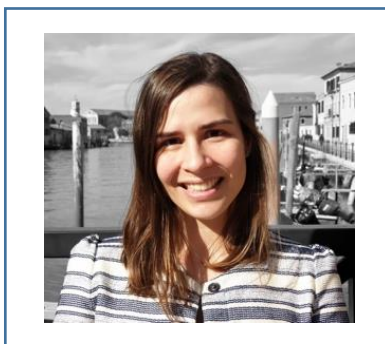


PRESENTER INFORMATION



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BIOGRAPHICAL SKETCH

Mirtha A. O. Lourenço is a European Research Area Postdoctoral Fellow at the University of Aveiro/CICECO, funded under the Marie Skłodowska-Curie Action. She has a background in Materials Science and Engineering, with a focus on studying solid-gas interactions in porous adsorbent and catalytic materials. Mirtha has actively participated in numerous national and international projects and has been recognized for her contributions with several awards, including the prestigious CICECO Young Researcher Award and Seal of Excellence from the European Commission.

TITLE

Exploring Biochar Adsorbents for Enhanced CO₂ Capture: Innovations and Insights

ABSTRACT

This webinar aims to highlight recent advancements in the utilization of biochar as an effective adsorbent for CO₂ capture, addressing the urgent need to mitigate greenhouse gas emissions and combat climate change. With a focus on developing cutting-edge technologies for capturing and storing CO₂, this presentation will delve into the design and synthesis of customized biochars, along with innovative strategies to optimize their CO₂ adsorption performance. Additionally, advanced characterization techniques such as XPS (X-ray Photoelectron Spectroscopy) and operando TGA-IR (Thermogravimetric Analysis-Infrared spectroscopy) will be explored, enabling a comprehensive molecular-level understanding of biochar synthesis and CO₂ adsorption mechanisms. The knowledge gained from these techniques holds the potential to drive the development of next-generation CO₂ biochar adsorbents, paving the way for more efficient and sustainable CO₂ capture solutions.