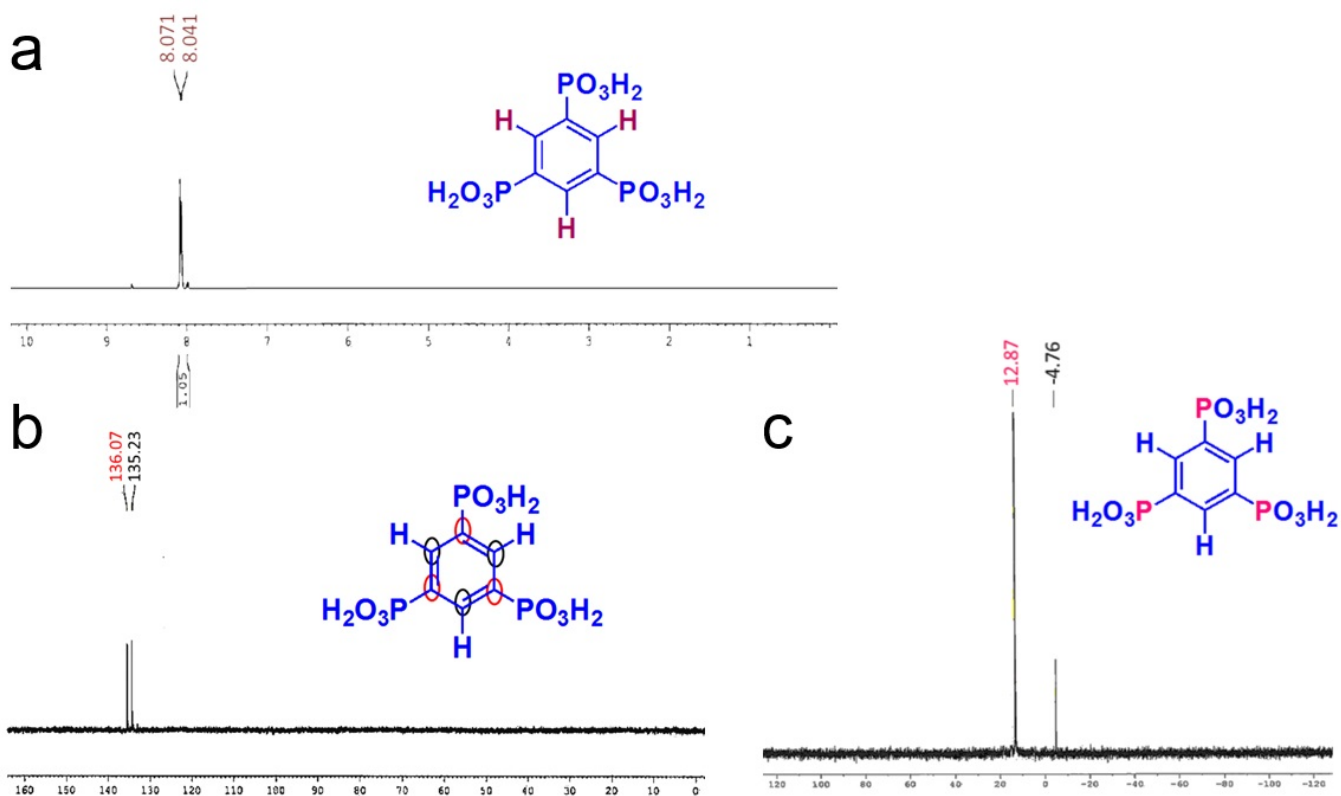


1

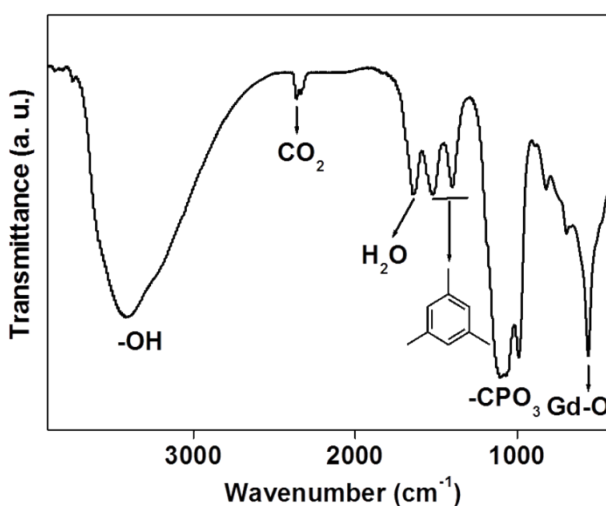
### Supporting information



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3 **Fig. S1** (a) <sup>1</sup>H NMR spectrum, (b) <sup>13</sup>C NMR spectrum, and (c) <sup>31</sup>P NMR spectrum of BTPA (PPh<sub>3</sub> is used as  
4 internal standard, and the peak at -4.76 ppm is due to the P of PPh<sub>3</sub>).

