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Author: Carlos Lodeiro

Co-author(s): José Luís Capelo; Elisabete Oliveira ; Javier Fernández Lodeiro; Hugo Miguel Santos; Adrián Fernández Lodeiro; Cristian Cuerva

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Electrochemical degradation of emerging contaminants: Ecotoxicological evaluation

A. Fernandes^{1*}, C. Pereira¹, S. Coelho², A. C. Sousa^{2,3,4}, M. R. Pastorinho^{2,4,5},
M. J. Pacheco¹, L. Ciríaco¹, A. Lopes¹

¹ FibEnTech-UBI, Department of Chemistry, Universidade da Beira Interior, Covilhã, Portugal

² Health Sciences Research Centre (CICS), Universidade da Beira Interior, Covilhã, Portugal

³ CICECO-Aveiro Institute of Materials, Department of Chemistry, Universidade de Aveiro, Aveiro, Portugal

⁴ NuESA-Health and Environment Study Unit, Faculty of Health Sciences, Universidade da Beira Interior, Covilhã, Portugal

⁵ Department of Biology, Universidade de Évora, Évora, Portugal

*email: annabelf@ubi.pt

The presence of emerging contaminants has been disclosed in literature concerning sanitary landfill leachate (SLL) characteristics and toxicity [1,2]. Among the emerging contaminants identified, bisphenol A, an endocrine disruptor, and methiocarb, a pesticide, stand-out due to the relatively high concentrations detected in SLL [3,4]. In this study, the electrochemical degradation of bisphenol A and methiocarb, in model aqueous solutions and in simulated SLL synthetic samples, was evaluated by the reduction in physico-chemical parameters and in ecotoxicity. The influence of different operational parameters and SLL synthetic samples composition was assessed. The acute toxicity of the studied solutions, before and after treatment, was evaluated with the model organism *Daphnia magna*. Electrochemical oxidation treatment was effective in the degradation of bisphenol A and methiocarb and a reduction in the acute toxicity towards *D. magna* was observed.

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