Modeling of Mutilayer Ion Etching Processes

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ABSTRACT
Numerical simulation is used to model ion etching in tri-layer lithography. The simulations are capable of capturing the evolution of the boundary between two materials as well as the physically observed phenomena RIE lag and undercutting. Numerical results are compared with experimental data and a good agreement is found except close to the material interface where the slope of the surface is large. This error is attributed to a purely energy dependent yield used in the simulations.