

8th World congress on**BIOAVAILABILITY & BIOEQUIVALENCE: PHARMACEUTICAL R & D SUMMIT**

June 26-27, 2017 San Diego, USA

Bioavailable metals following 3 extraction methods (BCR, Tessier and Protease K) in sediments from Huelva estuary (Southwestern Spain)**Daniel Rosado, Jose Usero and Jose Morillo**
Universidad de Sevilla, Spain

We estimated the bioavailable fraction of metals (Zn, Cu, Cd, Mn, Pb, Ni, Fe, and Cr) in sediments of the Huelva estuary and its littoral of influence by carrying out the most popular methods of sequential extraction (BCR and Tessier) and a biomimetic approach (extraction with protease K) and compared the results obtained with enrichment factors found in *Arenicola marina*. The linear correlation coefficients (R²) obtained between the fraction mobilized by the first step of the BCR sequential extraction, by the sum of the first and second steps of the Tessier sequential extraction, and by protease K, and enrichment factors in *Arenicola marina*, are at their highest for protease K extraction (0.709), followed by BCR first step (0.507) and the sum of the first and second steps of Tessier (0.465). This observation suggests that protease K represents the bioavailable fraction more reliably than traditional methods (BCR and Tessier), which have a similar ability.

Biography

Daniel Rosado has completed his PhD in Chemical and Environmental Engineering at the University of Sevilla, focusing on water and sediment pollution. Currently, he is Full-Professor at the Universidad Técnica Particular de Loja in Loja, Ecuador. He has published papers in reputed journals such as *Desalination*, *Chemosphere*, *Marine Pollution Bulletin* and *Journal of Environmental Management*.

danrosalc@alum.us.es

Notes: