

## Supporting Information

### **Ni-based catalysts supported on Hbeta zeolite for the Hydrocracking of waste polyolefins**

Guoqing Zhang,<sup>a</sup> Qingguo Mao,<sup>b</sup> Yiqun Yue,<sup>a</sup> Ruitong Gao,<sup>a</sup> Yajing Duan,<sup>c</sup> Hui Du <sup>\*a</sup>

<sup>a</sup>. College of Chemistry and Chemical Engineering, Institute for Sustainable Energy and Resources, Qingdao University, Qingdao 266071, Shandong, P.R. China.

<sup>b</sup>. Liaoning Bora Bioenergy Co. Ltd., Panjin 124000, Liaoning, P.R. China.

<sup>c</sup>. College of Physics, Qingdao University, Qingdao 266071, Shandong, P.R. China.

#### **\*Corresponding Author**

H. Du: E-mail: [duhui@qdu.edu.cn](mailto:duhui@qdu.edu.cn).

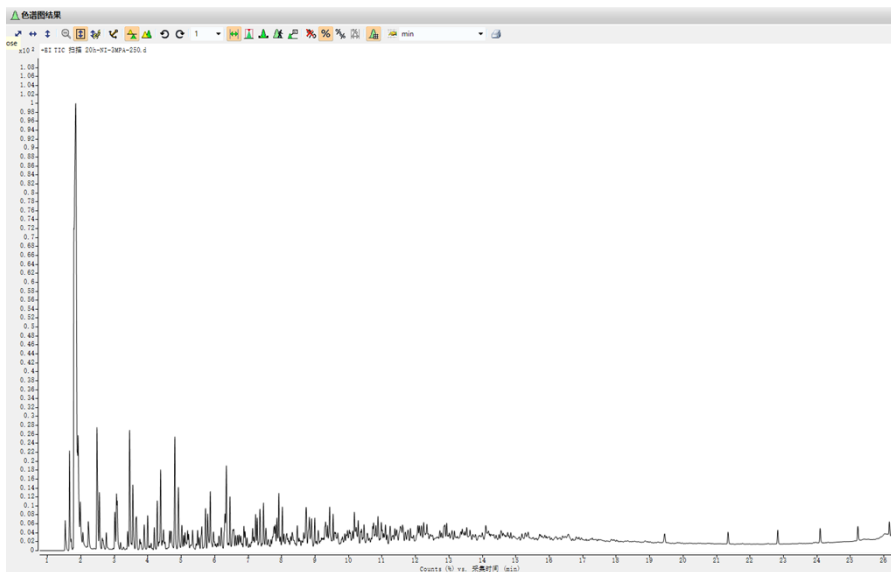


Fig. S1 GCMS raw data graph under typical conditions.

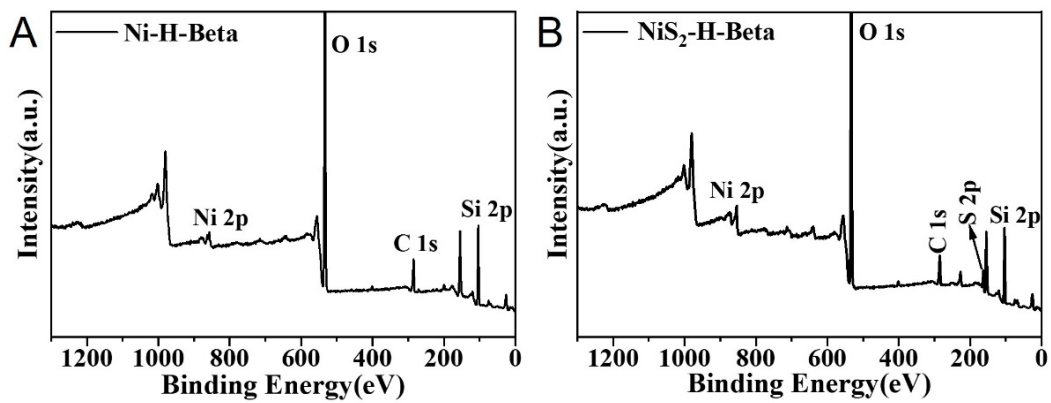


Fig. S2 (A) XPS spectra of Ni-Hbeta; (B) XPS spectra of NiS<sub>2</sub>-Hbeta.

