

## Electronic Supplementary Information (ESI)

Figure S1. TG/DTA analysis for polycrystalline  $\text{K}_3\text{V}_5\text{O}_{14}$ .

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Figure S7. Displacement versus electric field (500 V) plot for Z-cut of  $\text{K}_3\text{V}_5\text{O}_{14}$  single crystal.

Figure S8. Displacement versus electric field (800 V) plot for Z-cut of  $\text{K}_3\text{V}_5\text{O}_{14}$  single crystal.

Figure S9. Polarization vs. temperature data, and the temperature dependence of the pyroelectric coefficient for Z-cut of  $\text{K}_3\text{V}_5\text{O}_{14}$  single crystal.

Figure S10. Polarization vs electric field plots at 16 kV/cm at different frequencies for a Z-cut  $\text{K}_3\text{V}_5\text{O}_{14}$  single crystal.

Figure S1. TG/DTA analysis for polycrystalline  $K_3V_5O_{14}$ .

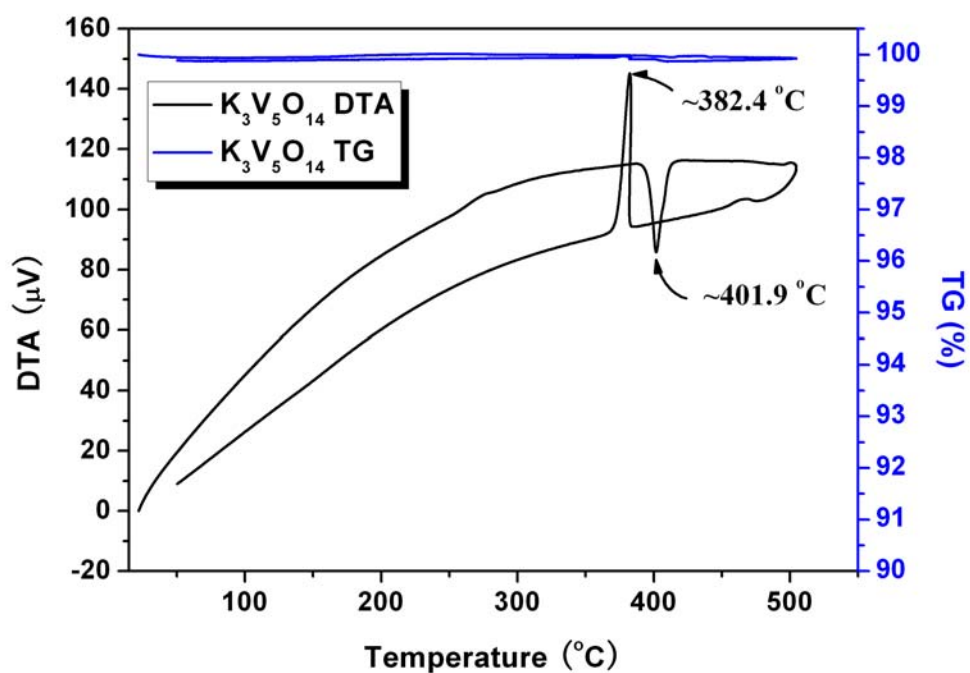


Figure S2. XRD data of residue after TG/DTA measurement.

