

Abstract Submitted  
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**Dynamics of the heat transfer at the interface of diamond {111} nanosurfaces.** OLEG A. MAZYAR, Texas Tech University — Energy transfer across the interface between a small, hot model diamond {111} nanosurface and a much larger identical, cold nanosurface was studied by a classical molecular dynamics method. Kinetics of this energy transfer was found to be exponential with a rate constant increasing linearly with the increase of the normal load applied to the hot nanosurface. The rate constant of the heat transfer depends on the thickness of the small, hot nanosurface, both chemical and isotopic composition of the interface, but does not demonstrate significant changes with the increase of the nanosurfaces' contact area or the increase of the initial temperature difference between the nanosurfaces.

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