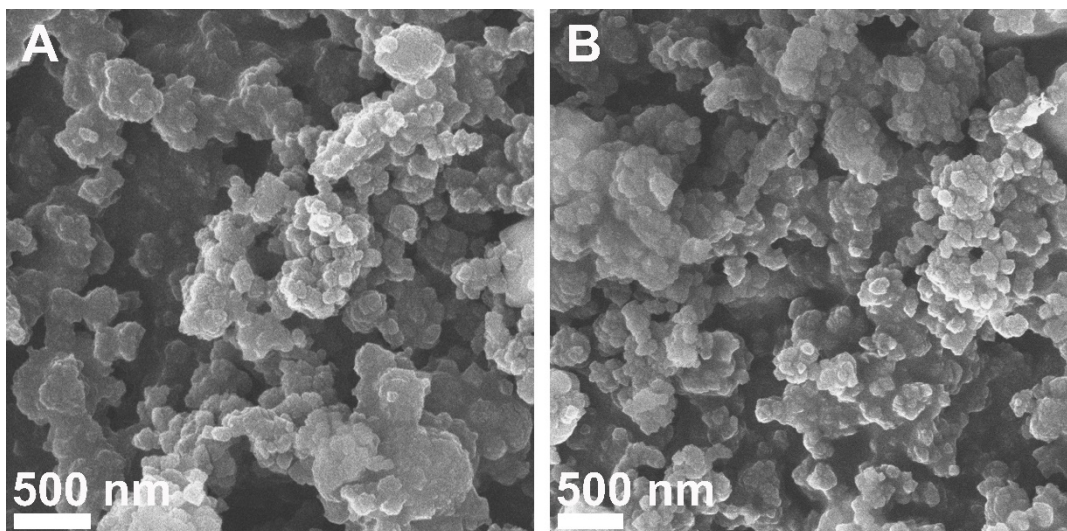
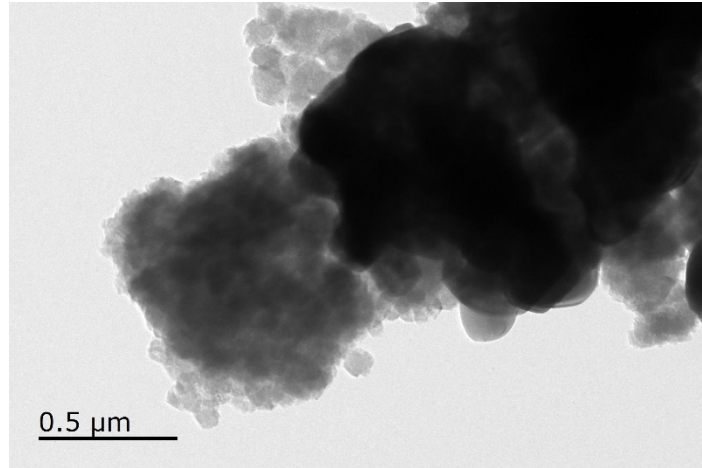
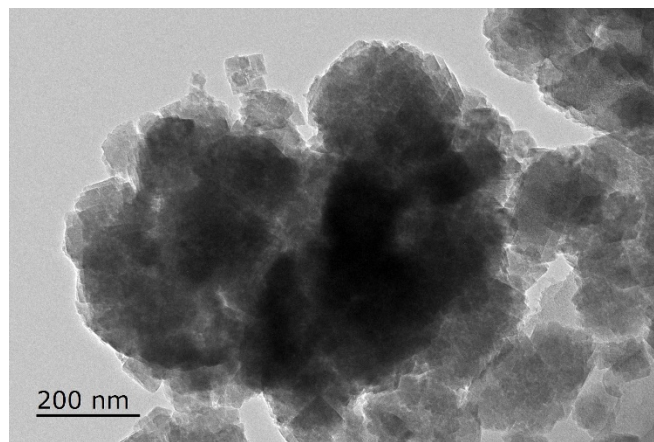


Fig. S3 (A) SEM image of Ni-Hbeta; (B) SEM image of NiS<sub>2</sub>-Hbeta.



**Fig. S4** TEM image of Ni-Hbeta.



**Fig. S5** TEM image of NiS<sub>2</sub>-Hbeta.