

Supplementary information

Dual precipitating reagents-assisted deep blue-emitting borate and near-white oxide-based luminescent materials

Mridula Ghosh, Bibhuti B. Nayak*

Department of Ceramic Engineering, National Institute of Technology Rourkela, PIN-769008,
Odisha, INDIA

*Corresponding author email: bbnayak@nitrkl.ac.in

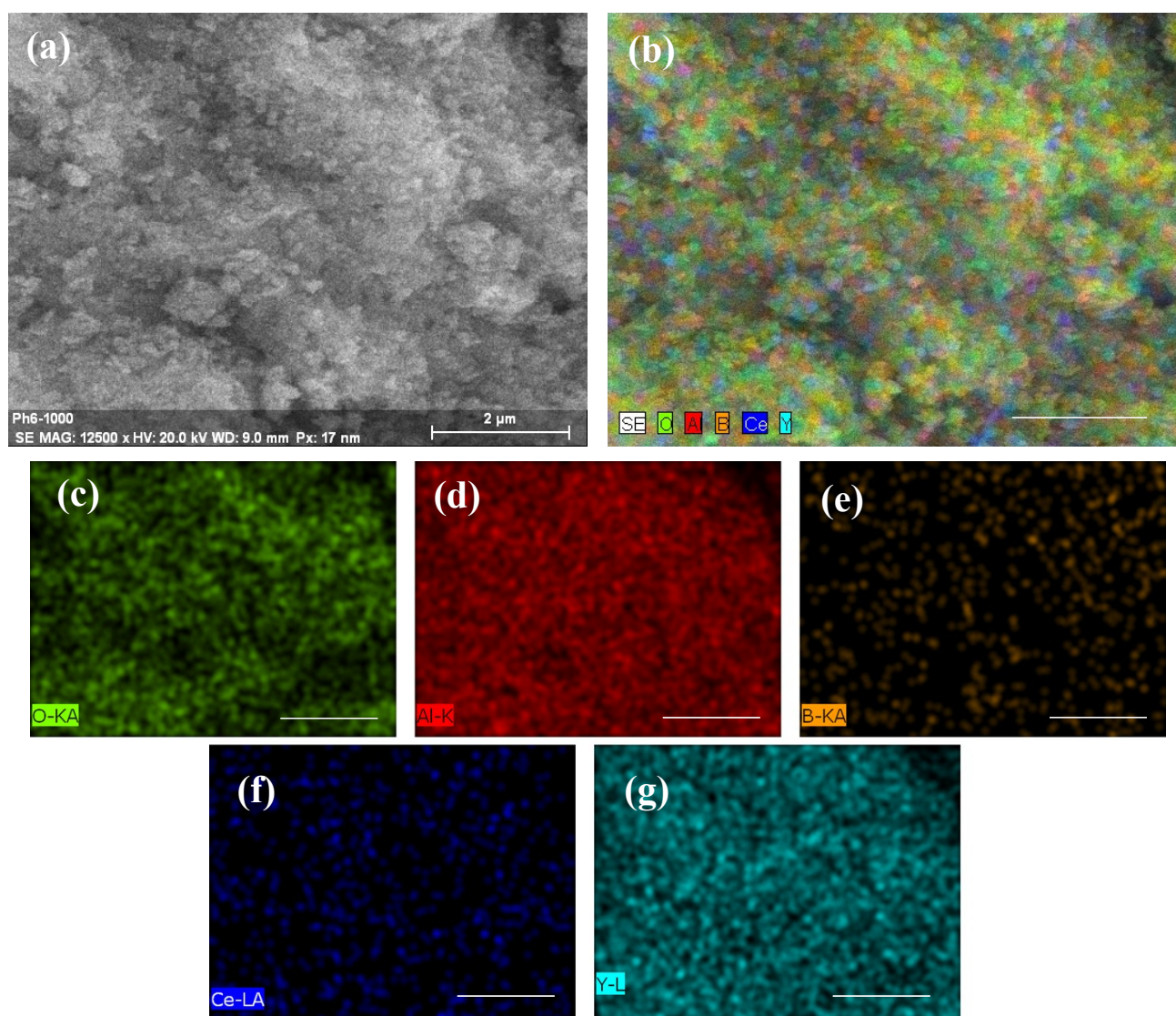


Fig.S1: FESEM micrograph (a) and EDX mapping of all elements (b) and uniform distribution of individual elements such as O, Al, B, Ce, and Y are shown in (c)-(g), respectively, for the samples calcined at 1000 °C for 1hr. The scale bar is 2μm.

