Electronic Supplementary Information

Covalent Immobilization of A Polyoxometalate in Porous Polymer Matrix: A Heterogeneous Catalyst towards Sustainability

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Prof. W. Wang
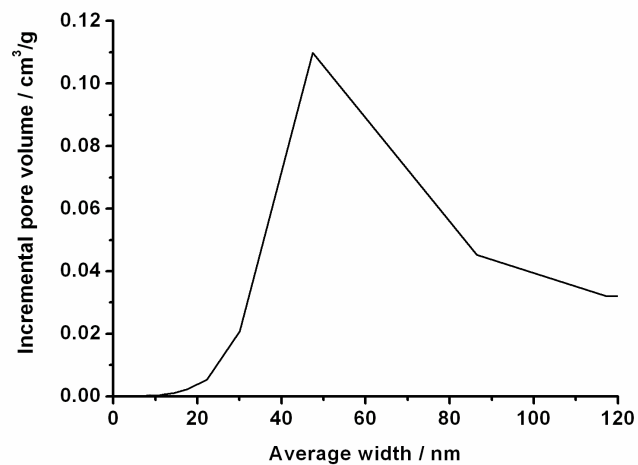E-mail: weiwang@nankai.edu.cn
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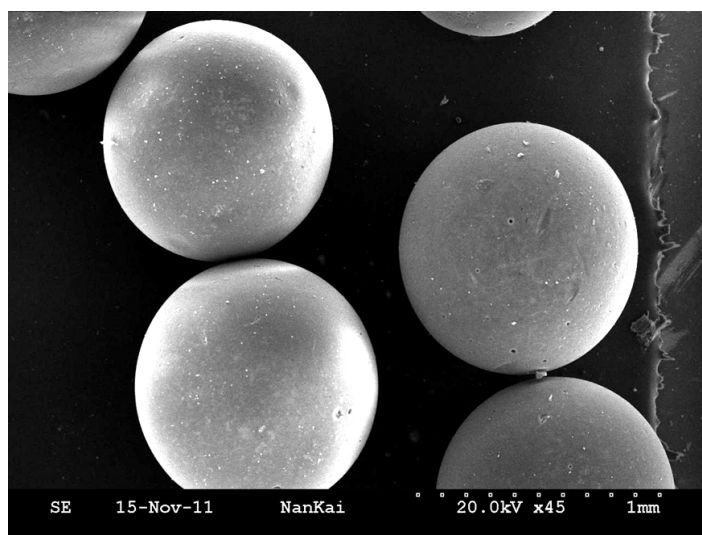Fig. S1 Pore size distribution of **R1**.
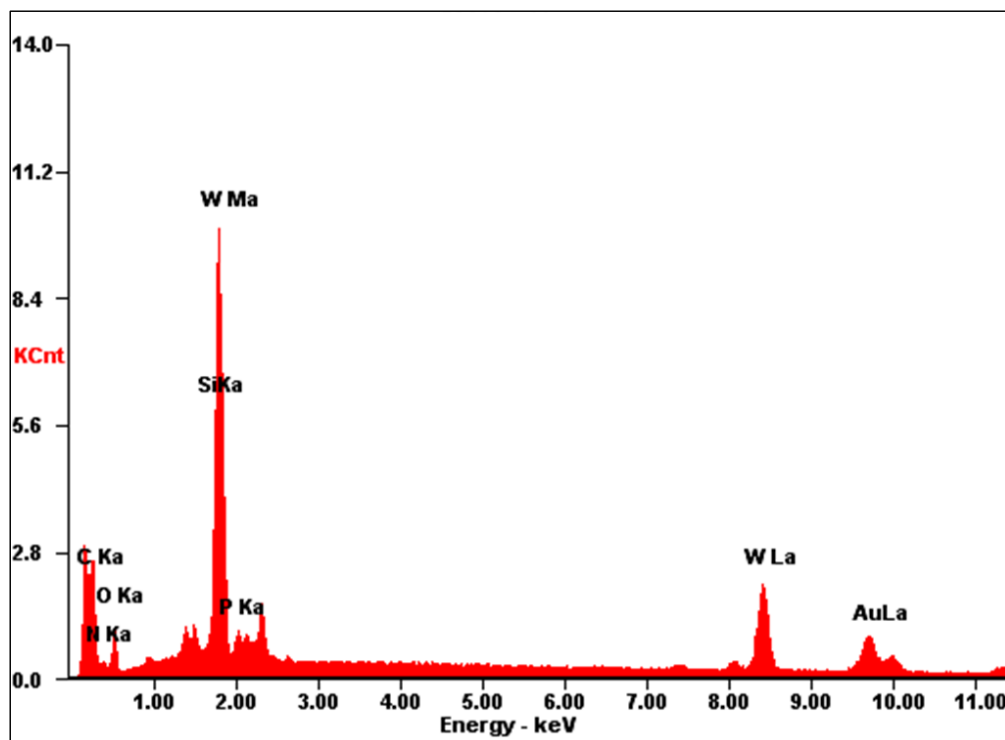

