



**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 Asia from 2005 to 2006
Technical Details on Laboratory Measurements**

China Meteorological Administration (CMA)

1. Instrument

- (1) Analytical method: Gas Chromatography (FID)
- (2) Manufacturer: HP
- (3) Model: HP-5890

2. Sampling

- (1) Sampling volume: 3 ml
- (2) Carrier gas: Nitrogen
- (3) Flow rate: 50 ml/min
- (4) Temperature of the oven: 40°C

3. Main column

- (1) Diameter: 4.76mm
- (2) Length: 3 m
- (3) Material: stainless steel

4. Column packings

- (1) Trade name: Porapak QS
- (2) Mesh: 100/120

5. Standard gas

- (1) Number of standard gases: 3
- (2) Concentration of standard gases: 1706.8, 1803.2 and 1885.0ppb
- (3) Scale: the former AES Scale

6. References

- Zhou Lingxi, Worthy DEJ, Lang PM, Ernst MK, Zhang XC, Wen YP, Li JL. 2004. Ten years of atmospheric methane observations at a high elevation site in Western China. *Atmospheric Environment* 38: 7041-7054.
- Zhou Lingxi, Wen Yupu and Zhang Xiaochun, 2005. The CO₂, CH₄, CO Monitoring & Research Programmes at the China GAW Baseline Observatory. 12th WMO/IAEA Meeting of Experts on Carbon dioxide Concentration and Related Tracer Measurement Techniques. 15-19 September 2003, Toronto, Canada. WMO/GAW, No.161:231-237. (WMO TD No.1275)