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基于软硬酸碱理论的单分散中重稀土硫氧化物纳米板的可控合成

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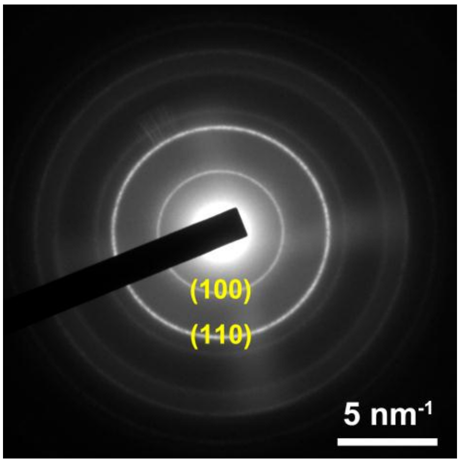

图 S1　Y_2O_2S 纳米板的选区电子衍射花样
Figure S1　Selected area electron diffraction pattern of the as-synthesized Y_2O_2S nanoplates.

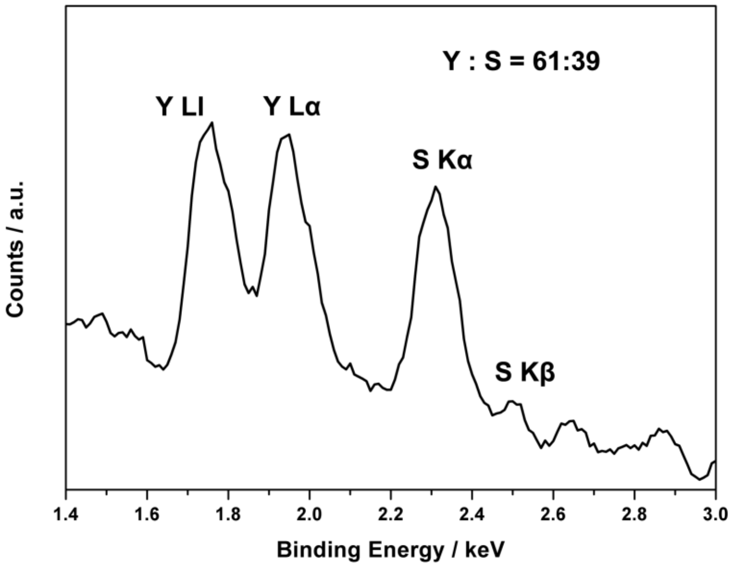

图 S2　Y_2O_2S 纳米板的 X 射线能谱分析
Figure S2　EDS analysis of the as-synthesized Y_2O_2S nanoplates.

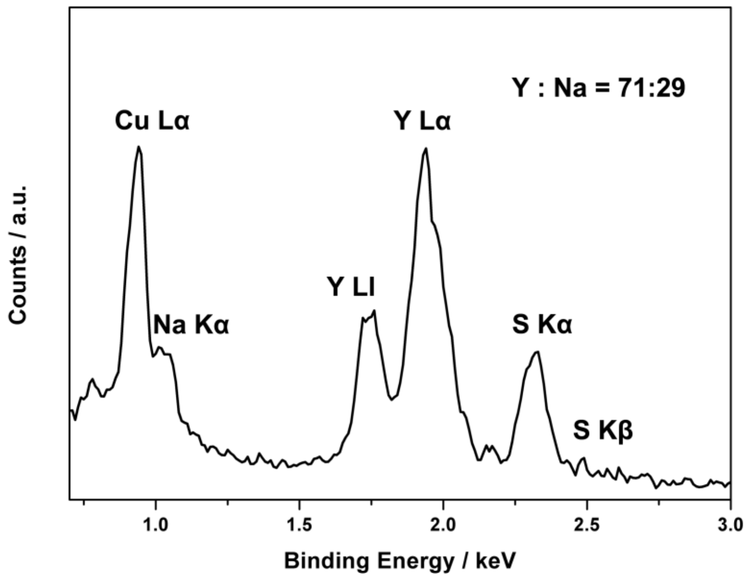

图 S3 Y_2O_2S:Na 纳米板的 X 射线能谱分析
Figure S3 EDS analysis of the as-synthesized Y_2O_2S:Na nanoplates.

