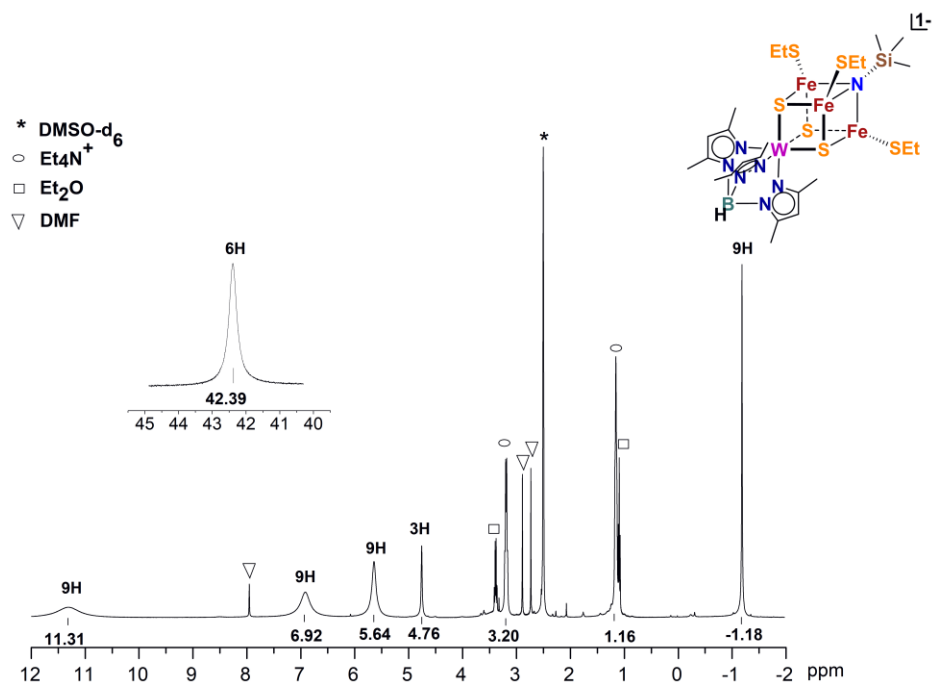


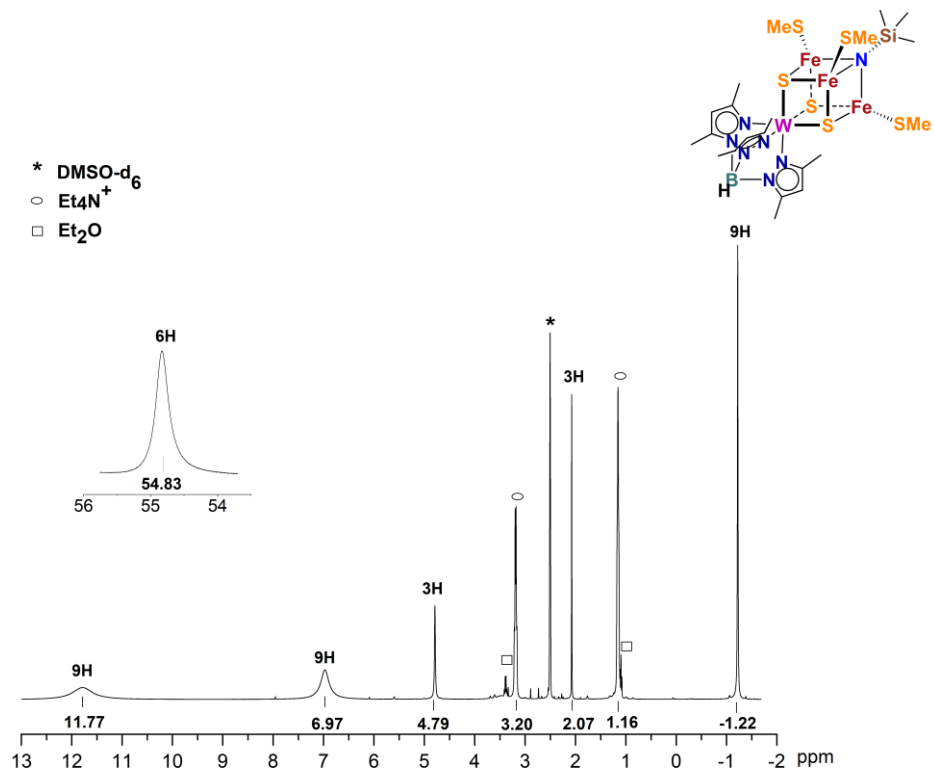
# Supporting Information

## Cubane-type Tungsten-Iron-Sulfur Clusters with Nitrogen Atom in the Core: Terminal Ligand Substitutions and Redox Behaviors

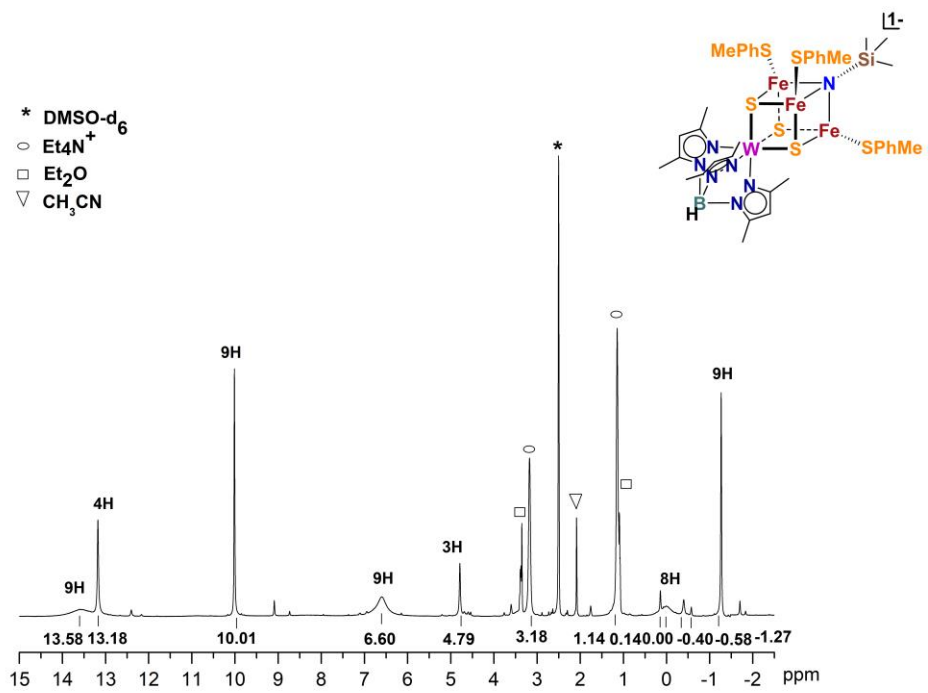
Hong-Ying Zhang,<sup>a</sup> Shu-Juan Qiu,<sup>a</sup> Huan-Huan Yang,<sup>a</sup> Meng-Ting Wang,<sup>a</sup> Jie Yang,<sup>a</sup>  
Han-Bin Wang,<sup>a</sup> Nai-Hao Liu,<sup>a</sup> Xu-Dong Chen<sup>\*,a,b</sup>



