Supporting Information

Continuous Crystalline Membranes of a Ni(II)-Based Pillared-Layer Metal-Organic Framework In Situ Grown on Nickel Foam with Two Orientations

Yu-Qi Wu, Lin-Hua Xie *, Xi Qin, Yu-Xiu Sun, Ya-Bo Xie * and Jian-Rong Li

Beijing Key Laboratory for Green Catalysis and Separation, Department of Chemistry and Chemical Engineering, College of Environmental and Energy Engineering, Beijing University of Technology, Beijing 100124, China; wuyuqi17@126.com (Y.-Q.W.); qx13582105636@163.com (X.Q.); sunyuxiutj@126.com (Y.-X.S.); jrli@bjut.edu.cn (J.-R.L.)

* Correspondence: xielinhua@bjut.edu.cn (L.-H.X.); xieyabo@bjut.edu.cn (Y.-B.X.)

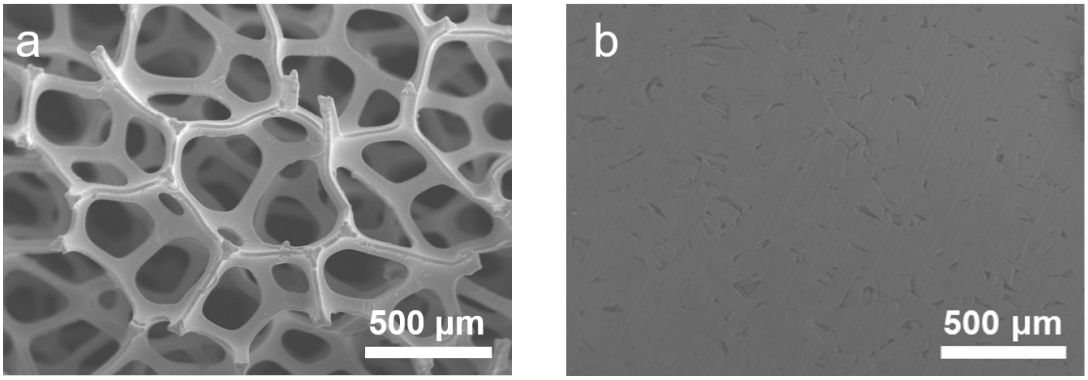

Figure S1. (**a**) SEM image of nickel foam (the nickel foam has not been folded and pressed); (**b**) SEM image of nickel substrate (after folding and press).

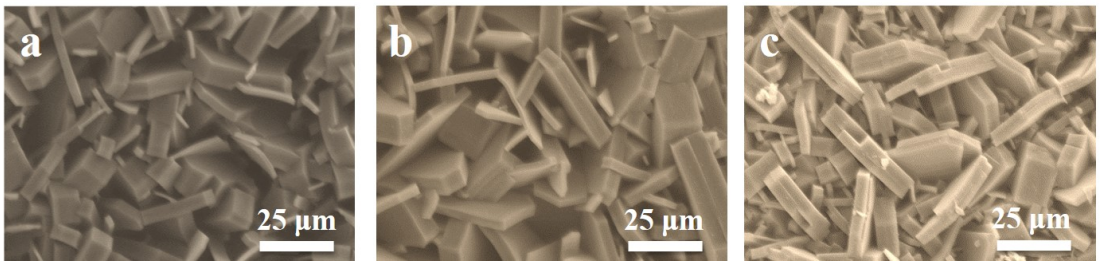

Figure S2. SEM images of (100) crystal plane oriented Ni(HBTC)(4,4′-bipy) membranes obtained at different reaction durations: (**a**)12 h; (**b**) 24 h; (**c**) 36h.

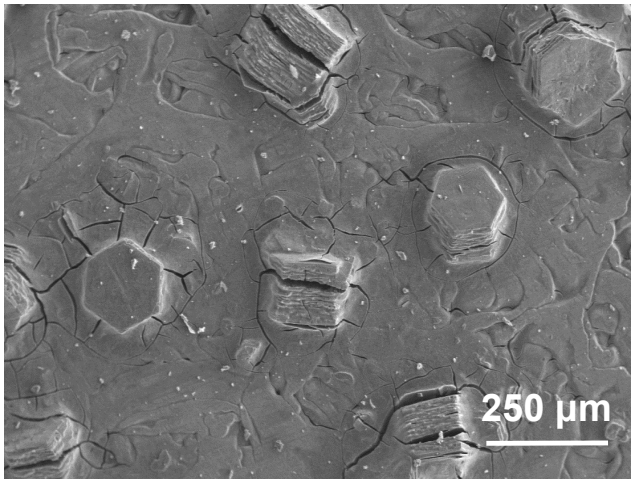

Figure S3. SEM image of the surface of nickel substrate after it was placed in a reaction without introducing 4,4′-bipy ligand, showing sparse MOF crystals formed on the nickel substrate.

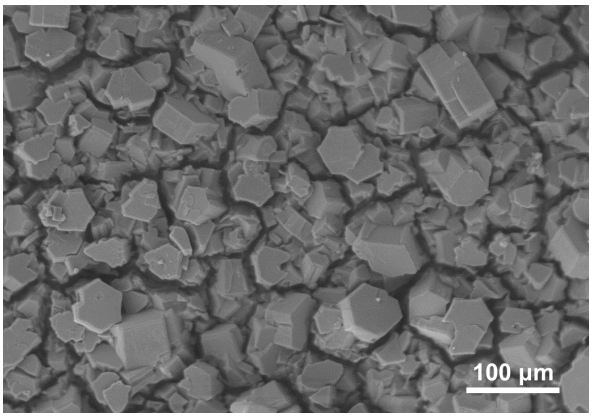

Figure S4. SEM image of the (001) crystal plane oriented Ni(HBTC)(4,4′-bipy) membrane after activation, showing cracking of the MOF layer.