

Origin and transportation course of heavy metal elements in the particulate matter (PM) at South Korea and Japan

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Abstract

Particulate matter (PM) was collected at the South Korea and two sites of Japan. In the present study, the origin and transportation course of the heavy metal elements were discussed for PM₁₀, determined by using PIXE (Particle Induced X-ray Emission) and back trajectory analyses. The origin of Pb in PM at all sampling sites has both of the metal refining origins, using the analysis of Pb/Br. The origin of As were mainly gasoline and coal combustion at the Daegu City, and were gasoline combustion at the Fukui and Kato City. When air mass was transported from Chinese continent, concentration of these elements were higher than the other transport courses.