

# Michał Wójcik - Curriculum Vitae

Phone: (+48) 48 022 822 02 11 ext. 387 or 26282

Mobile: (+48) 602 678 285

E – mail: mwojcik@chem.uw.edu.pl

Date of birth: 1983-09-12

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## Education and employment

- 2017 - today     **Advantic Sp. Z o.o. (Warka), Poland**  
*Founder and CEO*
- 2017 - today     **European Bank for Reconstruction and Development, UK/Ukraine**  
*Specialist in EBRD's international advisory project in Ukraine*
- 2016 - today     **Biological and Chemical Research Centre (UW), Laboratory of Novel Hybrid Materials, Poland**  
*Leader of the group*
- 2015 - today     **University of Warsaw, Faculty of Chemistry, Poland**  
*Adjunct professor*
- 2014 - 2016     **Cortex Chemical Sp. z o.o. (Tarnów), Poland**  
*Product manager*
- 10-11.2016     **UPMC Sorbonne Universites (Paris), France**  
*Visiting scientist under French government scholarship*
- 8-9.2014         **University of Colorado (Boulder), USA**  
*Visiting scientist*
- 2013 - 2015     **University of Warsaw, Faculty of Chemistry**  
*Junior lecturer (assistant)*
- 2012 - 2014     **Cortex Chemical Sp. z o.o. (Tarnów), Poland**  
*Specialist as a scientific advisor and purchasing manager*
- 2011 - 2013     **University of Warsaw, Faculty of Chemistry**  
*Postdoc position in the TEAM project of prof. E. Gorecka (founded by Polish Science Foundation)*
- 2009 - 2012     **Cortex Chemical Sp. z o.o. (Tarnów), Poland**  
*Assistant as a scientific advisor and purchasing assistant*
- 2011             **University of Warsaw, Faculty of Chemistry**  
*Ph.D. summa cum laude*
- 5-6.2010         **Martin Luther University Halle-Wittenberg, Germany**  
*Visiting scientist*
- 2007 - 2011     **University of Warsaw, Faculty of Chemistry**  
*PhD student*
- 2007-2010     **Chemian S.A. (Warsaw), Poland**  
*Assistant as a scientific advisor and purchasing assistant*

2002 - 2007      **University of Warsaw, Faculty of Chemistry**

*Master of Science*

*Detailed business and scientific activity is described in next sections of CV*

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### **Scholarships**

2016	University of Warsaw	Rector`s scholarship for outstanding teaching activity
2015	University of Warsaw	Rector`s scholarship for scientific achievements
2013	Foundation for Polish Science	START scholarship
2012	University of Warsaw	Modern University postdoctoral scholarship
2011-2013	Foundation for Polish Science	TEAM postdoctoral scholarship in the group of prof. Ewa Górecka
2010-2011	University of Warsaw	Doctoral Scholarship for the best Ph.D. students whose work affect the development of Mazovia
2009-2010	University of Warsaw	Doctoral Scholarship for the best Ph.D. students at University of Warsaw (The Modern University)
2008-2010	Mazovia Voivodeship	Doctoral Scholarship for the best Ph.D. students in Mazovia
2003,2005,2007	University of Warsaw	Student Scholarship

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### **Prizes for science activity**

2016	Gold medal for the CARLINE project at the International Invention & Innovation Exhibition Kuala Lumpur, Malaysia
2015	Gold medal for the CARLINE project at the International Exhibition of Inventions ARCA 2015 in Zagreb
2015	Gold medal for the CARLINE project at the International Exhibition of Inventions IWIS 2015 in Warsaw
2015	The First Prize in the IMPULS program awarded by the Foundation for Polish Science
2013	The First Prize of Polish Liquid Crystal Society for the best PhD thesis
2011	PhD thesis summa cum laude
2011	The Antoni Grabowski Reward of an outstanding science and teaching activity. Department of Chemistry of Warsaw University
2009	First Prize conferred by Scientific Board of '2nd BaltChem Conference'

