



ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Basic information

Name, surname:	Anna Siekierka
Grade / Title:	Dr hab. inż.
Scientific discipline	Chemical Engineering
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Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	https://sites.google.com/pwr.edu.pl/annasiekierka/welcome https://scholar.google.com/citations?user=6KaYScAAAAJ&hl=pl

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.	A Siekierka, B Tomaszewska, M Bryjak, Lithium capturing from geothermal water by hybrid capacitive deionization, Desalination 436, 8-14, https://doi.org/10.1016/j.desal.2018.02.003	2018
2.	A Siekierka, Lithium and magnesium separation from brines by hybrid capacitive deionization, Desalination 527, 115569, https://doi.org/10.1016/j.desal.2022.115569	2022
3.	A Siekierka, J Kujawa, W Kujawski, M Bryjak, Lithium dedicated adsorbent for the preparation of electrodes useful in the ion pumping method, Separation and Purification Technology 194, 231-238, https://doi.org/10.1016/j.seppur.2017.11.045	2018
4.	A Siekierka, Lithium iron manganese oxide as an adsorbent for capturing lithium ions in hybrid capacitive deionization with different electrical modes, Separation and Purification Technology 236, 116234, https://doi.org/10.1016/j.seppur.2019.116234	2020
5.	A Siekierka, F Yalcinkaya, Selective cobalt-exchange membranes for electrodialysis dedicated for cobalt recovery from lithium, cobalt and nickel solutions, Separation and Purification Technology 299, 121695, https://doi.org/10.1016/j.seppur.2022.121695	2022
6.	A Siekierka, DL Callahan, W Kujawski, LF Dumée, Ultra-selective chelating membranes for recycling of cobalt from lithium-ion spent battery effluents by electrodialysis, Desalination 556, 116561, https://doi.org/10.1016/j.desal.2023.116561	2023
7.	A Siekierka, DL Callahan, W Kujawski, LF Dumée, Deep eutectic solvent assisted electrodialysis towards selective resource recovery from model spent batteries effluents, Desalination 580, 117559, https://doi.org/10.1016/j.desal.2024.117559	2024



8.	A Siekierka, F Yalcinkaya, M Bryjak, Recovery of transition metal ions with simultaneous power generation by reverse electrodialysis, Journal of Environmental Chemical Engineering 11 (3), 110145, https://doi.org/10.1016/j.jece.2023.110145	2023
9.	A Siekierka, J Nowicka, M Ostrowska, Mechanism of selective transportation of metal ions across chelating membranes in electrodialysis, Chemical Engineering and Processing-Process Intensification 189, 109408, https://doi.org/10.1016/j.cep.2023.109408	2023
10.	A Siekierka, Preparation of electrodes for hybrid capacitive deionization and its influence on the adsorption behaviour, Separation Science and Technology 55 (12), 2238-2249 https://doi.org/10.1080/01496395.2019.1609032	2020

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	Reverse salinity energy harvesting-assisted electromembrane system for metal ion fractionation and hydrogen production from battery waste
	Sources of funding	European Research Council (ERC)
	Name of the call	Starting Grant 2025
	Implementation period	1.02.2026-30.01.2031
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal investigator.
	Project title	Synteza i charakterystyka selektywnych jonowych kowalencyjno-organicznych struktur jako sorbentów do wydzielania metali przejściowych – iCOFFEE,
	Sources of funding	Narodowe Centrum Nauki (NCN)
	Name of the call	Sonata 18
	Implementation period	09.2023-09.2026
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal investigator.
	Project title	Interkompozytowe membrany jonowymienne do separacji jonów w procesach elektromembranowych
	Sources of funding	Narodowa Agencja Wymiany Akademickiej (NAWA),
	Name of the call	Program bilateralny Polska-Czechy,
	Implementation period	03.2022-05.2022
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal investigator.
	Project title	Synteza i charakterystyka nieorganicznych, wieloskładnikowych adsorbentów do selektywnej ekstrakcji soli litu za pomocą Hybrydowej Pojemnościowej Dejonizacji (HCDI)
	Sources of funding	Narodowe Centrum Nauki (NCN)



	Name of the call	Preludium 13
	Implementation period	02.2018-02.2019
5.	Role in the project (e.g., principal investigator, work package leader, etc.)	Research assistant (Wykonawca)
	Project title	Cost effective technology to recover, purify and reintroduce spent metal ions towards a sustainable battery market
	Sources of funding	Project własny Deakin University, funded by Institute for Frontier Materials (IFM) – Circular Economy, Deakin University, Australia with industrial partner MRI
	Name of the call	Project IFM
	Implementation period	08.2019-08.2020

