

Associate Professor, PhD Julia Romanova

Sofia University "St. Kliment Ohridski,

Faculty of Chemistry and Pharmacy

Department: Inorganic Chemistry

Room: 327

1164 Sofia, 1 James Bourchier Blvd., Bulgaria

Tel: +359 2 8161 799

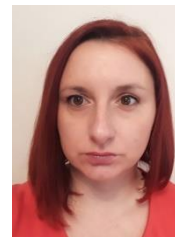
e-mail: jromanova@chem.uni-sofia.bg

SCOPUS ID: <https://www.scopus.com/authid/detail.uri?authorId=36832298900>

ORCID ID : <https://orcid.org/0000-0001-6668-0879>

RESEARCHGATE: <https://www.researchgate.net/profile/J-Romanova>

LINKEDIN: <https://www.linkedin.com/in/julia-romanova-9386ab35/?originalSubdomain=bg>



Education

2010 – Ph.D. in Chemistry, Sofia University (Bulgaria) & Université de Haute-Alsace (France)

2006 – Master in Computational Chemistry, Sofia University (Bulgaria)

2005 – Bachelor in Chemistry, Sofia University (Bulgaria)

Professional Development

2021 – Associate Professor, Department of Inorganic Chemistry, Faculty of Chemistry and Pharmacy, Sofia University (Bulgaria)

2018 – 2021 Assistant Professor, Department of Inorganic Chemistry, Faculty of Chemistry and Pharmacy, Sofia University (Bulgaria)

2016 – 2018 Maternity leave

2014 – 2016 Research fellow, Advanced Technology Institute, University of Surrey (UK)

2012 – 2014 Postdoctoral fellow, Theoretical Chemistry Laboratory, University of Namur, (Belgium)

2011 Guest scientist, Theory of Polymers, Leibniz Institute for Polymer Research Dresden (Germany)

2011 Postdoctoral researcher, Department of Physical Chemistry, Faculty of Chemistry and Pharmacy, Sofia University (Bulgaria)

Mobility grants

2007 – 2010 Mobility grant for international joint dissertation supervision (1,5 years), Fellowship of the French Government, Université de Haute-Alsace (France)

2006 Short-term research grant for PhD students and young scientists (3 months), Fellowship of the German Academic Exchange Service (DAAD), Max-Planck-Institute for Polymer Research (Germany)

Honors and Awards

2019 National L'Oréal-UNESCO fellowship for Women in Science, Sofia (Bulgaria)
<https://www.zajenitevnaukata.bg/fellows2019.html>

2018 Best Poster Award, “20th International Workshop on Nanoscience and Nanotechnology”, Sofia (Bulgaria)

2011 ‘Eurika’ Foundation Award for extraordinary achievements in science
‘Eurika’ Foundation (Bulgaria)
<https://www.evrika.org/wp-content/uploads/2012/01/evrika-2011.pdf>

Scientific interests

Research interests in the field of applied computational chemistry with special focus on organic and metal-organic compounds with attractive optical, magnetic and conducting properties.

Selected publications (up to 5)

- L. Borislavov, M. Nedyalkova, A. Tadjer, O. Aydemir, **J. Romanova***, **Machine Learning-Based Screening for Potential Singlet Fission Chromophores: The Challenge of Imbalanced Data Sets**, Journal of Physical Chemistry Letters 2023, vol: 14, issue: 45, pages: 10103–10112, <https://doi.org/10.1021/acs.jpcllett.3c02365>, 2023, IF (5.7 - 2022), SCOPUS Quartile: Q1 (2023)
- **J. Romanova***, R. Lyapchev, M. Kolarski, M. Tsvetkov, D. Elenkova, B. Morgenstern, J. Zaharieva*, **Molecular Design of Luminescent Complexes of Eu(III): What Can We Learn from the Ligands**, *Molecules*, vol:28, issue:10, pages:4113-0, <https://doi.org/10.3390/molecules28104113>, 2023, IF (4.6 - 2022), SCOPUS Quartile: Q1 (2023)
- J. Stoycheva, A. Tadjer, M. Garavelli, M. Spassova, A. Nenov*, **J. Romanova***, **Boron-doped polycyclic aromatic hydrocarbons: A molecular set revealing the interplay between topology and singlet fission propensity**, Journal of Physical Chemistry Letters,

vol:11, issue:4, pages:1390-1396, <https://pubs.acs.org/doi/10.1021/acs.jpcllett.9b03406>, 2020, SCOPUS Quartile: Q1 (2020).

