THE FORMATION KINETICS OF THIN-FILM COATINGS UNDER HEAVY-ION BOMBARDMENT

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S u m m a r y

A model describing the initial stage of the nucleation and evolution of thin-film coatings under the bombardment of the surface with an ion beam has been proposed. The evolution equations for the surface profile and the distribution function of absorption centers have been obtained, as well as the quasistationary solutions of these equations in the case of a weakly non-uniform distribution of absorption centers and a flat profile of the surface at the initial moment. The conditions for the nuclei to be created in the form of a spherical dome have been determined in terms of the model parameters.