

# **Real-Time Monitoring of Dilute Multi-Component Wet Processing Chemistries**

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## **Abstract**

Future technology nodes for semiconductor processing require use of ultra-dilute chemicals to minimize materials loss associated with each cleaning step. The authors report in this paper a newly developed technique to analyze in-situ the component concentrations of ultra-dilute single- or multi-component wet processing/cleaning solutions. Software and hardware development of this work is discussed. Analytical results showing high detection sensitivity and accuracy are presented.