

VA Application Note No. V- 22

Title: Antimony and bismuth in alkaline ZnO solution in one run

Summary: Determination of Sb and Bi in alkaline ZnO solution in one run

Sample: Alkaline ZnO solution

Sample Preparation: UV digestion

Bismuth and antimony:

Electrolyte: Digested solution
pH = 0.25 with HCl 30%

AE: Pt

RE: Ag/AgCl/KCl 3M

Parameters: **Bi:** DPASV (+10 mV), HMDE
 $U_{\text{meas}} = -80 \text{ mV}$ (2s), $U_{\text{start}} = -100 \text{ mV}$, $U_{\text{end}} = +40 \text{ mV}$
 $E_p(\text{Bi}) = -60 \text{ mV}$

Sb: DPASV (+10 mV), HMDE
 $U_{\text{meas}} = -240 \text{ mV}$ (180s), $U_{\text{meas}} = -190 \text{ mV}$ (60s),
 $U_{\text{start}} = -300 \text{ mV}$, $U_{\text{end}} = -70 \text{ mV}$
 $E_p(\text{Sb}) = -130 \text{ mV}$

Results:	Bi µg/L	Sb µg/L
	< 1	< 1

Determination of antimony

Determination of bismuth

