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Distribution of very short-lived bromocarbons in Malaysia during 'PESC 09' and 'JAM 10'

This research investigates biogenic emissions of selected VSLS like bromoform (CHBr_3), dibromomethane (CH_2Br_2), dibromochloromethane (CHBr_2Cl) and selected chlorocarbons like chloroform (CHCl_3) and tetrachloroethylene (C_2Cl_4) from different environments through ground field campaign (July-August Malaysia (JAM 10)) and cruise campaign (Perdana Expedition Scientific Cruise (PESC 09)). Brominated halocarbon Very-Short lived (VSLS) bromocarbons is an atmospheric trace gas and a major source of atmospheric bromine. Recent estimates of brominated sources and sinks indicate anthropogenic sources to be neglectible. The major source of atmospheric brominated compounds is believed to be from marine especially coastal areas. The production pathways of brominated compounds in the ocean are, however, poorly understood. Measurements were made using a μ -Dirac, which is a self-built instrument, consisting of a continuously measurement of gas chromatograph (GC), equipped with electron capture detector (ECD). This system was used for three ground field long term and short term measurements in the coastal and tropical area in Peninsular and Borneo Malaysia. The main objective is to measure the air concentrations and the atmospheric dry gas mole fractions of the selected VSLS bromocarbons. The correlations plot of the mixing ratios between well correlated bromocarbons VSLS suggests that the bromocarbons species were emitted from biogenic or anthropogenic sources for both long term and short term measurement.