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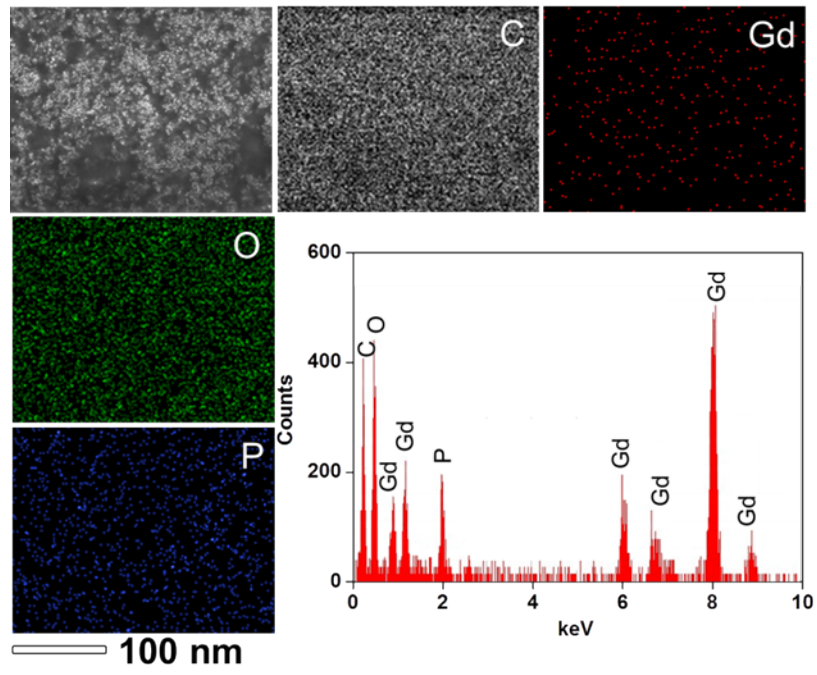


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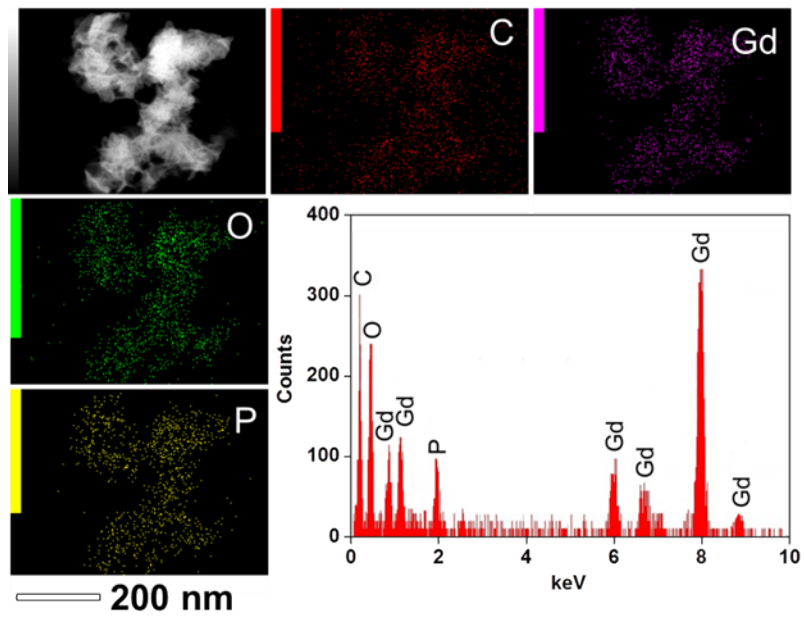
8

**Fig. S2** FT IR spectrum of GdP-H.



**Fig. S3** Elemental mapping of GdP-H.

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**Fig. S4** Elemental mapping of GdP-AC.

