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Crystal Structure and Physical Properties of Multiferroic TmMnO₃ single crystals YUQIN ZHANG, TIAN YU, TREVOR TYSON, NJIT — We present here single crystal diffraction and local structure results of hexagonal and orthorhombic TmMnO₃ single crystals. Combined with specific heat and electric polarization properties across the Néel temperature, we further explore the close correlation between ferroelectric behavior at low temperature and local and long range structure change in these two different crystal structures. This work is supported by DOE Grants DE-FG02-07ER46402 (NJIT).

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