Jacek Antonkiewicz, prof.

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Consultation hours:
Monday 12-13 p.m.;
Friday 14-15 p.m.

Research interest:

- ✓ Remediation of contaminated soils and lands (Phytoremediation)
- ✓ Reclamation of chemically degraded areas
- ✓ Reclamation of waste landfills.
- ✓ Impact of heavy metals on soil and plants
- ✓ Natural management of mineral and organic waste.
- ✓ From waste to fertilizers.

Research experience:

Visiting Scholar

In the framework of my scientific activity and in order to upgrade my teacher competencies I completed two internships at two prominent universities in Great Britain, Romania as well as one study tour to Holland, Belgium (Brussels) and Czech Republic.

- ✓ 2013 - Cranfield University, Great Britain. The topic of the study tour: "Management of intellectual property and processes of innovation commercialization used in the receiving unit". The study tour was a part of the project :"Management of intellectual property – key to success in the relations of business and science". Project number: UDA-POKL.0402.00-00-041/11-00. The date of the tour: 17-25.11.2013.
- ✓ 2014 – Royal Agricultural University, Cirencester, Great Britain. The study tour was organized in the framework of the project :"Strengthening the teaching potential of the University of Agriculture in Krakow" co-financed by the European Union from the European Social Fund. The dates of the visit: 18.08.2014 – 16.09.2014.
- ✓ 2017 - Holland, Belgium (Brussels) – study tour, the topic: " The role of innovation in agriculture on an example of Holland, networks working towards innovations in Holland" including a visit to EPI-AGRI in Brussels. The tour was organized in the framework of Operational programme KSOW 2016-2017 in the field of "Networks for innovations in agriculture and rural areas" from 03.07 - 08.07.2017.
- ✓ 2022 – University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca, Faculty of Food Sciences and Technology, 09.05.2022-15.05.2022. The study tour was organized in the framework of the project:

Cepus Mobility, No.: CIII-RS-1607-01-2122-M-150002, to promote cooperation in the field of higher education in Central Europe.

- ✓ 2023 - Mendel University in Brno, Czech Republic. The internship was carried out as part of the project: BioMaster NAWA Strategic Partnerships BPI/PST/2021/1/00012/U/00001. Internship date: 01/09/2023-30/09/2023.

DSc, (Habilitation):

- ✓ 2012 - Habilitation thesis entitled: "Assessment of heavy metal bioavailability in waste used for biological reclamation of hazardous waste landfill site".

PhD:

- 2001 - Doctoral dissertation entitled: "The use of heavy metal accumulating plants for detoxification of polluted soils".

Professional profiles

ORCID: https://orcid.org/0000-0002-8753-2119

SCOPUS: https://www.scopus.com/authid/detail.uri?authorId=16309145800

Google Scholar:

https://scholar.google.pl/citations?hl=pl&user=z8jEJ44AAAAJ&view_op=list_works&sortby=pubdate

Research Gate: https://www.researchgate.net/profile/Jacek-Antonkiewicz

Book: Remediacja zanieczyszczonych gleb i ziem. Wyd. PWN

List of publications:

1. Kołodziej B., Bryk M., Antonkiewicz J. 2024. Temporal and spatial variability of physical and chemical properties in reclaimed soil after sulphur borehole mining. Soil and Tillage Research, 237, 105980. DOI: https://doi.org/10.1016/j.still.2023.105980
2. Kołodziej B., Antonkiewicz J., Bielińska E.J., Witkowicz R., Dubis B. 2023. Recovery of microelements from municipal sewage sludge by reed canary grass and giant miscanthus. International Journal of Phytoremediation, 25, 4, 441-454. DOI: https://doi.org/10.1080/15226514.2022.2090495
3. Grzegórska A., Czaplicka N., Antonkiewicz J., Rybarczyk P., Baran A., Dobrzyński K., Zabrocki D., Rogala A. 2023. Remediation of soils on municipal rendering plant territories using Mscanthus x giganteus. Environmental Science and Pollution Research, 30, 9, 22305-22318. DOI: https://doi.org/10.1007/s11356-022-23724-z
4. Antonkiewicz J., Gworek B. 2023. Remediacja zanieczyszczonych gleb i ziem. Wydawnictwo Naukowe PWN, ss. 204. ISBN: 978-83-01-22827-1. DOI: https://doi.org/10.53271/2022.138 In English: Antonkiewicz J., Gworek B. 2023. Remediation of contaminated soils and lands. Scientific publishing PWN, pp. 204. ISBN: 978-83-01-22827-1. DOI: https://doi.org/10.53271/2022.138
5. Jankowski K.J., Kołodziej B., Dubis B., Sugier D., Antonkiewicz J., Szatkowski A. 2023. The effect of sewage sludge on the energy balance of cup plant biomass production. A six-year field experiment in Poland. Energy, 276, 127478. DOI: https://doi.org/10.1016/j.energy.2023.127478
6. Antonkiewicz J., Kowalewska A., Mikołajczak S., Kołodziej B., Bryk M., Spychaj-Fabisiak E., Koliopoulos T., Babula J. 2022. Phytoextraction of heavy metals after application of bottom ash and municipal sewage sludge considering the risk of environmental pollution. Journal of Environmental Management, 306, Article number 114517. DOI: https://doi.org/10.1016/j.jenvman.2022.114517
7. Tombarkiewicz, B., Antonkiewicz, J., Lis, M.W. Pawlak K., Trela M., Witkowicz R., Gorczyca O. 2022. Chemical properties of the coffee grounds and poultry eggshells mixture in terms of soil improver. Scientific Reports, 12, Article number 2592. DOI: https://doi.org/10.1038/s41598-022-06569-x
8. Skowrońska M., Bielińska EJ., Szymański K., Futa B., Antonkiewicz J., Kołodziej B. 2020. An integrated assessment of the long-term impact of municipal sewage sludge on the chemical and biological properties of soil. Catena, 189, Article 104484. DOI: https://doi.org/10.1016/j.catena.2020.104484
9. Antonkiewicz J., Popławska A., Kołodziej B., Ciarkowska K., Gambuś F., Bryk M., Babula J. 2020. Application of ash and municipal sewage sludge as macronutrient sources in sustainable plant biomass

production. Journal of Environmental Management, 264, Article number 110450. DOI: https://doi.org/10.1016/j.jenvman.2020.110450

10. Tabak M., Lisowska A., Filipek-Mazur B., Antonkiewicz J. 2020. The effect of amending soil with waste elemental sulfur on the availability of selected macroelements and heavy metals. Processes, 8, 10, 1245. DOI: https://doi.org/10.3390/pr8101245