

VA Application Note No. V- 46

Title:	Zinc, cadmium, lead, copper, nickel and cobalt in vitamin tablets
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Summary:	Determination (after digestion) of zinc, cadmium, lead, copper, nickel and cobalt in fabrication powder of vitamin tablets.
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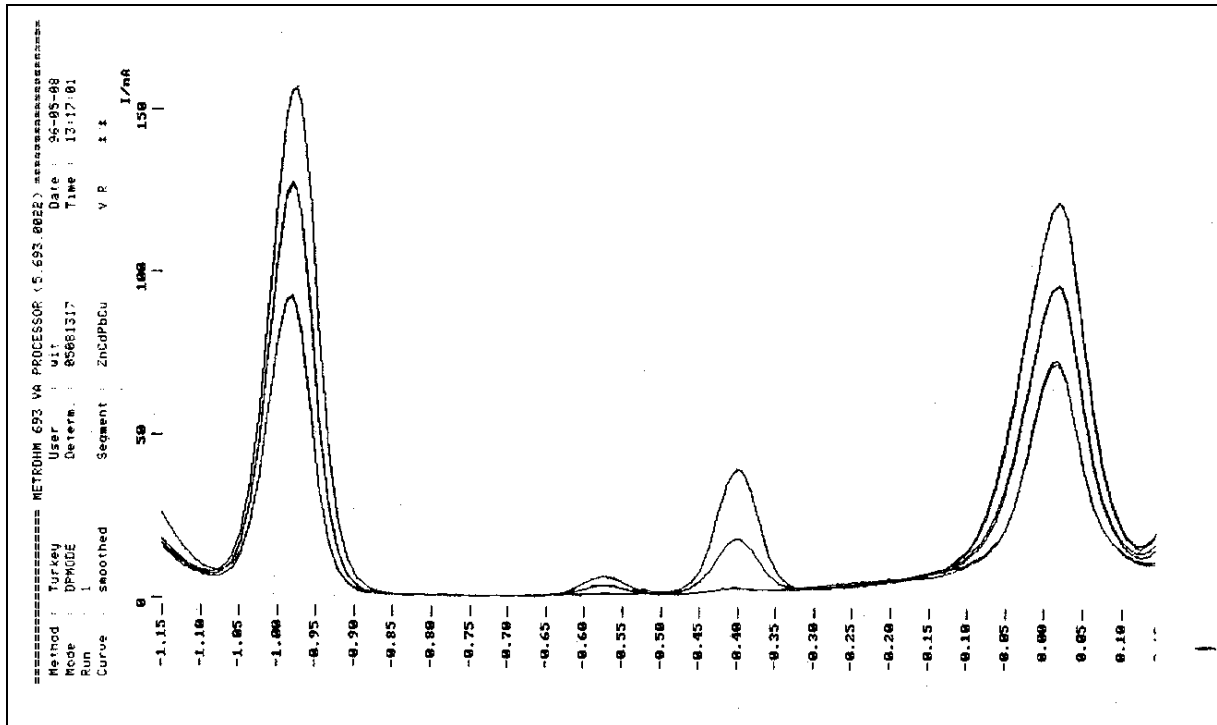
Sample:	Powder for vitamin tablet fabrication
Sample Preparation:	Wet digestion (H ₂ SO ₄ / H ₂ O ₂)

Zinc, cadmium, lead and copper:	
Electrolyte:	NH ₄ Ac buffer NH ₃ / CH ₃ COOH, pH = 4.6
AE:	Pt
RE:	Ag/AgCl/KCl 3M
Parameters:	DPASV (+50 mV), HMDE U _{meas} = -1150 mV (90s), U _{start} = -1150 mV, U _{end} = +150 mV Ep(Zn) = -980 mV, Ep(Cd) = -545 mV, Ep(Pb) = -400 mV, Ep(Cu) = -80 mV

Nickel and cobalt:	
Electrolyte:	Dimethylglyoxime in ethanol, NH ₄ Cl buffer
AE:	Pt
RE:	Ag/AgCl/KCl 3M
Parameters:	DPCSV (-50 mV), HMDE U _{meas} = -700 mV (30s), U _{start} = -700 mV, U _{end} = -1200 mV Ep (Ni) = -970 mV, Ep (Co) = -1080 mV

Results:	Zn µg/g	Cd µg/g	Pb µg/g	Cu µg/g	Ni µg/g	Co µg/g
	125.9	0.5	1.6	116.9	9.7	4

Determination of zinc, cadmium, lead and copper



Determination of nickel and cobalt

