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Double-layer island decay on Ag(111): A molecular dynamic simulation[1] BERK ONAT, Informatics Institute, Istanbul Technical University, Maslak, 34469, Istanbul, Turkey, SONDAN DURUKANOGLU[2], Department of Physics, Istanbul Technical University, Maslak, 34469, Istanbul, Turkey — We have performed molecular dynamic simulations to investigate double-layer island decays on Ag(111) using the interaction potentials based on the embedded atom method with a specific aim to observe the effect of varying island size and temperature on interlayer mass transport between two layers of the adatom islands. Our preliminary results indicate that decay rates of adatom islands show different characteristics with varying adatom island size. From an analysis of MD simulations, we further examine how the activation barriers for several diffusion processes taking place during adatom island decay change with respect to varying tempterature and island size.

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