

Abstract Submitted
for the DPP17 Meeting of
The American Physical Society

Stopping Power of Warm Dense Matter from Ehrenfest Molecular Dynamics ATTILA CANGI, DANIEL S. JENSEN, STEPHANIE B. HANSEN, ANDREW D. BACZEWSKI, Sandia National Laboratories — Recent experimental advances enabled the precise measurement of the stopping power of fusion products in warm dense matter. We assess the ability of real-time time-dependent density functional theory to reproduce these results. Our approach facilitates the prediction of the stopping power in future experiments from first principles and advances our empirical and phenomenological understanding of transport properties in this technologically challenging thermodynamic regime.

Attila Cangi
Sandia National Laboratories

Date submitted: 12 Jul 2017

Electronic form version 1.4