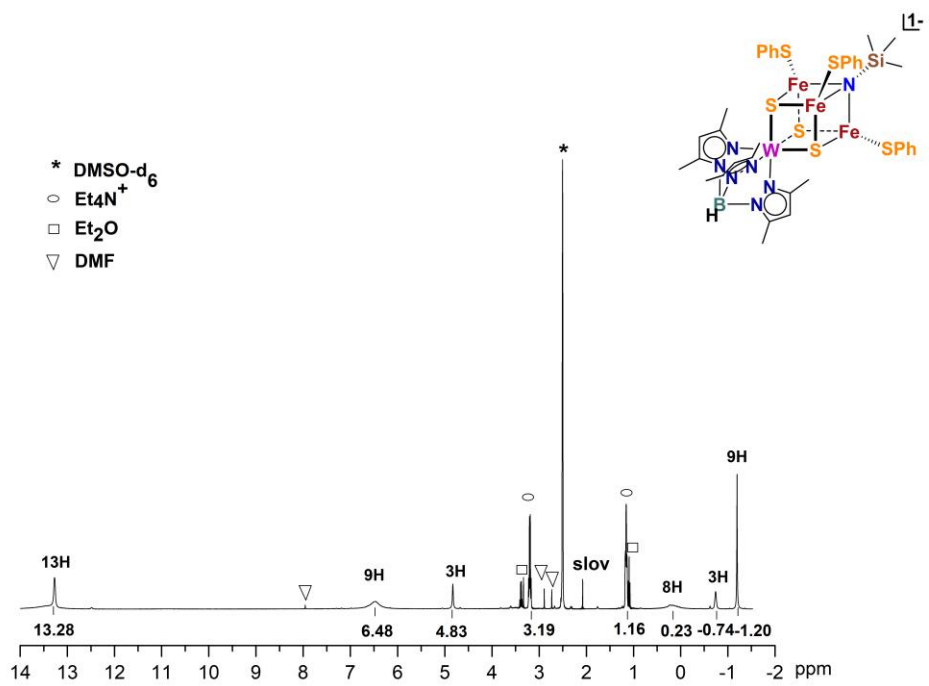
**Figure S1.** <sup>1</sup>H NMR (400 MHz) spectrum of (Et<sub>4</sub>N) **2**.



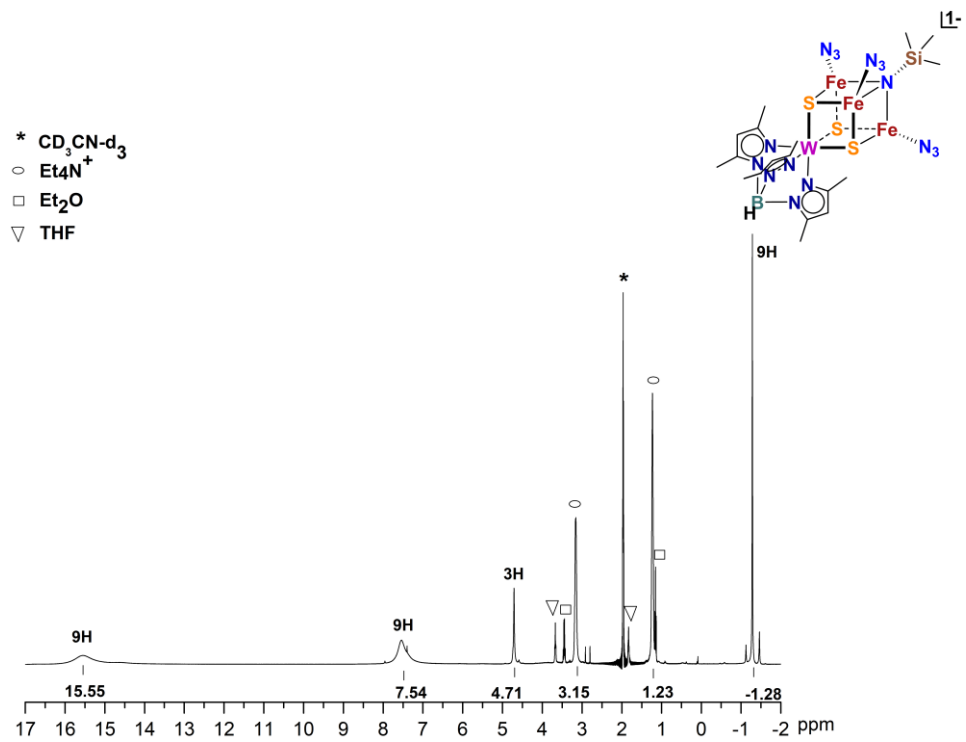
**Figure S2.** <sup>1</sup>H NMR (400 MHz) spectrum of (Et<sub>4</sub>N) **3**.