Fig. S2 SEM image of **R1**.

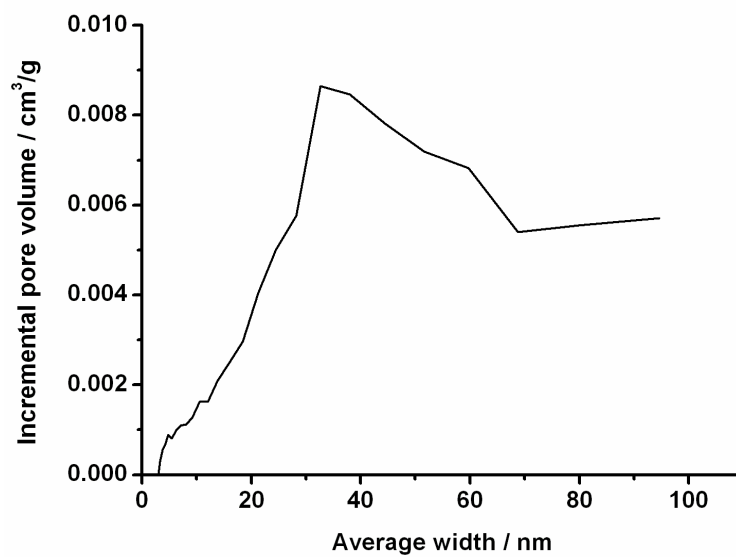Fig. S3 EDX spectrum of the macroporous surface of **R3**
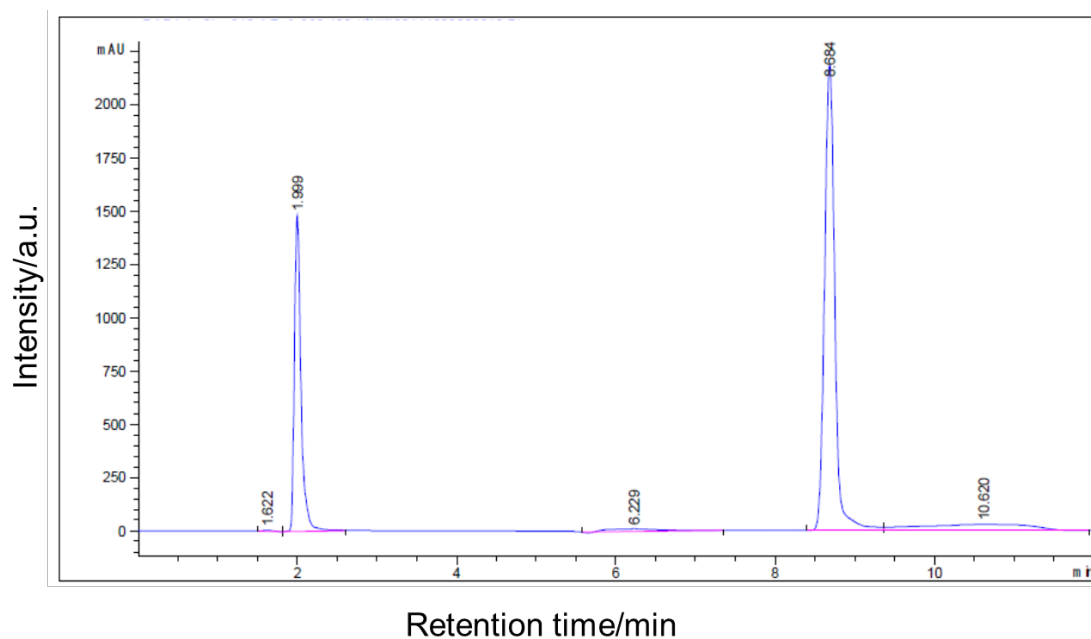

Fig. S4 Pore size distribution of **R3**.

