Wrocław University of Science and Technology
Doctoral School

ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCŁAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

Name, surname:	Marek Samoć
Grade / Title:	Professor
Scientific discipline	**inżynieria materiałowa / materials engineering**
Faculty:	W3 Wydział Chemiczny / Faculty of Chemistry
Email address:	Marek.samoc@pwr.edu.pl
Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	https://scholar.google.pl/citations?user=W0OmVhgAAAAJ&hl=en

2. Publication record

Up to 10 most important papers published over the period of previous 10 years.

No.	Description (authors, publication title, journal / conference, DOI)	Publication year
1.	Pniakowska, A., M. Samoc and J. Olesiak-Banska (2023). "Strong fluorescence-detected two-photon circular dichroism of chiral gold nanoclusters." Nanoscale 15(19): 8597-8602. https://doi.org/10.1039/D3NR01091K	2023
2.	I. Chaban, R. Deska, G. Privault, E. Trzop, M. Lorenc, S. Kooi, K. A. Nelson, M. Samoc, K. Matczyszyn and T. Pezeril, Nonlinear optical absorption in nanoscale films revealed through ultrafast acoustics, Nano Letters, 22(11), 4362-4367 (2022); http://dx.doi.org/10.1021/acs.nanolett.2c00771	2022
3.	K. C. Nawrot, M. Sharma, B. Cichy, A. Sharma, S. Delikanli, M. Samoć, H. V. Demir, M. Nyk, Spectrally Resolved Nonlinear Optical Properties of Doped vs. Undoped quasi-2D Semiconductor Nanocrystals: Copper and Silver Doping provokes strong nonlinearity in Colloidal CdSe Nanoplatelets, ACS Photonics, 9, (1), 256-267 (2022); http://dx.doi.org/10.1021/acsphotonics.1c01456	2022
4.	J. K. Zaręba, M. Nyk and M. Samoć, Nonlinear optical properties of emerging nano- and microcrystalline materials, Adv. Opt. Mat. 2100216 (2021); https://doi.org/10.1002/adom.202100216	2021
5.	P. Obstarczyk, M. Lipok, M. Grelich-Mucha, M. Samoć, J. Olesiak-Bańska, Two-photon excited polarization-dependent autofluorescence of amyloids as label-free method of fibrils organization imaging , J. Phys. Chem. Lett., 12 (5), 1432-7 (2021); http://doi.org/10.1021/acs.jpclett.0c03511	2021
6.	C. Quintana, M. Morshedi, J. Du, J. Morrall, J. K. Zaręba, M. Samoc, M. Cifuentes, M. G. Humphrey, Hybrids of Gold Nanoparticles and Oligo(p-Phenyleneethynylene)s End-Functionalized with Alkynylruthenium Groups:	2020

	Outstanding Two-Photon Absorption in the Second Biological Window, Nano Research, 13, 2755-2762 (2020); https://doi.org/10.1007/s12274-020-2924-4	
7.	J. Olesiak-Bańska, M. Waszkielewicz, P. Obstarczyk, M. Samoć, Two-photon absorption and photoluminescence of colloidal gold nanoparticles and nanoclusters, Chem. Soc. Rev., 48 (15), 4087-4117 (2019); http://dx.doi.org/10.1039/C8CS00849C	2019
8.	J. K. Zaręba, M. Nyk, J. Janczak, M. Samoc, Three-photon Absorption of Coordination Polymer Transforms UV-to-VIS Thermometry into NIR-to-VIS Thermometry, ACS Appl. Mat. Interf., 11 (11), 10435-10441 (2019); http://dx.doi.org/10.1021/acsami.8b21937	2019
9.	R. Medishetty, L. Nemec, V. Nalla, S. Henke, M. Samoć, K. Reuter, R. A. Fischer, Multi-Photon Absorption in Metal-Organic Frameworks, Angew. Chem. 56(46), 14743-14748 (2017); http://dx.doi.org/10.1002/anie.201706492	2017
10.	R. Medishetty, J. K. Zaręba, D. Mayer, M. Samoc, and R. A. Fischer, Nonlinear Optical Properties, Upconversion and Lasing in Metal-Organic Frameworks, Chem. Soc. Rev. 46, 4976-5004 (2017), http://dx.doi.org/10.1039/c7cs00162b	2017

3. Projects and grants

List of the most important 5 projects/grants with basic description including: title, source(s) of funding, name of the call, role in the project (e.g., principal investigator).

