

SURFACE WATER TREATMENT SYSTEM DESIGN FOR HOUSEHOLDS COMBINATION COLD PLASMA WITH FLOCCULATING

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Summary

The fresh water supplying is a necessity not only in urban areas but also in rural areas, especially in remote and isolated areas. The issue is how to provide fresh water for living in rural areas with reasonable price. That is why it is necessary to design water treatment systems for the clusters of households located far from the centralized water supply. The research was conducted in Tich Thien commune, Tra On district, Vinh Long province from July 2017 to December 2017. This research is performed to find out a suitable surface water treatment complying with standards based on available surface water treatment techniques and cold plasma technology. The experimental results show that the combination of cold plasma technology and coagulation-flocculation method has successfully treated surface water and water after treatment is in compliance with QCVN 02/2009-BYT.

Keywords: *Cold plasma, design, surface water, treatment, rural.*