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Soft mode dispersion and 'waterfall' phenomenon in relaxors revisited

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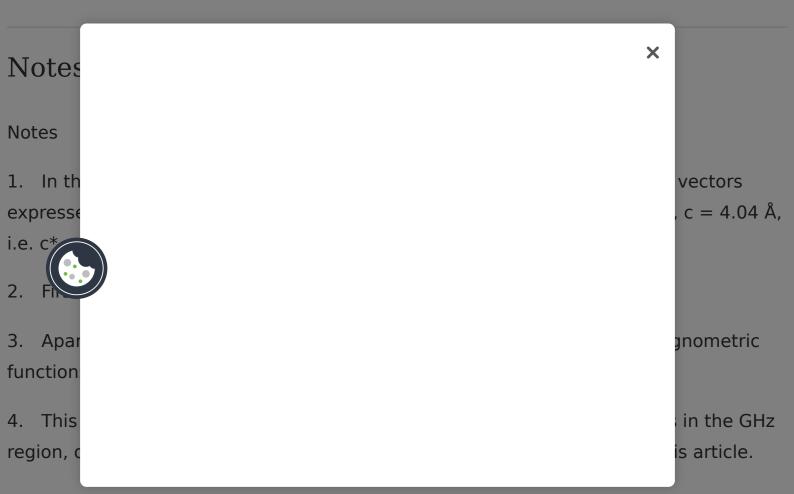
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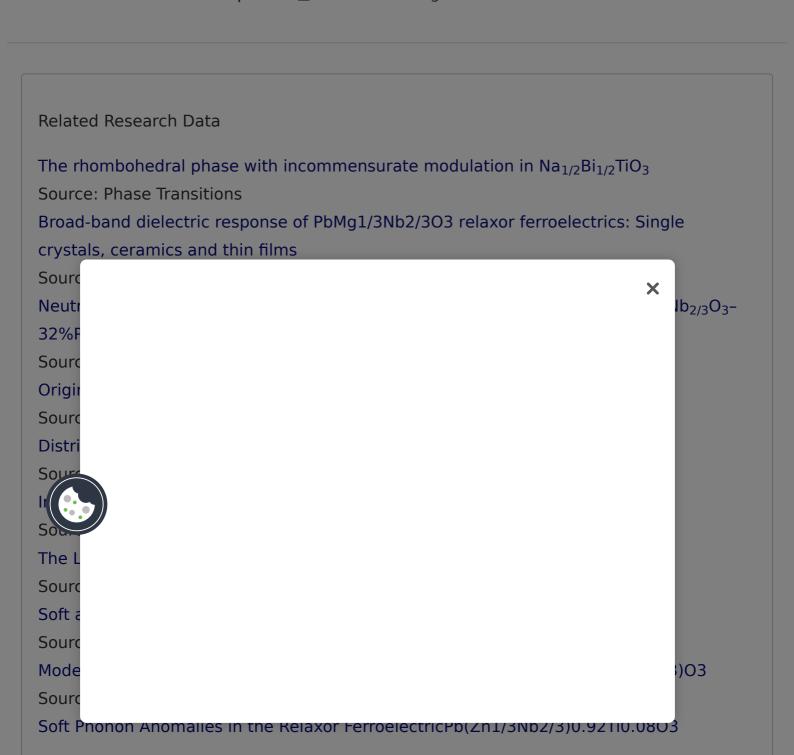
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- 5. We have combined the data from the (200) and (300) BZs as D $_{\rm q}$ should be independent of the BZ choice.
- 6. In principle, PMN is known to grow also, for example in pyrochlore structure, but in this case both the lattice parameters and the TO mode frequency are completely different.
- 7. It was argued in $\underline{9}$ that the TO mode cannot couple noticeably to the TA branch because the independent mode intensities do not change with temperature. However, this not a valid argument since the measurements shown in figure of Ref. $\underline{9}$ were done in (20q) zone, where both TA and TO modes have similar structure factors so that eventual eigenvector change has no chance to produce such drastic intensity changes as those observed in the quoted $\underline{9}$ case of SrTiO₃.



