DR. RER. NAT. ALLA SYNYTSKA

General Information

Date of birth: 13.07.1974
Gender: Female
Citizenship: German

Work adress: Leibniz-Institut für Polymerforschung Dresden e.V. (IPF)

Hohe Str. 6, 01069 Dresden, Germany

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Current position: Head of Department Polymer Interfaces, lecturer at TU Dresden Parental leave: 07/1998 - 07/1999 (12 months), 06/2010 - 06/2011 (12 months)

University Training and Degree

1991-1996 Chemistry, Ivan Franko Lviv National University, Ukraine, Diploma graduation

Advanced Academic Qualifications

2002-2005 Doctorate: Physical Chemistry of Polymers, TU Dresden, Germany

2012-2017 Habilitation (defence is scheduled for 13.11.2018): Polymer Chemistry and

Polymer Physics, TU Dresden, Germany

Postgraduate Professional Career

2017 - Present Head of Department Polymer Interfaces

Leibniz-Institut für Polymerforschung Dresden e.V. (IPF), Germany

2012 - 2017 Technical University of Dresden, Germany

Habilitation, defence is scheduled for 13.11.2018

Topic: Hairy Janus Particles: From Development and Assembly towards Different

Facets of Applications

2009 - 2016 Leibniz-Institut für Polymerforschung Dresden e.V. (IPF), Germany

Group Leader

Topic: Multifunctional particles with advanced architectures and intelligent

materials based on them

2011 ESPCI Paris Tech Laboratory of Soft Matter Science and Engineering, France

Group of Prof. C. Creton **Visiting scientist**

Topic: Switchable adhesive materials

2006 - 2008 Leibniz Institute of Polymer Research Dresden, Germany

Group of Prof. M. Stamm **Postdoctoral researcher**

Topic: Stimuli-responsive polymers and fimls

2005 University of Modena, Italy

Group of Prof. F. Pilati

Visiting scientist/ Postdoctoral researcher

Topic: Block copolymers; synthesis and structural characterisation

Selected Teaching Activities

Since 2009 Master courses: "Polymers at Interfaces", "Modern Topics in Physical Chemistry of

Polymers", "Soft Matter: Experimental Methods in Polymer Physics",

"Nanostructures at Interfaces and Films".

Selected Scientific Activities

Since 2017 Reviewer of research proposals for: German Research Councile (DFG), Austria

Research Councile (OEFG)



Since 2016	Reviewer of research proposals for: Alexander von Humbolt Foundation (AvH),
	European Commission (COST), Netherlands Organization for Scientific Research

Selected Scientific Projects (Pl and Coordinator)

2015 - 2019	EU "Training in Bio-Inspired Design of Underwater Smart Adhesive Materials", Marie Sklodowska-Curie Innovative Training Network H2020-MSCA-ITN-2014
2014 - 2019	DFG "Synthesis and Self-Assembly of Stimuli-Responsive Core-Shell Janus Particles"
2017 - 2019	AiF "Entwicklung von schaltbaren Janus-Partikeln zur Immobilisierung und zum mehrfachen Einsatz von Enzymen in technischen Prozessen"

Scientific Achievements & Recognitions

H-index > 28 (according to Google Scholar, October 2018) 91 publications (according to Google Scholar, October 2018) Number of citations: > 1980 (according to Google Scholar, October 2018)

2015	Nomination for AcademiaNet from the Leibniz Association - Expert Database of
	Outstanding Female Academics
2015	Award from the Leibniz Association for the participation in Leibniz-Mentoring-
	Program 2014/2015
2014	Innovation Award, Coatings Science International Conference COSI 2014,
	(Noordwijk, Netherlands)
2014	Poster Award, 20th Ostwald-Kolloquium "Particles & Interfaces" (Mainz, Germany)
2011	Certificate of Appreciation from ACS Journals Publishing Group
2009	Poster Award, Bayreuth Polymer Symposium BPS`09 (Bayreuth, Germany)
2009	Poster Award, 12th European Polymer Congress EPF'09 (Graz, Austria)
2005	Award from the Leibniz Association for the Best PhD thesis in year 2005

Representative Publications

- 1. M. Zanini, C. Marschelke, S. Anachkov, E. Marini, **A. Synytska** and L. Isa, Rough Particles at liquid-liquid interfaces: arrested adsorption and "universal" emulsion stabilization *Nature Communication* 2017, 8, 15701
- 2. A. Kirillova, C. Marschelke, J. Friedrichs, C. Werner, and **A. Synytska**, Hybrid Hairy Janus Particles as Building Blocks for Anti-Biofouling Surfaces **ACS Appl. Mater. Interfaces**, 2016, 8 (47), pp 32591–32603
- 3. A. Kirillova, L. Ionov, I. Roismann, and **A. Synytska**, Hybrid Hairy Janus Particles for Anti-Icing and De-Icing Surfaces: Synergism of Properties and Effects *Chemistry of Materials* 2016, 28 (19), pp 6995–7005
- 4. A. Kirillova, G. Stoychev, and **A. Synytska**, Programmed Assembly of Oppositely Charged Homogeneously Decorated and Janus Particles *Faraday Discussions* 2016, 191, 89-104
- 5. A. Kirillova, C. Schliebe, G. Stoychev, A. Jakob, H. Lang, and **A. Synytska*** Hybrid Hairy Janus Particles Decorated with Metallic Nanoparticles for Catalytic Applications *ACS Appl. Mater. Interfaces*, 2015, 7 (38), pp 21218–21225
- 6. A. Kirillova, G. Stoychev, L. Ionov, and **A. Synytska**, Self-assembly behaviour of colloidal particles with different architectures: mixed vs. Janus, *Langmuir* 2014, 30, 12765-12774.
- 7. A. Kirillova, G. Stoychev, L. Ionov, K.-J. Eichhorn, M. Malanin, and **A. Synytska**, Platelet Janus Particles with Hairy Polymer Shells for Multifunctional Materials **ACS Applied Materials and Interfaces** 2014, 6 (15), 13106-13114
- 8. **A. Synytska**, A. Kirillova, L. Isa, Synthesis and Contact-Angle Measurements of Janus Particles, *CHEMPLUSCHEM* 2014, 79, 656-661
- 9. **A. Synytska** and Ionov, L. Stimuli-responsive Janus particles *Particle & Particle Systems Characterization* 2013, 30 (11), 922-930
- 10. S. Berger, L. Ionov and **A. Synytska**, Engineering of Ultrahydrophobic Functional Coatings Using Controlled Aggregation of Bicomponent Core-Shell Janus Particles *Advanced Functional Materials*, 2011, 21 (12), 2338–2344.