

Application Memo

Industry	Nonferrous metal
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	JIS K 8863, ISO 6353-3, GB/T 12684

Boric acid in the electrolyte solution is quantified according to JIS K 8863-2007 Boric acid (Reagent). After mannitol and pure water are added to the sample, it is titrated with 0.1mol/L sodium hydroxide up to the endpoint. The endpoint is the maximum inflexion point on the titration curve. The concentration of boric acid is calculated from the titration volume.

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	pH glass electrode Ceramic reference electrode

Titrant	0.1 mol/L sodium hydroxide
Solvent	Pure water, Mannitol

—Measurement results—

	Sample (mL)	Concentration (g/L)
1	2.0	43.976
2	2.0	44.658
3	2.0	44.469
Average		44.368
SD		0.352
RSD(%)		

—Titration curve—