Electronic Supplementary Information (ESI)

Ultrasonic-assisted solution-phase synthesis of gadolinium benzene-1,4-dicarboxylate hierarchical architectures and its solid-state thermal transformation[†]

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Figure S1. FT-IR spectrum of the as-obtained [Gd(1,4-BDC)_{1.5}(H₂O)₂].



Figure S2. SEM images of the products prepared from the system for different times: (a) 5, (b) 10 and (c) 30 min.



Figure S3. SEM images of the Ln^{3+} -doped Gd(BDC)_{1.5}(H₂O)₂ straw-sheaf-like architectures: (a) Gd(BDC)_{1.5}(H₂O)₂: 5% Eu³⁺, (b) Gd(BDC)_{1.5}(H₂O)₂: 5% Tb³⁺.



Figure S4. XRD patterns of the samples: (a) $Gd(BDC)_{1.5}(H_2O)_2$: 5% Eu^{3+} , (b) $Gd(BDC)_{1.5}(H_2O)_2$: 5% Tb^{3+} , (c) simulated XRD pattern using the X-ray structure of $Tb(BDC)_{1.5}(H_2O)_2$ single crystal.