VA Application Note No. V - 160

Title:	**Palladium in an activator bath**

Summary:	The concentration of Pd in activator bath is determined by polarography in ammonium chloride electrolyte.

Sample:	Activator solution
Sample preparation:	None

Analysis of Pd

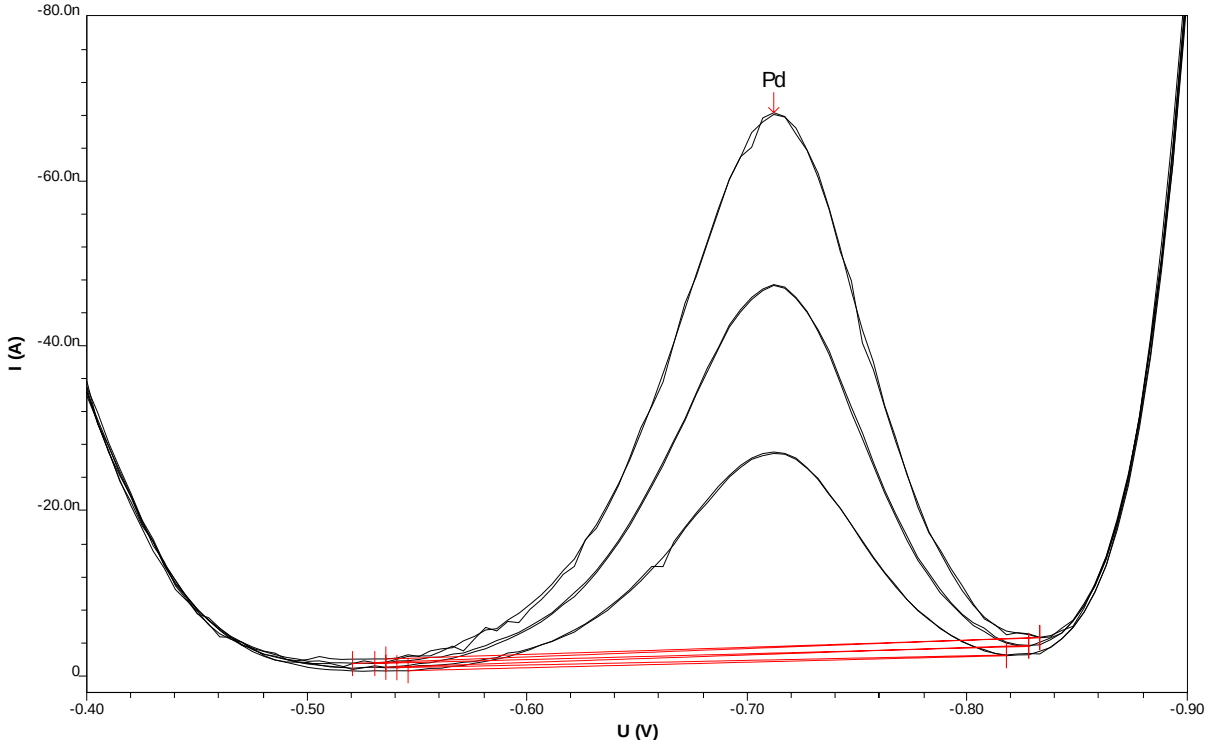
Supporting electrolyte	$c(NH_4Cl)$ = 1 mol/L $c(NH_3)$ = 1 mol/L c(KCl) = 1.5 mol/L	
Measuring solution	15 mL H_2O + 5 mL supporting electrolyte + 0.5 mL activator solution	
Working electrode (WE)	**MME** (Multi Mode Electrode)	6.1246.020
Auxiliary electrode (AE)	**Pt**	6.0343.000
Reference electrode (RE)	Reference system: Ag/AgCl/KCl (3 mol/L) Intermediate electrolyte: c(KCl) = 3 mol/L	6.0728.020 6.1245.010

Parameters

Working electrode	DME
Stirrer speed	2000 rpm
Mode	DP
Purge time	300 s
Equilibration time	5 s
Pulse amplitude	0.05 V
Start potential	-0.4 V
End potential	-0.9 V
Voltage step	0.005 V
Voltage step time	0.6 s
Sweep rate	0.0083 V/s
Peak potential Pd	-0.71 V

Results:	Pd
	64.1 mg/L

Determination of



Pd
c = 64.067 mg/L
+/- 0.287 mg/L (0.45%)