Fig. S5 HPLC analysis of the standard solution composed of commercial product THTO and THT. The tow peaks at 1.999 min and 8.684 min are ascribed to signals of THTO and THT respectively.
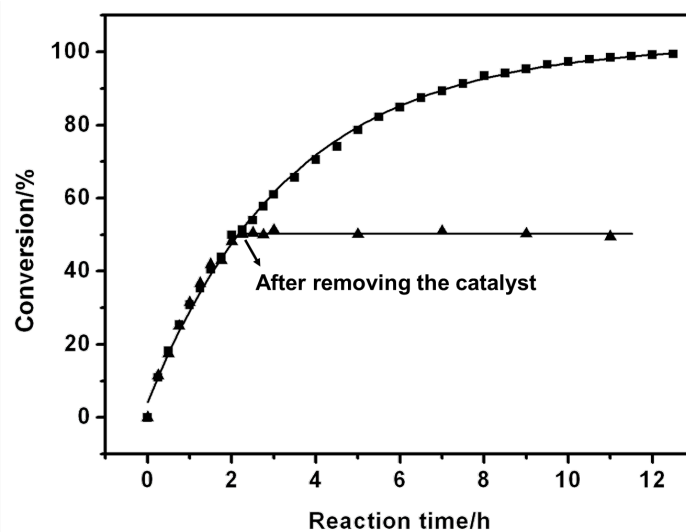

Fig. S6 Effect of removal of catalyst **R3** on the oxidation of THT. Without removal of **R3** (■); The arrow indicates the removal of **R3** (▲). Reaction conditions were the same.
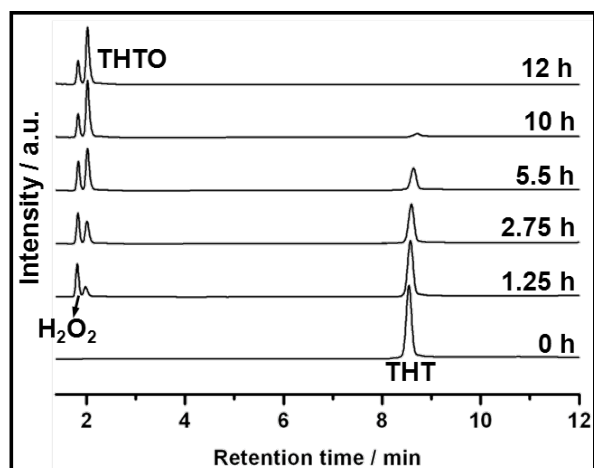
Fig. S7 HPLC analysis of the oxidation of THT with the heterogeneous catalyst **R3** for the second cycle.
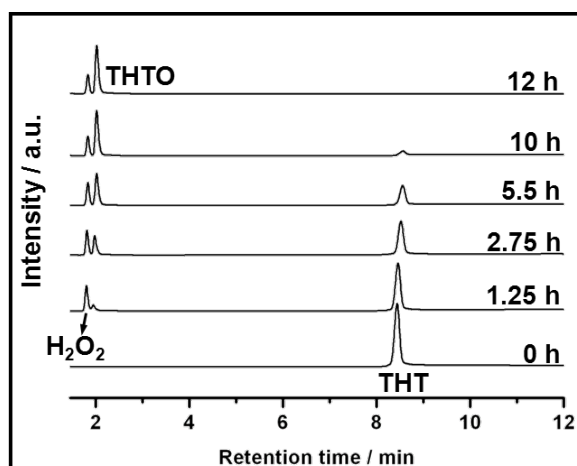

