ROLE OF FORMATION AND THERMAL DESORPTION OF MOLYBDENUM OXIDES IN CORROSION OF Mo(110) SURFACE

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Summary

The adsorption interaction of oxygen molecules with the (110) surface of a Mo single crystal at high temperatures has been studied experimentally. The spectra of thermal desorption and the Auger electron amplitude for molybdenum oxides are obtained. The mechanism of corrosion of the Mo(110) surface is found. It is shown that the highest probability of the oxide formation on the Mo(110) surface is attained at a sample temperature of about 1200 K, whereas a further temperature elevation stimulates the process of oxide desorption giving rise to the corrosion.