

DISTRIBUTION OF TRACE ELEMENTS IN TOPSOILS FROM SÃO PAULO, BRAZIL

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There is little information on trace element contents in São Paulo metropolitan area soils. Urban soils show a strong anthropogenic impact, reducing its primary functions and affecting the natural geochemical cycle of the ecosystem. In this study, the distribution of 35 trace elements in 28 topsoil samples (0-5cm) collected adjacent to Marginal Pinheiros, one of the most important avenues of São Paulo city, Brazil, is interpreted by using multivariate statistics. Neutron activation analysis and X-ray fluorescence were employed as analytical methods. Preliminary results indicate that the distribution of elements such as Na, Rb, Hf, Sc, Ta and rare earths are mainly natural origin, related to the composition of the parent material. On the other hand, the analytical results indicated that the surface soils are enriched with metals such as Ba, Cu, Pb and Zn, suggesting anthropogenic sources.