Simple method for treatment of filters used in analysis of atmospheric aerosols UNE METHODE SIMPLE POUR LE TRAITEMENT DES FILTRES EMPLOYES DANS L'ETUDE DES AEROSOLS ATMOSPHERIQUES

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A simple and rapid method for the multielement routine analysis of atmospheric particulate matter is described. The samples collected on four different types of filters were treated with HNO3 and HCl at 110-120 °C in pyrex glassware. Time required for the different stages of the treatment was determined by using 60Co, 65Zn and 137Cs as radioactive tracers. Atomic absorption spectrophotometry was used to determine the concentration of the elements. The efficiency for 11 elements (Mg, Cr, Mn, Fe, Co, Ni, Cu, Zn, Cd, Hg and Pb) was determined. The method was successfully employed for the treatment of filters used in atmospheric pollution studies in both urban and rural areas.