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A facile and efficient strategy for design of ferroelectric and giant dielectric hybrids via intercalating polar molecules into noncentrosymmetric layered inorganic compound

Shun-Ping Zhao,[a, b] Hong Gao,[c] Xiao-Ming Ren,*[a, c] Guo-Jun Yuan,[a] Yi-Nong Lu*[c]

[a] State Key Laboratory of Materials-Oriented Chemical Engineering and College of Science, Nanjing University of Technology, Nanjing 210009, P. R. China

[b] Department of Chemistry & Chemical engineering, Anqing Teachers College, Anqing 246011, P.R. China

[c] State Key Laboratory of Materials-Oriented Chemical Engineering and College of Materials science and Engineering, Nanjing University of Technology, Nanjing 210009, P. R. China

Tel.: +86 25 83587820

Fax: +86 25 83587820

Email: xmren@njut.edu.cn

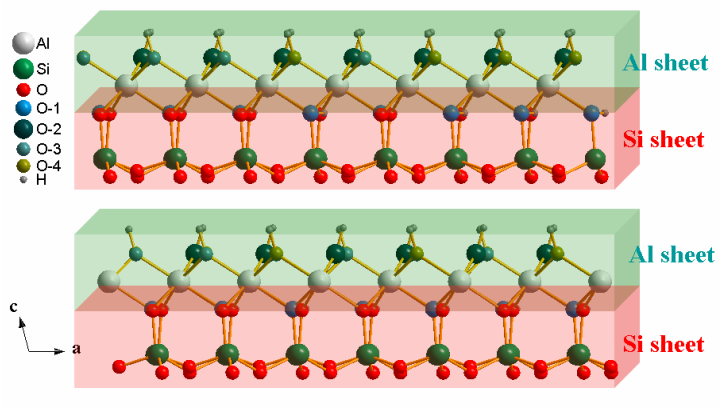

Figure S1 Layered structure of Kaolinite.

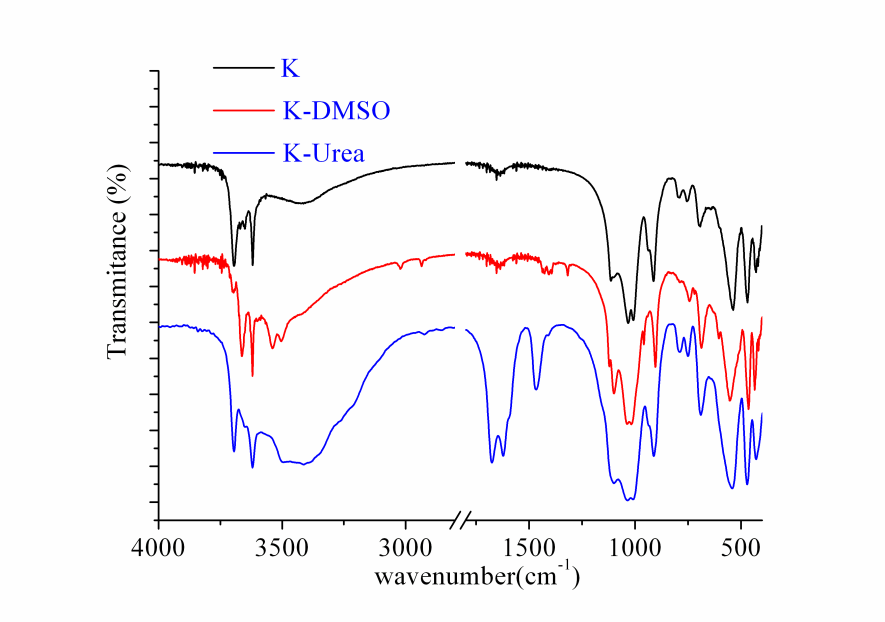

Figure S2 IR spectra of intercalated and raw Kaolinites.

