

Supporting information

Chemical Design of a New Displacive-type Ferroelectric

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Figure S1. Crystal structure of ferroelectric KDP with opposite polarization directions. Two of four oxygens are connected to protons, obeying the “ice rule.” Arrows show the shift of a P^{5+} ion inside a PO_4 tetrahedron.

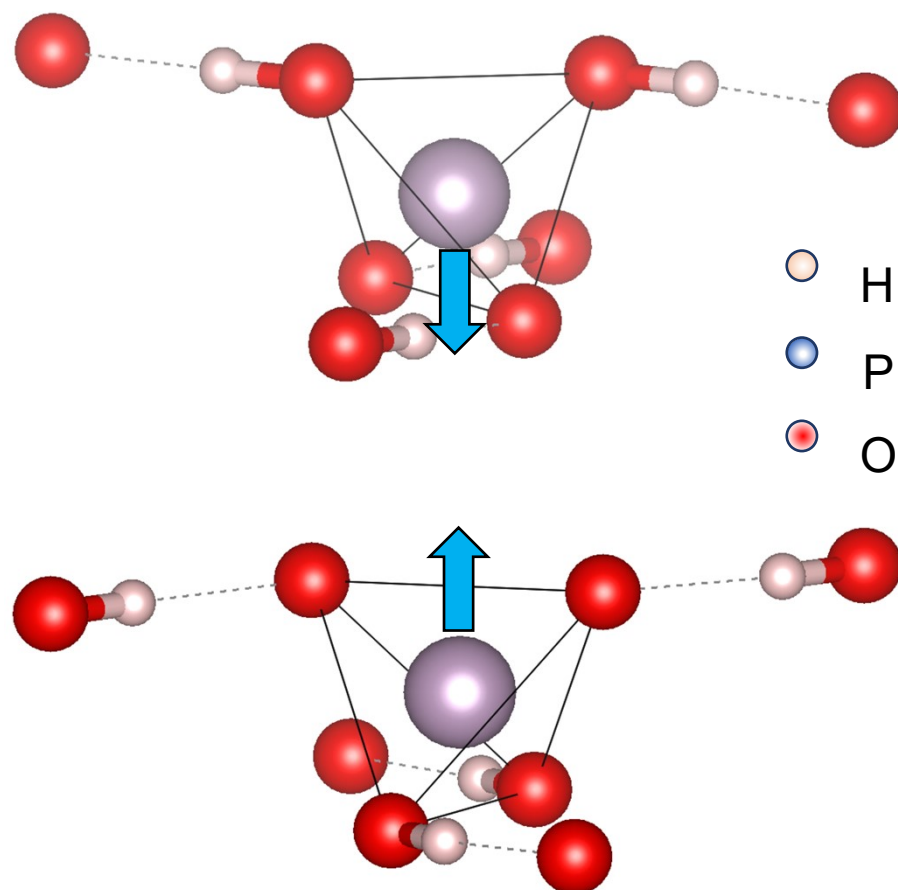


Fig. S2 Conventional classification of dielectric, piezoelectric, pyroelectric, and ferroelectric materials.

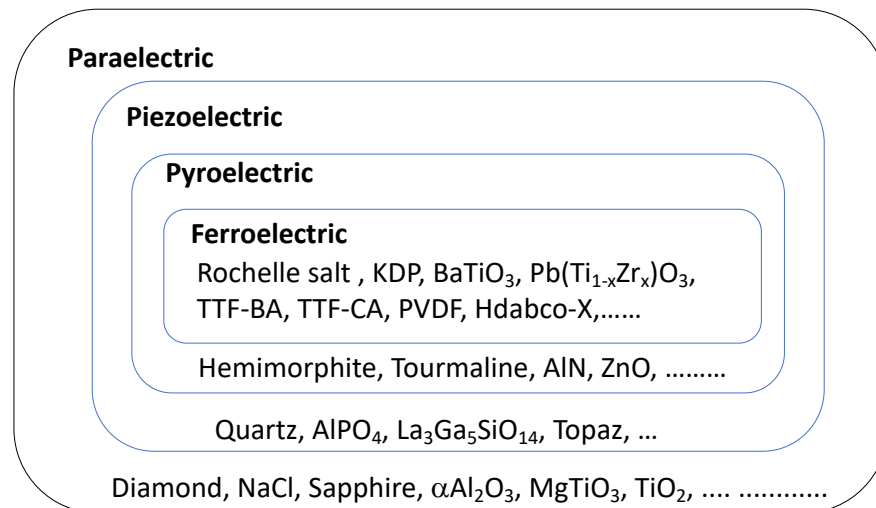


Fig. S3 Crystal structures of lithium-niobate-type oxides, ABO_3 , viewed from different directions.