2007 Distinction Award conferred by Scientific Board of '1st Chemofor – Conference of MSc Students'

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## Publications

- 2017 **M.M. Wójcik**, J. Wrobel, Z. Janczuk, J. Mieczkowski, E. Gorecka, J. Choi, M. Cho, D. Pociecha; "Liquid crystalline elastomers with gold nanoparticle cross-linkers" - accepted and published online in **Chemistry – A European Journal**; DOI: 10.1002/chem.201700723; **IF=5.771**
- 2017 K. Zabielska-Koczywas, I. Dolka, M. Król, A. Zbikowski, W. Lewandowski, J. Mieczkowski, **M.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** 22, 2, 253 (2015), **IF=2.465**
- 2016 M. Bagiński, A. Szmurło, A. Andruszkiewicz, **M.M. Wójcik**, W. Lewandowski; "Dynamic self-assembly of nanoparticles using thermotropic liquid crystals" - **Liquid Crystals** 43, 13-15, pp. 2391-2409 (2017), **IF=2.244**
- 2015 **M.M. Wójcik\***, M. Olesińska, M. Sawczyk, J. Mieczkowski, E. Górecka; „Controlling spatial organization of liquid crystalline nanoparticles by composition of the organic grafting layer” - **Chemistry – A European Journal**, 21,10082–10088 (2015), **IF=5.696**
- 2015 **M.M. Wójcik\***, W. Lewandowski, M. Król, K.M. Pawłowski, J. Mieczkowski, R. Lechowski, K.A. Zabielska; „Enhancing anti-tumor efficacy of doxorubicin by non-covalent conjugation to gold nanoparticles - in vitro studies on feline fibrosarcoma cell lines” – **POLS ONE** 10 (6), e0129639 (2015), **IF=3.534**
- 2015 E. Woźnica, **M.M. Wójcik**, M. Wojciechowski, J. Mieczkowski, E. Bulska, K. Maksymiuk, A. Michalska; „Improving the Upper Detection Limit of Potentiometric Sensors” **Electroanalysis** (Published online: 6 FEB 2015); **IF=2.502**
- 2014 A. Zep, **M. M. Wojcik**, W. Lewandowski, K. Sitkowska, A. Prominski, J. Mieczkowski, D. Pociecha, and E. Gorecka; „Phototunable Liquid-Crystalline Phases Made of Nanoparticles” **Angew. Chem. Int. Ed. Engl.** 53, 50, p. 13725–1372 (2014); **IF = 11.336**
- 2014 W. Lewandowski, **M. Wójcik**, E. Górecka; „Metal Nanoparticles with Liquid-Crystalline Ligands: Controlling Nanoparticle Superlattice Structure and Properties” Review; **ChemPhysChem** 15, 1283–95 (2014); **IF = 3.360**
- 2014 M. Vogrin, N. Vaupotič, **M.M. Wojcik**, J. Mieczkowski, K. Madrak, D. Pociecha, E. Gorecka; „Thermotropic cubic and tetragonal phases made of rod-like molecules”

**Physical Chemistry Chemical Physics** 16 (30), pp. 16067-16074 (2014); **IF = 4.198**

- 2014 E. Woźnica, **M.M. Wójcik**, J. Mieczkowski, K. Maksymiuk, A. Michalska; "Dithizone modified gold nanoparticles films as solid contact for Cu<sup>2+</sup> ion-selective electrodes" **Electroanalysis** 25, 1, p.141-146 (2013); **IF = 2.502**
- 2013 J. Paczesny, **M.M. Wojcik**, K. Sozański, K. Nikiforov, C. Tschierske, A. Lehmann, E. Gorecka, J. Mieczkowski, R. Holyst; "Self-Assembly of Gold Nanoparticles into 2D Arrays Induced by Bolaamphiphilic Ligands" **Journal of Physical Chemistry C** 117, 45, p. 24056-24062 (2013) ; **IF = 4.835**
- 2013 E. Woźnica, **M. Wójcik**, J. Mieczkowski, K. Maksymiuk, A. Michalska "Dithizone modified gold nanoparticles films as solid contact for Cu<sup>2+</sup> ion-selective electrodes" – **Electroanalysis** 25 (1) , pp. 141-146 (2013) **IF = 2.502**
- 2012 E. Woźnica, **M. Wójcik**, M. Wojciechowski, J. Mieczkowski, E. Bulska, K. Maksymiuk, A. Michalska; "Dithizone modified gold nanoparticles films for potentiometric sensing" **Analytical Chemistry** 84 (10) , pp. 4437-4442 (2012) **IF=5.965**
- 2011 **M. Wojcik**, M. Gora, D. Pociecha, J. Mieczkowski, E. Gorecka; „Temperature-controlled liquid crystalline polymorphism of gold nanoparticles” – **Soft Matter**, 7, 10561-10564, (2011) **IF=4.390**
- 2011 E. Jaworska, **M. Wojcik**, A. Kisiel, J. Mieczkowski, A. Michalska “Gold nanoparticles solid contact for ion-selective electrodes of highly stable potential reading” – **Talanta**, 85, 1986– 1989, (2011) **IF=3.794**
- 2011 P. Lesiak, **M. Wójcik**; Nonlinear optical characterization of the gold nanoparticles coated by thiols” - **Photonics Letters of Poland** 3 (3) , pp. 113-115 (2011);
- 2010 **M. Wojcik**, M. Kolpaczynska, D. Pociecha, J. Mieczkowski, E. Gorecka; „Multidimensional structures made by gold nanoparticles with shape-adaptive grafting layer” - **Soft Matter**, 6, 5397-5400, (2010) **IF=4.457**
- 2009 **M. Wojcik**, W. Lewandowski, J. Matraszek, J. Mieczkowski, J. Borysiuk, D. Pociecha, E. Gorecka, 'Liquid-Crystalline Phases Made of Gold Nanoparticles', **Angew. Chem. Int. Ed.** 48, 5167-5169, (2009) **IF=11.829**

