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INTRIGUING MERCURY - NEW TOOLS IN THE PURSUIT OF AN OLD THREAT

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HCI H 8, 10.30 h

Project Summary: The reduction of emissions of mercury is a declared aim of the Minamata Convention, a UN treaty designed to protect human health and the environment from adverse effects of mercury. To assess the effectiveness of the convention in the future, better constraints about the current mercury emissions is a premise. In a first project, we applied a top-down approach to quantify mercury emissions on the basis of atmospheric mercury measurements conducted at the remote high-altitude monitoring station Jungfraujoch. We established the source-receptor relationships and by the means of atmospheric inversion we were able to quantify spatially resolved European emissions. A second project was focused on Zurich, where we used a multimedia box model to estimate the city's source term for mercury, again on the basis of conducted measurements. Lastly, the inquiry about the fate of mercury in the environment took us into the Masoala Hall, the Zoo Zurich's tropical rainforest, where we investigated the plant uptake of mercury.

CV: Basil Denzler, studied Chemistry at ETH Zurich before joining the Safety and Environmental Technology Group for his doctoral thesis in November 2014.