

ADSORPTION OF STRONTIUM
ONTO AN ALUMINUM OXIDE SURFACE

*I.N. Zasimovich, E.V. Klimenko, A.G. Naumovets,
L.N. Starovoytova, I.N. Yakovkin*

Institute of Physics, Nat. Acad. Sci. of Ukraine
(46, Nauky Ave., Kyiv 03028, Ukraine)

S u m m a r y

Auger-spectroscopy has been applied to study the adsorption of strontium onto an aluminum oxide surface. It has been established that, at a temperature as low as 300 K, the Sr deposition with the coverage up to one monolayer (ML) results in a redox reaction on the substrate surface. As a result, the interface layer includes both Al and Sr atoms in the metal state, as well as the molecules of relevant oxides. The Sr adlayers on Al_2O_3 were observed to grow layer-by-layer up to 3 ML in thickness. The dissolution of strontium in the volume of aluminum oxide has been found at 800 K.