Methane Reference Gas Intercomparison for Asia from 2014 to 2016
Technical Details on Laboratory Measurements

Japan Meteorological Agency (JMA)

1. Information on contributors
(1) Contributors: Teruo Kawasaki and Takanori Matsumoto
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2. Information on instrument
(1) Analytical method: Gas Chromatography (FID)
(2) Manufacturer: SHIMADZU
(3) Model: Series GC-14BPF

3. Information on sampling
(1) Sampling volume: 10 ml
(2) Carrier gas: Nitrogen (ultra high purity)
(3) Flow rate: 50 ml/min
(4) Temperature of the oven: 70 °C

4. Information on the main column
(1) Diameter: 3 mm
(2) Length: 4 m
(3) Material: Stainless steel

5. Information on column packings
(1) Trade name: Molecular Sieve 5A
(2) Mesh: 60/80

6. Information on standard gas
(1) Number of standard gases: 5
(2) Mole fraction of standard gases: 1611.38, 1760.21, 1897.75, 2030.01, 2164.63 ppb
(3) Diluent gas: Purified air
(4) Scale: WMO X2004A Scale

7. Other information (references, papers, literatures, etc.)
Matsueda, H., Intercalibration experiment of methane standard gas scale between NOAA/CMDL and MRI/GRL, Papers in Meteorology and Geophysics, 44, No.2, 45-56,
1993.