



a) Components of new CV- μ CCP analytical experimental system

b) Hg microcollector with gold filament

c) Capacitively coupled plasma microtorch

Experimental conditions:

Plasma operating power: 20 W; 13.56 MHz; 200 mL min⁻¹ Ar flow rate; 1 mm observation height above tip microelectrode.

CV generation and preconcentration: reducing agent: 20 (w/v) % SnCl₂ solution stabilized in 15 % (v/v) HCl (1.0 mL min⁻¹); sample stabilized in 5 % (v/v) HCl (3.5 mL min⁻¹); preconcentration from 25 mL sample solution.

Microcollector: gold filament, 100 μ m diameter, 23 coils (43 cm length). Heating program: 5 s, 5 V and 1.5 A.

QE65 Microspectrometer: high speed acquisition; eleven 3-D emission episodic spectra; 8 s acquisition time/episode.