PERSONAL INFORMATION

Dr. Wiktor Lewandowski
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Date and place of birth: 1984, Poland

EMPLOYMENT

2016 – currently	Junior professor (Adiunkt), University of Warsaw, Faculty of Chemistry
2013 – 2016	Assistant, University of Warsaw, Faculty of Chemistry
2013	Postdoctoral scientist, University of Warsaw, Faculty of Chemistry

EDUCATION

2018	Habilitation, University of Warsaw, Faculty of Chemistry, UW
2013	PhD, University of Warsaw, Faculty of Chemistry, UW, Organic chemistry
2008	MSc, University of Warsaw, Faculty of Chemistry, UW, Organic chemistry
2008	MSc, University of Warsaw, Faculty of Biology, UW, Biotechnology
2006	BSc, University of Warsaw, Faculty of Biology, UW, Microbiology

SCIENTOMETRIC DATA

Hirsh index: 12, >600 citations

FOREIGN RESEARCH VISITS

1. **Japan**, Okazaki, short scientific stay at prof. Hiromi's Okamoto laboratory, directed towards chiral plasmonic measurements using microscopic methods, 4 days, 25-29.09.2019
2. **Spain**, San Sebastian, posdoctoral stay at Prof. Luis Liz Marzan's group, **CIC biomaGUNE**, the stay was devoted to nanoparticle self-assembly for SERS applications, 12 months, 1.2016-12.2016
3. **Slovenia**, Maribor, predoctoral stay at Prof. Natasa Vaupotic's group, the stay was devoted to modelling of liquid-crystalline systems 1 month, 06.2012 – 07.2012
4. **USA**, Boston, predoctoral stay at Prof. Timothy M. Swager's group, **Massachusetts Institute of Technology**, the stay was devoted to developing new method of chemical modification of reduced graphene oxide, 5 months, 05.2010 – 10.2010

COLLABORATIONS

Ongoing collaborations: Prof. Luis Liz Marzan (CIC biomaGUNE), prof. Carsten Rockstuhl (KIT, Germany), Prof. Hiromi Okamoto (IMS, Japan), Prof. Dong Ki-Yoon (KAIST, Republic of Korea), Dr. Guille González-Rubio (Germany), Prof. Sebastian Maćkowski (UMK, Poland), Prof. Piotr Lesiak (WUT, Poland), several scientists at the Faculty of Chemistry University of Warsaw.

Past collaborations: Prof. Tomothy M. Swager (MIT, USA), Prof. Mikhail Zamkov (BGSU, USA), PhD Doru Constantin (CNRS, France), Prof. Nataša Vaupotic (University of Maribor, Slovenia)

JOURNAL ARTICLES

2020

25. **W. Lewandowski,*** N. Vaupotič,* D. Pociecha, E. Górecka, L. M. Liz-Marzán*, Chirality of Liquid Crystals Formed from Achiral Molecules Revealed by Resonant X-Ray Scattering, **Advanced Materials**, 2020, accpeted
24. M. Bagiński, M. Tupikowska, G. González-Rubio, M. Wójcik and **W. Lewandowski***, Shaping Liquid Crystals with Gold Nanoparticles: Helical Assemblies with Tunable and Hierarchical Structures Via Thin-Film Cooperative Interactions, **Advanced Materials**, 2020, 32, 1904581.
23. A. Promiński, E. Tomczyk, M. Pawlak, A. Jędrych, J. Mieczkowski, **W. Lewandowski** and M. Wójcik*, Materials, Size-Dependent Thermo- and Photoresponsive Plasmonic Properties of Liquid Crystalline Gold Nanoparticles, **Molecules**, 2020, 13, 875.

