

## One-step Synthesis of LYH: Tb and LYH: Eu Film Probes and Their Application in *Bacillus anthracis* Recognition

Yongping Guo<sup>a,b</sup>, Haoxuan Zeng<sup>a,b</sup>, Taihui Chen<sup>a,b</sup> and Xiaoli Wu<sup>a,b,c\*</sup>

<sup>a</sup> College of Materials Science and Engineering, Guilin University of Technology, Guilin 541004, P. R. China

<sup>b</sup> Guangxi Key Laboratory of Optical and Electronic Materials and Devices, Guilin University of Technology, Guilin 541004, P. R. China

<sup>c</sup> Collaborative Innovation Center for Exploration of Hidden Nonferrous Metal Deposits and Development of New Materials in Guangxi; Guilin University of Technology, Guilin 541004, China

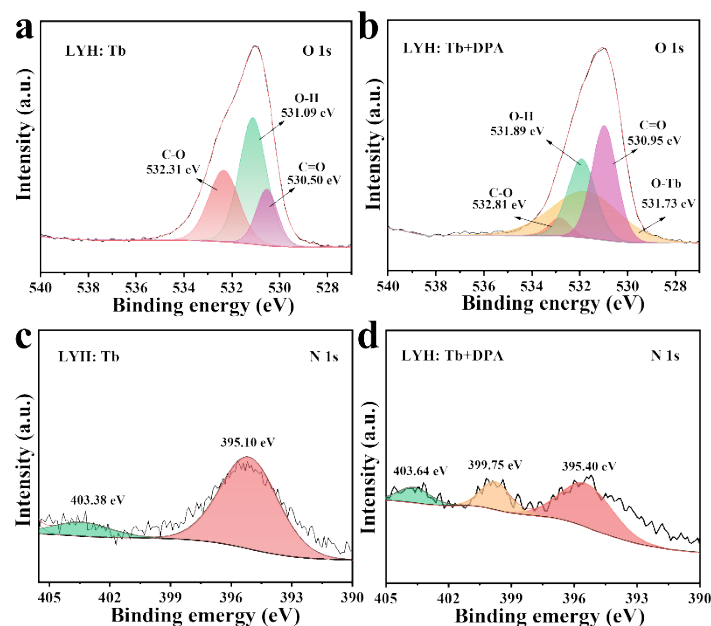


Fig. S1. XPS spectra of O1s in LYH: Tb (a), XPS spectra of O1s in LYH: Tb +DPA (b), XPS spectra of N1s in LYH: Tb (c), XPS spectra of N1s in LYH: Tb +DPA (d)

