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Simultaneous magnetic ordering and electric polarization in single-crystal $BaMnO_3$ and its derivatives[1] G. CAO, O.B. KORNETA, S. CHIKARA, T.F. QI, Center for Advanced Materials, University of Kentucky, W.P. CRUMMET, Science Division, Centre College, Danville, KY 40422 — We report results of a structural, magnetic, dielectric and thermal study of single crystal $BaMnO_3$ and its derivatives as a function of temperature and magnetic field. The central findings of this study are (1) simultaneous occurrence of magnetic ordering and electric polarization near room temperature and (2) strong dependence of dielectric properties on slight impurity doping. The results will be presented and discussed along with comparison draw with other related systems.

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Oleksandr Korneta
Center for Advanced Materials, University of Kentucky

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