Supporting Information

Facilely prepared carbon dots and rare earth ions doped hybrid composites for ratio-metric pH sensing and white-light emission

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Figure S1. XRD patterns of prepared CDs-Eu-HCs composites and pure CDs.
Figure S2. The EDX elements integral distribution of CDs-Eu-HCs.
Figure S3. High resolution XPS spectra of (a) C1s, (b) N1s, (c) O1s and (d) Eu 3d of CDs-Eu-HCs, respectively.
Figure S4. The digital photos of the prepared CDs-TbEu$_{0.2}$ composites in solid states under the UV light (365 nm).