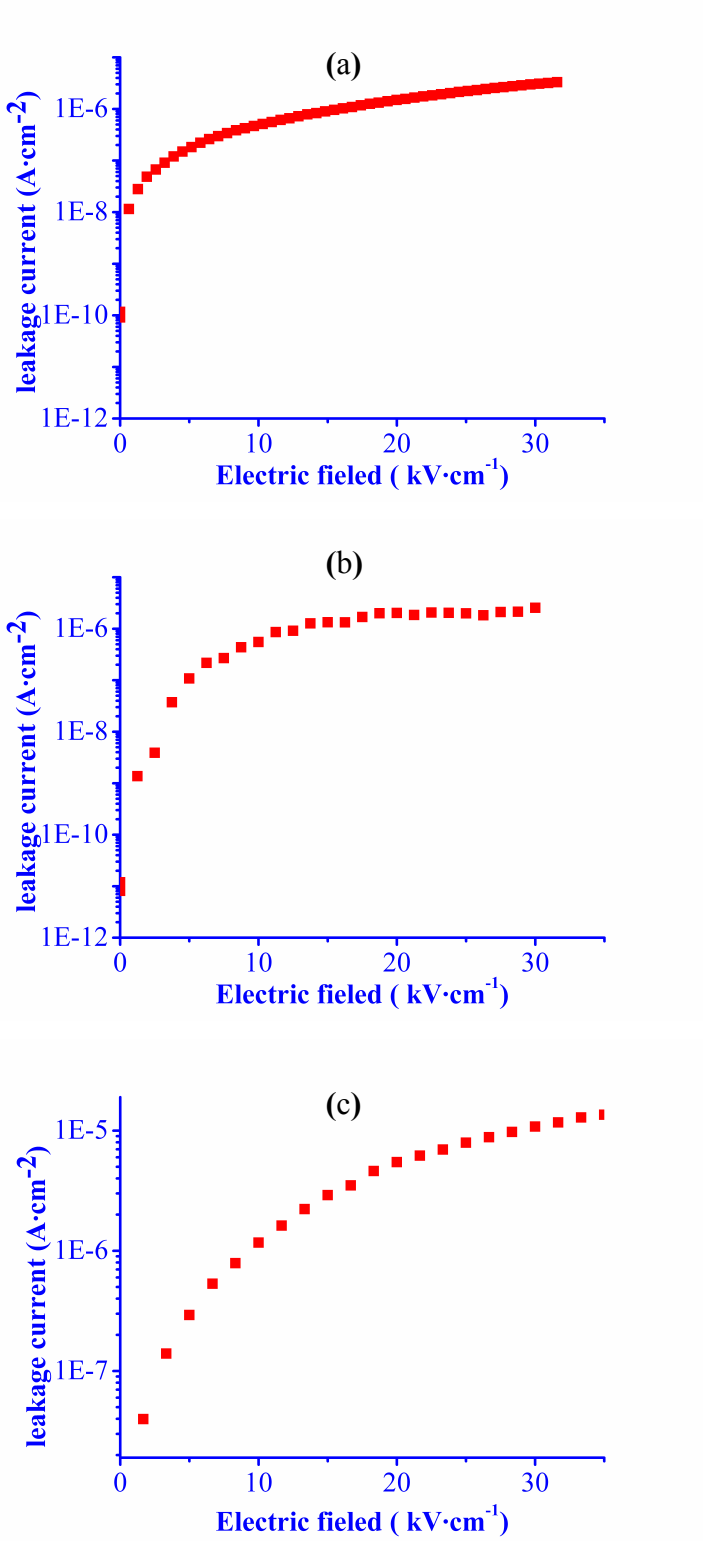

Figure S3 Plots of leakage current versus applied electric field for (a) K-DMSO, (b) K-Urea samples and (c) raw Kaolinite.

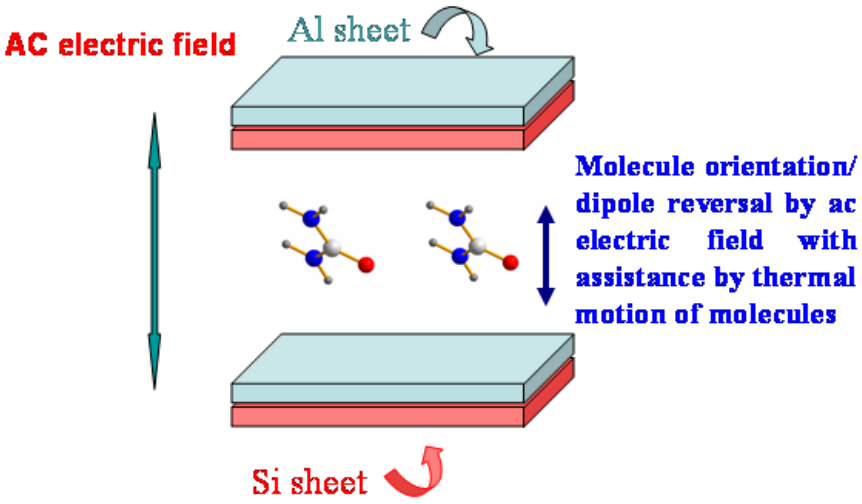

Figure S4 Schematic illustration for the dipole reversal of urea molecules resulted from the motions of urea molecule flipping motion by electric field with assistance by thermal motion of molecules for K-Urea.