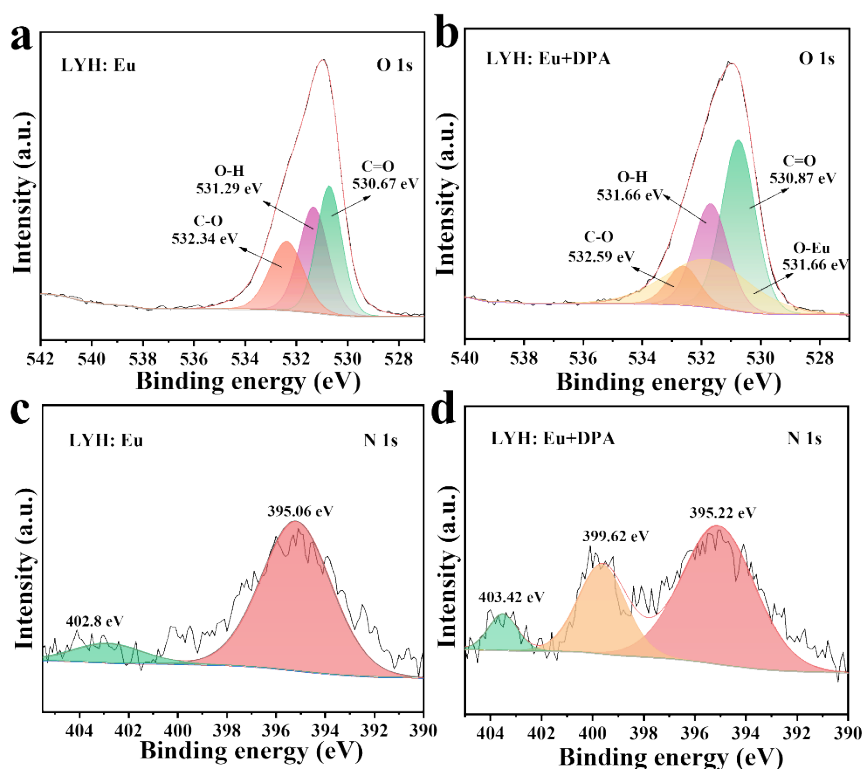


Fig. S2. XPS spectra of O1s in LYH: Eu (a), XPS spectra of O1s in LYH: Eu +DPA (b), XPS spectra of N1s in LYH: Eu (c), XPS spectra of N1s in LYH: Eu +DPA (d)

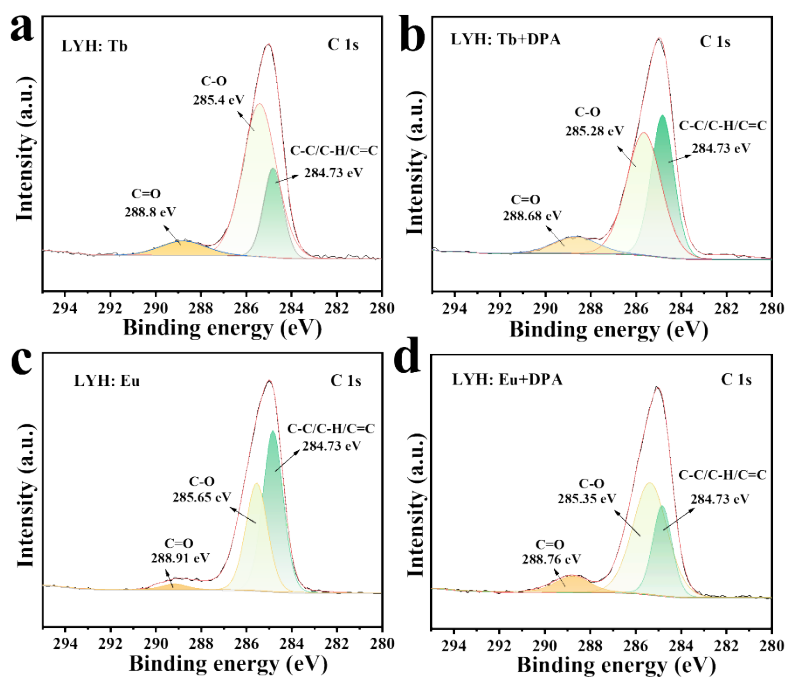


Fig. S3. XPS spectra of C1s in LYH: Tb (a), XPS spectra of C1s in LYH: Tb +DPA (b), XPS spectra of C1s in LYH: Eu (c), XPS spectra of C1s in LYH: Eu +DPA (d)

