Supporting Information

Luminescent Ag⁺ exchanged SOD zeolites with their Potential

Applications in White LEDs

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Figure S1. The UV-Vis absorbance spectrum of Na-SOD



Figure S2. Digital photographs of the Ag⁺ exchanged SOD zeolites with different counterbalancing cations under 365 nm UV excitation for thermal-treated temperature at 100 °C, 300 °C, 500 °C and under 254 nm UV excitation for thermal-treated temperature at 800 °C.



Figure S3. Excitation-emission spectra of Li-SOD at different thermal-treated temperature.



Figure S4. Excitation-emission spectra of Na-SOD at different thermal-treated temperature.



Figure S5. Excitation-emission spectra of K-SOD at different thermal-treated temperature.



Figure S6. Excitation-emission spectra of Cs-SOD at different thermal-treated temperature.



Figure S7. Excitation-emission spectra of Ca-SOD at different thermal-treated temperature.



Figure S8. Excitation-emission spectra of Mg-SOD at different thermal-treated temperature.



Figure S9. Digital photographs of the K-SOD with increased Ag⁺ concentration and increased thermal-treated temperature under 365 nm UV excitation.



Figure S10. Excitation-emission spectra of the K-SOD with increased Ag⁺ concentration and increased thermal-treated temperature.



Figure S11. Emission spectra of K-SOD (0.05M, 300 °C) under different excitation from 300 to 420 nm.



Figure S12. CIE chromaticity of K-SOD (0.05M, 300 $^{\circ}$ C) under different excitation from 300 to 420 nm.



Figure S13. Emission spectra of Na-SOD (0.1M, 100 °C) under different excitation from 300 to 380 nm.



Figure S14. TGA profile of SOD zeolite.



Figure S15. XRD patterns of SOD zeolite treated with different counterbalancing cations.



Figure S16. XRD patterns of SOD zeolites treated at 800 °C.



Figure S17. a) Excitation-emission spectrum of K-SOD; b) CIE chromaticity of K-SOD under different excitation from 350 to 410 nm.



Figure S18. a) Excitation spectrum of the K-SOD; b) Emission spectrum of the K-SOD excited at 395 nm.

Element	Ag	Κ	Na	Si	Al	Ο
Content /%	11.84	1.43	3.26	14.95	14.28	54.24

Table S1 \square The composition of the K-SOD treated at 100 °C