
Analysis of Microplastics in Detergents

Daniel Ribeiro¹, Catarina Silva^{*1}, Bruno Silva², Paulo Lopes¹, and Maria C. Paiva^{†3}

¹PIEP – Pólo de Inovação em Engenharia de Polímeros, Portugal

²PIEP – Pólo de Inovação em Engenharia de Polímeros, Portugal

³Instituto de Polímeros e Compósitos – Universidade do Minho, Portugal

Abstract

Microplastics (MPs) are found in the environment, originating from the degradation of mismanaged plastics waste but also from deliberate addition to commercial products. The latter may be added with specific functionalities, however they will remain in the environment with negative consequences, and their use should be rationalized. The present work is a contribution to the analysis of microplastics in commercial detergents. The sample preparation, filtration procedures, detection of MPs, their analysis and characterization are discussed. The identification and characterization of the MPs was carried out on a Raman spectrometer Horiba LabRAM HR Evolution microscope, equipped with the software Particle Finder.

Keywords: Microplastics, Detergent, Raman spectroscopy

*Speaker

†Corresponding author: mcpaiva@dep.uminho.pt