. Neacsu, F. Teodorescu, A. Milea, capitol in vol. 24, "Nanomaterials, Nanoparticles, Nanodevices", seria "Micro and Nanoengineering", Editura Academiei Române, București, (2016) ISBN 978-973-27-2643-3. pp. 33-51, Eds.: M. Zaharescu, H. Chiriac, D. Dascalu <https://www.link2nano.ro/acad/mne/>

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6. **High Temperature Thermodynamic Data of the Ca- and Sr- Doped LaMnO<sub>3</sub>**, S. Tanasescu, N. D. Totir, D. Patrascu, D. Neiner, **Schriften des Forschungszentrums Julich, Series Energy Technology, Part I**, (2000) 107-110

7. A Comparative Study of the Influence of Compositional Variables on the Thermodynamic Properties in the Substituted Lanthanum Manganites, S. Tanasescu, N.D. Totir and D. I. Marchidan, *Schriften des Forschungszentrums Jülich, Series Energy Technology, Part I*, 111-114, 2000.
8. Thermodynamic studies of some composite cathodes used in SOFC, S. Tanasescu, N. D. Totir, D. I. Marchidan, in **Solid Oxide Fuel Cells V**, The Electrochemical Society, Inc., Eds. U. Stimming, S.C. Singhal, H. Tagawa, W. Lehnert, (1997) 879-887.
9. The use of electrochemical cells with solid oxide electrolyte for the study of high temperature oxidation of metals, S. Tanasescu, N.D. Totir, D.I. Marchidan in: **High Temperature Electrochemical Behaviour of Fast Ion and Mixed Conductors**, Eds.: F.W. Poulsen, J.J. Bentzen, T. Jacobsen, E. Skou and M.J.L. Østergaard, (1993) p. 435-440.

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Dana Andreea Neacsu, 2018: STUDIUL STABILITĂȚII TERMODINAMICE A UNOR STRUCTURI MOLECULARE DE TIPUL LIGAND – CICLODEXTRINĂ. ASPECTE STRUCTURALE ȘI MORFOLOGICE CORELATE CU DATELE TERMODINAMICE

Ciobota (Ruști) Cristina Florentina, 2017: PROPRIETĂȚI TERMODINAMICE ALE UNOR MATERIALE OXIDICE NANOSTRUCTURATE CU POTENȚIAL DE UTILIZARE CA SENZORI

Milea Ion Alexandru, 2015: ECHILIBRE DE FAZA IN SISTEME DE NANOALIAJE

Mihaela Daniela Gheorghe, 2015: CARACTERIZAREA TERMODINAMICA A UNOR AMINOACIZI SI DERIVATI AI ACESTORA

