廢水中餘氯檢測技術應用探討

Discussion on the Application of Residual Chlorine Detection Technology in Wastewater

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摘要

This research conducts testing and sampling of free residual chlorine and total residual chlorine based on on-site treatment procedures, and repeats multiple tests to confirm their distribution. Basically, free residual chlorine is maintained in a very low concentration range, and most of the measured values come from The precipitation is caused by the reaction between the substrate and the reagent components in the water, and the test results of the total residual chlorine also include the concentration of free residual chlorine. Therefore, the total residual chlorine content can be directly detected and analyzed, and it is recommended that on-site monitoring be based on the total residual chlorine. Mainly chlorine detection.

The pH value will also affect the reliability of the test value. This is mainly caused by the error caused by the setting of the calibration curve. Hypochlorous acid behaves differently in water depending on the pH. When chlorine is in water with a pH value exceeding 9, it mainly exists in the ionic state ClO^-. But when the pH is between 6 and 8, chlorine will form an equilibrium between ClO^- and HClO. When the pH value of the water sample is below 6, chlorine mainly exists as molecular HClO and is dissolved in the water sample. When the test reagent is shaken, added, and moved, it may escape or not react with the DPD reagent because it is in a non-ionic state, or it may take a long time to wait for the HClO in the water to be converted into ClO^- during this time. , the red product of DPD may be further decomposed. In addition, when the pH of chlorine is less than 4, it will begin to exist in the form of chlorine gas. When the pH value reaches below 2, it will completely exist in the form of chlorine gas, which will also lead to the above situation.

Keyword：Residual chlorine、Wastewater。

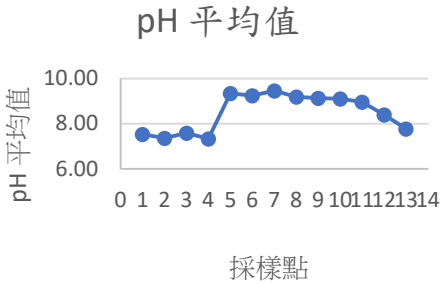

圖 1、採樣點 pH 值(x:回收水量;y:數量)

圖 2、檢驗樣品比對