2019

22. D. Grzelak, S. Parzyszek, P. Moroz, P. Szustakiewicz, M. Zamkov and **W. Lewandowski***, Self-Assembled PbS/CdS Quantum Dot Films with Switchable Symmetry and Emission, **Chemistry of Materials**, 2019, 31, 7855–7863.
21. P. Lesiak*, K. Bednarska, **W. Lewandowski**, M. Wójcik, S. Polakiewicz, M. Bagiński, T. Osuch, K. Markowski, K. Orzechowski, M. Makowski, J. Bolek and T. R. Woliński, Self-Organized, One-Dimensional Periodic Structures in a Gold Nanoparticle-Doped Nematic Liquid Crystal Composite, **ACS Nano**, 2019, 13, 10154–10160.
20. P Szustakiewicz, G González-Rubio, L Scarabelli, **W Lewandowski***, Robust Synthesis of Gold Nanotriangles and their Self-Assembly into Vertical Arrays, **ChemistryOpen** , 2019, 8, 705-711.
19. P Szustakiewicz, N Kołsut, A Leniart, **W Lewandowski***, Universal Method for Producing Reduced Graphene Oxide/Gold Nanoparticles Composites with Controlled Density of Grafting and Long-Term Stability, **Nanomaterials** 2019, 9, 602.

2018

18. J. Grzelak, M. Żuk, M. Tupikowska, **W. Lewandowski***,Modifying Thermal Switchability of Liquid Crystalline Nanoparticles by Alkyl Ligands Variation. **Nanomaterials**, 2018, 8, 147.
17. M. Bagiński, E. Tomczyk, A. Vetter, R.N.S. Suryadharma, C. Rockstuhl, **W. Lewandowski***, Achieving Highly Stable, Reversibly Reconfigurable Plasmonic Nanocrystal Superlattices through the Use of Semifluorinated Surface Ligands. **Chemistry of Materials**, 2018, 30, 8201–8210.
16. K. Sułowska, K. Wiwatowski, P. Szustakiewicz, J. Grzelak, **W. Lewandowski**, S. Maćkowski, Energy Transfer from Photosystem I to Thermally Reduced Graphene Oxide. **Materials**, 2018, 11, 1567.

2009-2017

15. K. Zabielska-Koczywąs*, I. Dołka, M. Król, A. Zbikowski, **W. Lewandowski**, J. Mieczkowski, M. Wójcik, R. Lechowski, Doxorubicin Conjugated to Glutathione Stabilized Gold Nanoparticles (Au-GSH-Dox) as an Effective Therapeutic Agent for Feline Injection-Site Sarcomas - Chick Embryo Chorioallantoic Membrane Study. **Molecules** 2017, 22.
14. **W. Lewandowski***, T. Łojewska, P. Szustakiewicz, J. Mieczkowski, D. Pociecha, Reversible Switching of Structural and Plasmonic Properties of Liquid-Crystalline Gold Nanoparticle Assemblies **Nanoscale**, 2016, 8, 2656–2663.
13. M. Bagiński, A. Szmurło, A. Andruszkiewicz, M. Wójcik, **W. Lewandowski***, Dynamic Self-Assembly of Nanoparticles Using Thermotropic Liquid Crystals. **Liquid Crystals**, 2016, 43, 2391–2409.