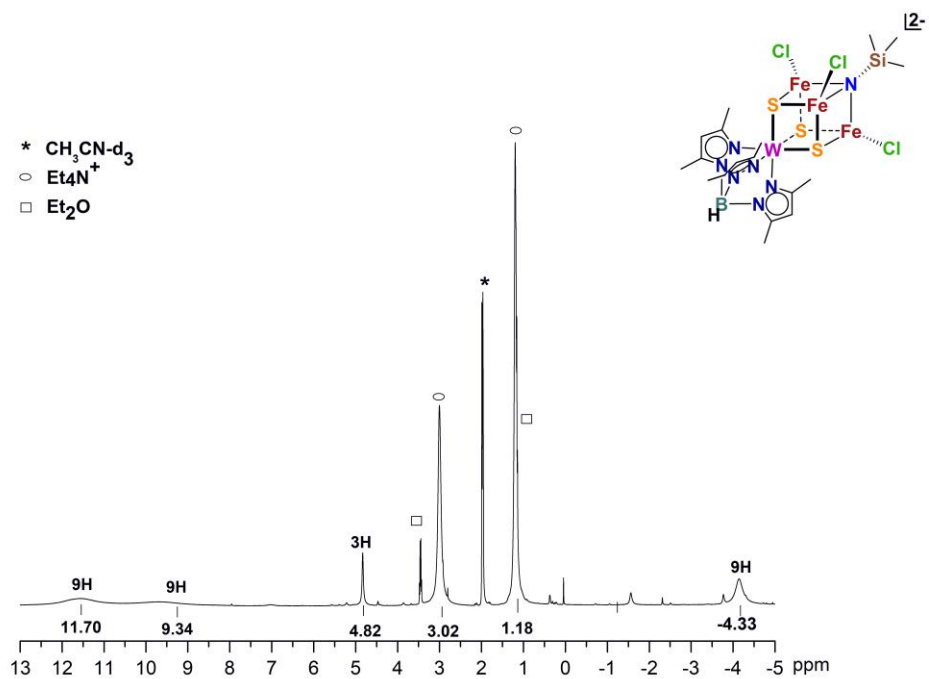
**Figure S3.**  $^1\text{H}$  NMR (400 MHz) spectrum of **(Et<sub>4</sub>N) 4**



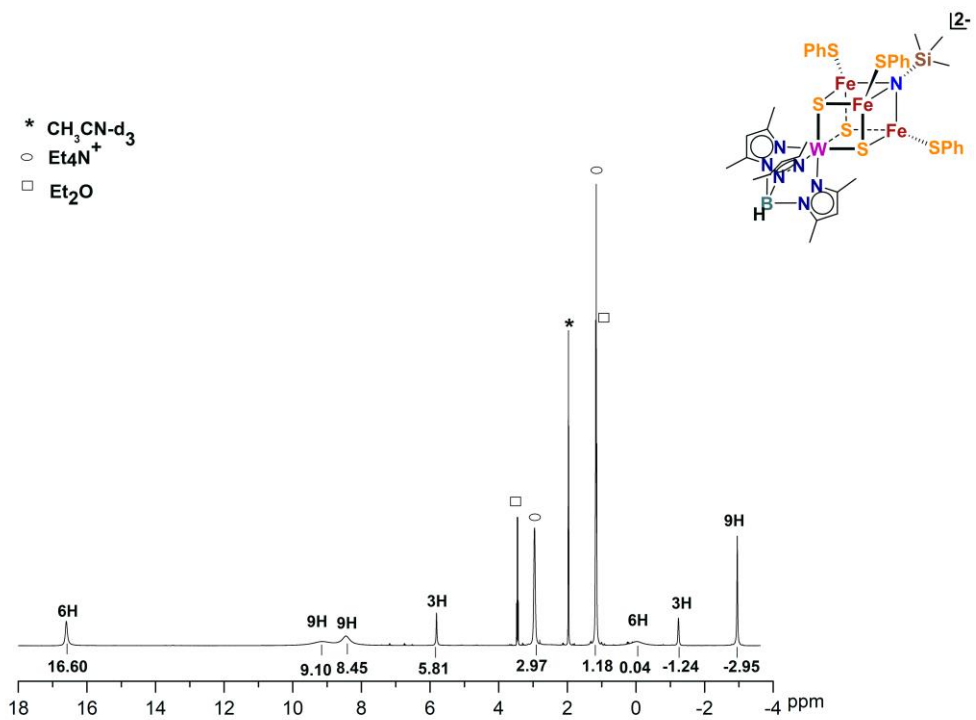
**Figure S4.** <sup>1</sup>H NMR (400 MHz) spectrum of (Et<sub>4</sub>N) **5**



