

## **Control of Chemical Purity in Wafer Processing Baths**

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The lifetime of chemical processing baths is often limited by the build-up of contaminants in the bath. These contaminants can come from incoming chemical, the wafers being processed, the components used in assembling the bath and from newly installed bath components. This paper addresses control of dissolved metallic contaminants. It describes methodology to specify and qualify bath components with low levels of extractable materials. The test procedure involves measuring the rate at which contaminants extract from components so that extraction can be related to bath contamination over time. The paper also discusses how purifiers can be used to reduce the impact of dissolved metallic contaminants which enter dilute HF baths from incoming chemicals and wafers, extraction from components, and new component installation.