

Silver

Function: Differential Pulse Stripping Voltammetry (DPS/a)

Electrode: Glassy carbon

Start Potential (mV)	-700
End Potential (mV)	0
Current range	102,4 μ A
Scan Speed (mV/s)	20
Deposition time (s)	120
Deposition Pot. (mV)	-700
Number of cycles	2
Delay before sweep (s)	5
Purge and stir time (s)	300
Stirring speed (rpm)	500
Drop Size (a.u.)	0
Electrode	External

Silver concentrated standard solution (1 g/l)

Dissolve 1.57 g of AgNO₃ in 1 l of distilled water, in a volumetric flask. Store the solution in a dark bottle. ($MM_{AgNO3} = 169.88$: $MM_{Ag} = 107.868$).

Supporting electrolyte

Solution 1 M KNO₃. Dissolve 10.11 g of KNO₃ in 11 of distilled water, in a volumetric flask.

Procedure

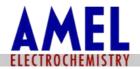
Add 2 ml of supporting electrolyte to 20 ml of sample.

Working standard solution (10 mg/l)

Dilute 1+99 the concentrated standard solution with distilled water. Prepare the solution at the moment of the analysis and store in the dark.

Alternative supporting electrolyte

Add 10 ml of 37% HCl to 10 ml of sample.



a = 687.0 nA*1/µg

C_x= 124 µg/l

223.9 µA

 $b = 84.96 \mu A$

200

 $r^2 = .9984$

Analytical Report

Analysis: Waste water from photograph bath Sample Concentration = $124 \mu g/l$

Volumes	table
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Solvent Volume 0 (ml) Supporting Sol. 1 (ml) Sample Volume 20 (ml) Standard Conc.

#	Peak Pot.	Height
0	-195.9	82.41 μΑ
1	-203.8	142.0 μΑ
2	-208.4	209.2 μΑ

#

0 $0 \mu g/l$ 86.53 μΑ y = ax + b1 100 " $150.5 \mu A$ $a = 687.0 \text{ nA*l/\mug}$ 200 " $223.9 \mu A$ $b = 84.96 \mu A$ $r^2 = .9984$

 $10000 \, (\mu g/l)$ Peak table 0 Conc. (agg.) µg/l **AMEL 433** Regression Data Add Conc. Height x dilution

