

VA Application Note No. V-81

Title: Copper, iron and vanadium in sodium chloride

Summary: Copper, iron and vanadium can be determined in salt samples in the $\mu\text{g}/\text{kg}$ concentration range by adsorptive stripping voltammetry (AdSV) at the HMDE. No sample preparation is necessary.

Sample: Pure NaCl

Sample preparation: NaCl is dissolved in water

Copper, iron and vanadium:

Electrolyte: PIPES buffer with catechol

AE: Pt

RE: Ag/AgCl/KCl (3mol/L)

Parameters: DPAdSV at HMDE

Deposition: 0 V (60 s)

Determination: 0 V to -800 mV

Peak potential Cu: -160 mV

Peak potential Fe: -340 mV

Peak potential V: -600 mV

Results:	Cu	Fe	V
	79 $\mu\text{g}/\text{kg}$	305 $\mu\text{g}/\text{kg}$	4.7 $\mu\text{g}/\text{kg}$

Determination of copper, iron, vanadium