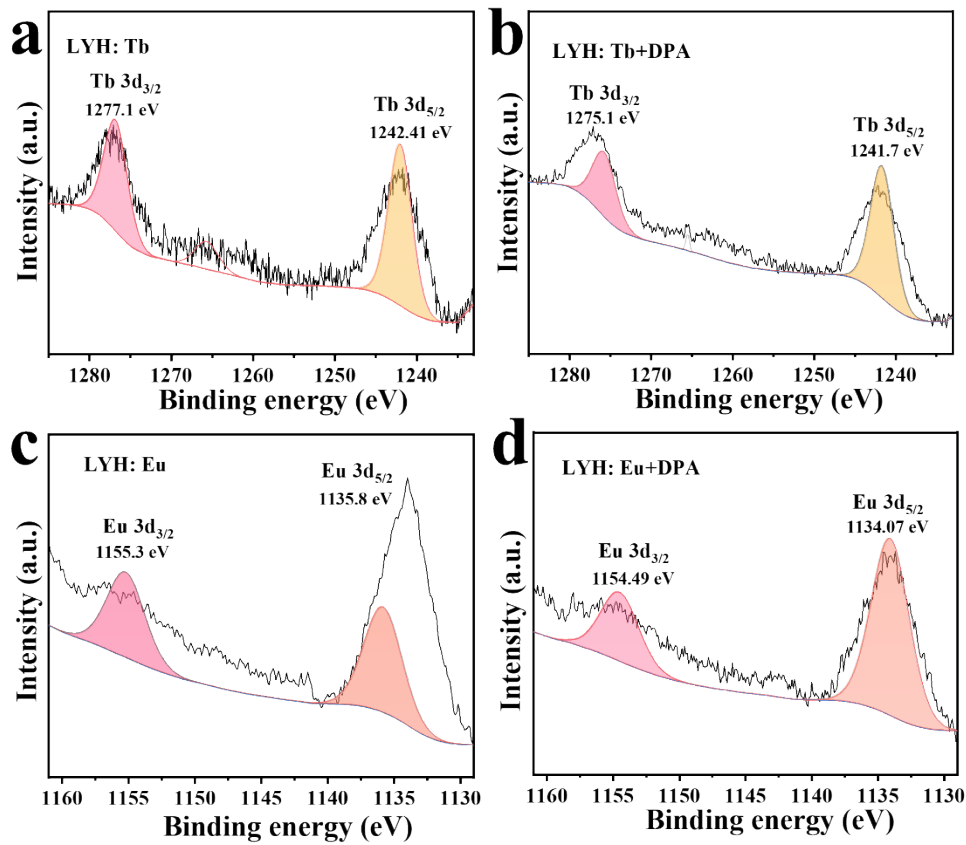


Fig. S4. XPS spectra of Tb3d in LYH: Tb (a), XPS spectra of Tb3d in LYH: Tb +DPA (b), XPS spectra of Eu3d in LYH: Eu (c), XPS spectra of Eu3d in LYH: Eu +DPA (d)

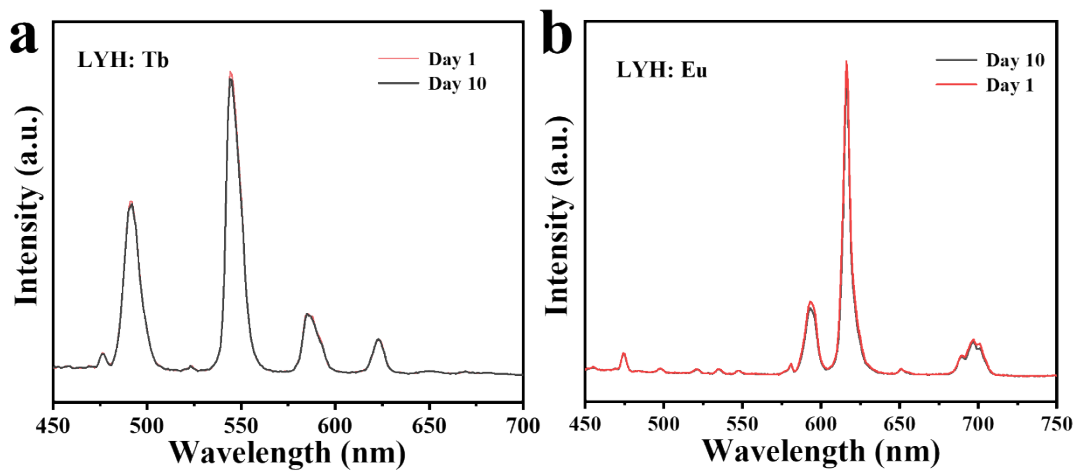


Fig. S5. The intensity of the change of LYH: Tb (a) and LYH: Eu (a) with time