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Temperature-dependent properties of the magnetic order in single-crystal BiFeO₃ V. KIRYUKHIN, M. RAMAZANOGLU, S-W. CHEONG, Rutgers Univ., W. RATCLIFF, NIST, S. LEE, KAERI — Neutron scattering studies of the magnetic structure of multiferroic BiFeO₃ are presented. We report temperature dependence of the magnetic order parameter, the period of the cycloidal modulation of the antiferromagnetic order, and the populations of the equivalent magnetic domains in the monodomain ferroelectric state. No anomalies below room temperature are found, excluding the spin-reorientation transitions proposed elsewhere.

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