

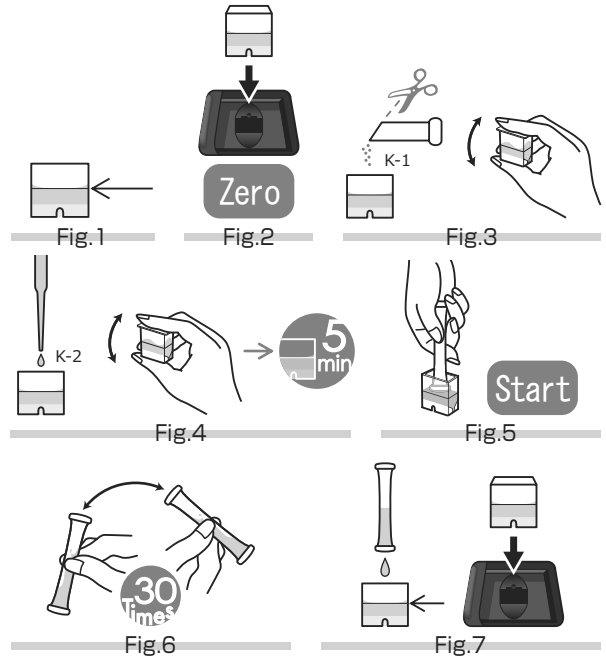
Zn-D Zinc (Low Range)

Color development: Yellow → Orange → Pink
Method : 5-Br-PAPS
Range : 0.02 — 0.40 mg/L(ppm)
Reagent : WAK-Zn (D) K-1 (Small Pack) , K-2 (Liquid) , Tube
Reaction time : 1 min. after drawing sample into the tube.

Cell : PACKTEST Square Cup
Wavelength : 553 nm

Procedure

1. Press **[Zn-D]**.
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. Add K-1 reagent, attach the cap, and sufficiently shake the Cell to completely dissolve the reagent. (Fig.3)
6. Add K-2 reagent for 0.3 mL using pipette, attach the cap and shake the Cell 2 to 3 times, and then remove the cap and let the Cell stand for 5 minutes. (Fig.4)
7. Suck the whole amount of the sample in the Cell into the tube and press **[Start]** at the same time. (Fig.5)
8. Lightly shake the tube in Step 7 about 30 times. (Fig.6)
9. Return the solution in the tube to the Cell in a gentle manner, set it again in the cell box. (Fig.7)
10. After 1 minute has elapsed, the concentration will be automatically displayed.



CAUTION

1. In this method, the concentration of ionized zinc (Zn^{2+}) in the sample is measured.
If result of zinc concentration including suspension and precipitate is required, dissolve zinc in advance and then perform measurement.
2. The optimum pH during color development is 9. If the pH of the sample is not within the range from 5 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 .
4. Dissolve orange lumps in the tube as much as possible. Undissolved colorless reagent will not affect the measurement.
5. Use of a measuring pipette or the like instead of the supplied pipette enables more accurate measurement.

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.

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

Seawater does not affect the measurement.

Information on reagent

Refer to the usage that comes with PACKTEST.
The pH of the solution is about 9.