

CV

Personal details:

Surname:	Andrunik (Tuchowska)
Name:	Magdalena
Address (Office):	Division of Biogenic Raw Materials Mineral and Energy Economy Research Institute, PAS al. Wybickiego 7A, 31-261 Kraków, Poland
E-mail:	andrunik@meeri.pl
www	mit.agh.edu.pl/ linkedin.com/in/magdalena-andrunik-836305128/ orcid.org/0000-0002-4606-3440

Professional background:

2023 - present	Research assistant Mineral and Energy Economy Research Institute, Polish Academy of Sciences, Division of Biogenic Raw Materials
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Educational background:

2024	Ph.D. in Earth Sciences AGH University of Krakow, Faculty of Geology, Geophysics and Environmental Protection Ph.D. thesis: <i>Sorption of pesticides on zeolites and zeolitic composites modified with cationic and nonionic surfactants.</i> Supervisor: prof. dr hab. inż. Tomasz Bajda
2016	M.Sc. in Environmental Engineering , specialization: Mineral Engineering AGH University of Krakow, Faculty of Geology, Geophysics and Environmental Protection M.Sc. thesis: <i>Sorption of As(III) compounds on bog iron ores.</i> Supervisor: prof. dr hab. inż. Tomasz Bajda
2015	B.Sc. in Environmental Engineering AGH University of Krakow, Faculty of Geology, Geophysics and Environmental Protection B.Sc. thesis: <i>Sorption of As(V) compounds on natural and modified mineral sorbents.</i> Supervisor: prof. dr hab. inż. Tomasz Bajda

Research interest:

- Development of region-specific action plans at national, local, and regional scales for the adoption of alternative solutions related to bio-based and waste-based soil products
- Providing socioeconomic and policy recommendations for the adoption of alternative solutions related to bio-based and waste-based soil products
- Modern waste management
- Sustainable resource utilization
- Optimising alternative fertilisers and soil improvers in agriculture
- Controlled-release formulations of pesticides and fertilisers
- Efficiency and mechanisms of organic and inorganic compound immobilization using natural and modified adsorbents

Expertise:

- Scientific journals reviewer
- Intellectual property – 2 know-hows registered in CTT AGH
- PRINCE2® Practitioner 6th Edition, PRINCE2® Foundation 6th Edition
- AgilePM® Practitioner, AgilePM® Foundation
- Scrum Master Certified (SMC®)
- DTMethod® Foundation
- Lab2Market programme designed to transform ideas into start-ups (EIT RawMaterials)

Research grants:

2023 - 2027	Grant Horizon Europe - DeliSoil – Delivering Soil improvers through improved recycling and processing solutions for food industry residues streams (Co-investigator at MEERI). Project coordinator at Consortium: LUKE – Natural Resources Institute Finland (Finland).
2022 - 2024	Iceland, Liechtenstein and Norway through the EEA and Norway Grants - Water-CE-management in practice – developing comprehensive solutions for water recovery and raising awareness of the key role of water in the transformation process towards a circular economy (CE) (Co-investigator at MEERI). Project coordinator at Consortium: MEERI - Mineral and Energy Economy Research Institute of the Polish Academy of Sciences (Poland).
2019 - 2024	Grant Horizon 2020 - LEX4BIO – Optimizing Bio-based Fertilisers in Agriculture – Knowledgebase for New Policies (Co-investigator at MEERI). Project coordinator at Consortium: LUKE – Natural Resources Institute Finland (Finland).
2019 - 2023	Grant FNP TEAM-NET - Fly ash as the precursors of functionalized materials

for applications in environmental engineering, civil engineering and agriculture (**Co-investigator at AGH**). Principal Investigator of Consortium: Lublin University of Technology

Scientific experience:

