

METAS: the new WMO-GAW Central Calibration Laboratory for halogenated VOCs

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Many halogenated volatile organic compounds (VOCs) are found in the atmosphere in the pmol/mol range. These halogenated VOCs have negative impacts on the environment as they are strong greenhouse gases and/or contribute to the depletion of the stratospheric ozone layer or their degradation products may have a negative impact on the environment. This underpins the importance to accurately measure the amount fractions of these substances in the atmosphere on the long-term.

The Global Atmosphere Watch (GAW) Programme of the World Meteorological Organization (WMO) is a long-term international global programme that coordinates observations and analysis of atmospheric composition changes. The GAW Programme is a collaboration of more than 100 countries and it relies fundamentally on the contributions of its members to help to build a single, coordinated global understanding of atmospheric composition and its change. For most substances there is a Central Calibration Laboratory (CCL) that is responsible for maintaining and distributing the WMO references for instrument calibration for a specified gas in air. However, until summer 2023 there was no CCL for halogenated VOCs. METAS applied successfully for the CCL function for a total of ten halogenated VOCs because METAS' gas analysis laboratory has a decade of experience in the production of reference gas mixtures for halogenated VOCs. Here, we will present our new function as CCL including our services, the work done in the past and the planned work for the next years.