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**Applications of DC-Self Bias in CCP Deposition Systems** D.L. KEIL, E. AUGUSTYNIAK, Y. SAKIYAMA, Lam Research Corporation — In many commercial CCP plasma process systems the DC-self bias is available as a reported process parameter. Since commercial systems typically limit the number of onboard diagnostics, there is great incentive to understand how DC-self bias can be expected to respond to various system perturbations. This work reviews and examines DC self bias changes in response to tool aging, chamber film accumulation and wafer processing. The diagnostic value of the DC self bias response to transient and various steady state current draw schemes are examined. Theoretical models and measured experimental results are compared and contrasted.

D.L. Keil  
Lam Research Corporation

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