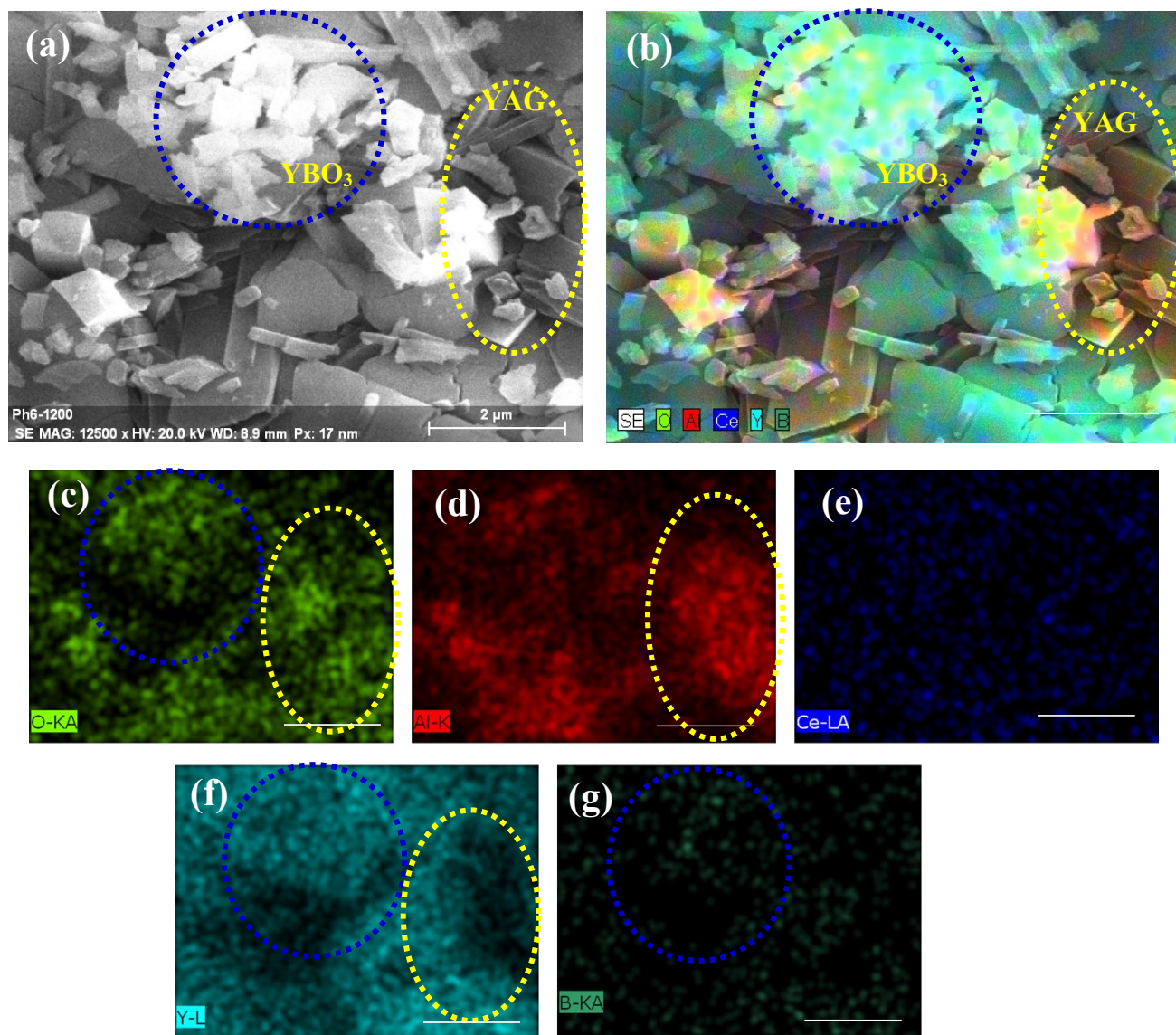


Fig.S2: FESEM micrograph (a) and EDX mapping of all elements (b) and uniform distribution of individual elements such as O, Al, Ce, Y, and B are shown in (c)-(g), respectively, for the samples calcined at 1200 °C for 1hr. The presence of YBO₃ and YAG are marked in blue and yellow circles, respectively. The scale bar is 2μm.