Total IF=**70,9**

- 2015 International patent application published under the patent cooperation treaty (**PCT**) - **WO 2017/025843 A1** (16 February 2017) “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.”

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**Business activity description**

2017 - present	Advantic Sp. Z o.o. – founder and CEO, R&D and consulting activity, development of new products, developing recipes and implementation of R & D projects (food industry, nanomaterials)
2014 - 2016	Cortex Chemical Sp. z o.o. – product manager, development of new products, developing recipes and implementation of R & D projects including yeast extracts for food and biotechnological industry
2012 - 2014	Cortex Chemical Sp. z o.o. – specialist as a scientific advisor and purchasing manager
2009 - 2012	Cortex Chemical Sp. z o.o. – assistant as a scientific advisor
2007-2009	Chemana S.A. – assistant as a scientific advisor

During cooperation with these companies I attended more than 15 conferences and business fairs around the World and I had the opportunity to participate in audits of more than 20 factories located mainly in China, Germany and USA. I participated in trade fairs and business meetings in the framework of the fair, which took place in France, Germany, China, Holland. I'm an expert on Chinese chemical and biotechnological market.

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**Recent funding**

2017-2019	LIDER project funded by the National Centre for Research and Development– principal investigator (275000 EUR)
2015-2018	SONATA project funded by the National Science Centre– principal investigator (148000 EUR)
2015-2016	IMPULS project awarded by the Foundation for Polish Science
2013-2014	"Generation of the Future" commissioned by the Ministry of Science and Higher Education, Project Manager

2011-2014 Preludium grant UMO-2011/01/N/ST5/03297 founded by National science center (NCN)– main contractor (17200 EUR)

2011-2013 Project IP2011 061871 (Iuventus Plus) founded by The Ministry of Science and Higher Education (MNiSW) – main contractor (40500 EUR)

2010-2011 Project 0476/H03/2010/70 (Iuventus Plus) founded by The Ministry of Science and Higher Education (MNiSW) – main contractor (13300 EUR)

2010-2011 Project 0150/B/H03/2010/38 founded by The Ministry of Science and Higher Education (MNiSW)– main contractor (14300 EUR)

2010 Short-term visit grant, founded by European Science Foundation (ESF)

2007-2010 European Science Foundation Project, “Liquid Crystalline nano-particles” – collaborator

**Total funding: 508 300 EUR**

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### **International Cooperation**

Prof. Ivan Smalyukh      University of Colorado at Boulder, USA

Prof. Emmanuelle Lacaze   UPMC Sorbonne Universites (Paris), France

Prof. Carsten Tschierske   Martin Luther University Halle-Wittenberg, Germany

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### **Conference participation (selected; oral or poster)**

29-31.05.2017                      "NanoBioMaterials - Theory and Practice" (oral presentation – invited plenary lecture)

28.04-2.05.2017, Pilchy, Poland      Symposium of Students Science Clubs - Pilchy 2017 (oral presentation – invited lecture)

22.11.2016, Paris, France      Liquid crystals defects and/or nanoparticles (oral presentation – invited lecture)

31.07-5.08.2016                      26th International Liquid Crystal Conference (poster presentation)

28.08.2014,  
Boulder, USA                      Big Energy Seminar Series - Renewable and Sustainable Energy Institute (RASEI) (oral presentation – invited lecture)

