

Chemical stability and electrochemical characteristics of FeS microcrystals as the cathode material of rechargeable lithium battery

Dat T. Tran^a and Sheng S. Zhang^{a*}

^aEnergy and Power Division, Sensors and Electron Devices Directorate, U.S. Army Research Laboratory, Adelphi, MD 20783-1138, USA

Email (S.S. Zhang): shengshui.zhang.civ@mail.mil; shengshui@gmail.com

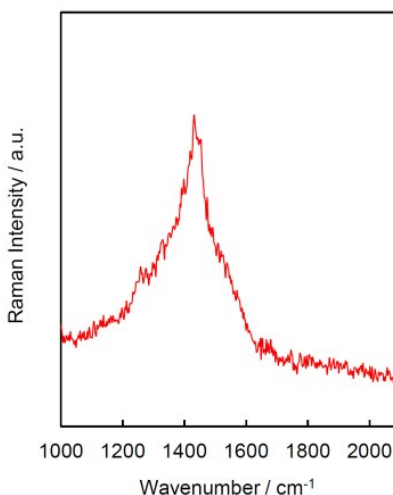


Fig. S1 Raman spectrum of CP@FeS microcrystals. Result indicates that only carbon precursor was formed in the solvothermal pyrolysis of sucrose at 180 °C for 18 h.

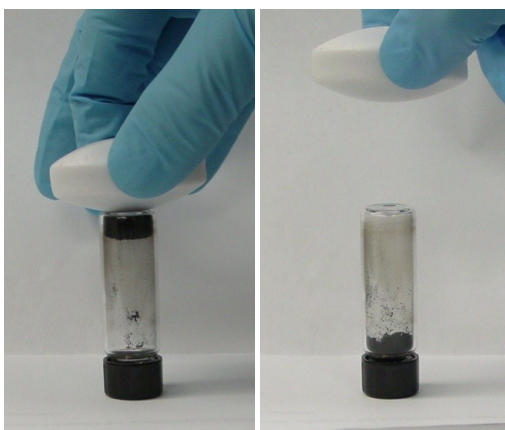


Fig. S2 Magnetic property of the CP@FeS microcrystals after being stored in a sealed vial for 5 weeks. The pictures show that the CP@FeS powder can be picked up by a magnetic stirring bar, suggesting that nonmagnetic FeS was transformed to magnetic Fe₃S₄.