



**GAW World Calibration Centre (WCC) for Methane  
and  
Quality Assurance/Science Activity Centre (QA/SAC)  
in Asia and the South-West Pacific**



**Methane Reference Gas Intercomparison for Japan from 2012 to 2013  
Technical Details on Laboratory Measurements**

**National Institute of Polar Research (NiPR)**

*1. Information on contributors*

- (1) Contributors: Dr. Shinji Morimoto
- (2) Organization: National Institute of Polar Research, Japan

*2. Information on instrument*

- (1) Analytical method: GC/FID
- (2) Manufacturer: Shimadzu
- (3) Model: GC-8A

*3. Information on sampling*

- (1) Sampling volume: 10 ml
- (2) Carrier gas: pure N<sub>2</sub>
- (3) Flow rate: 32ml/min
- (4) Temperature of the oven: 60°C

*4. Information on the main column*

- (1) Diameter: 3 mm i.d.
- (2) Length: 1 m
- (3) Material: Activated Charcoal

*5. Information on column packings*

- (1) Mesh: 60-80

*6. Information on standard gas*

- (1) Number of standard gases: 4
- (2) Concentration of standard gases: 1390.2, 1685.0, 1985.8, 2282.4 ppb
- (3) Scale: NiPR scale

*7. Other information*

Aoki, S. and Kawaguchi, S., Development of high quality system for continuous measurement of atmospheric methane concentration, Antarctic Record 34, 263-278, 1990. (in Japanese)

Aoki, S., Nakazawa, T., Murayama, S. and Kawaguchi, S., Measurements of atmospheric methane at Japanese Antarctic Station, Syowa, Tellus 44B, 273-281, 1992.