



**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 2009 to 2010
Technical Details on Laboratory Measurements**

Tohoku University (TU)

1. Information on contributors

- (1) Contributors: Dr. Takakiyo Nakazawa
- (2) Organization: Tohoku University, Japan

2. Information on instrument

- (1) Analytical method: Gas Chromatography (FID)
- (2) Manufacturer: HP
- (3) Model: 6890NF

3. Information on sampling

- (1) Sampling volume: 10 ml
- (2) Carrier gas: Nitrogen
- (3) Flow rate: 60 ml/min
- (4) Temperature of the oven: 80 °C

4. Information on the main column

- (1) Diameter: 1/8 inch
- (2) Length: 2 m
- (3) Material: stainless steel

5. Information on column packings

- (1) Trade name: Molecular Sieve 13X
- (2) Mesh: 45/69

6. Information on standard gas

- (1) Number of standard gases: 4
- (2) Concentration of standard gases: 800.2, 1300.8, 1801.2, 2299.5 ppb
- (3) Scale: Tohoku University Gravimetric Scale

7. Other information (references, papers, literatures, etc.)

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