

# High-pressure / High-temperature Synthesis of Transition Metal Oxide Perovskites

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Perovskite and related Ruddlesden-Popper type transition metal oxides synthesised at high pressures and temperatures during the last decade are reviewed. More than 60 such new materials have been reported since 1995. Important developments have included perovskites with complex cation orderings on A and B sites, multiferroic bismuth-based perovskites, and new manganites showing colossal magnetoresistance (CMR) and charge ordering properties.

*Key words:* High-pressure Synthesis, Perovskites, Cation Ordering