

# Profil

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## Teodora RUSU

### Position:

BioMat4CAST Project Coordinator  
BioNanoTech Project Coordinator

### Email:

teodora.rusu@bionanotech.ro



### Info

### Expertise:

#### Project management:

- Drafting several FP6, FP7, Horizon 2020 proposals from which 5 have been financed  
Coordinating FP7 CSA Discover Europe and Project manager for SupraChem Lab ERA  
Chair H2020 project
- Participation in the implementation of 3 FP6 projects and 3 FP7 projects
- Drafting several national proposals: Coordinating 6 and participating in 20 national  
projects

#### Seconded National Expert (SNE) to European Commission DG R&D unit B4 Research Infrastructures

- Project Management, Support the follow-up of community research initiatives,
- Conduct conceptual reflections which should help elaborating work programmes,  
strategic documents and new approaches to the programme and relevant  
community initiatives and actions documents and new approaches to the  
programme and relevant community initiatives and actions.
- Provide relevant input(s) for Commission papers, communications or other  
documents concerning the European Research Area/Research Infrastructures
- Provide scientific and technical inputs for the co-ordination of activities with  
external organisations in order to ensure the success of initiatives and projects and  
the implementation of the programme.
- Provide scientific and technical inputs for the preparation and follow-up of work  
programmes and calls for proposals
- Provide advice(s) and input(s) on specific files, policy development, and the  
definition of strategic objectives. Provide inputs and support in drafting the work  
programme of the Directorate. Provide support to other EU policies.

#### Other activities related to project management

- Regional contact point for FP6 and Horizon 2020
- National Contact Point for NMP Priority in FP7
- Member in the Program Committee for NMP Priority in FP7;
- Evaluator for Romanian National projects;
- Invited as evaluator for FP7 (2 evaluations) and Horizon 2020 (2 evaluations)

## Experience in European/International research projects

Within “P. Poni” Institute of Macromolecular Chemistry, Iasi, Romania

### International Project Coordination/Management:

- HORIZON-WIDERA-2022-TALENTS-01-01; Project no. 101086667: “ Multi-Scale In Silico Laboratory for Complex and Smart Biomaterials” (2022 - 2027) ); € 2.500.000 - **Project Coordinator**
- Romanian Structural Funds project: “BioNanoTech Projects Support Centre” Cod My SMIS: 107524; (2020 – 2023) € 650.000 - **Project Coordinator**
- H2020-WIDESPREAD-2014-2; Project no.667387; „SupraChem Lab - Laboratory of Supramolecular Chemistry for adaptive Delivery Systems - ERA Chair initiative” (2015 - 2020); € 2.500.000 - **Project Manager**
- ERANET-ERA IB 2: ProWood, “New coating solutions for the protection of wood and wood derivatives”, (2016 -2019), € 234.000 - **Romanian partner coordinator**
- FP7 CSA Project no. 221897; Discover Europe (Discover Europe - Romanian mobility center initiative to strengthen ERA-MORE ) (2008-2011), € 176 520 - **project coordinator**
- FP6 NoE: Project no. 500273, Intelligent Production Machines and Systems (I-PROMS), Cardiff University, UK, (2005-2008), € 7 500 000 - **Romanian partner coordinator**
- **Romanian Coordinator** : CLG NATO Rapid Detection and Classification of Chemicals using Artificial Intelligence (2007-2009), Project in cooperation with Oxford University, UK € 250 000

### Project management - team member:

- FP6- INCO CSA 17142 RAINS: Romanian Action for Integrating, Networking and Strengthening the European Research Area; (2005-2008) € 205 457
- FP6 CSA 513461 Romob (Romanian Mobility Centre); Coordinator Romanian Agency for Scientific Research; (2005-2008) € 205 457
- The European Social Fund: „The European Social Fund - Cristofor I. Simionescu Postdoctoral scholarship programme” - ID 55216, (2010-2013); € 4 500 000

Within EC DG R&D Unit B3 Research Infrastructures - Project officer for several FP7 I3 and CSA projects concerning Research Infrastructures of Pan European importance in the field of chemistry, nanotechnology, energy, environment, physics:

- FP7-INFRASTRUCTURES; 262512: ECCSEL - European Carbon Dioxide Capture and Storage Laboratory Infrastructure, 2010 - 2012; € 5 000 497
- FP7-INFRASTRUCTURES; 211574: ICOS - Integrated Carbon Observation System; 2008 - 2013; € 5 688 035,04
- FP7-INFRASTRUCTURES; 26188: IMECC - Infrastructure for Measurement of the European Carbon Cycle; 2007 - 201; € 8 521 764
- FP7-INFRASTRUCTURES; 262533 - SOPHIA - SOLar PHotovoltaic European Research Infrastructure, (2011 -2015); € 11 579 421,40
- FP7-INFRASTRUCTURES; 228335; EUROCHAMP 2 - Integration of European Simulation Chambers for Investigating Atmospheric Processes; (2009 - 2013); € 6 490 649,59
- FP7-INFRASTRUCTURES; 262348 ESMI - European Soft Matter Infrastructure; (2011 - 2015); € 9 702 154,71
- FP7-INFRASTRUCTURES; 227012 , SPIRIT - Support of Public and Industrial Research using Ion Beam Technology; (2009 - 2013); € 8 963 881,56
- FP7-INFRASTRUCTURES; 284498 BRISK - The European Research Infrastructure for Thermo-Chemical Biomass Conversion; (2011 - 2015); € 11 046 379,47
- FP7-INFRASTRUCTURES; 226460; EUMINafab—Integrating European research infrastructures for micro-nano fabrication of functional structures and devices out of a knowledge-based multimaterials’ repertoire; (2009 - 2013); € 7 910 792,35
- FP7-INFRASTRUCTURES; 26019 ; ESTEEM - Distributed European Infrastructure of Advanced Electron Microscopy for Nanoscience, (2006 - 2011); € 10 006 838
- FP7-INFRASTRUCTURES;; 262163 QUALITYNANO - pan-European infrastructure for quality in nanomaterials safety testing; (2011 - 2015); € 8 952 769,09
- FP7-INFRASTRUCTURES; 212348 ; NFFA - Nanoscience Foundries and Fine Analysis, (2008 - 2011); € 2 268 316
- FP7-INFRASTRUCTURES; 26140; EUSAAR - EUropean Supersites for Atmospheric Aerosol Research (2006 - 2011); € 6 127 703

