

Anthropogenic lead from the Asian continent to Nagaoka estimate by lead isotope in precipitation

Sumito Matoba[1]; Kazuhide Satow[2]

[1] PORC, ILTS, Hokkaido Univ; [2] Nagaoka National College of Technology

<http://www.lowtem.hokudai.ac.jp/>

This study analyzed concentrations and stable isotope ratios of lead in precipitation at Nagaoka, located on the central western coast of Japan on the Japan Sea in winter of 2002. Isotopic analysis of lead and back trajectory analysis for migration pathway of air mass from source regions to Nagaoka suggest that lead in precipitation derived from both industrial activities on the Asian continent and coal-fired power plants in Japan. We also estimate that the average contribution from the Asian continent in each precipitation event was 54.4%, while the deposition of lead estimated to originate on the Asian continent was 55.4% during the observation period