**Figure S5.**  $^1\text{H}$  NMR (400 MHz) spectrum of **(Et<sub>4</sub>N) 6**

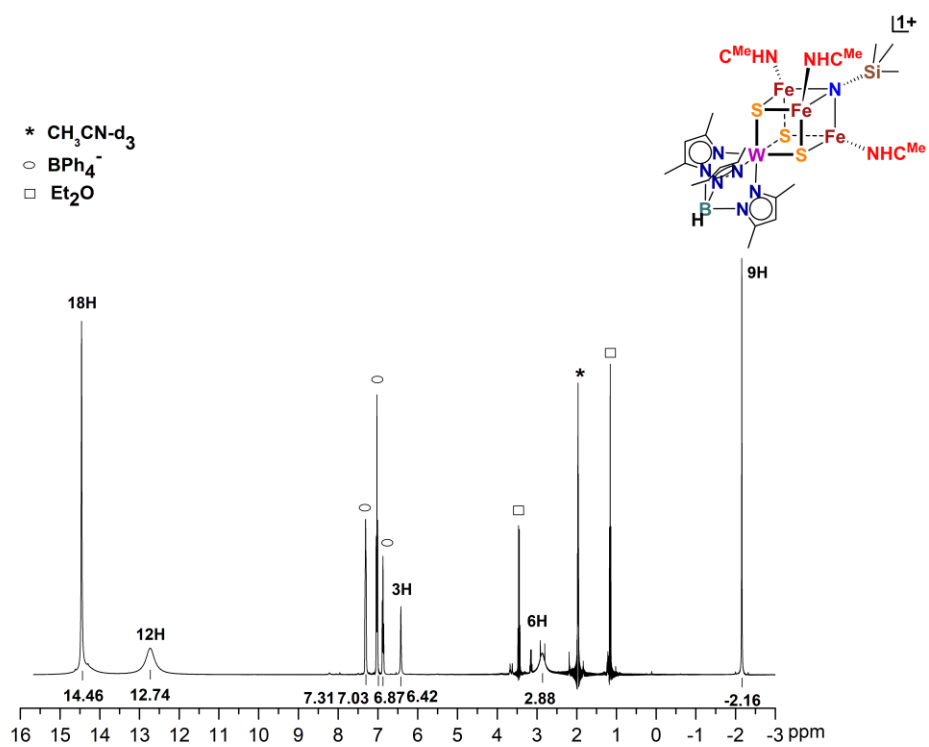


**Figure S6.**  $^1\text{H}$  NMR (400 MHz) spectrum of  $(\text{Et}_4\text{N})_2 \mathbf{7}$



**Figure S7.**  $^1\text{H}$  NMR (400 MHz) spectrum of  $(\text{Et}_4\text{N})_2 \mathbf{8}$





**Figure S8.** <sup>1</sup>H NMR (400 MHz) spectrum of **9** BPh<sub>4</sub>.