- **J. Romanova, Y. Sadik, M. R. Ranga Prabhath, J. D. Carey, P. D. Jarowski, Engineering tunable single and dual optical emission from Ru(II)–polypyridyl complexes through excited state design**, Journal of Physical Chemistry C, vol:121, issue:4, 2017, pages:2333-2343, <https://doi.org/10.1021/acs.jpcc.6b10263>, 2017, SCOPUS Quartile: Q1 (2017)
- **J. Romanova, M. R. Ranga Prabhath, P. D. Jarowski, Relationship between metallophilic interaction and luminescent properties in Pt(II) complexes: TD-DFT guide for the molecular design of light-responsive materials**, Journal of Physical Chemistry C, vol:120, issue 3, pages:2002-2012, <https://doi.org/10.1021/acs.jpcc.5b12132>, 2016, SCOPUS Quartile: Q1 (2016)

Project activity – (research projects in the last 5 years)

2019 – 2023

Advanced Research Project,

Role: Principle investigator

Budget: 120 000 BGN

Funding: *Bulgarian Science Fund*

Project number: № КП-06-H39/2 from 16.04.2019

Project: Machine learning for structure-properties relationship evaluation: the challenge in the hunt for singlet fission chromophores (https://ml4sf.chem.uni-sofia.bg/?page_id=53&lang=en)

2021

PhD supporting Project

Role: Principle investigator

Budget: 4700 BGN

Funding: *Science Fund – Sofia University*

Project number: № 80-10-22/22.03.2021

Project: Cumulenes – a key to the carbene structure mystery

2020

Topical Project

Role: Principle investigator

Budget: 3500 BGN

Funding: *Science Fund – Sofia University*

Project number: 80-10-3/18.03.2020

Project: Development of a prescreening model for the discovery of novel organic materials based on their diradical character

The project SF-SU: № 80-10-3/18.03.2020 was selected as the best project realized in the Faculty of Chemistry and Pharmacy of the Sofia University for the financed year: https://www.uni-sofia.bg/index.php/bul/nauka/v_zmozhnosti_za_finansirane/programi/fond_nauchni_izsledvaniya_na_s_u/arhiv_konkursi/finansirane_ot_d_rzhavniya_byudzheth_konkurs_2021)

Teaching activity

Sofia University (Bulgaria), lecturer in: "General and inorganic chemistry" for specialties *Biology* and *Ecology and Environmental Protection* (Faculty of Biology), "Chemistry of the elements" and "Introductory University Chemistry" for specialty *Pharmacy in English* (Faculty of Chemistry and Pharmacy), "Molecular Modeling of Excited States" for *master program Computational Chemistry* (Faculty of Chemistry and Pharmacy),

Sofia University (Bulgaria), practical classes and seminars in "General and inorganic chemistry", "Chemistry of the elements", "Structure of Matter", "Physical Chemistry" and "Molecular Design", "Molecular Modeling of Excited States" (Faculty of Chemistry and Pharmacy)

Sofia University (Bulgaria), PhD Supervision: Co-supervisor of the PhD student Joanna Stoycheva since 2021 (Faculty of Chemistry and Pharmacy)

Academic service and contributions

Guest Editor: of a Special Issue of Molecules-MDPI "Metal-Organic Complexes: Applications in Chemistry and Materials Science" 2020-2022 (IF=4.41):
https://www.mdpi.com/journal/molecules/special_issues/Organometallic

Journal Reviewer: Journal of Organic Chemistry, Journal of Physical Chemistry, Journal of Computational Chemistry, Structural Chemistry, Photochemical & Photobiological Sciences, Open Chemistry, Journal of Molecular Liquids, Materialia, Applied Surface Science, Journal of Biomolecular Structure & Dynamics

Grant reviewer: ERC Frontier Research Grants