Fig. S8 HPLC analysis of the oxidation of THT with the heterogeneous catalyst **R3** for the third cycle.
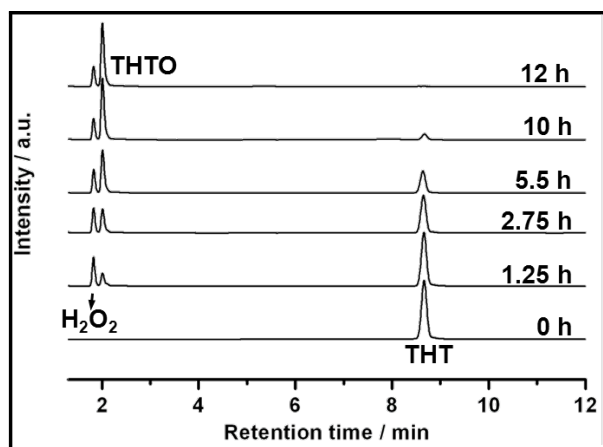
Fig. S9 HPLC analysis of the oxidation of THT with the heterogeneous catalyst **R3** for the fourth cycle.
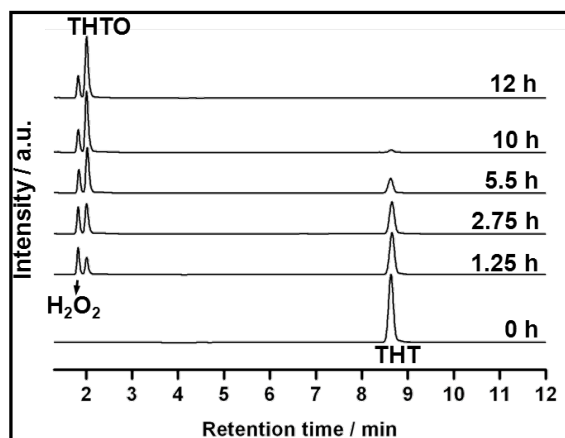

Fig. S10 HPLC analysis of the oxidation of THT with the heterogeneous catalyst **R3** for the fifth cycle.
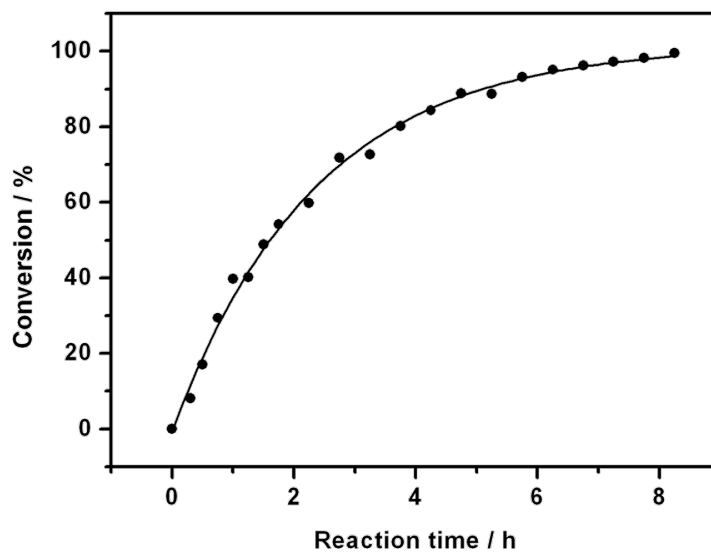
Fig. S11 THT conversion versus the reaction time with the homogeneous
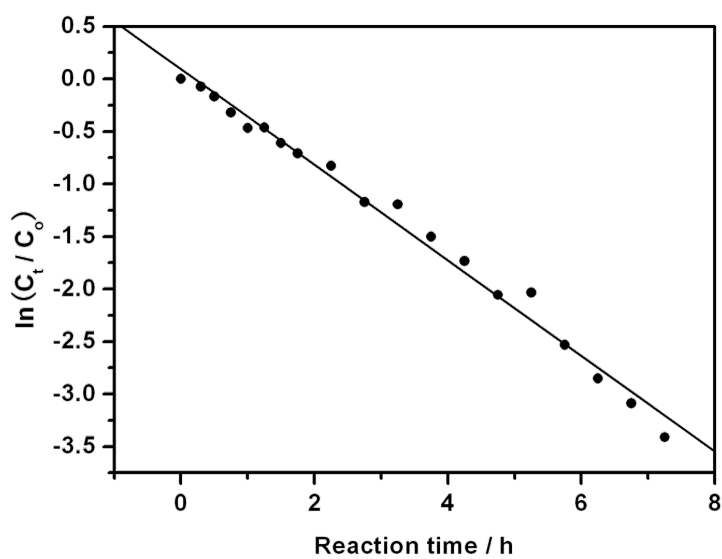
POM analog **A-POM** catalyst.

Fig. S12 THT $ln(C_t/C_0)$ versus the reaction time with the homogeneous

POM analog **A-POM** catalyst. The reaction rate constant obtained from

the slope is 0.455 h^{-1}.