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Scanning tunneling microscopy and spectroscopy of thin sodium-bromide overlayers on the NiAl(110) surface GAREGUIN MIKAELIAN, XIUWEN TU, WILSON HO, University of California Irvine — Thin insulating films grown on metal surfaces are of a great technological interest due to their applications in microelectronics and corrosion protection. The ability to vary the thickness of the film proves to be a useful tool in the STM experiments with a double barrier tunnel junction geometry, where the coupling between single atoms and molecules adsorbed on the film and the metallic substrate can be controlled. Here we report atomically resolved scanning tunneling microscopy of mono-, bi-, and tri-layers of sodium-bromide adsorbed on the NiAl (110) surface. In addition to topography, differential conductance measurements were performed on these films and compared to those on the bare NiAl(110) surface.

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