

Abstract Submitted
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Aspects and Reaction Rates for Pycnonuclear Fusion at High Densities MARY BEARD, MICHAEL WIESCHER, University of Notre Dame, ANATOLI AFANASJEV, Mississippi State University, LEANDRO GASQUES, Australian National University, DIMA YAKOVLEV, Ioffe Physcial Technical Institute — Pycnonuclear reactions are of great importance in the nuclear astrophysics of high density conditions such as the centers of white dwarf stars, and the deep layers of accreting neutron stars. We present here a single phenomenological expression for the calculation of pycnonuclear reaction rates which is not only valid in mixed component plasma, but can also be extended to cover the five stellar burning regimes

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