The intermetallic cadmium compounds LaPdCd$_2$ and PrNi$_{0.951(4)}$Cd$_2$ were synthesized from the elements in sealed tantalum tubes in an induction furnace. Both phases were investigated by X-ray diffraction on powders and single crystals: MgCuAl$_2$-type, Cmcm, $Z = 4$, $a = 431.9(1)$, $b = 1015.7(4)$, $c = 835.7(2)$ pm, $wR^2 = 0.0436$, 326 $F^2$ values, 16 variables for LaPdCd$_2$ and $a = 420.26(8)$, $b = 981.0(2)$, $c = 815.3(1)$ pm, $wR^2 = 0.0404$, 604 $F^2$ values, 17 variables for PrNi$_{0.951(4)}$Cd$_2$. A small nickel deficit was observed for the PrNi$_{0.951(4)}$Cd$_2$ crystal. The cadmium atoms build up orthorhombically distorted three-dimensional networks (Cd–Cd distances: 302–334 pm) that resemble the structure of hexagonal diamond, lonsdaleite. Together with the palladium (nickel) atoms, [PdCd$_2$] and [Ni$_{0.951(4)}$Cd$_2$] networks are formed which leave distorted hexagonal channels for the rare earth atoms.

**Key words:** Cadmium, Intermetallics, Crystal Chemistry