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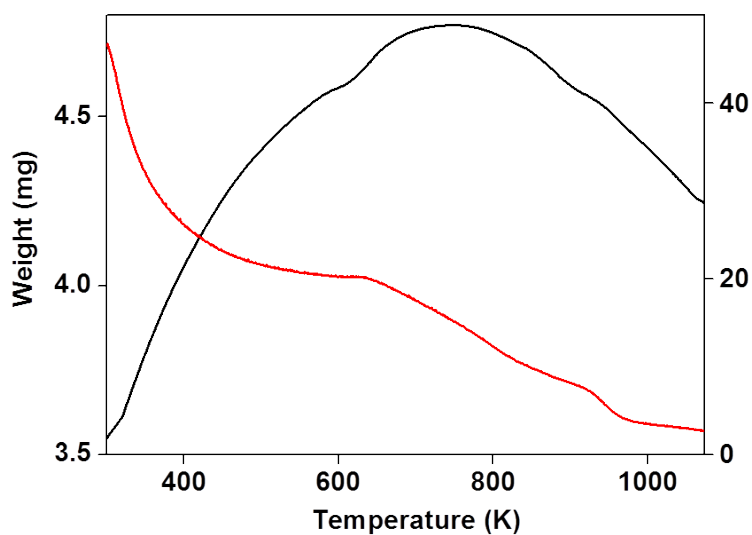


Fig. S5 TG-DTA profile of GdP-H.

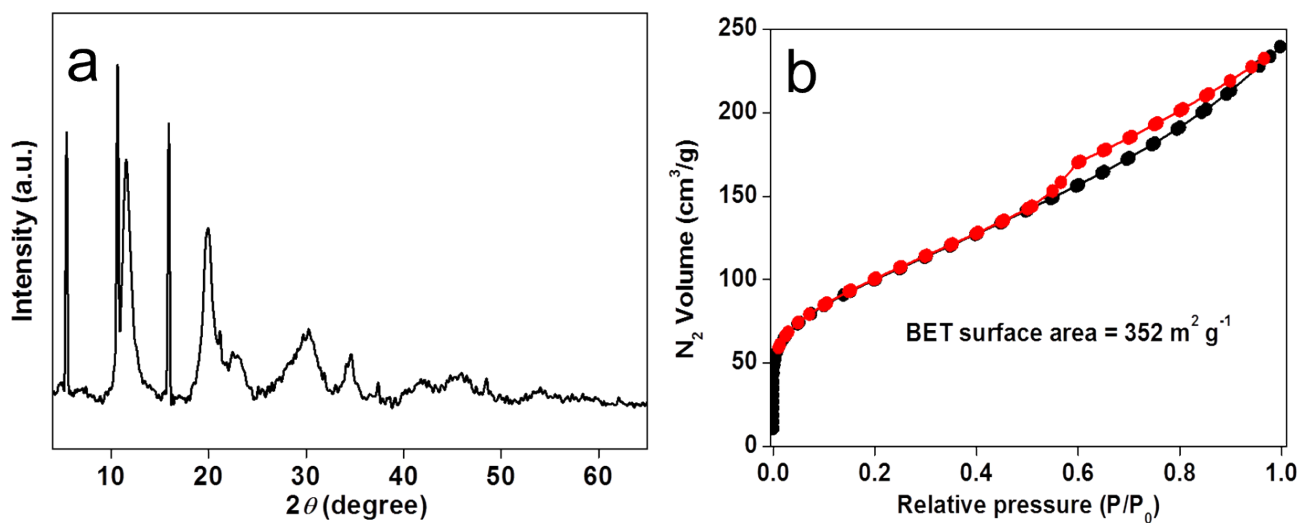


Fig. S6 (a) Wide angle X-ray diffraction pattern and (b) N<sub>2</sub> adsorption (filled black circles)-desorption (filled red circles) isotherm of GdP-H material after water treatment for 24 h.