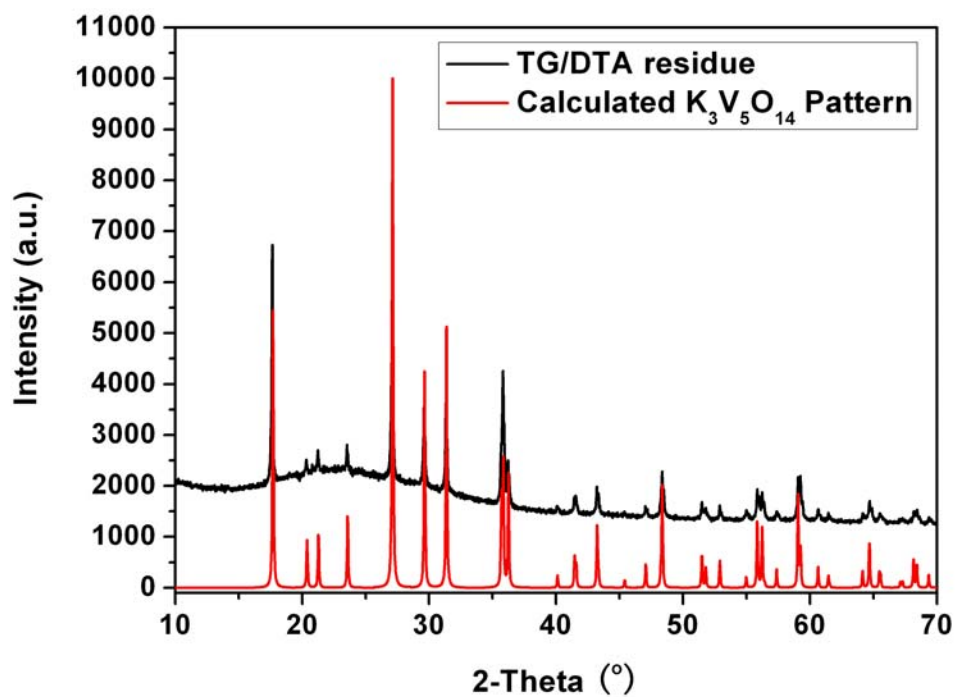


Figure S3. X-ray diffraction for {10-10} planes.

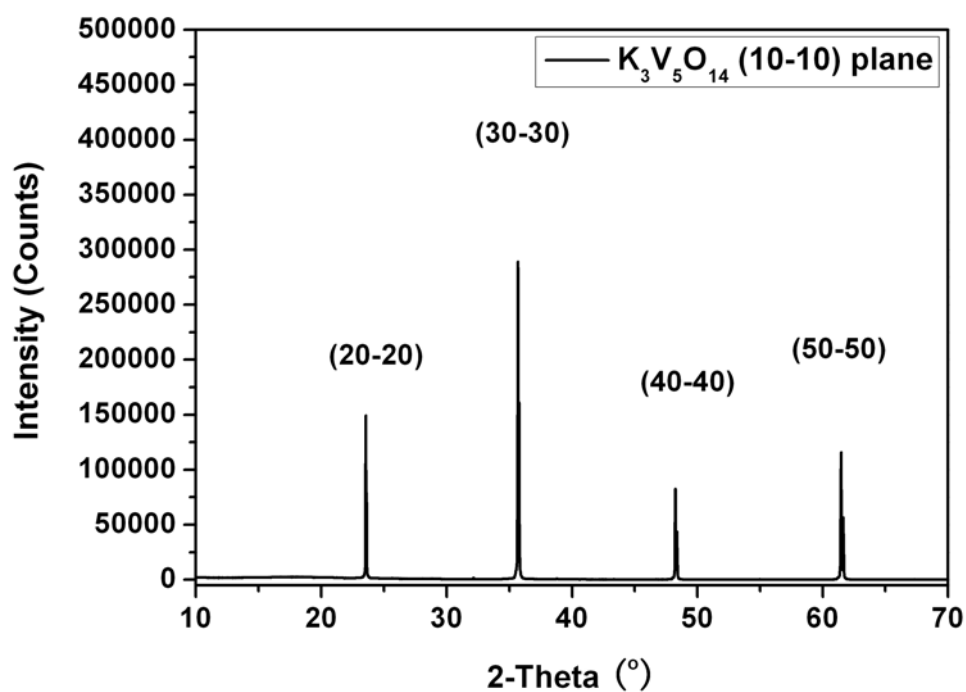


Figure S4. X-ray diffraction for {0001} planes.

