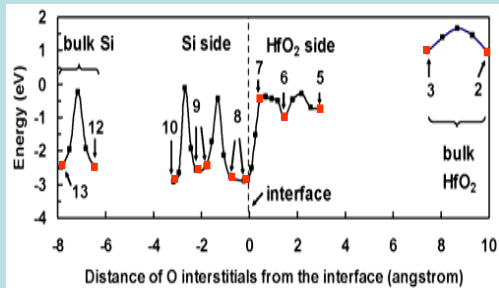
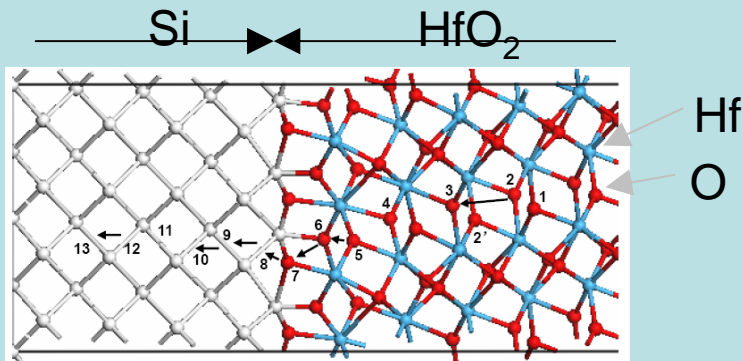


# Computational Study of Conduction and Breakdown Mechanisms in Metal Oxide Dielectric Insulators

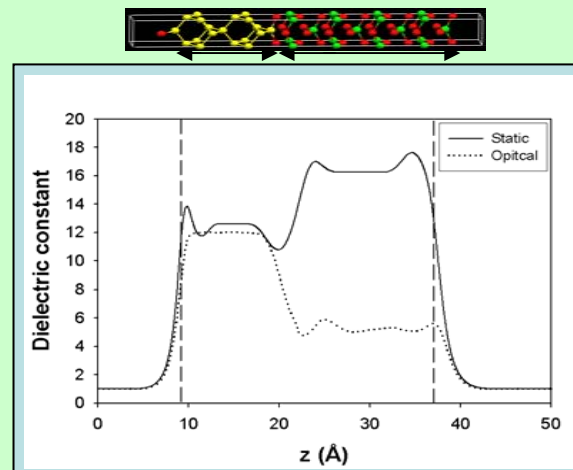
R. Ramprasad, Department of Chemical, Materials & Biomolecular Engineering, University of Connecticut, Storrs, CT

Density functional theory calculations to determine *point defect dynamics* & *position dependent dielectric constant and band structure profiles of Si-HfO<sub>2</sub> interfaces*

## O Interstitial Dynamics



## Dielectric Constant Profile



## Band Structure Profile

