

# VA Application Note No. V - 135

**Title:** Suppressor «Cupracid BL-CT» in acid copper baths (Atotech)

**Summary:** Determination of suppressor «Cupracid BL-CT» in acid copper baths by dilution titration (DT) using cyclic voltammetric stripping (CVS).

**Sample:** Acid copper electroplating bath

**Sample preparation:** None

## Analysis of suppressor «Cupracid BL-CT»

**Electrolyte** Virgin make-up solution (VMS)  
CuSO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub> and NaCl concentrations according to the supplier specifications.

**Measuring solution** 50 mL VMS

**Working electrode (WE)** **Pt-RDE:**  
Drive shaft .....6.1246.000  
+ Pt tip for CVS .....6.1204.160

**Auxiliary electrode (AE)** **Pt**.....6.0343.000

**Reference electrode (RE)** Reference system: Ag/AgCl/KCl (3 mol/L) ....6.0728.020  
Intermediate electrolyte: KNO<sub>3</sub> sat.:H<sub>2</sub>O (3:1) ..6.1245.010

### Parameters

Working electrode	RDE (hydrodynamic measurement)
Stirrer speed	2000 rpm
Mode	CVS
Calibration technique	DT
Start potential	1.575 V
First vertex potential	-0.25 V
Second vertex potential	1.575 V
Voltage step	0.006 V
Sweep rate	0.1 V/s
Peak potential (Cu)	0.2 V ± 0.2 V
Evaluation ratio (Q/Q(0))	0.75

## Determination of suppressor «Cupracid BL-CT»

