



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

Name, surname:	Agnieszka Sobianowska-Turek
Grade / Title:	PhD
Scientific discipline	inżynieria środowiska, górnictwo i energetyka / environmental engineering, mining, and energy
Faculty:	W7 Wydział Inżynierii Środowiska / Faculty of Environmental Engineering
Email address:	agnieszka.sobianowska-turek@pwr.edu.pl
Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	ID: 0000-0003-2154-8609 SC: 55624203700

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.	P.Łoś, S.Jacek-Krakus, J.Markowicz, A.Łabuz, A.Sobianowska-Turek, M.Zygmunt, M.Janosz, A. Fornalczyk, A selective separation of platinum group metals from the Fe-PGM alloy using electrodeposition combined with electrochemical dealloying. Journal of the Electrochemical Society. DOI 10.1149/1945-7111/ad1d96	2024
2.	K.Leszczczyńska-Sejda, A.Chmielarz, D.Kopyto, M.Ochmański, G.Benke, A.Palmowski, A.Sobianowska-Turek, P.Łoś, A.Fornalczyk, M.Zygmunt, K.Goc, An innovative method of leaching of battery masses produced in the processing of Li-Ion battery scrap. Applied Sciences. DOI 10.3390/app14010397	2024
3.	P.Łoś, A.Łabuz, A.Sobianowska-Turek, A.Fornalczyk, M.Zygmunt, M.Janosz Potencjodynamiczne elektrowydziałanie miedzi. Badania w skali laboratoryjnej i pilotowej : badania w skali laboratoryjnej i pilotowej. Przemysł Chemiczny. DOI 10.15199/62.2024.1.12	2024
4.	A.Sobianowska-Turek, P.Łoś, A. Fornalczyk, M.Zygmunt, Potential market value of electrolyte condensate recovered from LIBs mechanical treatment. Gaz, Woda i Technika Sanitarna. DOI 10.15199/17.2023.6.5	2023
5.	A.Sobianowska-Turek, Hydrometalurgiczny przerób ogniw litowo-jonowych. W: Środkowoeuropejskie Forum Technologiczne = Central European Technology Forum : Konferencja tematyczna : Innowacyjne technologie w metalurgii metali niezależnych, Wrocław 24-25.10.2022 / Polska Izba Gospodarcza Zaawansowanych Technologii.	2022
6.	A.Sobianowska-Turek, W.Urbańska, A.Janicka, M.Zawiślak, J.Matla The necessity of recycling of waste Li-Ion batteries used in electric vehicles as objects posing a threat to human health and the environment. Recycling. DOI 10.3390/recycling6020035	2021



7.	K.Winiarska, R.Klimkiewicz, W.Tylus, A.Sobianowska-Turek, J.Winiarski, B.Szczygieł, I.Szczygieł, Study of the catalytic activity and surface properties of manganese-zinc ferrite prepared from used batteries. Journal of Chemistry. DOI 10.1155/2019/5430904	2019
8.	A.Sobianowska-Turek, Hydrometallurgical recovery of metals: Ce, La, Co, Fe, Mn, Ni and Zn from the stream of used Ni-MH cells. Waste Management. DOI 10.1016/j.wasman.2018.03.046	2018
9.	A.Sobianowska-Turek, W.Szczepaniak, P.Maciejewski*, M. Gawlik-Kobylińska, Recovery of zinc and manganese, and other metals (Fe, Cu, Ni, Co, Cd, Cr, Na, K) from Zn-MnO ₂ and Zn-C waste batteries : hydroxyl and carbonate co-precipitation from solution after reducing acidic leaching with use of oxalic acid. Journal of Power Sources. DOI 10.1016/j.jpowsour.2016.06.042	2016
10.	A.Sobianowska-Turek, W.Szczepaniak, M.Zabłocka-Malicka, Electrochemical evaluation of manganese reducers - recovery of Mn from Zn-Mn and Zn-C battery waste. Journal of Power Sources. DOI 10.1016/j.jpowsour.2014.07.136	2014

