

Supplementary information

Hydrothermally Grown Bismuth Ferrite: Controllable Phases and Morphologies in Mixed KOH/NaOH Mineralizer

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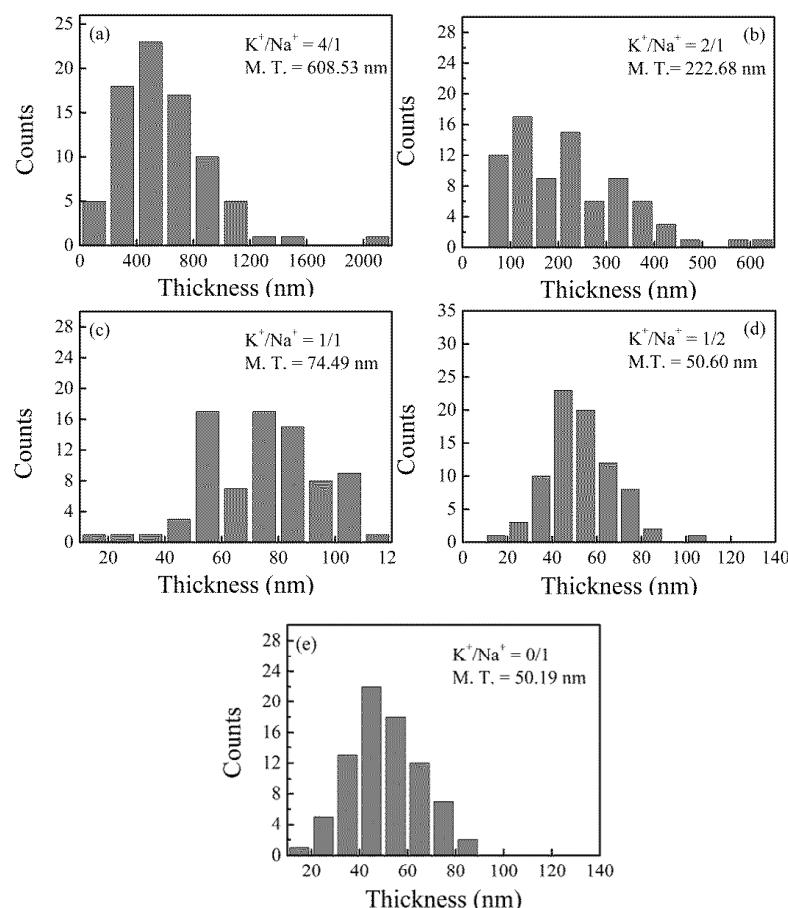


Figure S1. The thickness distribution of the $\text{Bi}_2\text{Fe}_4\text{O}_9$ plates with different mean thicknesses with various molar ratio of K^+/Na^+ for reaction system with $\text{Bi}^{3+}/\text{Fe}^{3+}=1$. (a) $K^+/Na^+ = 4/1$. (b) $K^+/Na^+ = 2/1$. (c) $K^+/Na^+ = 1/1$. (d) $K^+/Na^+ = 1/2$. (e) $K^+/Na^+ = 0/1$. A supplement information for Figure 3 in the manuscript.

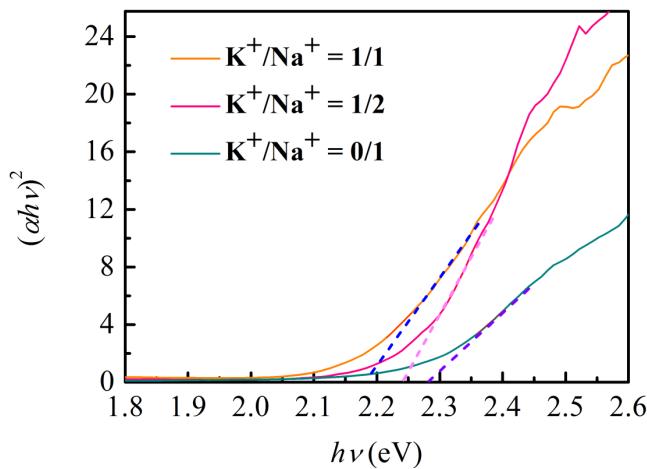


Figure S2. Bandgap fitting for Figure 8b.

