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Local structural features of metallic alloys: Ni33Zr67 and Ni50Zr50

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Abstract

In this work we present the results of computer simulations molecular dynamics of the metallic alloys: Ni33Zr67 and Ni50Zr50. The critical glass-forming temperatures are defined from the behavior change of theWendt-Abraham parameters of the studied systems. We have found that the increase in the concentration of nickel in the system NiZr leads to displacement of the critical glass-forming temperature in higher temperature region. It is shown that the structural transformations which were observed in the Ni50Zr50 system are not related with crystallization processes.

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