

Abstract Submitted  
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**Fission Barriers of Actinide Nuclei with New Nuclear Density Functionals** JORDAN MCDONNELL, MARKUS KORTELAJNEN, WITOLD NAZAREWICZ, J.A. SHEIKH, MARIO STOITSOV, University of Tennessee, Knoxville, NICOLAS SCHUNCK, Lawrence Livermore National Laboratory — We survey the fission of isotopes of Ra, Th, U, and Pu through nuclear density functional theory. We compare the fission barriers predicted by new universal nuclear energy density functionals (UNEDF) to the predictions of previous Skyrme functionals and experimental data, validating the ability of the new functionals to predict fission observables. We also study the dependence of fission observables on nuclear temperature, finding barrier heights to decrease and mass yields to be more symmetric with increasing temperature for all functionals studied.

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