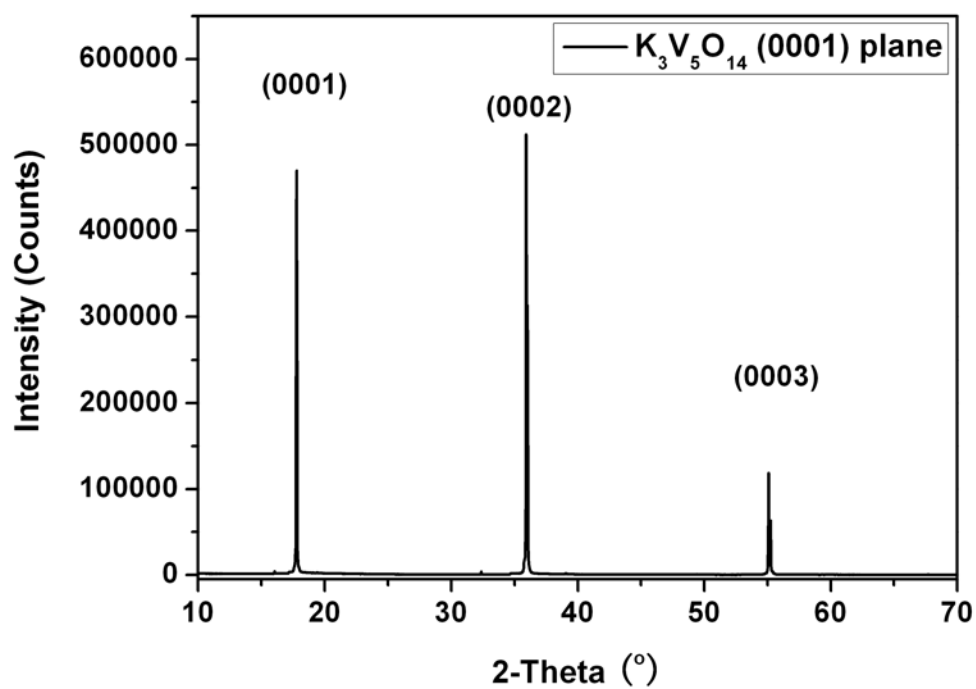


Figure S5. UV-vis diffuse reflectance spectra for ground  $K_3V_5O_{14}$  crystal.

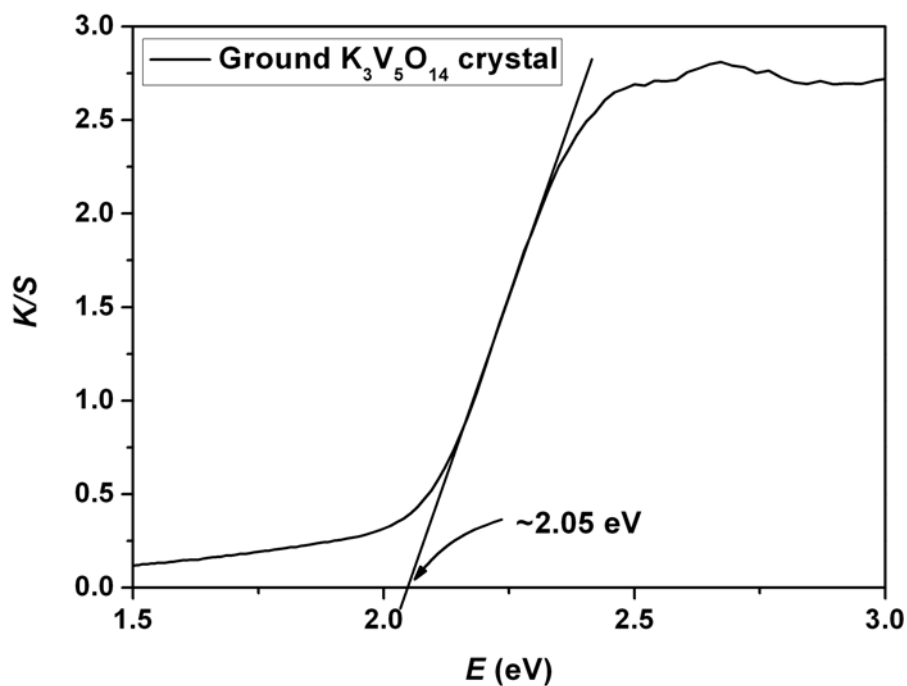


Figure S6. Displacement versus electric field (300 V) plot for Z-cut of  $K_3V_5O_{14}$  single crystal.