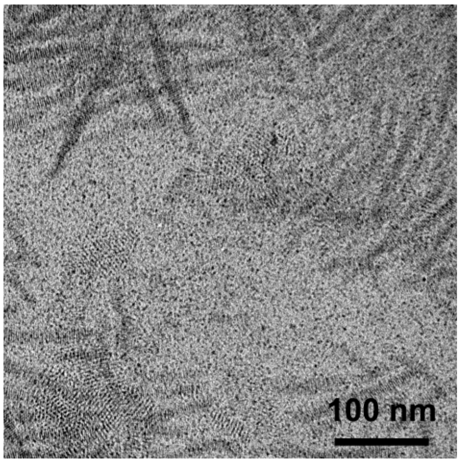

图 S4 Lu_2O_3 纳米颗粒的透射电子显微镜照片
Figure S4 TEM image of the as-obtained Lu_2O_3 nanoparticles.

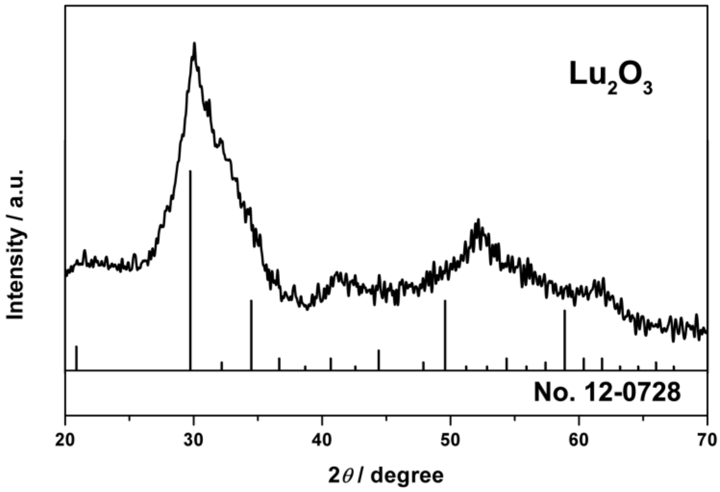

图 S5 Lu_2O_3 纳米颗粒的 XRD 谱图
Figure S5 XRD pattern of the as-obtained Lu_2O_3 nanoparticles.

The diffraction patterns are compared with the standard diffraction peaks of Lu_2O_3 in cubic phase (JCPDS No. 12-0728).

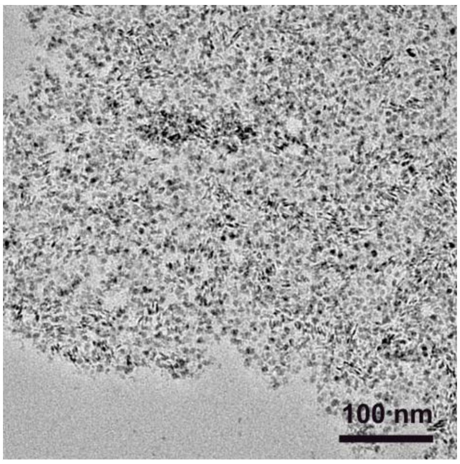

图 S6 Y_2O_2S:Eu 纳米板的 TEM 照片
Figure S6 TEM image of the as-synthesized Y_2O_2S:Eu nanoplates.

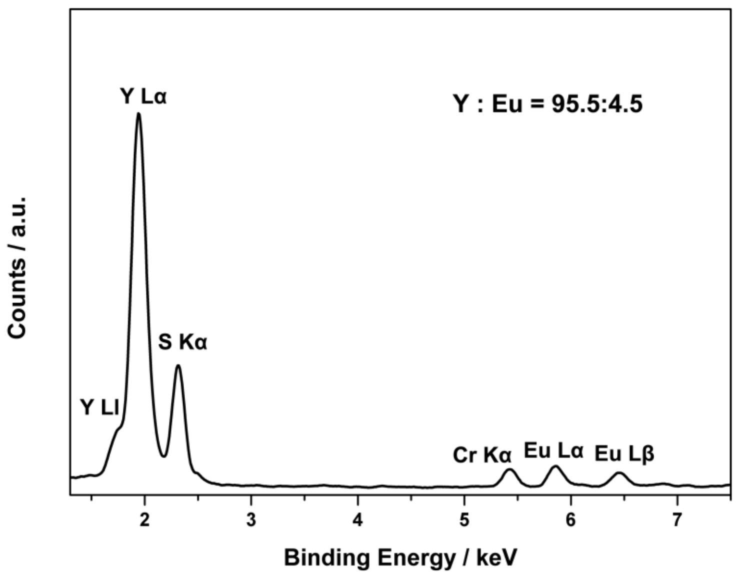

图 S7 Y_2O_2S:Eu 纳米板的 X 射线能谱分析

Figure S7 EDS analysis of the as-synthesized Y_2O_2S:Eu nanoplates.

