Synthesis and Structure of YbPdSn₂

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New ternary stannide YbPdSn₂ was synthesized from the elements in a sealed tantalum tube in a high-frequency furnace. YbPdSn₂ was characterized through X-ray powder and single crystal data: $Cmcm$, $a = 442.4(2)$, $b = 1108.6(3)$, $c = 738.4(2)$ pm, $wR2 = 0.0450$, 317 $F^2$ values, and 16 variable parameters. YbPdSn₂ crystallizes with the MgCuAl₂ type structure, a ternary ordered variant of the Re₃B type. The tin sublattice of YbPdSn₂ corresponds to a distorted lonsdaleite-like arrangement with Sn-Sn distances varying from 303 to 336 pm.