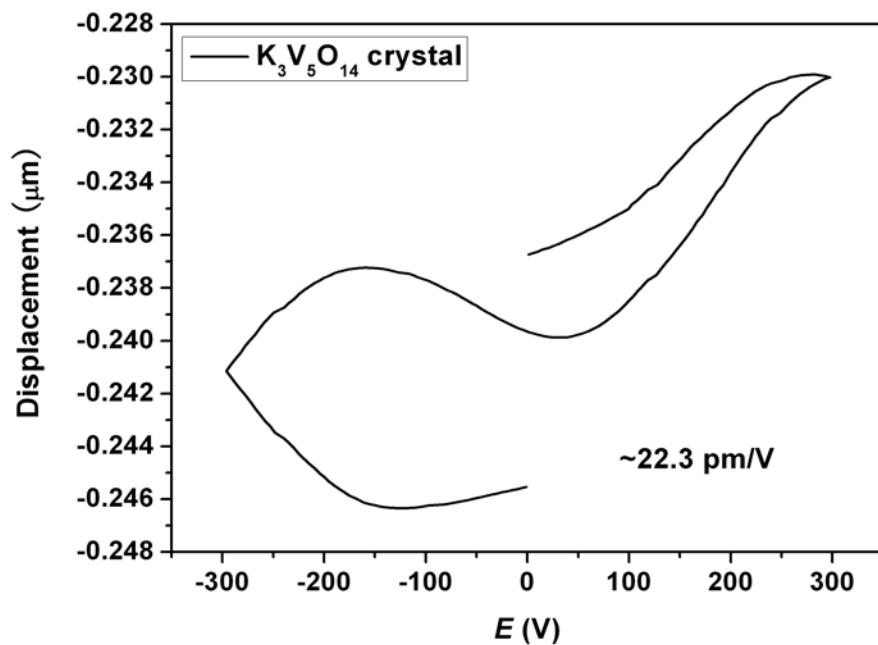


Figure S7. Displacement versus electric field (500 V) plot for Z-cut of  $K_3V_5O_{14}$  single crystal.

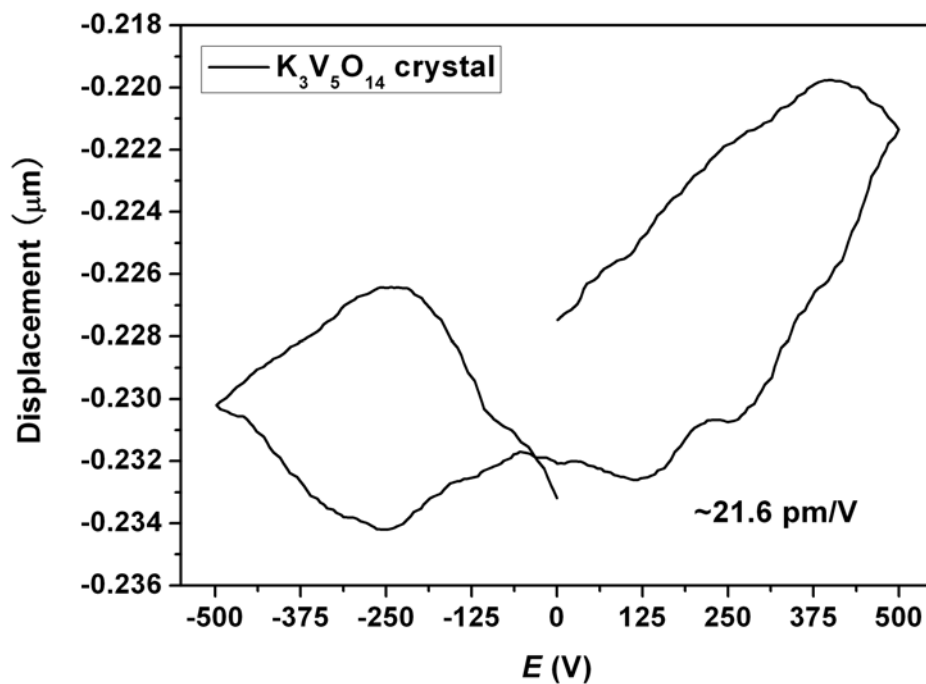


Figure S8. Displacement versus electric field (800 V) plot for Z-cut of  $K_3V_5O_{14}$  single crystal.

