Supplementary Materials

Figure S1. Neutron elastic diffuse scattering intensities measured in four different relaxor ferroelectric systems are shown for (A) PMN near (100) at T=100 K, in the (HK0) plane; (B) PMN-32%PT near (300) at T=200 K, in the (HK0) plane; (C) PZN-4.5%PT near (200) at T=300 K, in the (HKK) plane, and (D) PZN-8%PT near (300) at T=300 K, in the (HKK) plane. Qualitatively the diffuse scattering is very similar and consistent with the 3-D diffuse scattering distribution observed and summarized in refs. 14 and 16. The bright vertical stripe of intensity near the left edge in (B) does not come from the sample but is the result of Al powder lines.