

Polarographic Determination of Copper After Enrichment by Adsorption of the 2,2'-Biquinoline Complex on Activated Carbon

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A preconcentration method based on the adsorption on activated carbon of a binary complex of copper(I) with 2,2'-biquinoline, and subsequent polarographic determination of microamounts of copper has been developed. The adsorbed complex is destroyed by a mixture of acetonitrile and perchloric acid. The free copper ions are measured by differential pulse polarography in a supporting electrolyte of 0.2M potassium thiocyanate. The detection limit was found to be 0.33 ng/ml (3 σ). This method was successfully applied to the determination of copper in sea water. © 1991, Taylor & Francis Group, LLC. All rights reserved.