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## *COST ACTION GREENERING – DATA COLLECTION*

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**First name, Family Name:** Diana, Lima

**Type (Academic or Industrial):** Academic

**Country:** Portugal

**Leadership position in the COST:** Participant on CA18224

**Working Group in which you are involved:** WG1

**E-mail:** diana.lima@ua.pt

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**Laboratory/Company:** CESAM & Department of Chemistry, University of Aveiro

**Laboratory/Company info (limited to 400 characters):**

Centre for Environmental and Marine Studies (CESAM), an Associated Laboratory since 2005, is one of the research units of the University of Aveiro. The main objective of CESAM is to promote a more efficient use of terrestrial and aquatic environmental resources and a more competitive, resilient and sustainable economy, designed to endorse job creation and assure territorial and social cohesion.

**Link to the home page of the Laboratory/Company:**

<http://www.cesam.ua.pt/index.php?menu=5859&language=eng&tabela=post>

**Fields of expertise (limited to 400 characters):**

- Development of low-cost methodologies for the quantification of organic contaminants in water matrices.
- Occurrence of organic pollutants in the environment (ground, surface and wastewaters).
- Persistence and fate of pharmaceuticals in the environment: photodegradation, adsorption, etc.
- Photodegradation as a remediation process for the removal of pharmaceuticals from water.

**5 Main publications or patents:**

- Silva C.P., Oliveira C., Ribeiro A., Osorio N., Otero M., Esteves V.I., Lima D.L.D. (2020) Sulfamethoxazole exposure to simulated solar radiation under continuous flow mode: Degradation and antibacterial activity. CHEMOSPHERE, 238, 124613. <https://doi.org/10.1016/j.chemosphere.2019.124613>
- Louros V.L., Silva C.P., Nadais H., Otero M., Esteves V.I., Lima D.L.D. (2020) Photodegradation of sulfadiazine in different aquatic environments Evaluation of influencing factors. ENVIRONMENTAL RESEARCH, 188, 109730. <https://doi.org/10.1016/j.envres.2020.109730>
- Louros V.L., Silva C.P., Nadais H., Otero M., Esteves V.I., Lima D.L.D. (2020) Oxolinic acid in aquaculture waters: Can natural attenuation through photodegradation decrease its concentration? SCIENCE OF THE TOTAL ENVIRONMENT, 749, 141661.



<https://doi.org/10.1016/j.scitotenv.2020.141661>

- Oliveira C., Lima D.L.D., Silva C.P., Calisto V., Otero M., Esteves V.I. (2019) Photodegradation of sulfamethoxazole in environmental samples: The role of pH, organic matter and salinity. SCIENCE OF THE TOTAL ENVIRONMENT, 648, 1403-1410.

<https://doi.org/10.1016/j.scitotenv.2018.08.235>

- Louros V.L., Lima D.L.D., Leitao J.H., Esteves V.I., Nadais H.G. (2019) Determination of estrone and 17 alpha-ethinylestradiol in digested sludge by ultrasonic liquid extraction and high-performance liquid chromatography with fluorescence detection. JOURNAL OF SEPARATION SCIENCE, 42, (8), 1585-1592.

<https://doi.org/10.1002/jssc.201801114>

#### **Collaborations:**

- Gilmar S. Silva (Federal Institute of Education, Science and Technology of Maranhão, Brazil)
- Rudolf Schneider (Federal Institute for Materials Research and Testing, Berlin, Germany)
- Ana Paula Fonseca (Escola Superior de Tecnologia da Saúde de Coimbra, Portugal)
- Massimiliano Runfola (Department of Pharmacy, University of Pisa, Pisa, Italy)
- Nádía Osório (Escola Superior de Tecnologia da Saúde de Coimbra, Portugal)

#### **Facilities:**

- Capillary Electrophoresis Beckman Coulter P/ACE MDQ – PDA
- Capillary Electrophoresis Beckman Coulter PAC/MDQ - UV/Vis, LIF
- Spectrofluorimeter HORIBA Jobin Yvon FluoroMax-4
- FTIR+ATR Shimadzu IRAffinity-1
- Spectrophotometer UV-Vis PG Instruments Ltd T90+
- TOC analyzer Shimadzu TOC-V CPH
- TOC - Solid Sample Module Shimadzu SSM-5000A
- HPLC – UV/Fluorescence detection Shimadzu
- HPLC – UV detection Water Alliance
- Muffle Nüve MF 106
- Micro Balance Sartorius M5P micro
- Solarbox 1500 Co.fo.me.gra