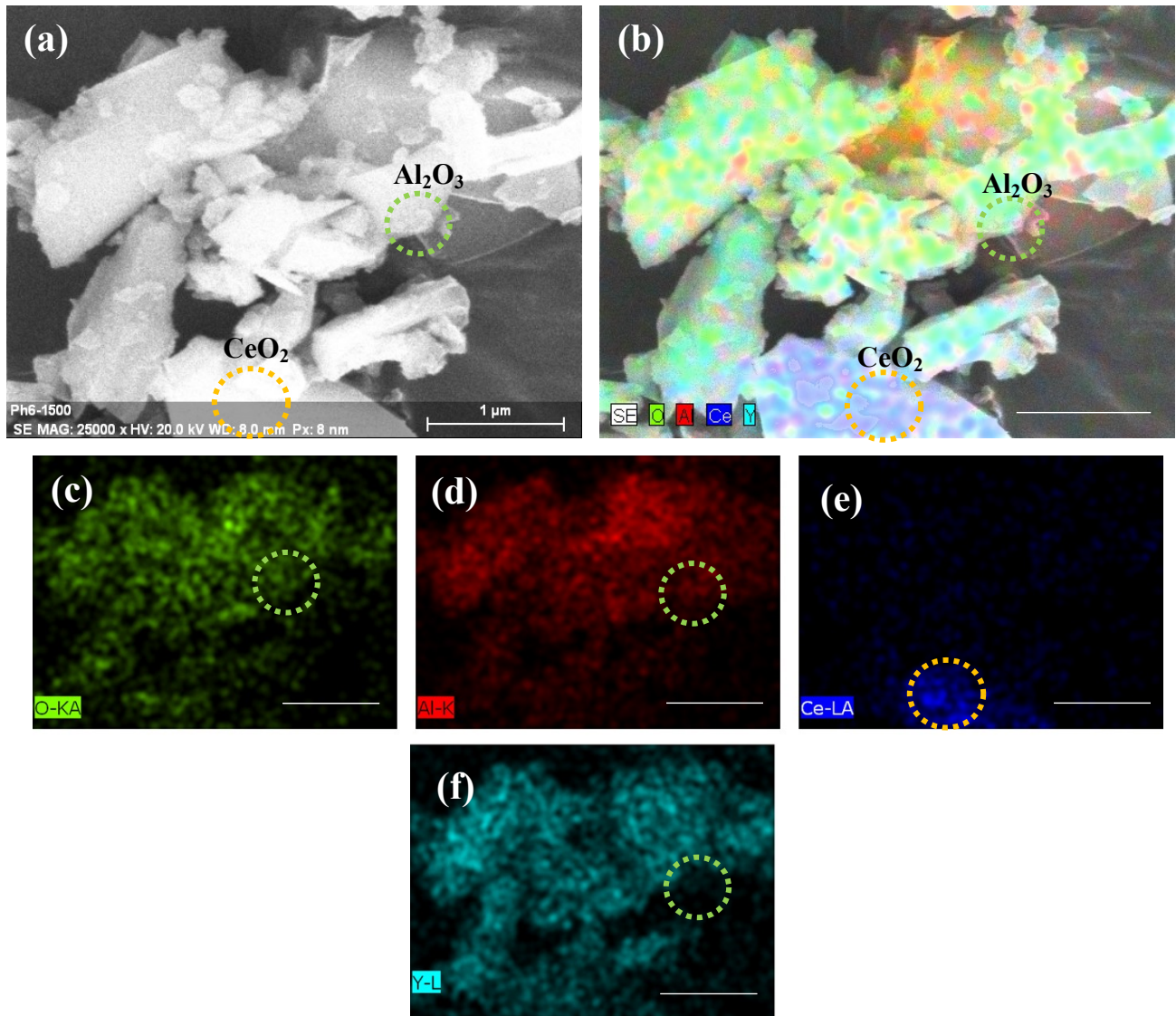


Fig.S3: FESEM micrograph (a) and EDX mapping of all elements (b) and uniform distribution of individual elements such as O, Al, Ce, and Y are shown in (c)-(f), respectively, for the samples calcined at 1500 °C for 1hr. The presence of Al₂O₃ and CeO₂ are marked in green and orange circles, respectively. The scale bar is 1μm.

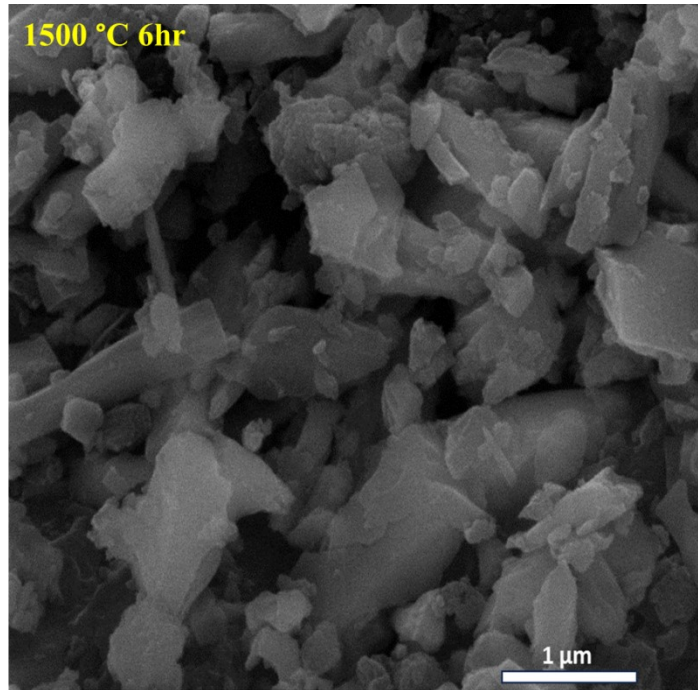


Fig.S4: FESEM micrograph of the YAG-based samples calcined at 1500 °C for 6 hours.