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.	Blended Intensive Program „Circularity of Polymers” 18-22.03.2024, Wrocław, Poland – organization committee	2024
2.	2020 Symposium on Lithium Supply Chain for a Green and Mobile Energy Future, 20.11.2020, Sydney, Australia – organization committee	2020
3.	10th International Membrane Science & Technology Conference – IMSTEC2020, 2-6.02.2020r., Sydney, Australia – organization committee	2020
4.	Chair of section “2nd Conference "Membrane Materials - Modification and Separation" (M3-S), 26-28.09.2023, Toruń, Poland”	2023
5.	Chair of section “MEMPEP 2023”, 21-24.06.2023 Zakopane, Poland	2023
6.	Chair of section “MELPRO 2022”, 18-21.09.2022, Prague, Czechia	2022
7.	Chair of section “12th International Congress on Membranes and Membrane Processes 7-11.12.2020, London, UK	2020
8.	Chair of section “Symposium on Lithium Supply Chain 2020, 20.11.2020”	2020
9.	Chair of section “10th International Membrane Science and Technology Conference (IMSTEC2020), 2-6.02.2020, Sydney, Australia”	2020
10.	Bilateral program , Technical University of Liberec, Liberec, Czechia	2022
11.	Post-doc position Deakin University, Geelong, Victoria, Australia, 08.2019-08.2020	2019-2020
12.	Erasmus Mobility, Technical University of Liberec, Liberec, Czechia	2017
13.	Participation in European Cooperation in Science and Technology COST w ramach CA19123 – Protection, resilience, rehabilitation of damaged environment (PHOENIX) (21.09.2020-20.09.2024)	2020-2024
14.	Blended Intensive Program (BIP), Circularity of Polymers, 12.03.2023-17.03.2023, University of Antwerp, Antwerp	2023
15.	Project Polish–Turkish bilateral cooperation within the GEO4FOOD project titled “Water–Energy–Food Nexus – geothermal water for agriculture.	2020-2021
16.	Project Polish–Turkish bilateral cooperation within the GEOTHERM project titled “Integrated management of geothermal water: recovery of energy and water.”	2019-2020



17.	Covalent Organic Frameworks as an Electrode Material in Capacitive Deionization, EUROMEMBRANE2024 – 8-12 September 2024, Prague, Czechia, Keynote Speaker - Anna Siekierka	2024
18.	Cobalt selective membranes for fractionation of lithium, cobalt and nickel by electrodialysis, MELPRO2022, Prague, Czechia, September 2022	2022
19.	Cobalt-selective membranes for cobalt recovery from lithium spent batteries by electrodialysis, MEMPEP 2021, Zakopane Poland, June 2021	2021
20.	Lithium release by electro-membrane operations, 12th ICOM 2020, London, UK	2020

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.	Research skills W03INC-SD0088W - lecture	2025
2.	Recent research trends in chemical engineering W03INC-SD0017S- lecture	2025

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
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7. Prizes and awards

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

No.	Description	Year
1.	Nominee for the Women 2025 by Forbes Women in category "Science"	2025
2.	TOP 2% of the most frequently cited researchers (in 2023 and 2024) in the fields of engineering, chemical engineering and environmental sciences – based on the analysis by Stanford University, Elsevier and SciTech Strategie	2024,2025
3.	Rector's Award of Wrocław University of Science and Technology for an outstanding contribution to the development of the University	2024
4.	Primus Award of Wrocław University of Science and Technology; Rector's Award for publications with an MNiSW score of 200	2024, 2023, 2022, 2020
5.	Winner of the national Falling Walls Poland Competition	2023
6.	Secundus Award 2021, 2023, 2024, 2025 – Rector's Award of Wrocław University of Science and Technology for the highest-scoring scientific achievements.	2025, 2024, 2023, 2021
7.	2021 Best Paper Award from Resources, Conservation & Recycling (RCR), Elsevier, for the publication: A. Ali, C. A. Quist-Jensen*, M. K. Jørgensen, A. Siekierka, M. L. Christensen, M. Bryjak, C. Hélix-Nielsen*, E. Drioli*, A review of membrane crystallization, forward osmosis and membrane capacitive deionization for liquid mining, Resources, Conservation and Recycling, 105273 (2021).	2021



8.	Scholarship for Outstanding Young Scientists 2021–2024, Award of the Minister of Education and Science, Poland	2021
9.	START Scholarship 2021, Foundation for Polish Science (FNP), Poland	2021
10.	European Membrane Society Conference Fee Award, 2020	2020

8. Other significant achievements

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