

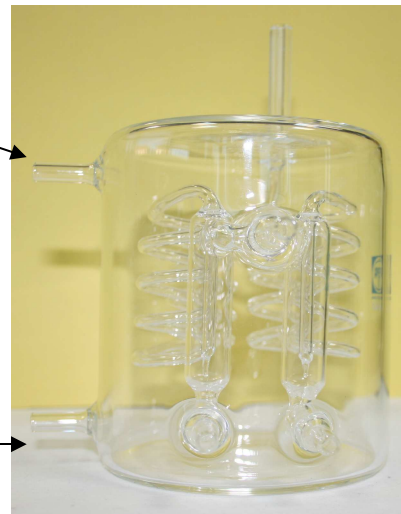
HONO stripping sampling and HPLC analysis

Stripping sampling system



Cooling water inlet →

Cooling water outlet →

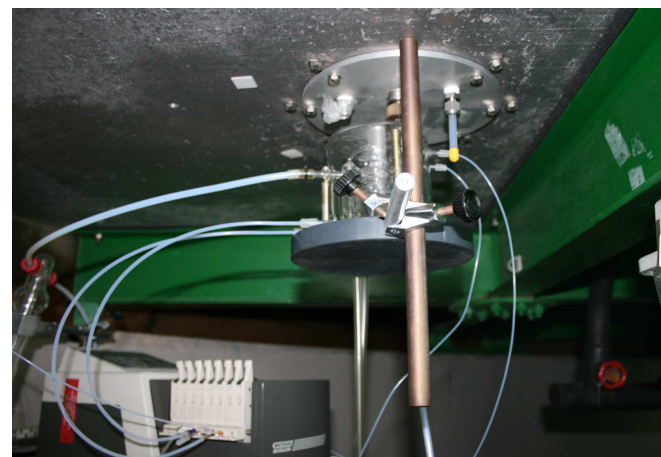
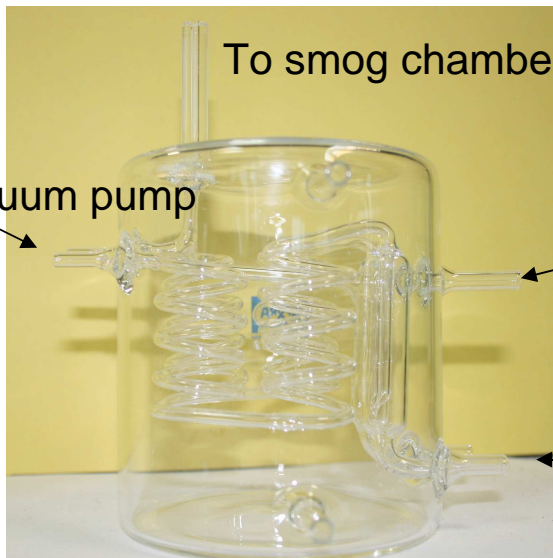


To smog chamber

To vacuum pump

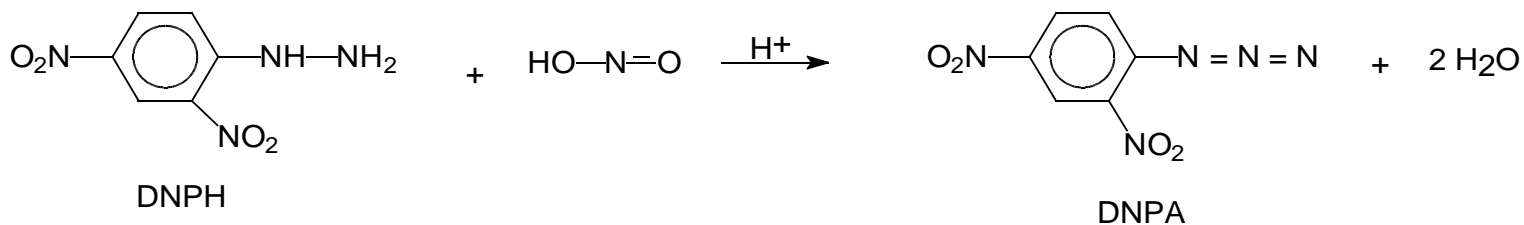
Stripping solution inlet

Sample outlet



- Stripping sampling system thermostatted at 5°C
- The 1st coil directly attached to the chamber; air flow rate: 2 L/min. (with a vacuum pump)
- Stripping solution (Na₂HPO₄ buffer at pH=7) introduced into the coil at 0.25 mL/min. with a peristaltic pump
- Time resolution: 4 min.
- Collection efficiency: ~98%
- Detection limit: ≤100 pptv

Sample (~1mL) + 0.5 mL of acidic DNPH solution $\xrightarrow{\text{derivatization}}$ 15 min. at 40°C (DNPA)
 \downarrow
 100 μL to the HPLC system



2,4-Dinitrophenyl azide (DNPA) detected at $\lambda = 309 \text{ nm}$ in a Kromasil C18 column using 50% CH₃CN in water as mobile phase, at 1 mL/min.