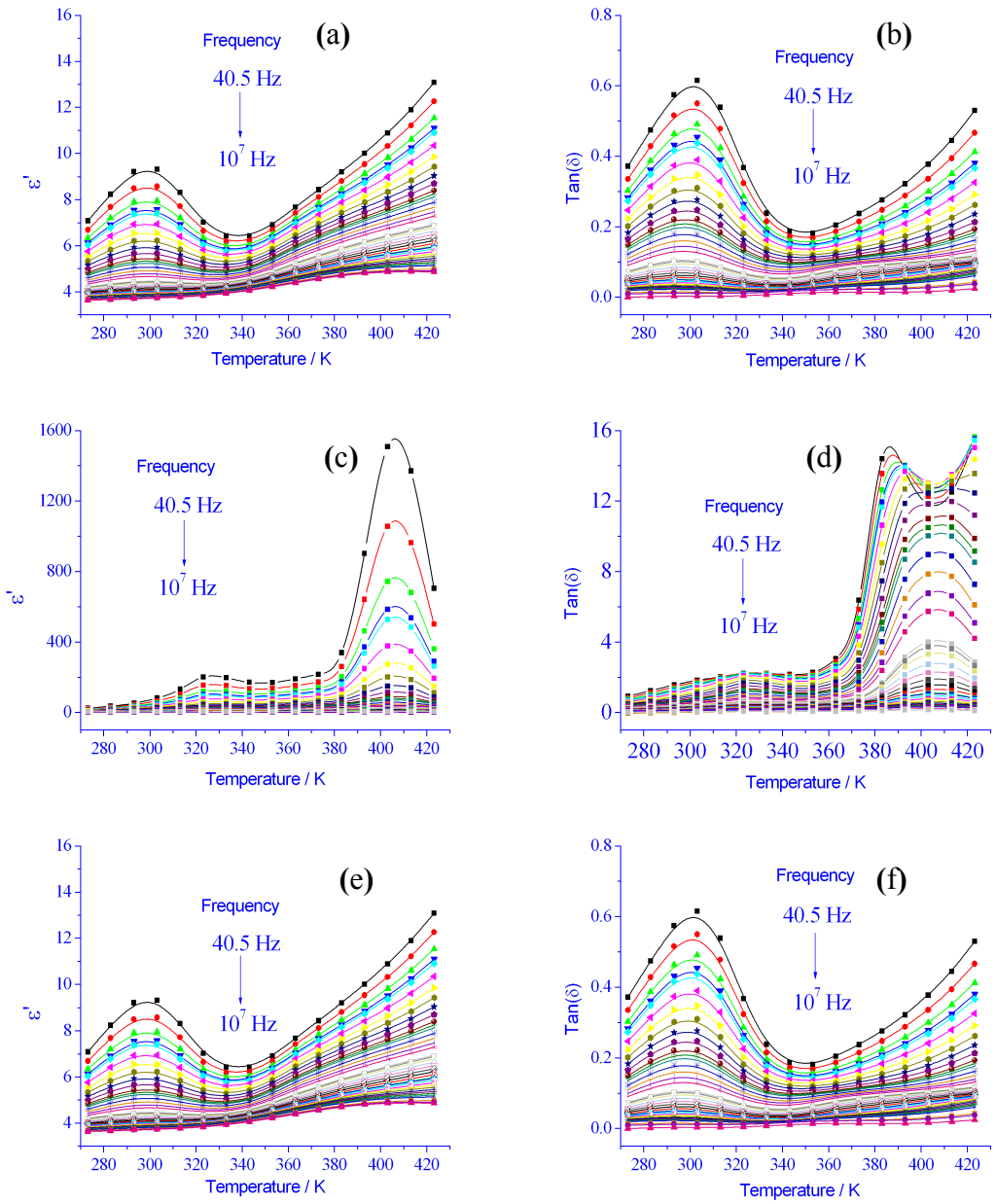

Figure S5 Temperature dependence of ε' and tanδ of (a, b) K-DMSO (c, d) K-Urea intercalation compounds and (e, f) raw Kaolinite at f = 40.5~10^7 Hz and 273~423K.