Supporting information

Fig. S1 (a) $^1$H NMR spectrum, (b) $^{13}$C NMR spectrum, and (c) $^{31}$P NMR spectrum of BTPA (PPh$_3$ is used as internal standard, and the peak at -4.76 ppm is due to the P of PPh$_3$).

Fig. S2 FT IR spectrum of GdP-H.
Fig. S3 Elemental mapping of GdP-H.

Fig. S4 Elemental mapping of GdP-AC.
Fig. S5 TG-DTA profile of GdP-H.

Fig. S6 (a) Wide angle X-ray diffraction pattern and (b) N$_2$ adsorption (filled black circles)-desorption (filled red circles) isotherm of GdP-H material after water treatment for 24 h.