

Supplementary Information

Study the Catalyst Effect of NaCl on MoS₂ Growth in Chemical Vapor Deposition Process

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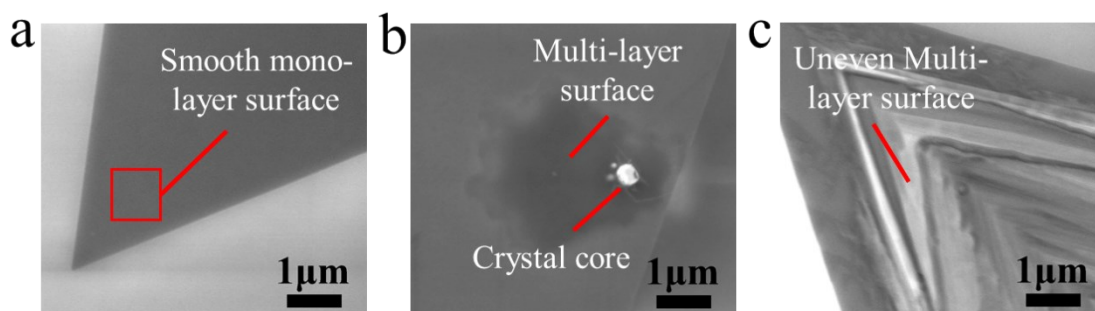


Fig.S1 Local SEM morphology of the MoS₂ films on the Si/SiO₂ substrate: (a) the mono-layer MoS₂ film, (b) the MoS₂ film with crystal nuclei, and (c) the uneven multi-layer MoS₂ film.

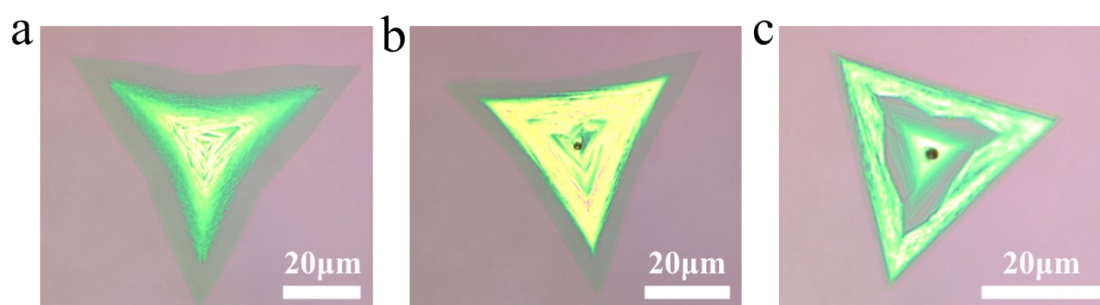


Fig.S2 Several OM morphologies of the uneven multi-layer MoS₂ films: (a) the triangular pyramid morphology, (b) the mountain-like morphology, and (c) the bumpy morphology.

