



COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Vânia Calisto

Type (Academic or Industrial): Academic

Country: Portugal

Leadership position in the COST: -

Working Group in which you are involved: WP1

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Laboratory/Company: University of Aveiro (Chemistry Department) & CESAM (Centre for Environmental and Marine Studies), Research Group – Analytical Sensors and Applied Eco-Chemistry (ASAEC)

Laboratory/Company info (limited to 400 characters):

CESAM is an Associated Laboratory of the University of Aveiro (UA), with 300 PhD researchers from 5 UA Departments and from Univ. Lisbon. Its mission is to develop leading international R&I on environmental sciences and related risks, including extreme weather events, climate change, promotion of a more efficient use of environmental resources and a more resilient and sustainable economy.

Link to the home page of the Laboratory/Company:

<http://www.cesam.ua.pt/vaniacalisto>

<http://www.cesam.ua.pt/>

<https://www.ua.pt/>

Fields of expertise (limited to 400 characters):

- Development of remediation strategies to remove pharmaceuticals from contaminated waters by using alternative adsorbents.
- Waste valorisation: use of industrial residues as new raw materials.
- Circular Economy.
- Occurrence of pharmaceuticals in the environment (ground, surface and wastewaters).
- Persistence and fate of pharmaceuticals in the environment: photodegradation, adsorption, etc.

5 Main publications or patents:

- Jaria G., Silva C.P., Ferreira C.I.A., Otero M., Calisto V. (2017) Sludge from paper mill effluent treatment as raw material to produce carbon adsorbents: An alternative waste management strategy. *JOURNAL OF ENVIRONMENTAL MANAGEMENT*, 188 203-211.
- Silva C.P., Jaria G., Otero M., Esteves V.I., Calisto V. (2018) Waste-based alternative adsorbents for the remediation of pharmaceutical contaminated waters: Has a step forward already been taken?. *BIORESOURCE TECHNOLOGY*, 250 888-901.
- Jaria G., Silva C.P., Oliveira J.A.B.P., Santos S.M., Gil M.V., Otero M., Calisto V., Esteves V.I. (2019) Production of highly efficient activated carbons from industrial



wastes for the removal of pharmaceuticals from water-A full factorial design. *JOURNAL OF HAZARDOUS MATERIALS*, 370 212-218.

- Rocha L.S., Pereira D., Sousa E., Otero M., Esteves V.I., Calisto V. (2020) Recent advances on the development and application of magnetic activated carbon and char for the removal of pharmaceutical compounds from waters: A review. *SCIENCE OF THE TOTAL ENVIRONMENT*, 718.
- Sousa E., Rocha L.S., Jaria G., Gil M.V., Otero M., Esteves V.I., Calisto V. (2021) Optimizing microwave-assisted production of waste-based activated carbons for the removal of antibiotics from water. *SCIENCE OF THE TOTAL ENVIRONMENT*, 752.

Collaborations:

- Biology Department, University of Aveiro & CESAM, Portugal
- Physics Department, University of Aveiro & CICECO, Portugal
- Environment and Planning Department, University of Aveiro & CESAM, Portugal
- Materials and Ceramic Engineering, University of Aveiro & CICECO, Portugal
- National Institute of Coal, INCAR-CSIC, Spain
- Centre for Mechanical Engineering and Automation, University of Aveiro, Portugal
- Bundesanstalt für Materialforschung und -prüfung, Germany

Facilities:

- Laboratory at the Chemistry Department of the University of Aveiro;
- Access to all CESAM facilities: other laboratories in CESAM building, cutting-edge equipment, and ARGUS computing cluster.