Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Acid-protected Eu(III) coordination nanoparticles covered with polystyren

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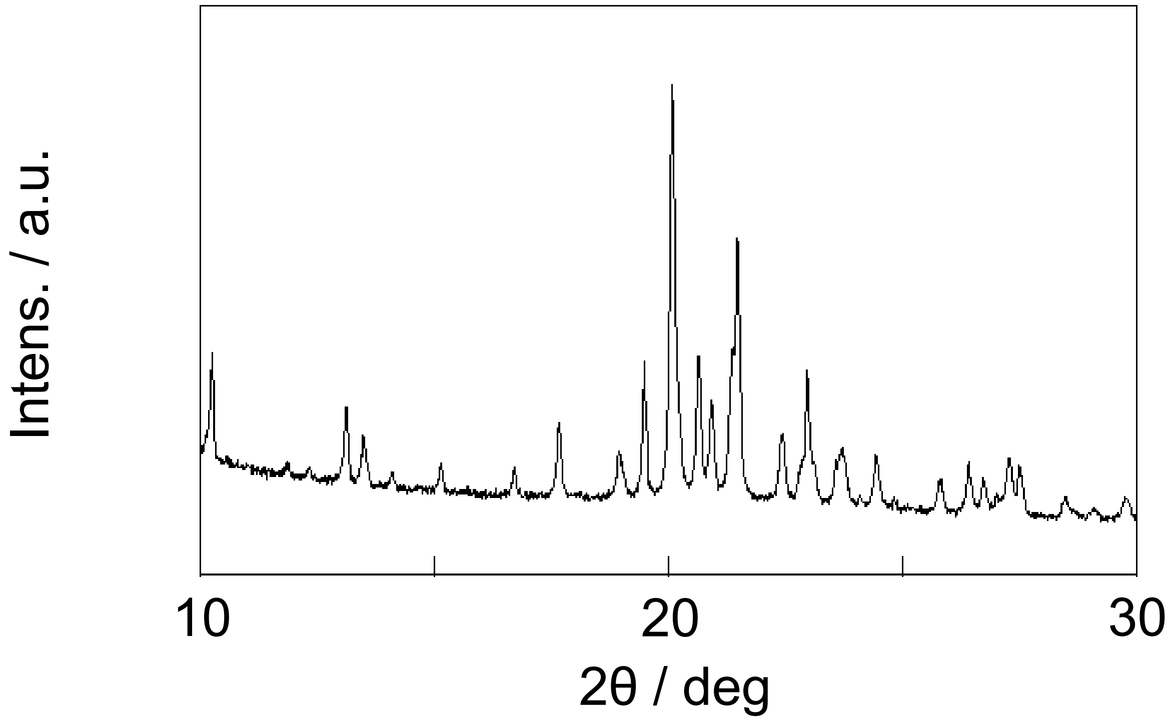

Fig. S1 XRD pattern of $[Eu(hfa)_3(dpbp)]_n$.

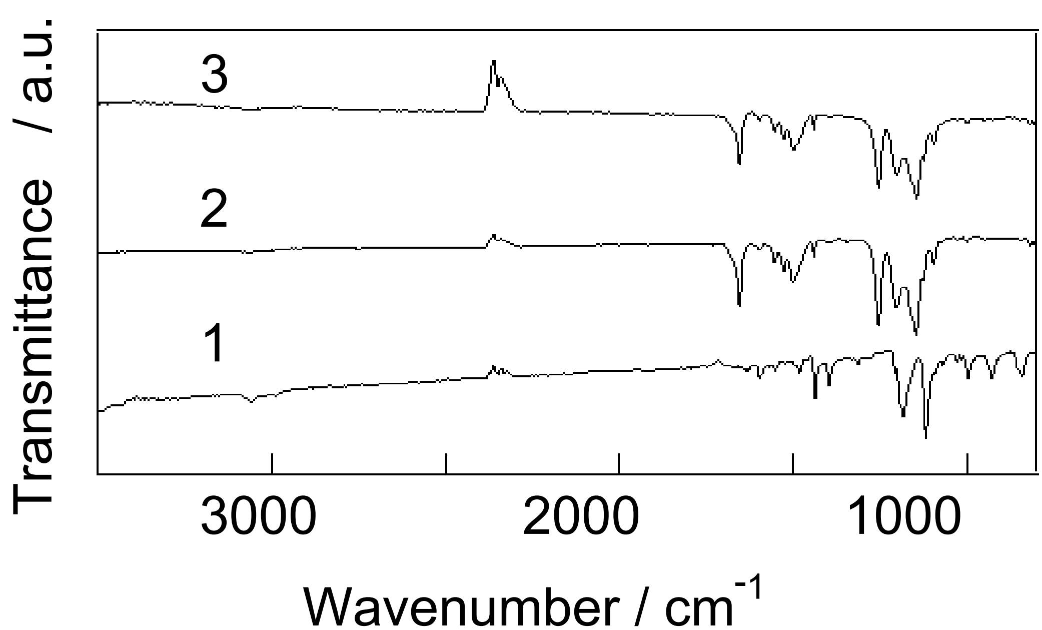

Fig. S2 IR spectra of **1** : $Eu(hfa)_3SDPO$, **2** : $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$ and **3** : $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$-PS under air condition. The double peaks (negative peaks) at 2,360 and 2,340 cm^{-1} that are assigned to the absorption bands for vibration of CO_2.