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.)	Head of research on LIBs recycling technology
	Project title	Research, development and first industrial deployment of innovative technologies of Li-Ion batteries and spent auto-catalysts recycling with recovery of strategic metals.
	Sources of funding	UE
	Name of the call	IPCEI - NCBiR
	Implementation period	2021-2027
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	Research leader
	Project title	Modeling of hydrometallurgical processes of metal recovery from polymetallic waste chemical energy sources of the second type
	Sources of funding	PL
	Name of the call	MINIATURA 1 - NCN
	Implementation period	2017-2018
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	Contractor
	Project title	Deposition of protective and decorative coatings based on rhenium and its compounds - ReNewTech
	Sources of funding	PL
	Name of the call	II CuBR - NCBiR
	Implementation period	2016



4.	Role in the project (e.g., principal investigator, work package leader, etc.)	Contractor
	Project title	Development and testing on a demonstration scale of an innovative, compact module for generating electricity from biomass
	Sources of funding	PL
	Name of the call	Demonstrator - NCBiR
	Implementation period	2015
5.	Role in the project (e.g., principal investigator, work package leader, etc.)	Main contractor
	Project title	Reduction of Hydrocarbon Emissions (Incomplete Combustion Products) from low power boilers by improving combustion processes using catalysts
	Sources of funding	PL
	Name of the call	NCBiR
	Implementation period	2010-2012

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.	Erasmus + Norwegian University	2024
2.		
3.		

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.		
2.		
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.	Weronika Urbańska	Recovery of metals from used Li-ion cells by leaching;	2019 - auxiliary promoter
2.			
3.			



7. Prizes and awards

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

No.	Description	Year
1.	Medal of the 3rd Degree for Long Service - state decoration	2020
2.	Individual award from the Rector of Wrocław University of Science and Technology in recognition of the outstanding contribution of the University	2019
3.	Individual award from the Rector of Wrocław University of Science and Technology in recognition of the outstanding contribution of the University	2017

8. Other significant achievements

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

I have technical education in the specialization of chemical metallurgy and corrosion of materials and in the discipline of environmental engineering. From October 2005 till November 2009, after graduating from the Faculty of Chemistry, I became a doctoral student at the Faculty of Environmental Engineering of the Wrocław University of Technology. The subject of my dissertation was the processing of the zinc and manganese-rich main material stream generated during the processing of waste zinc-carbon and zinc-manganese batteries. I have been professionally associated with the Wrocław University of Science and Technology since February 2008. Currently, I'm employed (since October 2012) as an assistant professor at the Department of Environmental Protection Engineering at the Faculty of Environmental Engineering at the Wrocław University of Technology, at the same time, from October 2021, I work at Elemental Strategic Metals Sp. z o.o. in the project – "Research, development and first industrial deployment of innovative technologies of Li-Ion batteries and spent auto-catalysts recycling with recovery of strategic metals." co-financed by the European Union from the European Regional Development Fund, under the Intelligent Development Operational Program, under the Fast Track – IPCEI. In which I hold a Research & Development Manager position for LIBs recycling technology (Elemental Strategic Metals (elementalsm.pl), Elemental (elementalbatteries.com)). In June 2014, I completed postgraduate studies at the WSB University in Wrocław and obtained professional qualifications as a research and development project manager. I am the author of over ninety (90) scientific publications (h-index - 7 and 171 citations) and numerous reports for industry. In addition, I was the manager and contractor of several research projects, as well as an experienced teacher and the author of substantive didactic courses.

My research interests are focused on advanced processing and / or recycling of industrial polymetallic waste. The aim of the conducted research related to the processing of the heterogeneous stream of used cells is to develop alternative methods for the recovery of metals contained in mechanically pre-treated waste, using methods based on pyrometallurgical and / or hydrometallurgical processes. These studies can be included in the elementary recovery technologies developed in the world, conditioned on the processing of various types of waste into basic raw materials, or into new products, different from those contained in the original waste.