

**A PRELIMINARY IDENTIFICATION OF THE ORIGIN OF SOME OF THE ELEMENTS
CONTAINED IN THE AEROSOLS OF SÃO PAULO - BRAZIL**

**C.S. Muniz, R.P. Paiva, I.L. Cunha
Instituto de Pesquisas Energéticas e Nucleares
Caixa Postal 11049, CEP 05499, São Paulo-Brasil**

**C.D. Alonso, J. Romano, H.H.R. Martins
Companhia de Tecnologia de Saneamento Ambiental
Av. Prof. F. Hermann Jr, 345 - CEP 05459
São Paulo - Brasil**

The concentrations of Al, As, Ba, Br, Ca, Ce, Cl, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mn, Na, Ni, P, Pb, Rb, S, Sb, Sc, Se, Si, Sm, Sr, Ti, Th, V, W and Zn were determined using Energy Dispersive X-Ray Fluorescence (EDXRF) and Instrumental Neutron Activation Analysis (INAA). The combination of the two techniques, EDXRF followed by INAA, showed to be particularly useful.

The aerosols were collected in the city of São Paulo using a Dichotomous Sampler that fractionates suspended particles into two size fractions: coarse, 2.5 to 10 μm and fine, less than 2.5 μm . The two particles fractions were collected uniformly on two teflon membrane filters.

With the aim of identifying the main sources of the aerosols the enrichment factors and the correlation coefficients were calculated, and the V/Ni relation was used to verify the contribution of the combustion sources.

The study showed that the airborne particles are predominantly of natural origin, although there is also some contribution from anthropogenic sources.