Abstract Submitted
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Magnetization and transport properties of single RPd_2P_2 (R=Y, La-Nd, Sm-Ho, Yb)[1] GIL DRACHUCK, ANNA BOEHMER, SERGEY L. BUD'KO, PAUL CANFIELD, Iowa State University/Ames Lab — Single crystals of RPd_2P_2 (R=Y, La-Nd, Sm-Ho, Yb) were grown using a self-flux method and were characterized by room-temperature powder X-ray diffraction, anisotropic temperature and field dependent magnetization and temperature dependent in-plane resistivity. Anisotropic magnetic properties, arising mostly from crystal electric field (CEF) effects, were observed for most magnetic rare earths. The experimentally estimated CEF parameters B_0^2 were calculated from the anisotropic paramagnetic θ_{ab} and $\theta_c$values. Ordering temperatures, as well as the polycrystalline averaged paramagnetic Curie-Weiss temperature, θ_{ave}, were extracted from magnetization and resistivity measurements.

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