REMOVAL OF COPPER (Cu) AND IRON (Fe) FROM CONTAMINATED WATER BY USING ION EXCHANGE RESIN

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ABSTRACT

REMOVAL OF COPPER (Cu) AND IRON (Fe) FROM CONTAMINATED WATER BY USING ION EXCHANGE RESIN

The aim of this study was to identify the efficiency of ion exchange resin for removal of copper (Cu) and iron (Fe). To determine the initial concentration and after removal or final concentration, atomic absorption spectroscopy (AAS) was used. Standard of copper and iron was used to build calibration curve. The sample used are copper metal and iron metal. Two brand of ion exchange resin were used which are rohm haas and porulite. Samples solution were prepared and measured the concentration using atomic absorption spectroscopy. Then sample solution pass through the 2 brand of resin using ion exchange resin column. The flow rate was set up as a parameter. In this study, the flow rate parameter used are 0.5 drop/sec and 1 drop/sec. The sample solution that was pass the column will measure the concentration using atomic absorption spectroscopy. Results showed that, Rhom Haas resin give high efficiency for copper removal and purolite resin give high efficiency for iron removal for both flow rate.