

硫粉为硫源，多元醇辅助合成硫化钼纳米片

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Polyol-Mediated Synthesis of MoS₂ Nanosheets Using Sulfur Powder as the Sulfur Source

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SI 1 The simple simulation of the initial transformation of sulfur powder in sealed sebc bottles

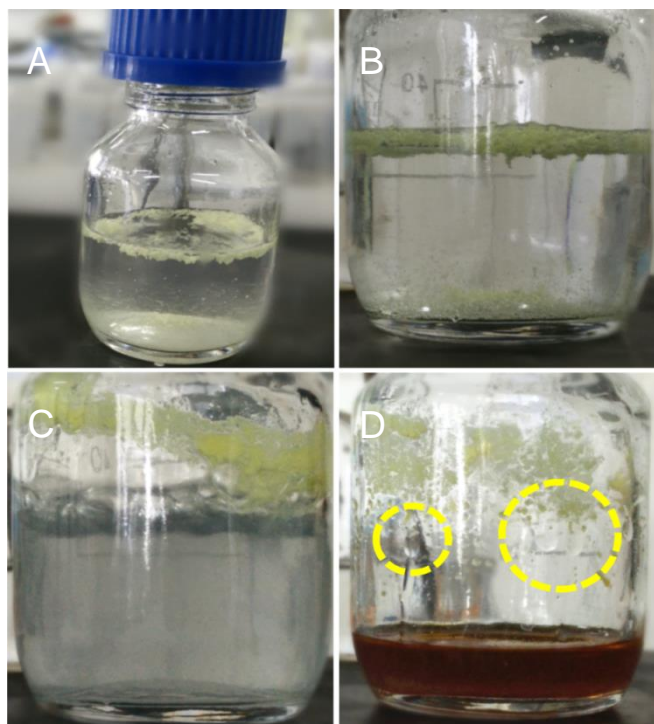
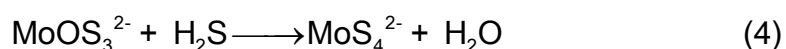
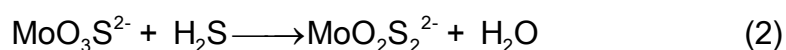
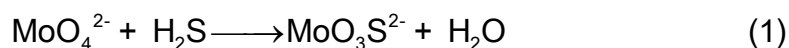


Fig.S1 Simple simulation of the assembly of ground sublimed sulfur in a sealed sebc bottle at different heating times of (A) 0 min, (B) 10 min, (C) 15 min, (D) 30 min

Sublimed sulfur are composed of S_8 with the melting point of ca. 120 °C. They will polymerize at 159 °C and reaches to a maximum at 190 °C¹. In the polymerization, the reactivity of sulfur powders decreased gradually, which can contribute to regulate the reduction rate of MoO_4^{2-} .

SI 2 The reduction process of MoO_4^{2-}

The overall reduction process of MoO_4^{2-} can be expressed as reactions 1-6²:



References

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- (2) Erickson, B. E.; Helz, G. R. *Geochim. Cosmochim. Acta* **2000**, 64, 1149. doi: 10.1016/S0016-7037(99)00423-8