Source: Physical Review Letters Soft Mode Dynamics above and below the Burns Temperature in the RelaxorPb(Mg1/3Nb2/3)O3 Source: Physical Review Letters Direct evidence of soft mode behavior near the Burns temperature in thePbMg1/3Nb2/3O3relaxor ferroelectric Source: Unknown Repository Phonons and fractons in the vibration spectrum of the relaxor ferroelectric PbMg1/3Nb2/3O3 Source: Physica B Condensed Matter Dirty displacive ferroelectrics Source: Unknown Repository Diffuse scattering in Pb(Zm_{1/3}Nb_{2/3})O₃with 8 PbTiO₃by quasi-elastic neutron scattering Source: Journal of Physics Condensed Matter Strong Influence of the Diffuse Component on the Lattice Dynamics in $Pb(Mg_{1/3}Nb_{2/3})O_3$ Source: Journal of the Physical Society of Japan Neutron Scattering with a Triple-Axis Spectrometer Source: Unknown Repository Quasi-elastic scattering, random fields and phonon-coupling effects in PbMg_{1/3}Nb_{2/3}O₃ Source: Journal of Physics Condensed Matter Infrared and Raman spectroscopy of [Pb(Zn1/3Nb2/3)O3]0.92-[PbTiO3]0.08 and [Pb(M X Sourc Polar Sourc Inelas temp Sourc 03 Dyna Sour Soft b 3] Sourc Rama comp Sourc Aniso

Source: Physical Review Letters

Phase diagram of the relaxor ferroelectric(1-x)Pb(Zn1/3Nb2/3)O3-xPbTiO3

Source: Unknown Repository

Hyper-Raman-active soft mode inPb(Mg1/3Nb2/3)0.73Ti0.27O3

Source: Physical Review B

Lattice Dynamics of Disordered Perovskite Pb(Zn_{1/3}Nb_{2/3})O₃

Source: Journal of the Physical Society of Japan

Phonons in PbMg 1/3 Nb 2/3 O 3 Measured by Inelastic Neutron Scattering

Source: Ferroelectrics

Disorder and relaxation mode in the lattice dynamics of the PbMg1/3Nb2/3O3relaxor

ferroelectric

Source: Physical Review B

Anomalous transverse acoustic phonon broadening in the relaxor

ferroelectricPb(Mg1/3Nb2/3)0.8Ti0.2O3

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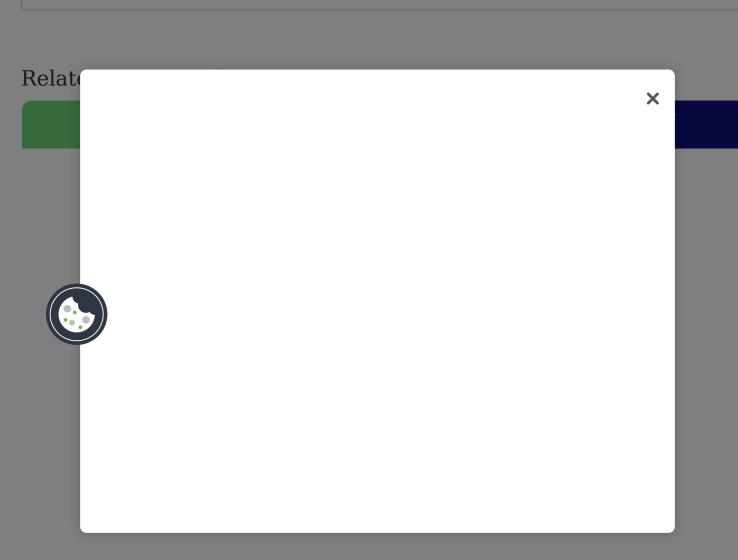
Soft-mode spectroscopy: Experimental studies of structural phase transitions

Source: Reviews of Modern Physics

Nonferroelectric aging in the relaxorPbMg1/3Nb2/3O3

Source: Physical Review B

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