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In situ characterization of polycrystalline ferroelectrics using x-ray and neutron diffraction – ERRATUM

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In Esteves et al.[1], on page 12,

In PMN-PT, the diffraction pattern appears cubic, i.e., there is no splitting of Bragg peaks that indicate symmetry lowering with temperature change. However, the use of PDFs has enabled the characterization of polar nanoregions (PNRs) that exist within a pseudocubic matrix.102 Within the PNRs, the displacement of cations parallel to [111] indicates local rhombohedral distortions, though the average symmetry measured at a longer length scale remains cubic. A similar phenomenon was observed in PMN-PT where the PNRs are larger (~150 Å at 300 K) than PMN-PT (~20 Å at 300 K) and are visible in powder diffraction by splitting of Bragg peaks thus resulting a rhombohedral structure below 325 K.

should read:

In PMN, the diffraction pattern appears cubic, i.e., there is no splitting of Bragg peaks that indicate symmetry lowering with temperature change. However, the use of PDFs has enabled the characterization of polar nanoregions (PNRs) that exist within a pseudocubic matrix.[102] Within the PNRs, the displacement of cations parallel to [111] indicates local rhombohedral distortions, though the average symmetry measured at a longer length scale remains cubic. A similar phenomenon was observed in PZN where the PNRs are larger (~150 Å at 300 K) than PMN (~20 Å at 300 K) and are visible in powder diffraction by splitting of Bragg peaks thus resulting a rhombohedral structure below 325 K.[100]

The publisher regrets the mistake.

REFERENCE

1. G. Esteves, C.M. Fancher, and J.L. Jones: In situ characterization of polycrystalline ferroelectrics using x-ray and neutron diffraction. *J. Mater. Res.* **30**(3) (2015). doi: 10.1557/jmr.2014.302.

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