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Room:Convention Hall

Time:May 23 14:00-16:30

Development of a passive sampler for gaseous mercury in the atmosphere- Application to different altitudes of Mt. Fuji

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UNEP initiated Global Mercury Partnership to protect human health and global environment from the release of mercury and long-range transport issue, especially from anthropogenic mercury such as coal combustion.

To elucidate the vertical distribution of mercury concentration the different altitudes of Mt. Fuji, we have developed a passive sampler to measure the gaseous mercury concentration in the atmosphere.

A passive sampler does not require electric power supply and is suitable for multi points sampling. The body was made of fluorocarbon to prevent mercury from deposition on it. As an adsorbent of mercury in the sampler, a quartz fiber filter coated with gold was prepared in order to make it possible to measure the mercury by the heating atomic absorption spectrophotometry method.

The developed passive sampler was applied to measure the vertical distribution of gaseous mercury concentration in the atmosphere of Mt. Fuji. The sampling was carried out on July and August, 2010.

The passive sampler for the atmospheric mercury was successfully developed to measure the vertical distribution of mercury concentration each altitude of Mt. Fuji.

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