Conferences / lectures / workshops

2024.03.20-21	<i>ManuREsource International Conference, Antwerp, Belgium</i> Oral presentation Survey on opinions and attitudes of selected stakeholders about bio-based fertilisers
2023.12.14-15	<i>4th International Conference - Strategies toward Green Deal Implementation - Water, Raw Materials & Energy (GreenDeal2023), online</i> Oral presentation Analysing the drivers and barriers to bio-based fertiliser (BBFs) adoption in farming practices – Polish case of study
2023.09.26-28	<i>17th Conference on Sewage Sludge Management Methods, Toruń, Poland</i> Oral presentation Agricultural use of sewage sludge in the face of the challenges of the European Green Deal
2023.07.09-14	<i>Goldschmidt 2023, Lyon, France</i> Poster presentation Removal of pesticides using surfactant-modified zeolites and zeolitic composites: adsorption and regeneration of adsorbents
2023.07.02-06	<i>9th Conference of the Federation of European Zeolite Associations (FEZA 2023), Portorož-Portorose, Slovenia</i> Poster presentation Immobilization of carbendazim and simazine using zeolites and zeolite-carbon composite
2023.03.29-31	<i>8th International Conference on Environmental Pollution, Treatment and Protection (ICEPTP 2023), Lisbon, Portugal</i> Poster presentation Co-adsorption of pesticides on surfactant-modified adsorbents.
2022.08.03-05	<i>The 12th International Conference on Environmental Pollution and Remediation (ICEPR'22), Prague, Czech Republic</i> Poster presentation Removal of pesticides from waters with zeolites and zeolite-carbon composites.
2022.07.20-22	<i>6th International Congress on Water, Waste and Energy Management (WWEM-22), Roma, Italy</i>

	<p>Poster presentation</p> <p>The use of functionalized silica materials from fly ash to remove inorganic and organic contaminants from waters.</p>
2022.07.03-08	<p><i>20th International Zeolite Conference (IZC2022), Valencia, Spain</i></p> <p>Poster presentation</p> <p>Zeolites originated from the transformation of fly ashes - characterization, modification, and adsorption of pesticides</p>
2021.08.29-09.02	<p><i>European Mineralogical Conference 2020 (EMC2020), online</i></p> <p>Poster presentation</p> <p>Fly ash-based zeolites vs zeolite-carbon composites – properties and possibilities of absorption of pesticides</p>
2021.06.23-25	<p><i>8th International Conference on Sustainable Solid Waste Management Thessaloniki, online</i></p> <p>Poster presentation</p> <p>HDTMA-modified carbon-zeolite composites as adsorbents of 2,4-D and MCPA pesticides.</p>
2020.05.04-08	<p><i>EGU General Assembly 2020, online</i></p> <p>Online presentation</p> <p>Effect of surfactants adsorption on the structure of bentonite-based sorbents</p>
2019.09.16-17	<p><i>4th Mineral-based Sorbents conference, Kraków, Poland</i></p> <p>Oral presentation:</p> <p>Atrazine sorption on clay minerals modified with organic surfactants – review</p>
2019.07.01-05	<p><i>International Conference on Clay Science and Technology EUROCLAY2019, Paris, France</i></p> <p>Poster presentation:</p> <p>Modification of bentonite with mixed cationic-nonionic surfactants</p> <p>Co-author of oral presentation:</p> <p>Sorption of molybdates and tungstates on modified smectites</p>
2018.10.25-28	<p><i>XXVth Meeting of the Petrology Group of the Mineralogical Society of Poland, Brunów, Poland</i></p> <p>Poster presentation:</p> <p>Batch and column sorption of As(V) onto bog iron ores</p>
2018.09.12-14	<p><i>The 11th Geosymposium of Young Researchers “Silesia 2018”, Istebna, Poland.</i></p> <p>Oral presentation:</p> <p>Competitive adsorption of As and heavy metals on bog iron ores</p>
2018.04.05-07	<p><i>XIX International Conference of Young Geologists, Herlany, Slovakia</i></p> <p>Oral presentation:</p>

	Bentonite modified with ionic—nonionic surfactants as a sorbent of pesticides
2016.04.14-16	<i>XVII International Conference of Young Geologists, Svätý Jur, Slovakia</i> Oral presentation: Arsenic interactions with bog iron ores
2015.09.21-23	<i>2nd Mineral-based Sorbents Conference, Kraków, Poland</i> Oral presentation: Sorpccja związków arsenu na darniowych rudach żelaza