1.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal Investigator
	Project title	Organometallics in Nanophotonics
	Sources of funding	FNP
	Name of the call	Welcome
	Implementation period	2009-2015
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal Investigator
	Project title	New directions in the studies of nonlinear optical effects and their physicochemical consequences
	Sources of funding	NCN
	Name of the call	Maestro
	Implementation period	2014-2021
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal Investigator
	Project title	New materials with enhanced nonlinearity and methods of evaluating their parameters
	Sources of funding	NCN

	Name of the call	Harmonia
	Implementation period	2016-2021
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal Investigator
	Project title	Nonlinear nanobiophotonics: femtosecond scale studies of nonlinear optical processes relevant for bioimaging and light activated therapies
	Sources of funding	FNP
	Name of the call	Mistrz
	Implementation period	2014-2016
5.	Role in the project (e.g., principal investigator, work package leader, etc.)	CI, PI
	Project title	Many projects
	Sources of funding	Australian Research Council
	Name of the call	Discovery, Linkage
	Implementation period	1998-now

4. International experience

Brief description of international cooperation and experience (e.g., research stays, cooperation with foreign entities, coordination or participation in international projects or programmes, keynote speeches and presentations delivered at renowned international conferences, visiting professor stays, invited lectures).

No.	Description	Year(s)
1.	National Research Council Canada	1979-1980
2.	Dartmouth College	1987-1988
3.	University at Buffalo	1988-1991
4.	The Australian National University	1991-2009

5. Experience in teaching doctoral students

Brief description of experience in teaching doctoral students (e.g., courses in doctoral schools and PhD studies, summer/winter schools for doctoral students, tutorials, trainings, etc.).

No.	Description	Year(s)
1.	Many courses for graduate students	
2.	Teaching at summer schools	
3.		

6. List of supervised doctoral students

List of all supervised doctoral students that defended the PhD including: name of the student, dissertation title, year of awarding PhD.

No.	Name, surname	Dissertation title	Year of awarding PhD
1.	10 PhDs supervised at the ANU		

2.	Joanna Olesiak-Bańska	Dyes and nanoparticles as biolabels in two-photon microscopy of liquid crystalline DNA	2012
3.	Piotr Hańczyc	Applications of chromophores and multiphoton analysis techniques to understanding biomolecular reactions with dyes and drugs	2014
4.	Janusz Szeremeta	Nonlinear optical and photoelectric effects in hybrid systems containing metal and semiconductor nanoparticles and polythiophene.	2014
5.	Leszek Mazur	Investigation of charge carriers transport in self-organized organic semiconductors.	2014
6.	Dominika Wawrzyńczyk	Synthesis and spectroscopic characterization of lanthanide doped nanocrystals with potential applications as nanosensors and nanolabels.	2014
7.	Marta Gordel	Synthesis, optical studies and functionalization of plasmonic nanoparticles for biological applications.	2015
8.	Radosław Kołkowski	Studies of nonlinear optical properties of plasmonic nanostructures	2016
9.	Katarzyna Brach	Ciekłokrystaliczne DNA domieszkowane nanostrukturami.	2018
10.	Magdalena Klekotko	Synteza i charakterystyka nanocząstek złota otrzymywanych przy użyciu ekstraktów roślinnych	2019
11.	Magdalena Waszkielewicz	Chiral nanostructures - synthesis and investigation of their nonlinear optical properties.	2019

7. Prizes and awards

The most important national and international prizes and awards related to research, development and teaching activities.

No.	Description	Year
1.	Foundation for Polish Science “Welcome” award (2009)	2009
2.	Poland Prime Minister Science Prize for outstanding achievements in scientific research (2015)	2015
3.	City of Wroclaw Science Prize (2016)	2016
4.	Foundation for Polish Science Prize (2016)	2016
5.	Polish Chemical Society Jan Zawidzki Medal (2017)	2017
6.	French-Polish Award in Chemistry awarded by the French Chemical Society (2019)	2019
7.	Polish Chemical Society Jędrzej Śniadecki Medal (2020)	2020

8. Other significant achievements

Information on other significant achievements related to research, development and teaching activities.

Member of the Council of the National Science Centre, Poland (NCN) for 2018-2022
Corresponding Member of the Polish Academy of Sciences
Corresponding Member of the Polish Academy of Knowledge
Member of the European Academy of Sciences (EurASC)