

Supplementary materials

Processing optimization and toxicological evaluation of “lead-free” piezoceramics: a KNN-based case study

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1. Synthesis of MN

The X-ray pattern of MgNb_2O_6 (MN) synthesized by solid-state method is shown in **Figure S1**.

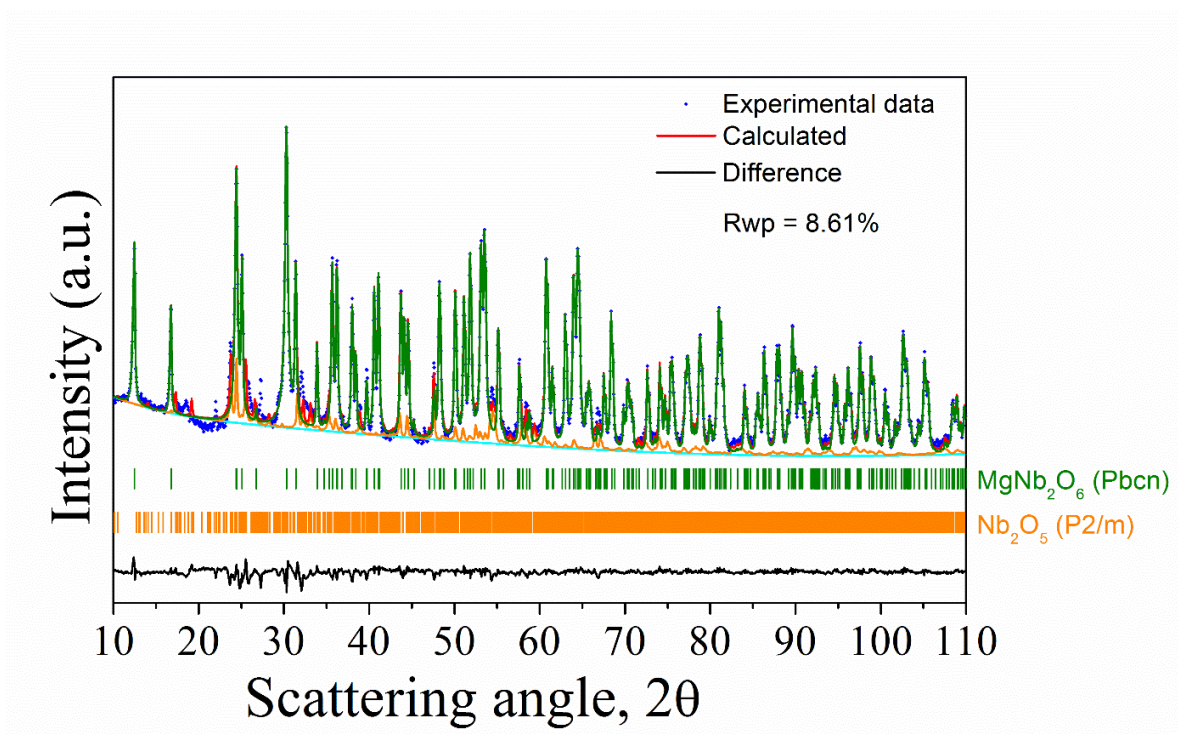


Figure S1. XRD pattern and Rietveld analysis of MgNb_2O_6 .

A columbite-like phase MgNb_2O_6 (MN) with orthorhombic structure (s.g. Pbcn) was obtained; traces of unreacted niobium pentoxide (below 4%) was also detected.