

## Supplementary Information

### Lanthanum-doped ordered mesoporous hollow silica spheres as novel adsorbents for efficient phosphate removal

Weiya Huang,<sup>a,b</sup> Yi Zhu,<sup>a,\*</sup> Jinpeng Tang,<sup>a</sup> Xiang Yu,<sup>a</sup> Xuelei Wang,<sup>a</sup> Dan Li,<sup>c,\*</sup> Yuanming Zhang,<sup>a</sup>

<sup>a</sup>Department of Chemistry, Jinan University, Guangzhou, 510632, China; Tel: +86 20 85221264, Email: [tzhu@jnu.edu.cn](mailto:tzhu@jnu.edu.cn) (Y. Zhu)

<sup>b</sup>Department of Materials Science and Engineering, Taizhou University, Linhai, 317000, China;

<sup>c</sup>Environmental Engineering, School of Engineering and Information Technology, Murdoch University, Murdoch, Western Australia, 6150, Australia; Tel: +61 08 9360 2569, Email: [l.li@murdoch.edu.au](mailto:l.li@murdoch.edu.au) (D. Li)

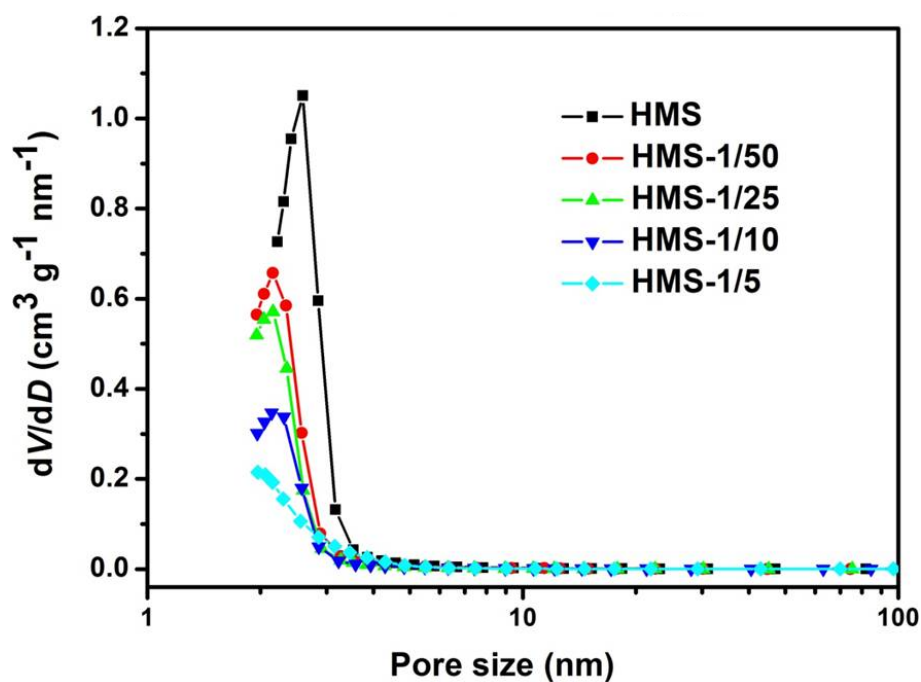


Fig. S1. Pore size distributions of HMS, HMS-1/50, HMS-1/25, HMS-1/10, and HMS-1/5.

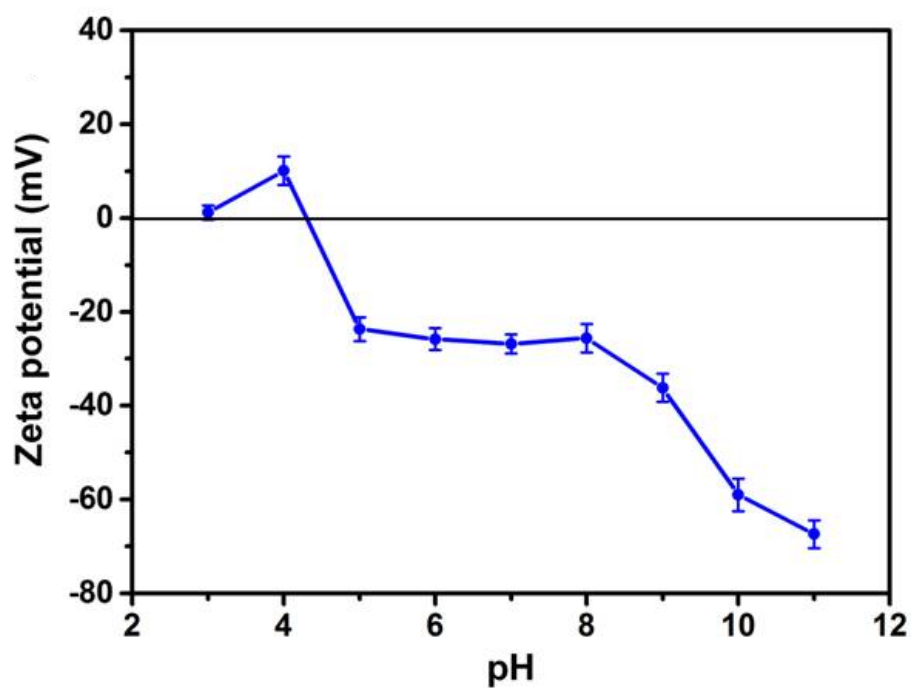


Fig. S2. Zeta potential of HMS-1/5 at pH ranging from 3 to 11.

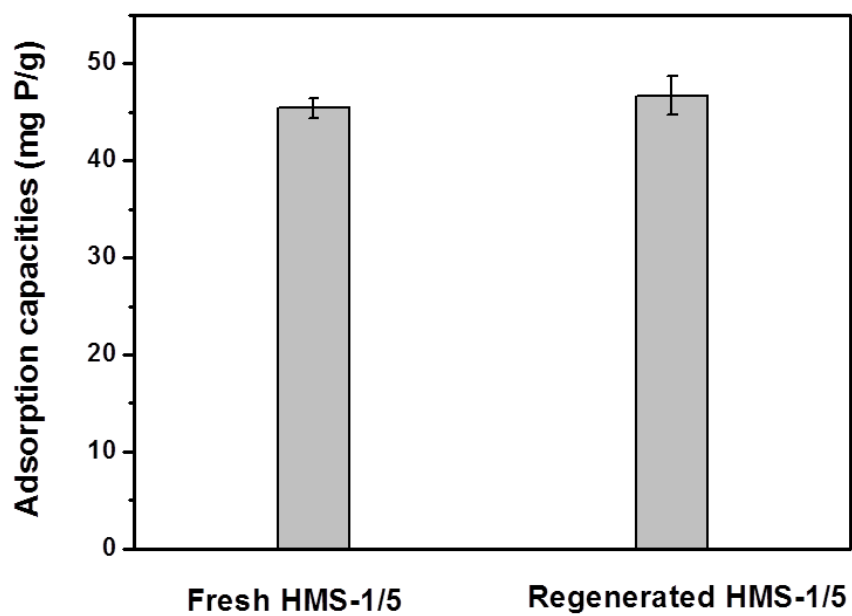


Fig. S3. Adsorption capacities of the fresh and regenerated HMS-1/5 samples in 50 mg P/L solution.