

VA Application Note No. V - 146

Title: Suppressor «InPulse H6» in acid copper baths (Atotech)

Summary: Determination of suppressor «InPulse H6» in acid copper baths by dilution titration (DT) using cyclic voltammetric stripping (CVS).

Sample: Acid copper electroplating bath

Sample preparation: None

Analysis of suppressor «InPulse H6»

Electrolyte Virgin makeu-p solution (VMS)
CuSO₄, H₂SO₄ and NaCl concentrations according to supplier specifications.

Measuring solution 100 mL VMS

Working electrode (WE) **Pt-RDE:**
Drive shaft6.1246.000
+ Pt tip for CVS6.1204.160

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

Reference electrode (RE) Reference system: Ag/AgCl/KCl (3 mol/L)6.0728.020
Intermediate electrolyte: KNO₃ sat.:H₂O (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))	0.65

Determination of suppressor «InPulse H6»