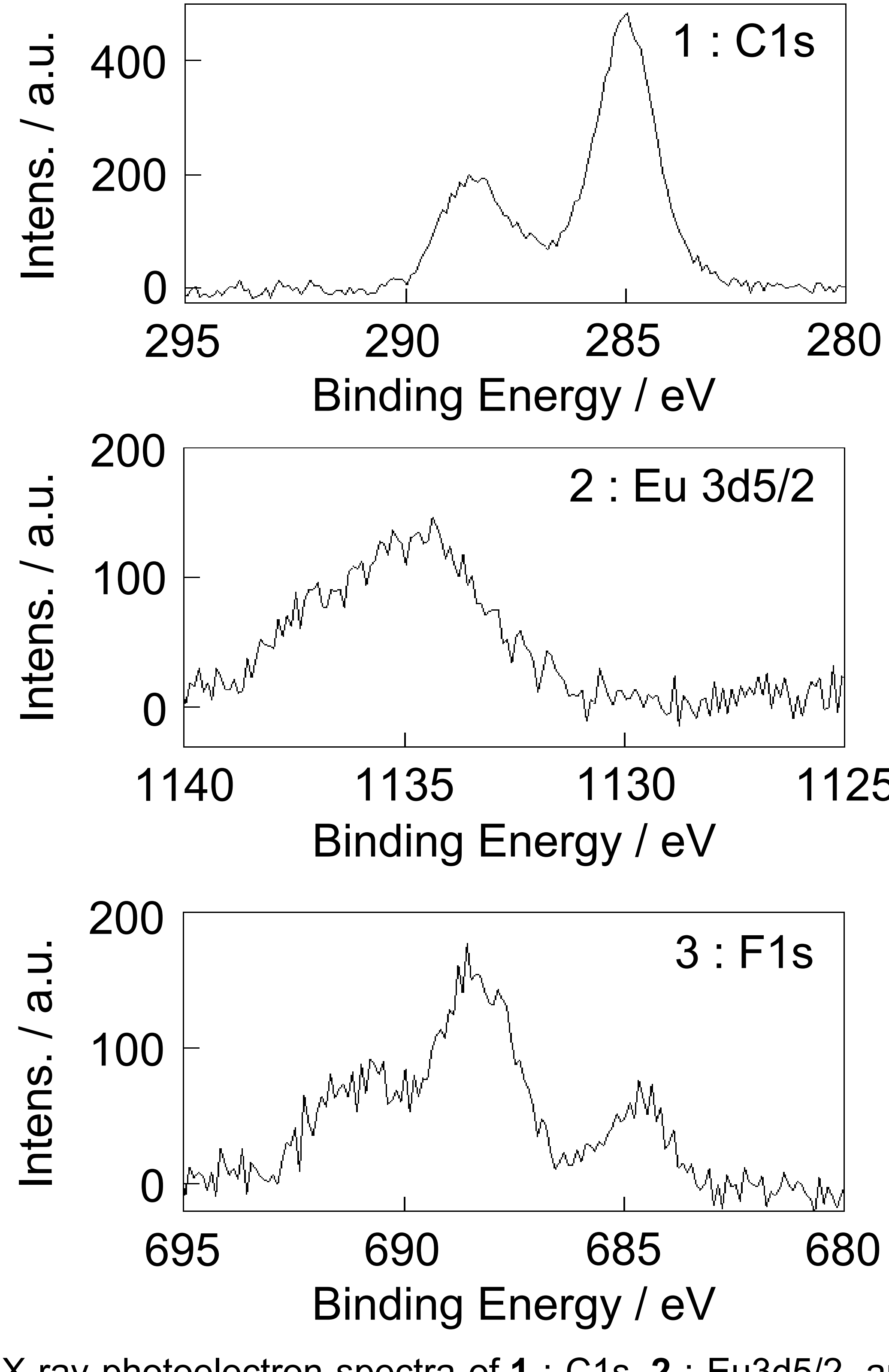

Fig. S3. X-ray photoelectron spectra of **1** : C1s, **2** : Eu3d5/2, and **3** : F1s were acquired from $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$-PS. The Charge shift corrections were made by assuming a C1s signal of 285.0 eV. The backgrounds were corrected by Shirley method.

