



1º Ciclo de Seminarios Doctorales eide·mar

(Escuela Internacional de Doctorado en Estudios del Mar)

“Ionic liquids in capillary systems: Towards a green extraction of metals in seawater”



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Salón de Grados. CASEM
Campus de Puerto Real

Interest of metals analysis in seawater is based on their toxicity even at very low concentrations. Despite its interest, metal determination in seawater samples is limited by the low concentrations they normally present and even more by the effect of saline sample matrix. According to the Green Chemistry, an important effort has been done for miniaturization and automation of extraction processes towards economical and environmental sustainability. In this sense, liquid micro-extraction has gained increasing interest. In particular hollow fiber liquid phase micro-extraction (HFLPME), where the metal is transported from the sample into the acceptor solution inside the fiber through the fiber pores. It presents several advantages due to the use of a support for the chemical systems, offering higher stability. Nevertheless, there are still some aspects associated to loss of organic solution into the sample and the presence of a saline matrix which affect severely extraction using traditional carriers that must be improved.