Ascorbic acid in fruit juice

Function: Differential Pulse Voltammetry (DPV/a)

Start Potential (mV)	0
End Potential (mV)	350
Current range	10,24 μA
Scan Speed (mV/s)	20
Number of cycles	3
Delay before sweep (s)	5
Purge and stir time (s)	300
Stirring speed (rpm)	300
Drop Size (a.u.)	60

Concentrated standard solution of ascorbic acid (1 g/l)
Dissolve 1g of pure ascorbic acid in 1 l of distilled water in a volumetric flask. Prepare the solution at the moment of the analysis.

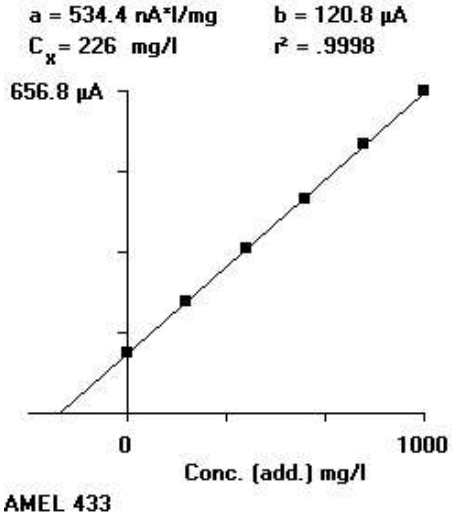
Supporting electrolyte
0.05 M Acetate buffer in 0.01 M $NaNO_3$, pH 3
Dissolve 0.85 g of $NaNO_3$ in 800 ml of distilled water. Add 2.86 ml of glacial CH_3COOH. Adjust the pH and to bring to the mark in a 1 l volumetric flask.

Procedure
Add 0.1 - 1 ml of sample to 10 ml of supporting electrolyte.

Working standard solution (100 mg/l)
Dilute the concentrated standard solution 1+9 in distilled water, at the moment of the analysis.

Warning
The sample must tightly be preserved in closed containers (avoiding bubbles of air) and it must be analysed as soon as possible

Analytical report
Analysis: Concentrated orange juice
Sample Concentration = 226 mg/l
Method: 5 additions



Volumes Table

Solvent Volume	0 (ml)
Supporting Sol.	10 (ml)
Sample Volume	0.1 (ml)
Standard Conc.	100 (mg/l)

Height Table

#	Peak Pot.	Height
0	198	1.222 µA
1	197.1	2.197 µA
2	198	3.183 µA
3	197.1	4.085 µA
4	197.1	5.045 µA
5	197.1	5.917 µA

Regression Data

#	Add.Conc.	Height x dilution
0	0 mg/l	123.4 µA
1	200 "	226.3 µA
2	400 "	334.3 µA
3	600 "	437.1 µA
4	800 "	549.9 µA
5	1000 "	656.8 µA

y = ax + b
a = 534.4 nA*l/mg
b = 120.8 µA
r^2= .9998