

Concentrations and History of Heavy Metals in Sediment Cores: Geochemistry and Geochronology Using ^{210}Pb

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Abstract : This paper aims at assessing the concentrations of heavy metals and the isotopic composition of lead ^{210}Pb in different fractions of sediment produced in the watershed that makes up the Mãe d'´gua dam and thus characterizing the distribution of metals along the sedimentary column and inferencing in the urbanization of the same process. Sample collection was carried out in June 2014; eight sediment cores were sampled in the lake of the dam. For extraction of the sediments core, a core sampler “Piston Core” was used. The trace metal concentrations were determined by conventional atomic absorption spectrophotometric methods. The samples were subjected to radiochemical analysis of ^{210}Po . ^{210}Pb activity was obtained by measuring ^{210}Po activity. The chronology was calculated using the constant rate of supply (CRS). ^{210}Pb is used to estimate the sedimentation rate.

Keywords : ^{210}Pb dating method, heavy metal, lakes urban, pollution history

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