12. **W. Lewandowski***, M. Fruhnert, J. Mieczkowski, C. Rockstuhl, E. Górecka*, 2015, Dynamically Self-Assembled Silver Nanoparticles as a Thermally Tunable Metamaterial. **Nature Communications**, 6, 6590, IF = 11.329, *Highlighted in: Nature Materials, 2015, 14, 463.*
11. M. Wójcik, **W. Lewandowski**, M. Król, K. Pawłowski, J. Mieczkowski R. Lechowski, K. Zabielska, Enhancing Anti-Tumor Efficacy of Doxorubicin by Non-Covalent Conjugation to Gold Nanoparticles - in Vitro Studies on Feline Fibrosarcoma Cell Lines. **PLoS One** 2015, 10, e0124955.
10. W. Lewandowski, M. Wójcik, E. Górecka*, Metal Nanoparticles with Liquid-Crystalline Ligands: Controlling Nanoparticle Superlattice Structure and Properties. **ChemPhysChem**, 2014, 15, 1283–1295.
9. A. Zep, M. Wójcik, **W. Lewandowski**, K. Sitkowska, A. Promiński, J. Mieczkowski, D. Pociecha, E. Górecka*, Phototunable Liquid-Crystalline Phases Made of Nanoparticles. **Angew. Chemie Int. Ed**. 2014, 53 (50), 13725–13728.
8. **W. Lewandowski**, K. Jatczak, D. Pociecha*, J. Mieczkowski, Control of Gold Nanoparticle Superlattice Properties via Mesogenic Ligand Architecture. **Langmuir** 2013, 29, 3404–3410.
7. **W. Lewandowski**, D. Constantin, K. Walicka, D. Pociecha, J. Mieczkowski, E. Górecka*, Smectic Mesophases of Functionalized Silver and Gold Nanoparticles with Anisotropic Plasmonic Properties. **Chem. Commun.** 2013, 49, 7845–7847.
6. Jaworska, **W. Lewandowski**, J. Mieczkowski, K. Maksymiuk, A. Michalska*, Simple and Disposable Potentiometric Sensors Based on Graphene or Multi-Walled Carbon Nanotubes--Carbon-Plastic Potentiometric Sensors. **Analyst** 2013, 138, 2363–2371.
5. E. Jaworska, **W. Lewandowski**, J. Mieczkowski, K. Maksymiuk, A. Michalska*, Non-Covalently Functionalized Graphene for the Potentiometric Sensing of Zinc Ions. **Analyst** 2012, 137, 1895–1898.
4. L. Drewniak, N. Maryan, **W. Lewandowski**, S. Kaczanowski, A. Skłodowska*, The Contribution of Microbial Mats to the Arsenic Geochemistry of an Ancient Gold Mine**. Environ. Pollut**. 2012, 162, 190–201.
3. E. Jaworska, **W. Lewandowski**, J. Mieczkowski, K. Maksymiuk, A. Michalska*, Critical Assessment of Graphene as Ion-to-Electron Transducer for All-Solid-State Potentiometric Sensors. **Talanta** 2012, 97, 414–419.
2. W.R. Collins, **W. Lewandowski**, E. Schmois, J. Walish, T.M. Swager*, Claisen Rearrangement of Graphite Oxide: A Route to Covalently Functionalized Graphenes**., Angew. Chem. Int. Ed.** 2011, 50, 8848–8852.
1. M. Wójcik, **W. Lewandowski**, J. Matraszek, J. Mieczkowski, J. Borysiuk, D. Pociecha, E. Górecka*, Liquid-Crystalline Phases Made of Gold Nanoparticles. **Angew. Chem. Int. Ed.** 2009, 48, 5167–5169.

BOOK CHAPTER

W. Lewandowski, E. Górecka*, 2017, Liquid crystals from mesogens containing gold nanoparticles, in Liquid Crystals with Nano and Microparticles, World Scientific Publishing Co. Pte. Ltd., 571-602.

PATENT APPLICATIONS AND PATENTS

1. Uhrynowski W.; Jarmuła P., Drewniak Ł., Lewandowski W., A method of biological production of reduced graphene oxide / gold nanoparticles composite material using bacterial lysate and use of bacterial lysate for biological production of composite material reduced graphene oxide / gold nanoparticles. Polish patent application, P.430984, 2019-08-29
2. Wójcik M.; Promiński A.; Kaczmarska Z.; Lewandowski W.; Mieczkowski J.; "A method of recycling precious metals from the waste materials for simultaneous production of novel catalytic layers made of precious metal nanoparticles obtained by this method" Polish Pattent Application No. P.413456, Aug 18, 2015
3. Swager TM., Collins WR., Lewandowski W, Schmois E, Sydlik S, Walish J, Goods JB. Compositions comprising and methods for forming functionalized carbon-based nanostructures; patent number: WO 2012061603 (PCT/US2011/059155); Publication date: Jul 2, 2013

4. Swager TM, Collins WR, Lewandowski W, Schmois E, Sydlik S, Walish J., Goods JB, 2012, Compositions comprising functionalized carbon-based nanostructures and related methods, WO 2012061607 (PCT/US2011/059168). Aug 15, 2013

RESEARCH PROJECTS

1. 2017-2020; grant holder of a First Team project, (500 000€) „REconfIgurable Nanostructures For OptoelectRoniC tEchnologies (REINFORCE)" this projects aims at combining organic and nanomaterials chemistries towards functional, dynamic nanocomposites
2. 2016, grant holder of a 'MOBILITY PLUS' project, (50 000€) "Switchable plasmonic technologies – SWITCH" granted by the Ministry of Education and Higher Education held at CICbiomaGUNE, Spain
3. 2015, grant holder of a 'INTER' project (25 000€) granted by the Foundation for Polish Science; this projects aims at using bacteria to simultaneous reduction of graphene oxide and metal salts to prepare reduced graphene oxide decorated with metal nanoparticles
4. 2014 – 2015, grant holder of a 'SONATA" Project (62 000€) granted by the Ministry of Education and Higher Education, number ; this project aims at developing new way of covalent attachment of nanoparticles to reduced graphene oxide and application of these materials in analytical chemistry
5. 2013 – 2015, principal investigator in a 'OPUS' project (2012/05/B/ST5/00725) pt. "Synthesis and supramolecular organic-inorganic hybrid nanomaterials surface modified with ionophores for ion selective detection'
6. 2011 – 2013, grant holder of a 'Preludium' Project (20 000€) granted by the Ministry of Education and Higher Education, number UMO-2011/01/N/ST5/03322 which aimed at preparing liquid-crystalline assemblies of nanoparticles
7. 2010 – 2013, principal investigator in a project (25 000€) granted by the Ministry of Education and Higher Education, number N N204 533439; this project aimed at synthesis of new stilbene derivatives which were then used as surface ligands for indicung self-assembly of nanoparticles

CHOSEN AWARDS AND SCHOLARSHIPS

2020 stipend from Rector of the University of Warsaw for scientific achievements for outstanding scientists
2016 stipend for young outstanding scientists from all disciplines from the Polish Ministry of Science and Higher Education
2015 stipend from Rector of the University of Warsaw for outstanding young doctors at UW
2015 gold medal for CARLINE project recycling resolution, which I was a coauthor of, at International Invention Show ARCA in Zagreb and at The 9th International Warsaw Invention Show IWIS
2014 prize for outstanding PhD thesis from chemical sciences from the Polish Ministry of Science
2014 Aleksander Zamojski prize for the outstanding PhD thesis from the Polish Chemical Society
2014 The 1st prize in INTER science popularizing contest organized by the Foundation for Polish Science
2014 START scholarship from the Foundation for Polish Science for ca. 120 young scientists in Poland
2013 START scholarship from the Foundation for Polish Science for ca. 120 young scientists in Poland
2013 'Modern University' fellowship for 20 outstanding young doctors at the University of Warsaw
2012 scholarship for 120 outstanding PhD students in Poland from the Polish Ministry of Science
2010 'Modern University' fellowship for outstanding PhD students at the University of Warsaw
2008 best poster award at MSc students poster session from the scientific committee and audience

CONFERENCE ORGANIZATION

2020 http://nanoorgmat.chem.uw.edu.pl/sympozjum.html, Microsymposium on Soft and Plasmonic Nanomaterials (MSPN 2020), March 9-10, Biological and Chemical Research Centre, University of Warsaw, Warsaw, Poland.
2019 chair of Functional hybrid nanomaterials, nanocomposites and their applications session, 6th International Conference on Multifunctional, Hybrid and Nanomaterials March 11-16, Sitges, Spain.

2010 organization of a scientific conference: Sokolec, Poland, Annual Spring Meeting of Students Section of Polish Chemical Society (SSPTChem)
2009 organization of a scientific conference: Warsaw, Poland, Annual Winter Meeting of SSPTChem

INVITED TALKS AT CONFERENCES

6-8.03.2020	Ist Polish Chemistry Students Symposia "UWCHEM", UW, Warsaw, Poland, an invited oral presentation
24.10.2019	Photonics Seminar at the Faculty of Physics, UW, Warsaw, Switchable and chiral plasmonic nanomaterials made of liquid crystal nanoparticles, an invited seminar
17.12.2019	Seminar of the Nanophotonics Cathedral WFAiIS UMK in Torun, Poland, Reconfigurable liquid crystal nanomaterials - towards switchable plasmon chirality, an invited seminar
02-06.09.2019	Polish Chemical Society Meeting, Poland, Warsaw, Dynamic liquid crystal nanomaterials. an invited oral presentation
8-10.04. 2019	8th European Young Engineers Conference, Poland, Warsaw, Switchable metamaterials working in the visible, an invited oral presentation
17.09-21.09.2018	XXII CLC'2018 Conference on Liquid Crystals - Chemistry, Physics and Applications, Jastrzębia Góra, Polska, Dynamic self-assembly of nanoparticles using thermotropic liquid crystals, an invited oral presentation
7.12.2018	Dynamic self-assembly of nanoparticles - from SSPTChem 2009 till today, Winter Session of the Students Section of the Polish Chemical Society Meeting, Warsaw, Poland
24.10.2017	Moja Fantastyczna Naukowa Podróż (FNP), Dni Kariery i Mobilności dla doktorantów i młodych naukowców, Warszawa, Polska
19.04.2017	Dynamic self-assembly of metal nanoparticles, A conference for summarizing KNOW actions (WCH UW + WCh PW) Warsaw, Poland
29-13.05.2017	Dynamic self-assembly of nanoparticles, International Conference on Small Science (ICSS) 2017, San Sebastian, Spain
6-9.09.2017	Controlling the light – dynamic self-assembly of nanoparticles, Warsaw, Poland, Molecular Crystals conference

