**Mercury deposition fluxes in Industrial area in Algeria**

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Mercury is released in to the atmosphere through both natural and anthropogenic activities in three main forms: elemental vapour Hg(0), gaseous divalent Hg(II), and particulate phase mercury Hg(p). Temporal and spatial scales of mercury transport in the atmosphere and its transfer to aquatic and terrestrial receptors depend primarily on the chemical and physical interactions with atmospheric contaminants. Atmospheric deposition is widely recognized as the primary mechanism by which Hg enters terrestrial and aquatic ecosystems, where it can be converted to the organic, bioaccumulative form: methylmercury (MeHg) which resides in the soils for long periods. It has been widely accepted that mercury is never removed from the environment; it just moves to other locations and eventually ends up in soils and sediments (Amodio et al., 2014).

This study reports, for the first time to our knowledge, measurements of mercury in atmospheric deposition in Algeria. Fortnightly-integrated samples were collected using bulk precipitation samplers at an industrial area (Bou-Ismail; 36°38'29N, 2°23'5E) located in the South West of the Mediterranean Sea, during Spring 2010; from March 29th to May 10th. Samples were treated rigorously according to trace metal protocol, THg was analyzed by cold vapor atomic fluorescence spectrometry (CVAFS). The daily flux of THg ranged between 17.2 ng m-2 d-1 and 54.9 ng m-2 d-1.

References

Amodio M., Catino S., Dambruoso P. R., de Gennaro G., Di Gilio A., Giungato P., Laiola E., Marzocca A., Mazzone A., Sardaro A., and M. Tutino. 2014. Atmospheric Deposition: Sampling Procedures, Analytical Methods, and Main Recent Findings from the Scientific Literature. Advances in Meteorology Volume 2014, Article ID 161730, 27 pages http://dx.doi.org/10.1155/2014/161730