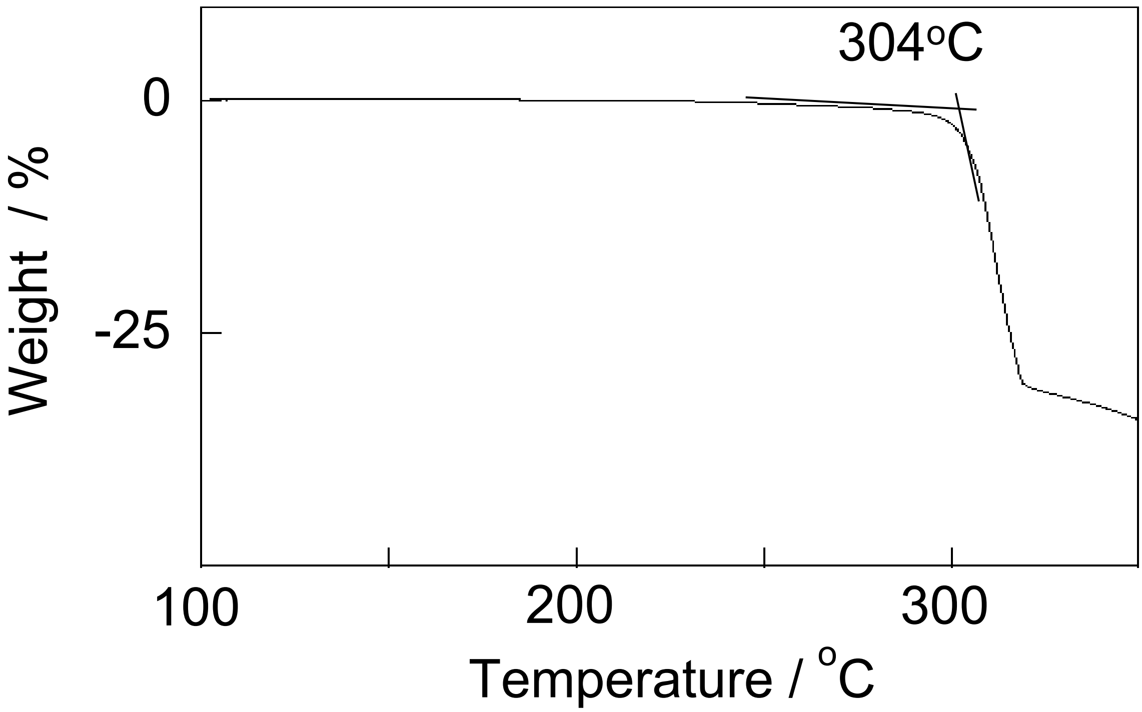

Fig. S4 TGA curve of $[Eu(hfa)_3(dpbp)]_n$ in argon atmosphere at a heating rate of 2 ^{o}C min^{-1}.

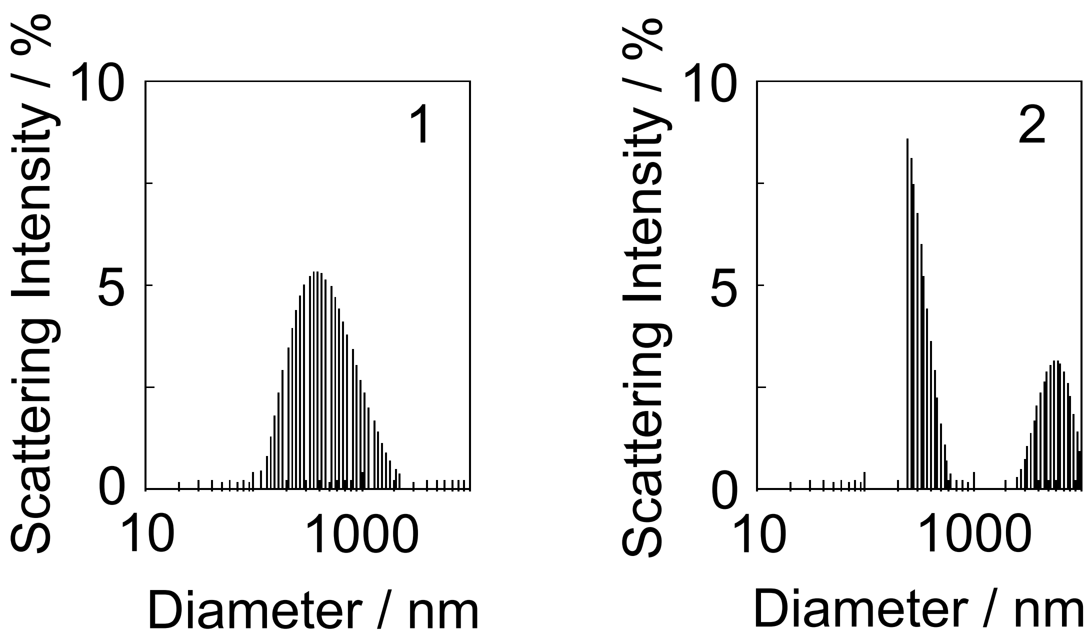

Fig. S5 Scattering intensities of **1** : $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$ and **2** : $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$-PS using DLS measurements.

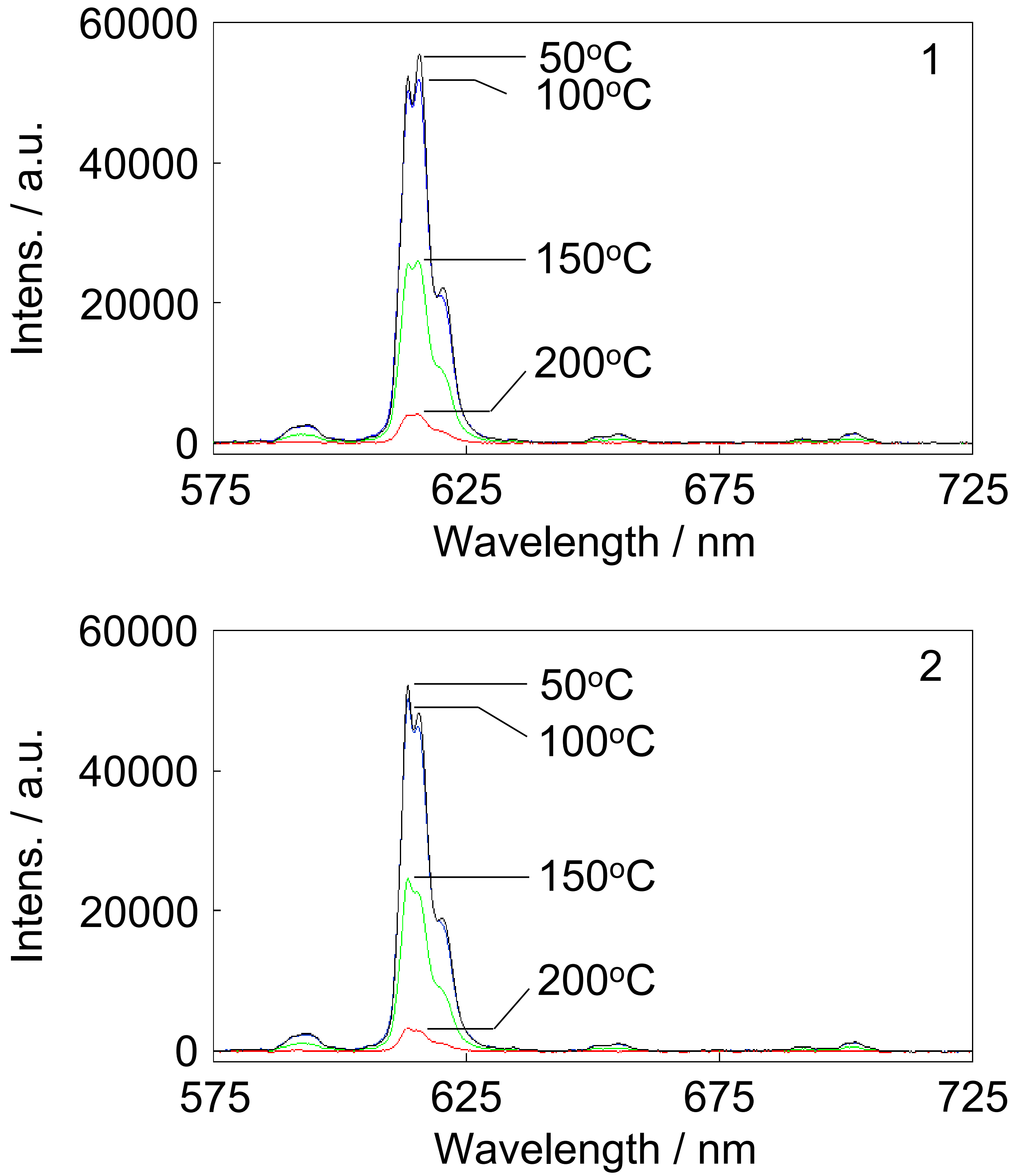

Fig. S6 Temperature-dependent emission spectra of **1** : $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$ and **2** : $[Eu(hfa)_3(dpbp)_x(SDPO)_y]_n$-PS in the solid state excited at 365 nm. The emission spectra were measured using an electrical hot plate equipped with digital temperayure indicator, and an Ocean Optics multichannel Analyzer USB4000 corrected for the response of the detector system.