



**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 in 2001
Technical Details on Laboratory Measurements**

**Chinese Academy of Meteorological Sciences (CAMS)
China Meteorological Administration (CMA)**

1. Measurement System and Condition

Hewlett Packard (HP) 5890 Series II gas chromatograph equipped with a flame ionization detector (FID)

Sampling loop: 3 ml, Carrier gas: high purity N₂, Carrier flow, 50 ml/min, Oven temperature 40 °C, Column: stainless steel column (3/16 inches outside diameter × 10 feet long) packed with Porapak QS (100/120 mesh).

2. Standard Gases

Two standard gases in 37.5-litre aluminum alloy cylinders (1829.1 and 1839.8 ppb) calibrated on the reference scale of the Atmospheric Environment Service (presently Meteorological Service of Canada), propagated from the National Institute of Standards and Technology (NIST) Standard Reference Material (SRM 1658a) [Worthy et al., 1998].