

Magnetic and related properties of ternary TmTX intermetallics

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We reported on the magnetic, thermodynamic and electrical transport properties of a few TmTX compounds, where T = d-electron metal and X = p-electron element. In most of these ternaries, the tullium magnetic moments order antiferro- or ferromagnetically at low temperatures. The specific heat data confirm the magnetic ordering and reveal crystalline electric field effect. The electrical resistivity has a metallic character and exhibits distinct anomalies due to the magnetic phase transitions. Role of RKKY interactions on the emergence of magnetic order and specific to the series structure - property relationships will be discussed.

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