CHOSEN CONFERENCES

11-15.03.2019	Sitges, Spain, 6th International Conference on Multifunctional, Hybrid and Nanomaterials
22-27.07.2018	Kyoto, Japan, 27th International Liquid Crystals Conference, oral communication
2-6.07.2018	Wrocław, Poland, 11th International Conference on Nanophotonics, oral communication
29-13.05.2017	San Sebastian,Spain, International Conference on Small Science (ICSS) 2017
25-30.06.2017	Moscow, Russia, European Liquid Crystals Conference, oral communication
Aug 16-20, 2015	Boston, USA, ACS Fall Meeting, oral communication
Aug 17-20, 2014	San Diego, USA, Challenges in nanoscience, poster presentation
Jun 29 – Jul 9, 2014	Dublin, Ireland, ILCC2014, oral communication
Jul 8-13, 2013	Warwick, England, International Conference on Materials Chemistry, poster presentation
19-24 Aug, 2012	Mainz, Germany, 24th International Liquid Crystal Conference, oral communication
2008-2020	author and coauthor of ca. 75 conference presentations, several of my students were awarded with prizes for oral and poster communications

SCIENCE POPULARIZATION / OUTREACH TO THE SOCIETY

2014-2020	Interesting chemistry lectures for high-school students
2017	radio interview "People of science" (17.03.2017)
2015	article popularizing research grant results: Graphene/nanoparticles composites, 'Science and technology', 2015, 10, p.44

2015	article popularizing research grant results: Graphene/nanoparticles composites, Horizon2020
2015	radio interview ‘Czas na naukę’, Polish radio24
2015	radio interview OFF Czarek, TOK FM
2015	radio interview ‘Ludzie Nauki’ (15.01.2015)
2015	tv interview, ‘Porozmawiajmy o… nauce’ http://warszawa.tvp.pl/19021297/25022015
2014	lecture at the 18th The Science Picnic of Polish Radio and the Copernicus Science Center
since 2010	supervision of summer research visits of high school students within the frames of the National Fund for Children

THESIS WORK SUPERVISION AND ACHIEVEMENTS OF SUPERVISED STUDENTS

2013 – 2019	supervisor of 12 BSc theses (e.g. MS. Aneta Andruszkiewicz, who was awarded with the 1st prize for poster presentation at SSPTChem conference and is currently pursuing a PhD degree in Sweden, Ms. Martyna Tupikowska who won the second prize in the Polish Gold medal in chemistry contest, Mr. Mateusz Pawlak who was awarded a stipend from the Polish Ministry of Science and higher education, Mr. Piotr Szustakiewicz who was awarded with a Diamentowy grant under my supervision and is now pursuing PhD degree in Poland, Mr. Jan Grzelak who is now pursuing a PhD degree in Spain).
2013 – 2019	supervisor of 1 and laboratory supervisor of 4 MSc theses (e.g. Tomiła Łojewska who was awarded with the 1st prize in MSc theses contest organized by Polish Liquid Crystalline Society)

REVIEWING ACTIVITIES

now	reviewer for ACS Nano, ACS Applied Materials & Interfaces, Materials&Design, Chemical communications, Nanomaterials, ACS Omega, RSC Advances, Crystals, Applied Materials Today and others, >30 reviews in total
2018	Reviewer for European Research Council
2018	Review panel member, Foundation for Polish Science, >60 projects evaluated

TEACHING DUTIES

1. Laboratory, proseminar and seminar: *Current trends in organic/inorganic nanomaterials development*
2. Course lecture: *Methods of organic compounds identification*
3. Course lecture: *Organic synthesis*