## Education

1988-1993: BSc & MSc chemical engineer Macromolecular Chemistry; “Gh. Asachi” Technical University, Iasi, Romania, Faculty of Industrial Chemistry

2000-2009:	PhD in chemistry Thesis title: “Computational methods applied in macromolecular chemistry”; “Gh. Asachi” Technical University, Iasi, Romania, Faculty of Industrial Chemistry
2006-2010:	MA in Project Management; “Al. I. Cuza”, University, Iasi, Romania, Faculty of Public Administration and Business
<b>Professional Career</b>	
1994-2020:	Scientific research, “Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania
2009-2013:	Detached as SNE to European Commission DG R&D unit B4 Research Infrastructures, Brussels, Belgium
2006 - 2007:	Project Officer at the Romanian Ministry of Research and Innovation, NE Romania Regional Office for Structural Funds

## Works (12)

### **Natural bio-based products for wood coating and protection against degradation: A review**

BioResources

2019 | Journal article

DOI: [10.15376/biores.14.2.Teaca](https://doi.org/10.15376/biores.14.2.Teaca)

Teacă, C.-A.; Roşu, D.; Mustaţă, F.; Rusu, T.; Roşu, L.; Roşca, I.; Varganici, C.-D.

### **Thermal behaviour and fungi resistance of composites based on wood and natural and synthetic epoxy resins cured with maleopimaric acid**

Polymer Degradation and Stability

2019 | Journal article

DOI: [10.1016/j.polymdegradstab.2018.12.022](https://doi.org/10.1016/j.polymdegradstab.2018.12.022)

Rosu, L.; Mustata, F.; Varganici, C.D.; Rosu, D.; Rusu, T.; Rosca, I.

### **Cation transport activity of the alkyl-ureido-benzo-15-crown-5-ethers through double layer lipid membranes**

Revue Roumaine de Chimie

2018 | Journal article

Zonda, R.; Coroaba, A.; Ibanescu, S.; Vasiliu, T.; Neamtu, A.; Silion, M.; Rusu, T.; Pinteala, M.

**Enhancing the Thermal and Fungal Resistance of Wood Treated with Natural and Synthetic Derived Epoxy Resins**

ACS Sustainable Chemistry and Engineering

2018 | Journal article

DOI: [10.1021/acssuschemeng.8b00331](https://doi.org/10.1021/acssuschemeng.8b00331)

Rosu, L.; Varganici, C.-D.; Mustata, F.; Rusu, T.; Rosu, D.; Rosca, I.; Tudorachi, N.; Teacă, C.-A.

**Multiobjective Tabu search method for the optimization of block copolymers structure**

AIP Conference Proceedings

2018 | Conference paper

DOI: [10.1063/1.5046033](https://doi.org/10.1063/1.5046033)

Rusu, T.; Gogan, O.M.

**Artificial intelligence methods applied in the controlled synthesis of polydimethylsiloxane - poly (methacrylic acid) copolymer networks with imposed properties**

AIP Conference Proceedings

2016 | Conference paper

DOI: [10.1063/1.4949736](https://doi.org/10.1063/1.4949736)

Rusu, T.; Gogan, O.M.

**Artificial intelligence methods: Challenge in computer based polymer design**

AIP Conference Proceedings

2009 | Conference paper

DOI: [10.1063/1.3225277](https://doi.org/10.1063/1.3225277)

Rusu, T.; Pinteala, M.; Cartwright, H.

**Computer aid molecular design based on meta-heuristics techniques**

International Journal of Quantum Chemistry

2007 | Journal article

DOI: [10.1002/qua.21347](https://doi.org/10.1002/qua.21347)

Rusu, T.; Bulacovschi, V.

### **Multiobjective Tabu search method used in chemistry**

International Journal of Quantum Chemistry

2006 | Journal article

DOI: [10.1002/qua.20898](https://doi.org/10.1002/qua.20898)

Rusu, T.; Bulacovschi, V.

### **Using Semantic Web Technologies to Discover Resources within the Intranet of an Organization**

Intelligent Production Machines and Systems - 2nd I\*PROMS Virtual International Conference 3-14 July 2006

2006 | Book chapter

Part of DOI: [10.1016/B978-008045157-2/50033-X](https://doi.org/10.1016/B978-008045157-2/50033-X)

Buraga, S.C.; Rusu, T.

### **Application of genetic algorithms to control synthesis of block copolymers containing PDMS - Co - PMAA sequences**

Molecular Crystals and Liquid Crystals

2004 | Journal article

DOI: [10.1080/15421400490478902](https://doi.org/10.1080/15421400490478902)

Rusu, T.; Gogan, O.M.

### **Amphiphilic copolymers as water delivery systems**

European Polymer Journal

2001 | Journal article

DOI: [10.1016/S0014-3057\(01\)00079-9](https://doi.org/10.1016/S0014-3057(01)00079-9)

Rusu, T.; Ioan, S.; Corneliu Buraga, S.