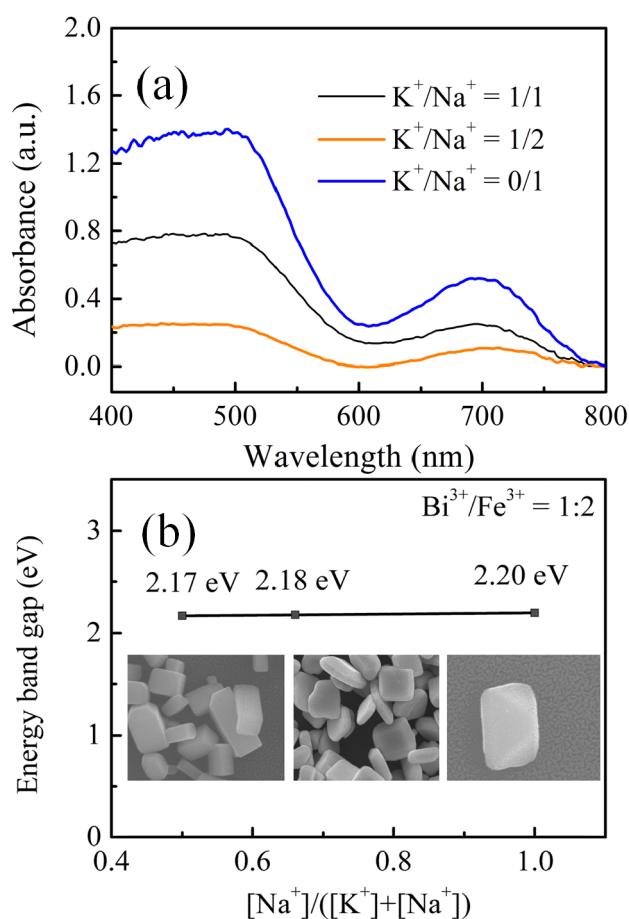


Figure S3. (a) UV-vis absorption spectra of $Bi_2Fe_4O_9$ plates obtained with various molar ratio of K^+/Na^+ ($= 1/1, 1/2$, and $0/1$) in the reaction system of $Bi^{3+}/Fe^{3+} = 1/2$. (b) The dependence of the extracted bandgap on the molar ratio $(Na^+/[K^+ + Na^+])$ of the sodium ion. Insets are the corresponding SEM images of the sample.

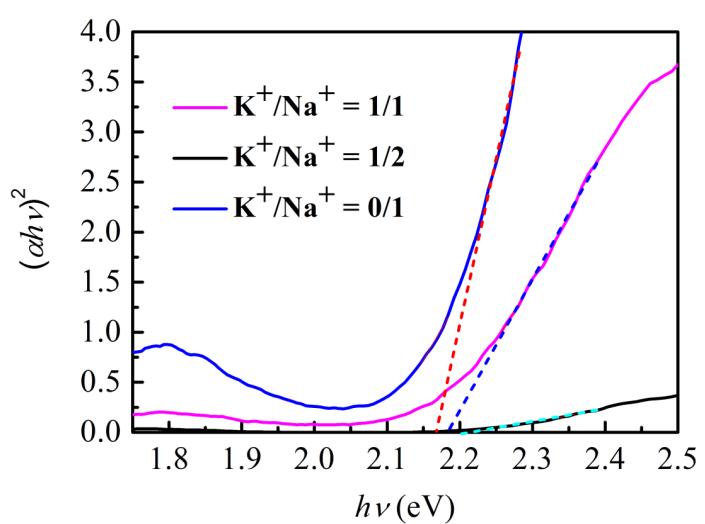


Figure S4. Bandgap fitting for Figure S3.