

8<sup>th</sup> International Conference on **Environmental Chemistry and Engineering**  
&  
7<sup>th</sup> Edition of International Conference on  
**Green Energy, Green Engineering and Technology**

September 20-22, 2018 Berlin, Germany

**Spatial temporal characterization of the water quality of the Vixán lagoon (Northwestern Iberian Peninsula)**

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The Vixán lagoon is a wetland of high environmental value located on the Galician coast, subject to high anthropogenic pressure. Coastal lagoons show a complex dynamic, where important changes in water chemistry can occur at small temporal and spatial scales, needs the monitoring and knowledge of the chemical processes that occur in them. Space-time sampling campaigns were carried out in collected water samples to analyze: physical-chemical parameters; nutrients; concentration of trace elements and microbiological analysis, in order to create an environmental characterization of Vixán lagoon variations. It verified salinity seasonal variation and a higher electrical conductivity values. Although these values were similar to seawater values, the Vixán lagoon is characterized by a brackish. Also it was detected high pH values due to the increase of CO<sub>2</sub> consumption in the summer months. The O<sub>2</sub> concentrations also varied seasonally, due to the scarce renewal of the surface lagoon waters and the increase of the photosynthetic activity caused by the waters eutrophication. DBO<sub>5</sub> and TOC presented high values. In addition, NO<sub>2</sub><sup>-</sup> and NO<sub>3</sub><sup>-</sup> values were high, probably due to the agricultural fertilizers influence used in the surrounding area. High concentrations of phosphates and spatio-temporal variations of sulphates were also detected. Microbial quality is bad. According to these results, it can be affirmed that the anthropic activity is negative to the lagoon conservation state.

**Biography**

Juliana Rodrigues Gadelha has completed her PhD on Marine Biology/Ecotoxicology in 2015, from Universidade de Aveiro. Currently, she is a Doctoral research integrate at CIIMAR (Interdisciplinary Center of Marine and Environmental Research), working in an emblematic Project funded by Horizon 2020, called INSEAFOD: Innovation and valorization of seafood products: meeting local challenges and opportunities. She has published 13 papers in reputed journals and participated on 13 projects, national and international, more than 40 conferences communications and published one book in 2007. On the last decade, she works on environmental risk assessment and applications of biological concepts to biotechnology and environmental safety.

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