

Annalisa Abdel Azim is a Postdoctoral Researcher at Politecnico di Torino, specializing in industrial biotechnology with a focus on biological methanation processes. Her work emphasizes the recovery of critical metals from industrial wastes and energy production through methanogens. She has a strong academic background with a Master's degree in Industrial Biotechnology and a Bachelor's degree in Biological Science from Università degli Studi di Torino.

Her recent research explores the potential of methanogenic archaea as biocatalysts for recovering critical raw materials (CRMs) from industrial byproducts and e-waste. This includes developing biobased strategies for lithium recovery from brines produced by desalination and enhancing the bio-metallurgy processes for metal extraction from e-waste. She highlights the use of methanogens to convert CO₂ into methane, addressing both environmental sustainability and the economic feasibility of resource recovery.