Mercury Adsorption Behaviors of Copper/Activated Carbons by Electroless Plating

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Abstract : In this study, the adsorption behaviors of mercury ions on the electroless Cu-plated activated carbons have been investigated. The amount of copper on activated carbons have been confirmed by atomic absorption spectrophotometer (AAS). The surface properties of the ACs studied have been characterized by using Boehm's titration method and scanning electron microscopy (SEM).Experimental results showed the adsorption capacity of mercury ions was increased as the electroless Cu plating. This was probably due to the introduction of copper on ACs leaded to an increase in the surface basicity.

Key words : activated carbons, electroless Cu plating, adsorption, mercury