VA Application Note No. V - 180

Title:	**Determination of nitrobenzene in aniline**

Summary:	The concentration of nitrobenzene in aniline is determined by polarography in an ethanol / acetic acid electrolyte.

Sample:	Aniline
Sample preparation:	None

Analysis of nitrobenzene

Ethanol	$w(CH_3CH_2OH) = 99.9\ \%$	
Acetic acid	$w(CH_3COOH) = 99.5\%$	
Measuring solution	2 g anilin + 20 mL ethanol + 2 mL acetic acid approx. pH 4.1	
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	10 s
Pulse amplitude	50 mV
Start potential	-0.25 V
End potential	-0.7 V
Voltage step	0.004 V
Voltage step time	0.4 s
Sweep rate	0.01 V/s
Peak potential nitrobenzene	-0.48 V

Results:	Nitrobenzene
	714 ng/g

Determination of nitrobenzene