17-20.08.2014,  
San Diego, USA                      Challenges in Nanoscience ISACS 15 (poster presentation)

8-11.07.2013, Warwick, GB	11th International Conference on Materials Chemistry (MC11) (poster presentation)
19-24.08.2012, Mainz, Germany	24 <sup>th</sup> International Liquid Crystal Conference (oral presentation – invited lecture)
5-7.10. 2011, Lwów, Ukraine	Planer-Smoluchowski Soft Mater Workshop on Liquid Crystal Colloids (oral presentation)
9-12.04.2011, Hangzhou, China	ICAM Metamaterials Workshop 2011 (poster presentation)
11-16.07.2010, Kraków, Poland	23 <sup>rd</sup> International Liquid Crystal Conference (poster presentation)
28-30.06.2010, Pardubice, Czech Republic	62 <sup>nd</sup> Congress of Czech and Slovak Chemical Societies Associations (oral presentation)
7-11.04. 2010, Sokolec, Poland	Zjazd Wiosenny Sekcji Studenckiej Polskiego Towarzystwa Chemicznego (oral presentation)
19 – 22.10.2009, Prague, Czech republic	Self-organized nanostructures – SONS 2 (poster presentation)
14 – 18.10. 2009, Warszawa, Poland	7th YoungChem Congress of Young Chemists (oral presentation)
12-16.09.2009, Łódź, Poland	52. Zjazd Polskiego Towarzystwa Chemicznego (oral presentation)
22 – 26.04.2009, Bartkowa-Posadowa, Poland	Zjazd Wiosenny Sekcji Studenckiej Polskiego Towarzystwa Chemicznego (oral presentation)
2 – 5.04.2009, Warszawa, Poland	'2nd BaltChem 2009' (poster presentation)
5 – 19.10.2008, Kraków, Poland	'6th YoungChem 2008, an International Congress of Young Chemists' (poster presentation)

*I attended 30 conferences, including 12 conferences abroad*

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## **Educational Activity**

- tutor students under the program individual studies. My students have been granted several times with the scholarships of Polish Minister of Science and Higher Education (A.Promiński, M.Sawczyk, B.Matysiak, Z.Jańczuk) and many other awards and scholarships ("Future Generation", "A student with an idea"). Michał Sawczyk was the winner of the "Golden Medal of Chemistry", the most prestigious prize for chemistry students in Poland
  - Classes: Identification of Organic Compounds (Laboratory ;
  - Principles of Organic Chemistry for Biology Students
  - Working with talented youth within the "Foundation for Children" and the Foundation "Future in Science"
  - Working with students participating in the International Chemistry Olympiad (basics of organic chemistry labs)
  - Tutor of seven M.S.c students and eleven B.S. thesis
  - Individual laboratories for students of Chemistry (7 projects)
  - Tutor in SKILS project founded by FNP
  - Supervisor of the SANA students association at Faculty of Chemistry
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#### **Editorial activities, cont.(Reviewer)**

- Biocojugate Chemistry, ACS, IF=4,500
  - Molecular Pharmaceutics, ACS, IF=4,384
  - Electroanalysis, Wiley, IF=2,138
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#### **Research interests**

- Banana-like liquid crystals
  - Soft matter - molecular-level structure and physicochemical properties
  - Self-assembly codes of nanoelements as well as metal nanoparticles organization
  - Synthesis of nanoparticles for materials science and biomedical applications
  - Liquid crystal elastomers in nanoscience
  - Biomedical applications of nanoparticles
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#### **Other Activities**

Since 2015	Scientific tutor and advisor of Supramolecular and Nanoscale Student Association
Since 2010	Member of the Polish Liquid Crystals Society
2009 - 2010	Vice-President Student Section of Polish Chemical Society
2010	President of the Organizing Committee of the Congress Spring Student Section of Polish Chemical Society
2009 - 2010	Board Member Student Section of Polish Chemical Society



Since 2009

Member of the Polish Chemical Society

2009

Member of the Organizing Committee of the Congress of the Winter  
SSPTChem

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**Other skills**

- Specialist in the Chinese chemical industry and biotechnology
- Specialist in R&D resources for food and pharmaceutical applications

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**Interests**

- Universal history, modern history of China, World War II, the history of the Soviet Union, history of the twentieth century.
- Business and R&D in the chemical, pharmaceutical and biotechnology