

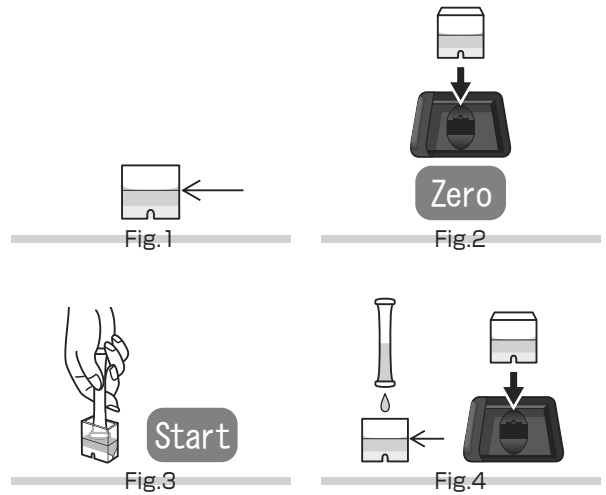
Mo Molybdenum

Color development: None → Yellow → Brown → Red
Method : Modified Catechol
Range : 5 — 150 mg/L(ppm)
Reagent : WAK-Mo Tube
Reaction time : 2 min. after drawing sample into the tube.

Cell : PACKTEST Square Cup
Wavelength : 555 nm

Procedure

1. Press **[Mo]**.
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 2 minutes have elapsed, the concentration will be automatically displayed.



CAUTION

1. In this method, the concentration of molybdenum(VI) in molybdate ion (MoO_4^{2-}) state is measured and is displayed as a converted value of molybdenum (Mo).
If result of molybdenum concentration including suspension and precipitate is required, dissolve molybdenum in advance and then perform measurement.
2. It is not possible to measure the concentration of molybdenum sulfide.
3. The obtained result can be converted into the concentration of molybdate ion (MoO_4^{2-}) by multiplying it by 1.67.
4. The optimum pH during color development is 7. If the pH of sample is not within the range from 4 to 9, neutralize the sample with dilute sulfuric acid or dilute sodium hydroxide solution, etc.
5. 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.

It is not possible to measure seawater.

$\leq 1000\text{mg/L.}$: Cl^- , F^- , I^- , K^+ , Mg^{2+} , Na^+ , NH_4^+ , NO_2^- , NO_3^- , SO_4^{2-} ,
Residual Chlorine, Anionic Surfactant, Hydrazine, Phenol
 $\leq 500\text{mg/L.}$: B (III) , CN^- , SO_3^{2-}
 $\leq 200\text{mg/L.}$: Ca^{2+} , Cu^{2+} , Mn^{2+} , Zn^{2+}
 $\leq 100\text{mg/L.}$: Ba^{2+} , Co^{2+} , Cr^{3+} , Ni^{2+}
 $\leq 10\text{mg/L.}$: Al^{3+} , Cr (VI)
 $\leq 5\text{mg/L.}$: Fe^{2+} , Fe^{3+}
 $< 1\text{mg/L.}$: V (V)

Information on reagent

Refer to the usage that comes with PACKTEST.
The pH of the solution is about 7.