

VA Application Note No. V-69

Title: Nickel and cobalt in sea water

Summary: Nickel and cobalt can be determined in sea water by adsorptive stripping voltammetry (AdSV) at the HMDE.

Sample: Sea water

Sample preparation: UV digestion for the total Ni and Co content

Nickel and cobalt:

Electrolyte: 0.2 mol/L NH_3 + 0.1 mol/L NH_4Cl + 5×10^{-4} mol/L DMG

AE: Pt

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

Parameters: DPAdSV at HMDE

Deposition: -700 mV (90 s)

Determination: -800 mV to -1300 mV

Peak potential Ni: -960 mV

Peak potential Co: -1110 mV

Results:

Ni	Co
106 ng/L	<25 ng/L

Determination of nickel and cobalt

