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Modeling of Copper Nanoclusters Interaction with Metals at Energies of 100 eV - 10 keV

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In this work, the molecular dynamics method was used to study the processes of interaction of copper nanoclusters by energies in the range of 100 eV - 10 keV with metal targets of various sizes. The results of the formation of shock waves depending on energy of a nanocluster and the size of a target are obtained. The effects of shock waves were also investigated to explain the effect of long-range action. Classification of the arising structural changes in target depth depending on energy of a nanocluster and the size of a target is carried out. The obtained results show the action of shock waves by one of the possible mechanisms for the formation of a long-range effect.

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