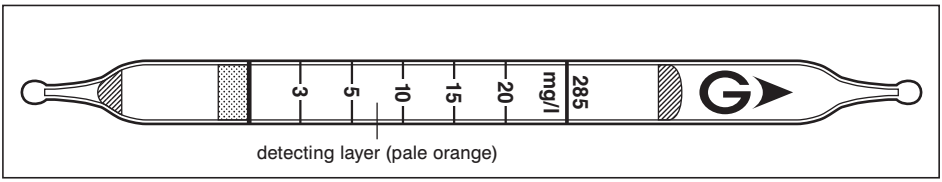
Zinc Zn^{2+}

No.285



Performance

Measuring range	3 to 20 mg/l
Sampling time	3 min

Detecting limit : 0.5 mg/l
Colour change : Pale orange → Reddish purple
Corrections for water temperature : Necessary
pH value : pH 3.0 to pH 6.0
Relative standard deviation : 15 %（for 3 to 5 mg/l）, 10 %（for 5 to 20 mg/l）
Shelf life : 3 years

Reaction principle

Zn^{2+} + Indicator → Complex compound

Possible coexisting substances and their interferences

Substance		Concentration	Interference	Changes colour by itself to
Cyanide ion	CN^-	≧ 10 mg/l	+	No（≦ 100 mg/l）
Iron(II)	Fe^{2+}	≧ 1 mg/l	+	Reddish purple（≧ 3 mg/l）
Iron(III)	Fe^{3+}	≧ 2 mg/l	+	No（≦ 100 mg/l）
Nickel	Ni^{2+}	≧ 2 mg/l	+	Purple（whole layer）（≧ 2 mg/l）
Copper(II)	Cu^{2+}	≧ 0.1 mg/l	+	Reddish purple（≧ 0.1 mg/l）
Manganese	Mn^{2+}	≧ 0.5 mg/l	+	Purple（≧ 3 mg/l）
Lead	Pb^{2+}	≧ 0.5 mg/l	+	No（≦ 100 mg/l）

Calibration method

Zinc standard solution