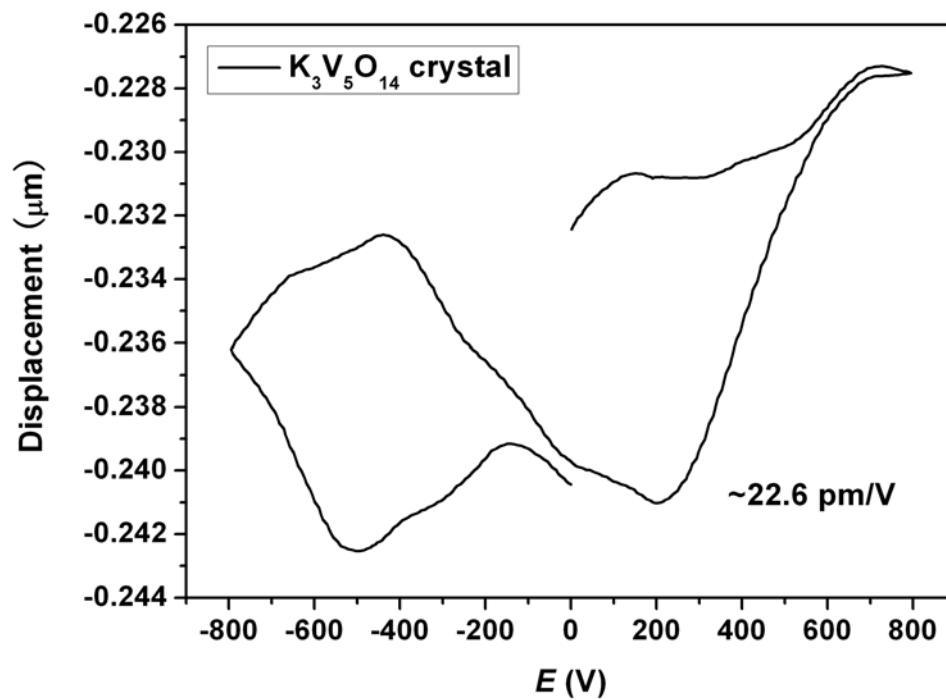


Figure S9. Polarization vs. temperature data (black color), and the temperature dependence of the pyroelectric coefficient (blue color) for Z-cut of  $K_3V_5O_{14}$  single crystal.

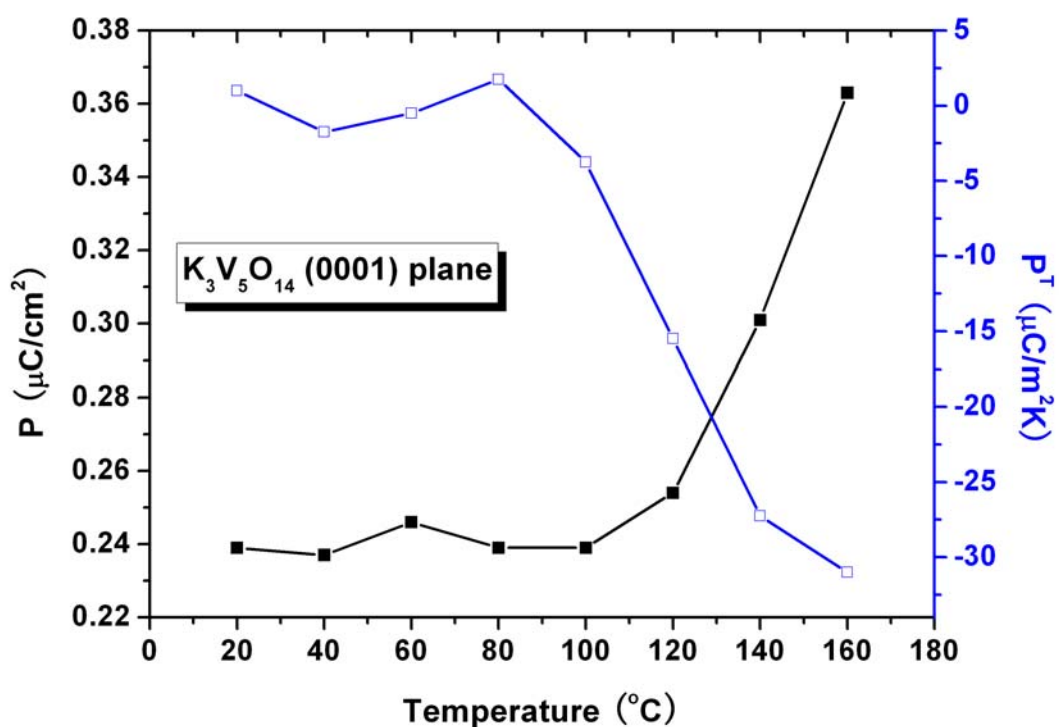


Figure S10. Polarization vs electric field plots at 16 kV/cm at different frequencies for a Z-cut  $K_3V_5O_{14}$  single crystal.

