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MITIKO SAIKI* AND PAULO H.N. SALDIVA**. *Instituto de Pesquisas Energeticas e Nucleares, IPEN-CNEN/SP, CEP 05422-970 São Paulo SP, Brazil and **Faculdade de Medicina, USP, CEP 01246, São Paulo, SP, Brazil. Study of trace element determinations in lungs from rats housed in regions within different levels of pollution.

In order to study environmental and occupational pollution effects related to respiratory diseases, instrumental neutron activation analysis was developed to determine trace elements in lungs from rats housed for six months in regions with different levels of pollutants.
Analytical results with a good precision were obtained for the following elements: Br, Ca, Cl, Cs, Fe, K, Mg, Mn, Na, Rb, Sb, Sc, Se, and Zn. Comparison between the results obtained for three groups of rats showed that Br, Ca, Cs and Sc concentrations depended upon the origin of the animals. Discussion of the results obtained, of the advantages of the technique proposed and of the use of rats as a biological indicator of air quality is included.