

**Marie Skłodowska Curie Action –Postdoctoral Fellowship 2024
(MSCA-PF-2024)**

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Department /Institute /Centre	Name	Ingeniería Geológica y Minera/TECMINERGY/ETSI de Minas y Energía
	Address	Calle Rios Rosas 21
	Province	Madrid
Research Area		Information Science and Engineering (ENG) Environment and Geoscience (ENV)
Brief description of the Centre/Research Group		TECMINERGY is a center of the highest technical level, which aims to research and provide services in technological issues related to safety and quality in the industry in general and with public and private entities that develop their activity in the industrial, energy and mining and dependent industries. The Project Engineering Laboratory (LiP) is a space open to educational innovation and research. Constituted in the ETSI Minas y Energía, it brings together a young group of professors with special interest in the environment, energy and subsoil. In a transversal way to the departments of Energy and Fuels and Geological and Mining Engineering.
Project description		<p>This project aims to solve the environmental and operational problem of digestate generation in the application of anaerobic digestion technologies for biogas and biomethane production by integrating advanced photochemical and electrochemical processes applied to wastewater treatment and ammonia recovery from the liquid fraction of the digestate, on the one hand, and the valorization of the solid fraction of the digestate as fertilizer or fuel for energy production, on the other.</p> <p>New wastewater treatments, including the development of new catalytic materials and the combination of advanced oxidation processes, can improve the efficiency of anaerobic digestion for biogas and biomethane production, which will have a positive impact on the development of these technologies, a significant advance in the production of renewable energies by maximizing biogas production, and the reduction of pollutant emissions. The adapted wastewater treatment strategy can be applied worldwide, especially in depopulated rural areas facing problems caused by manure and slurry generation. The project also plans to strengthen population health and the security of water and resource recovery, reduce greenhouse gas emissions, and generate rural business opportunities. In summary, key impacts include the design of efficient processes for the production of energy resources, the development of novel treatment strategies and the valorization of waste from anaerobic digestion technologies for energy production.</p>
Applications: documents to be submitted and deadlines		CV, letter of motivation, three reference letters Deadline: 30/04/2024