Courses / trainings

2023.09.18	Circular economy in practice
2023.06.01-02	Excel and its use in an accredited laboratory (advanced)
2023.05.18-19	Carbon footprint analysis
2023.03.15	REACH and CLP regulations and the Act on chemical substances and mixtures
2023.02.17	Advanced liquid chromatography training.
2023.02.06-08	DTMethod® Foundation.
2022.12.13	Data Visualization using OriginLab (Origin and OriginPro).
2022.12.08	Persuasive Grant Writing.
2022.11.21-12.03	Internship in Finland.
2022.09.07-10	Microbiological regeneration of sorbents.
2022.08.18-19	Scrum Master Certified (SMC®).
2022.07.20-21	AgilePM® Practitioner.
2022.07.18-19	AgilePM® Foundation.
2022.06.08	Obligations of laboratories as users of chemical substances and mixtures. REACH and CLP legal requirements.
2022.06.02-03	PRINCE2® Practitioner 6th Edition.
2022.05.30-06.01	PRINCE2® Foundation 6th Edition.
2022.04.28	Analytical workshops on atomic spectrometry.
2022.03.23	Factors affecting the result in potentiometric titration.
2022.03.05-06	Fundamentals of Project Management.
2022.02.05-06	HPLC liquid chromatography - theory and practice.
2021.12.14	Wastewater sampling - how to avoid mistakes in the sampling process.
2021.11.08	Spectrophotometric methods - a compendium of knowledge.
2021.10.26	Low-Pressure GC-MS. THE Faster Way To Your GC-MS analysis.
2021.09.27	Thermodynamics: Explanation with Solved Numericals.

2021.09.24	Surface chemistry.
2021.09.19-22	Academy of Analytical Chemistry "Mass spectrometry in liquid chromatography - practical applications."
2021.06.10-11	Work safety in the laboratory, including risk assessment for a chemical agent. Waste management in the laboratory.
2021.05.31-06.01	How to implement the requirements of the PN-EN ISOIEC 17025:2018-02 standard course for beginners.
2021.05.25	Statistics in the daily work of the laboratory.
2021.03.18-19	FT-IR infrared spectroscopy - specificity of the method.
2021.03.10-11	Theoretical foundations and practical application tips - mass spectrometry with sample ionization in induction plasma (ICP-MS).
2021.02.25-26	Sampling of water and sewage. How to ensure the quality of the sampling process and avoid errors.
2020.11.19	Validation of the analytical method in terms of ensuring safety.
2020.10.23	Metrological supervision in the laboratory.
2020.10.05-07	Advanced spectrophotometric and spectroscopic methods: biochemistry, pharmacy, medicine, energy sources, environment, and materials engineering.
2020.09.10	Management system according to the PN-EN ISOIEC 17025 standard in the research laboratory.
2020.08.04	Organic Chemistry Online Course.
2020.07.30	ISO 9001-2015 standards management system.
2020.06.15	Become A Master in HPLC Technique - (Liquid Chromatography).
2020.06.09	Mass Balance Basics.
2020.06.04	Organic Chemistry - Become a ¹ H-NMR Rockstar.
2020.03.24	Organic Chemistry Spectroscopy Master Class.
2020.03.18	IUPAC-Nomenclature of Organic Compounds in Detail.
2020.03.17	Organic Chemistry I - Complete Master Class.

Teaching experience

- **Chemistry**

In Polish: Chemia (1st degree, 1st year, IŚ, GiG) (2018 – 2020)

- **Environmental geochemistry**

In Polish: Geochemia środowiska (2nd degree, 1st year, specialization Environmental assessment, OŚ) (2017 – 2018)

- **Environmental mineralogy and geochemistry**

In Polish: Mineralogia i geochemia środowiska (2nd degree, 2nd year, specialization Mineral engineering, IŚ) (2017 – 2018)

Achievements / awards:

2019	The Clay Minerals Society Student Travel Award for the Conference: International Conference on Clay Science and Technology EUROCLAY2019, Paris, France
2018	The best poster presentation presented during XXV th Meeting of the Petrology Group of the Mineralogical Society of Poland, Brunów, Poland

Parametric summary of the scientific output

Citations (Publons - *Web of Science*): **129**, without auto-citations: **127**

Hirsch index (Publons - *Web of Science*): **6**

Citations (*Scopus*): **155**, without auto-citations: **153**

Hirsch index (*Scopus*): **6**

Conference organisation:

- 2024 - International Conference Water and Sewage in the Circular Economy Model (CEwater) - organizing committee
- 2023 - 4th International Conference - Strategies toward Green Deal Implementation - Water, Raw Materials & Energy (GreenDeal2023), online - organizing committee
- 2019 - 4th Mineral Sorbents Conference, Kraków - organizing committee

Kraków, 05.04.2024