X-ray and neutron scattering studies of the magnetoelectric DyMn$_2$O$_5$

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DyMn$_2$O$_5$ is established using neutron and magnetic x-ray scattering. The magnetic
origin of the complex dielectric anomalies in this material is revealed. New diffrac-
tion peaks arising due to structural distortion at low temperatures are found and
analyzed in the framework of the existing models of the ferroelectric state. Effects
of an applied electric field on the magnetic structure are discussed.

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