

# ScPtP und LaPtP – Zwei Phosphide mit „inverser“ TiNiSi-Struktur

ScPtP and LaPtP – Two Phosphides with “Inverse” TiNiSi-Type Structure

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*Z. Naturforsch.* **2007**, 62b, 1153 – 1156; received April 18, 2007

Single crystals of ScPtP (orthorhombic,  $a = 6.437(1)$ ,  $b = 4.291(1)$ ,  $c = 7.550(2)$  Å) were grown by reaction of the elements in molten lead (1000 °C), whereas LaPtP (orthorhombic,  $a = 7.268(1)$ ,  $b = 4.532(1)$ ,  $c = 7.864(2)$  Å) was prepared by heating mixtures of the elements at 900 °C. Both phosphides were investigated by single crystal X-ray diffraction. Their crystal structures belong to the TiNiSi-type ( $Pnma$ ;  $Z = 4$ ), but the positions of the Ni and Si atoms are exchanged. Therefore the Pt atoms are located in the centers of trigonal prisms and the P atoms are coordinated by four Pt atoms in the shape of distorted tetrahedra.

*Key words:* Phosphide, Scandium, Lanthanum, Platinum, Crystal Structures