Alina Botea Petcu, 2013: THERMODYNAMICS OF THE TRANSITION METALS OXIDES WITH PEROVSKITE STRUCTURE

Ancuta Sofronia, 2013: STUDIUL TERMOCHIMIC AL UNOR BIOMATERIALE MICRO SI NANOSTRUCTURATE

### Proiecte internationale si nationale - Selectie

#### PROIECTE INTERNATIONALE SI COLABORARI STIINTIFICE:

- Horizon 2020 Safety testing in the life cycle of nanotechnology-enabled medical technologies for health (SAFE-N-MEDTECH) - Innovation Action (IA) Call: H2020-NMBP-TO-IND-2018-2020 (Foundations for tomorrow's) 2019 - 2023.
- Horizon 2020 EuroNanoMed III: Targeted multifunctional nanoemulsions to interrupt metastatic progression (METASTARG), 2019-2022
- Horizon 2020 - Research and Innovation Action (RIA): NANoREG 2 ("Development and implementation of Grouping and Safe-by-Design approaches within regulatory frameworks"), 2015-2020
- Horizon 2020 - Coordination and Support Action (CSA): ProSafe ("Promoting the Implementation of Safe by Design"), 2015-2017
- FP7 Program - NMP.2010.4-0-7 ERA-NET on Nanotechnologies, including Nanotoxicology: SIINN (Safe Implementation of Innovative Nanoscience and Nanotechnology), 2011-2014
- FP6 Program - Programme: Priority 3 – NMP, Coordination Action (CA), ImPart ("Improving the understanding of the impact of nanoparticles on human health and the environment"), 2005-2008
- EU COST Action MP0903 „Nanoalloys as advanced materials: from structure to properties and applications” (NANOALLOY), 2010-2014
- EU COST Action 525: Advanced Electroceramics: Grain Boundary Engineering, the Project “Structural and dielectric studies of incipient ferroelectrics”, 2004-2005
- EU “Joule II Programme”, Sub-Programme “Energy Conservation and Utilisation” (Contract JOU 2-CT 92-0063 “New SOFC Materials and Technology”, 1993-1995
- Cooperation with Univ. of California at Davis in the frame of DOE Grant Number: DE-FG02-03ER46053: *Thermochemistry of Oxides with Electrochemical and Energy Applications, 2012-2015*
- Inter-academic scientific cooperation with Institute of fundamental Processes (Thermodynamic Laboratory E.Hala), Czech Republic Academy, 2007-2014.
- Scientific cooperation with ETH Zürich, Department of Materials - Institute of Nonmetallic Materials, Thermodynamic Group, Switzerland concerning “*The thermochemical properties of the compounds in the La-Sr-Mn-O system*”. 2001-2004, 2009-2011.
- Joint Research Project 2003-2005, 2006-2008 in the frame of the Scientific cooperation with the Institute of Metallurgy and Materials

GRANTURI / PROIECTE NATIONALE (selectie):

- PN-II-PT-PCCA-2013-4-2094 (BONY) 2014-2017. *Research of the bone substitution with biocomposite materials processed by powder metallurgy specific techniques*, Scientific Responsible: Dr. Speranta Tanasescu
- Program POS-CCE, PRIORITY AXIS 2- RD&I: Operation 2.2.1&Program Capacities, MODULE I: Large investment projects: *Modernizing the research and development infrastructure within the „Ilie Murgulescu” Physical Chemistry Institute of the Romanian Academy in the field of nanomaterials and nanotechnologies / INFRANANOCHEM*, 2009-2011, Dr. Speranta Tanasescu - Member in management team
- PNII – IDEAS Program, 2007-2010: *Controlling the stability and reactivity of the micro and nanostructured multifunctional materials based on a complex thermodynamic approach*, Project Director: Dr. Speranta Tanasescu
- CEEX-Matnantech Program, 2006-2008, “*The influence of composition and structure on the thermodynamic, electric and magnetic characteristics of some micro and nanostructured materials with special properties*”, Project Director: Dr. Speranta Tanasescu
- Grant CNCSIS type A, 2007-2008: *Studies on the correlation between the thermodynamic properties, defect structure and magnetoresistive properties of the micro and nanostructured lanthanum manganite*, Project Director: Dr. Speranta Tanasescu.
- Grant Romanian Academy, 2007-2008: *The role of the thermodynamics parameters in the control of the stability and reactivity of oxide micro and nanostructured multifunctional material*, Project Director: Dr. Speranta Tanasescu
- CEEX-Relansin Program, 2006-2008: *Research network for the development of functionally graded nanostructured composite materials for magnetic sensors and thermal coatings barriers*”, Scientific Responsible: Dr. Speranta Tanasescu
- IMPACT, 2007, Infrastructure development in the field of Thermochemistry and Applied Chemical Thermodynamics, ACTherm, Project Director: Dr. Speranta Tanasescu
- Grant Romanian Academy, 2005-2006: *The study of the influence of microstructure and composition on the thermodynamic and thermochemical behaviour of some multicomponent oxide materials*, Project Director: Dr. Speranta Tanasescu

Data: 12.01.2023

CSI Dr. Speranta Tanasescu