

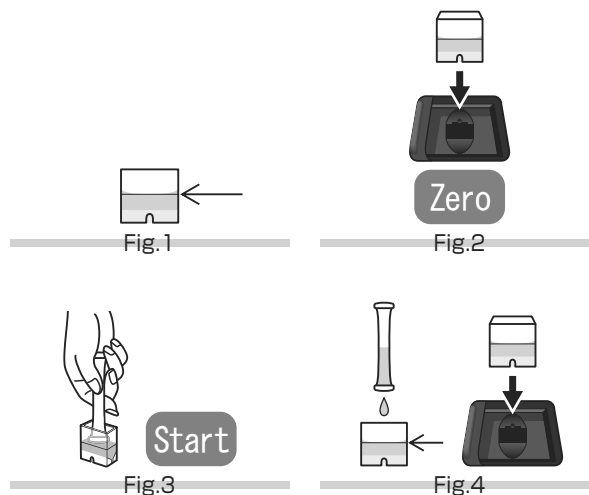
Cu Copper

Color development: None → Light orange → Orange
Method : Bathocuproine
Range : 0.10 — 5.00 mg/L(ppm)
Reagent : WAK-Cu Tube
Reaction time : 1 min. after drawing sample into the tube.

Cell : PACKTEST Square Cup
Wavelength : 482 nm, 520 nm

Procedure

1. Press **[Cu]**.
2. Press **[OK]** to switch to the photometry window.
3. Fill the Cell with the sample for 1.5 mL (up to line). (Fig.1)
4. Put the Cell in the cell box and press **[Zero]**. (Fig.2)
5. Suck the whole amount of the sample in the Cell into the tube and press **[Start]** at the same time. (Fig.3)
6. Lightly shake the tube in Step 5 from 5 to 6 times, return the solution in the tube to the Cell in a gentle manner, set it again in the cell box. (Fig.4)
7. After 1 minute has elapsed, the concentration will be automatically displayed.



CAUTION

1. In this method, the concentration of ionized univalent and divalent copper (Cu^+ , Cu^{2+}) in the sample is measured.
If a concentration measurement value including suspension, precipitate and complex is required, dissolve the target substance in advance and then perform measurement.
2. The optimum pH during color development is 6. If the pH of the sample is not within the range from 2 to 10, neutralize the sample with dilute sulfuric acid or dilute sodium hydroxide solution, etc.
3. Perform measurement with the sample temperature set to 15 to 30°C.

Influence of coexisting substance

The stored calibration curve has been created by using the standard solution. If the influence of other substance is considered, check the measurement value by comparing it with the official method or by standard addition method.

The right chart is the list of interference data for acceptable level by adding each of the single substances to the standard solution.

Seawater does not affect the measurement.
Oxidizing substance may affect the measurement.

≤ 1000mg/L.: B (III), Ca^{2+} , Cl^- , F^- , I^- , K^+ , Mg^{2+} , Mo (VI), Na^+ ,
 NH_4^+ , Ni^{2+} , NO_2^- , NO_3^- , PO_4^{3-} , SO_3^{2-} , SO_4^{2-} ,
Residual Chlorine, Phenol
≤ 250mg/L.: Co^{2+} , Mn^{2+}
≤ 100mg/L.: Ba^{2+}
≤ 50mg/L.: Zn^{2+} , Anionic Surfactant
≤ 20mg/L.: Cr^{3+} , Cr (VI)
≤ 10mg/L.: Ag^+
≤ 5mg/L.: Fe^{2+} , Fe^{3+}
≤ 2mg/L.: Al^{3+}
≤ 1mg/L.: CN^-

Information on reagent

Refer to the usage that comes with PACKTEST.
The pH of the solution is about 6.