Supporting Information

Three-dimensional carbon boron nitride with the broken hollow spherical shell for water treatment

Huichao Jia[a], Jie Li[a], Zhenya Liu[a], Ruoyuan Gao[a], Saleem Abbas[a], Yi Fang[a], Chao Yua, and Chengchun Tang*[a]*

[a] School of Material Science and Engineering, Hebei University of Technology,

Tianjin 300130, P. R. China.

* Corresponding author. E-mail: liuzhenya@hebut.edu.cn (Z. L.);

tangcc@hebut.edu.cn (C. T.)

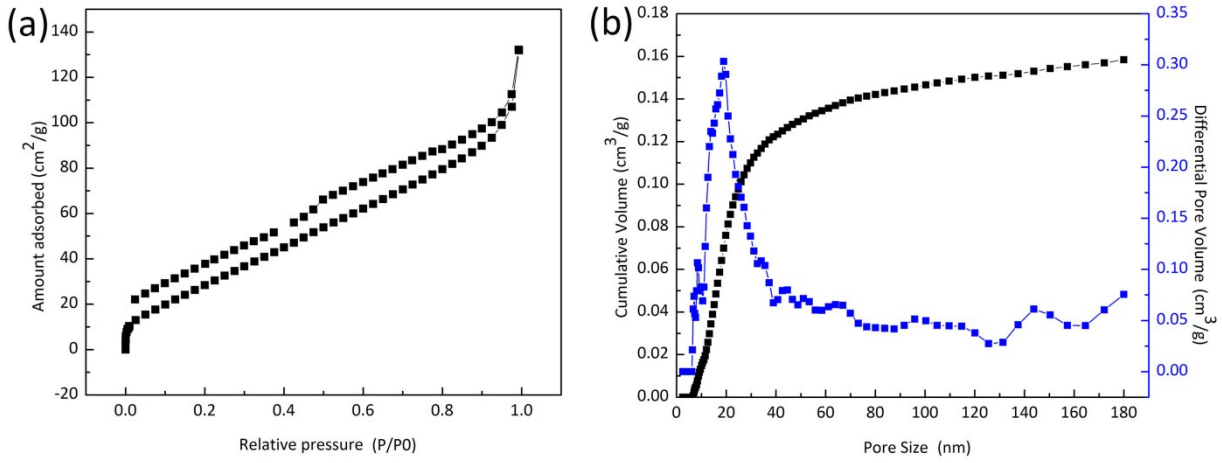

Fig. S1 (a) Nitrogen adsorption - desorption isotherms of 3D C-BN. (b) The corresponding pore size distributions (blue line) and cumulative pore size distribution (black line).

Figure S1(a) displays the N_2 adsorption-desorption isotherms of the sample. According to the International Union of Pure and Applied Chemistry classification, the isotherm and hysteresis loop belong to the type Ⅱ isotherm and the H3-type loop, indicating that the majority of pores belongs to the family of mesoporous. The specific surface area of the 3D C-BN is 134.4 m^2/g and the pore volume is 0.158 cc/g. The 3D C-BN is mesoporous materials and its pore size is ranging 5 nm – 20 nm.

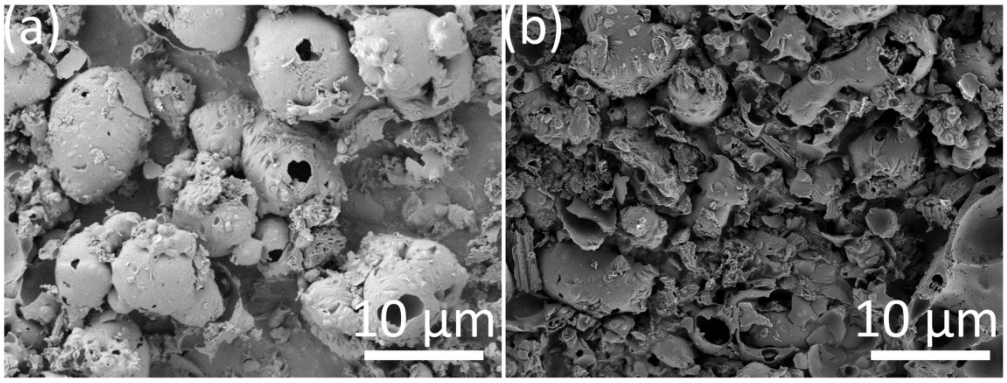

Fig. S2 SEM images of the raw 3D C-BN sample (a) and the 8th-recycled sample (b).

Fig S2 displays the morphology of the raw 3D C-BN sample and the 8th-recycled sample. The hollow spherical shells in raw sample have been broken into pieces after several times reused.