Electronic Supplementary Information (ESI)

Simultaneous enzymatic activity modulation and rapid determination of enzyme kinetics by highly crystalline graphite dots

Rui Shi[a, §], Hao Li[a, §], Enhui Wu[a], Lipeng Xiong[b], Rui Lv[a], Ruochen Guo[a], Yang Liu[a], Guoqiang Xu[b], Zhenhui Kang[a*], Jian Liu[a*]

[a] Jiangsu Key Laboratory for Carbon-based Functional Materials and Devices, Institute of Functional Nano and Soft Materials (FUNSOM), Soochow University, Suzhou, Jiangsu 215123, China. E-mail: zhkang@suda.edu.cn, jliu@suda.edu.cn.

[b] College of Pharmaceutical Sciences, Soochow University, Suzhou, Jiangsu, 215123 China.

[§] These authors contributed equally.

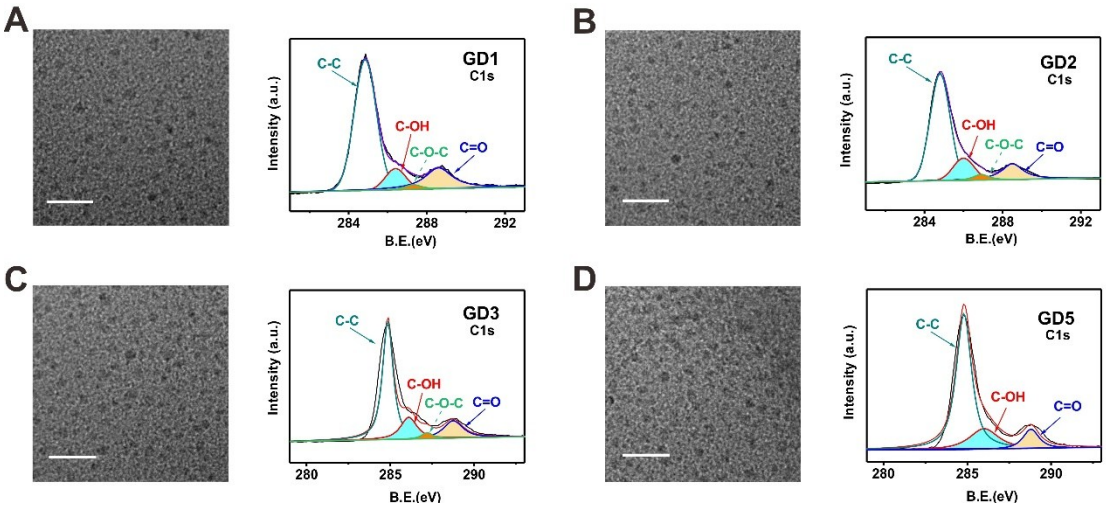

Figure S1 TEM images and high-resolution XPS spectra of GD series, (A) GD1; (B) GD2; (C) GD3; (D) GD5. Scale bar: 20nm. Deconvolution of C1s of the XPS spectra were performed to analyze the possible components (C-C, C=O, C-O, and C-O-C if available) on the GD surface. The content of C-O-C in GD5 was too low to be deconvolved.