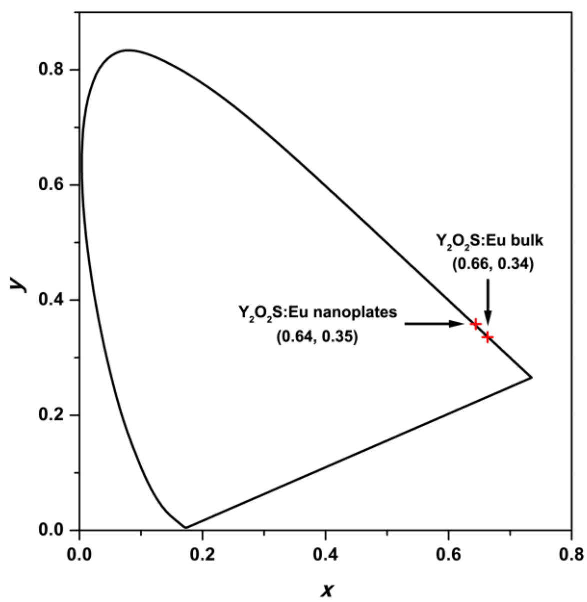

图 S8 Y_2O_2S:Eu 纳米板和体相材料的荧光色坐标(CIE 1931)

Figure S8 Color coordinates (CIE 1931) of the fluorescence of Y_2O_2S:Eu nanoplates and the corresponding bulk counterpart.

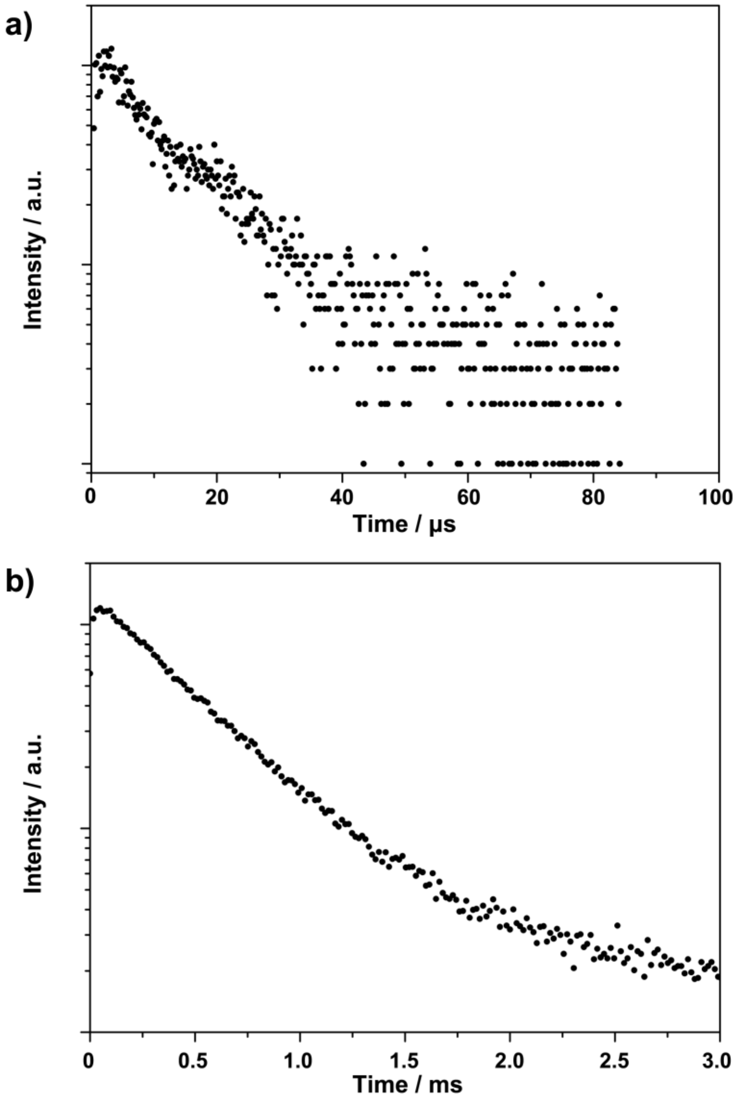

图 S9 室温下 Y_2O_2S:Eu 纳米板和体相材料的荧光衰减曲线
Figure S9 Luminescence decay curves of Y_2O_2S:Eu nanoplates and the corresponding bulk counterpart at room temperature.

Exponent coordinates is used for intensity axis. The excitation wavelengths of nanoplates and bulk counterpart are 251 nm and 350 nm, respectively. The emission wavelengths of two samples are both in 625 nm.