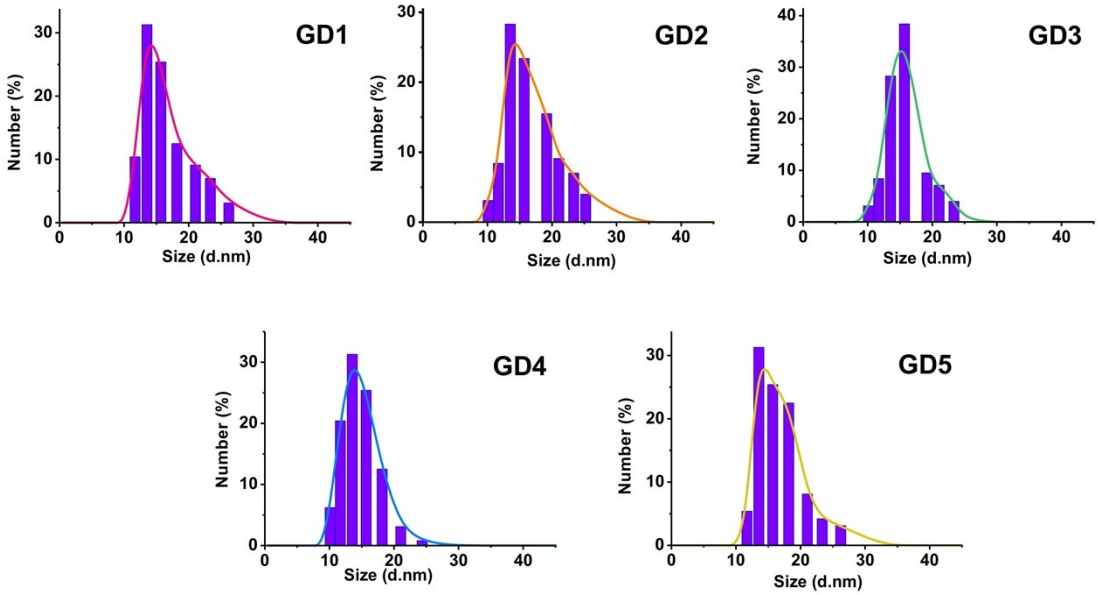

Fig. S2 Size distributions of GD1-GD5. The measure results were obtained by a dynamic light scattering (DLS) instrument (Zetasizer Nano ZS, ZEN 3690, Malvern).

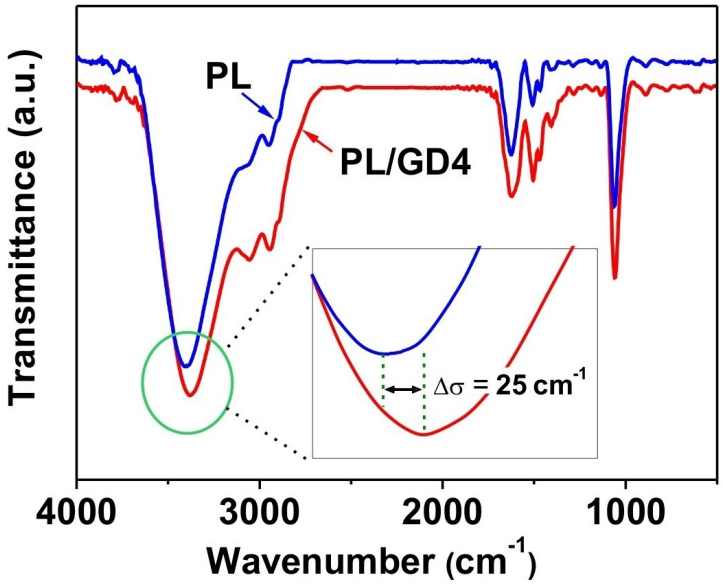

Fig. S3 Comparison of FT-IR spectra of the PL and PL/GD4 complexes. Inset: a zoomed-in view of the red shift of the peak highlighted by the green oval.

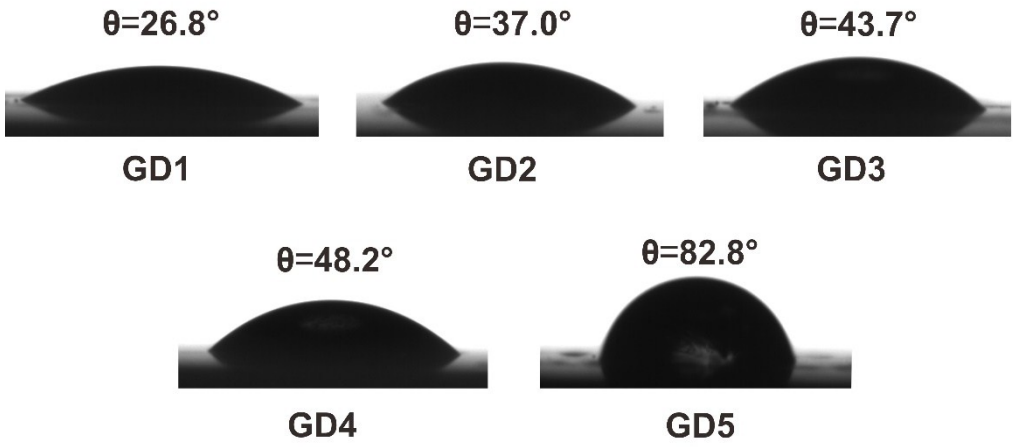

Fig. S4 The contact angle measurements of the GD1-GD5. The images were recorded by contact angle measurement instrument (DataPhysics OCA).