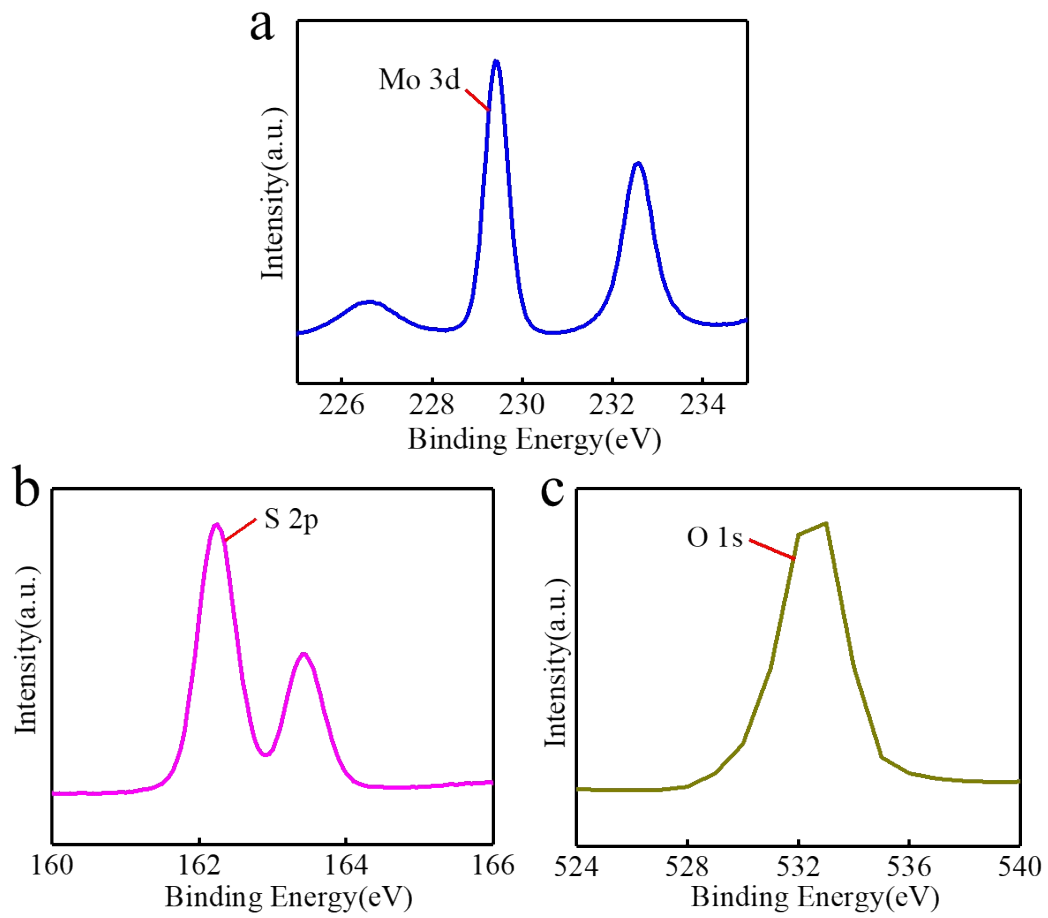


Fig.S3 On the Si/SiO₂ substrate front region, the XPS spectrum observed by magnification: (a) the Mo 3d, (b) the S 2p and (c) the O 1s.

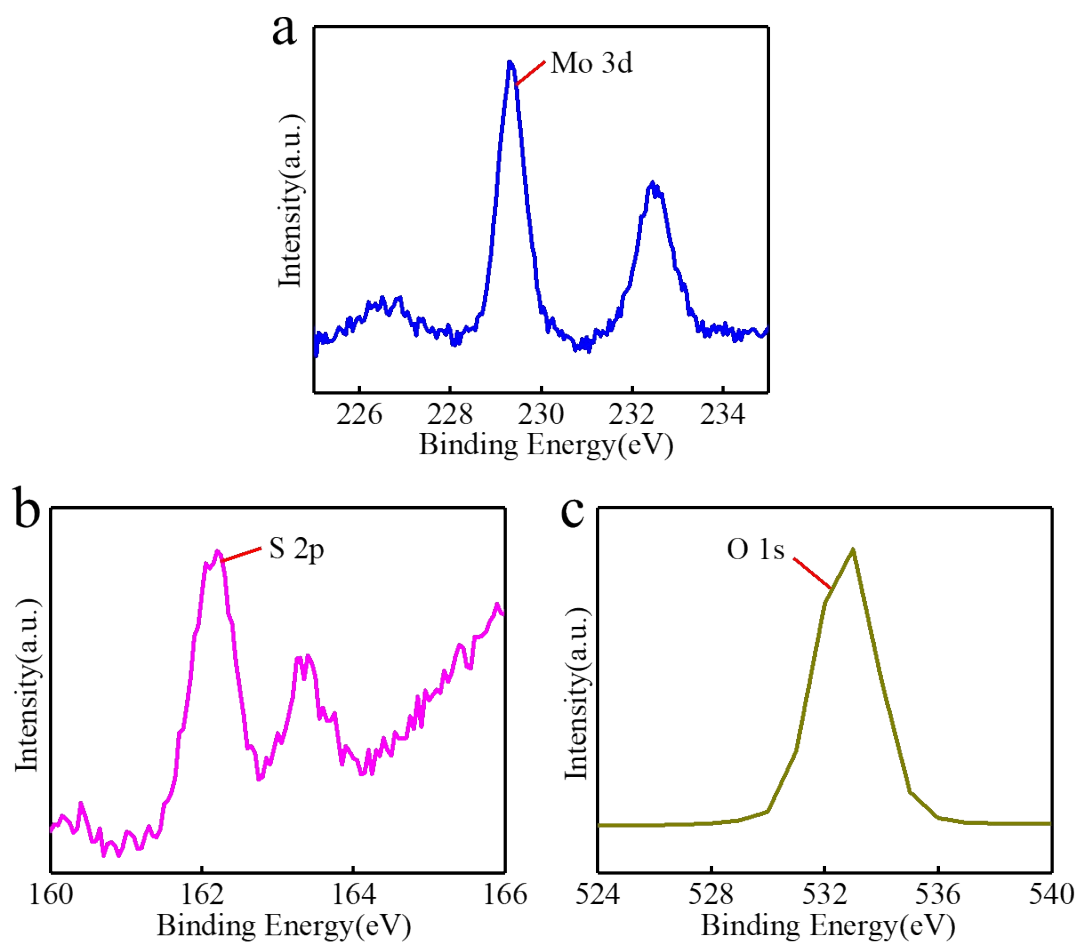


Fig.S4 On the Si/SiO₂ substrate back region, the XPS spectrum observed by magnification: (a) the Mo 3d, (b) the S 2p and (c) the O 1s.

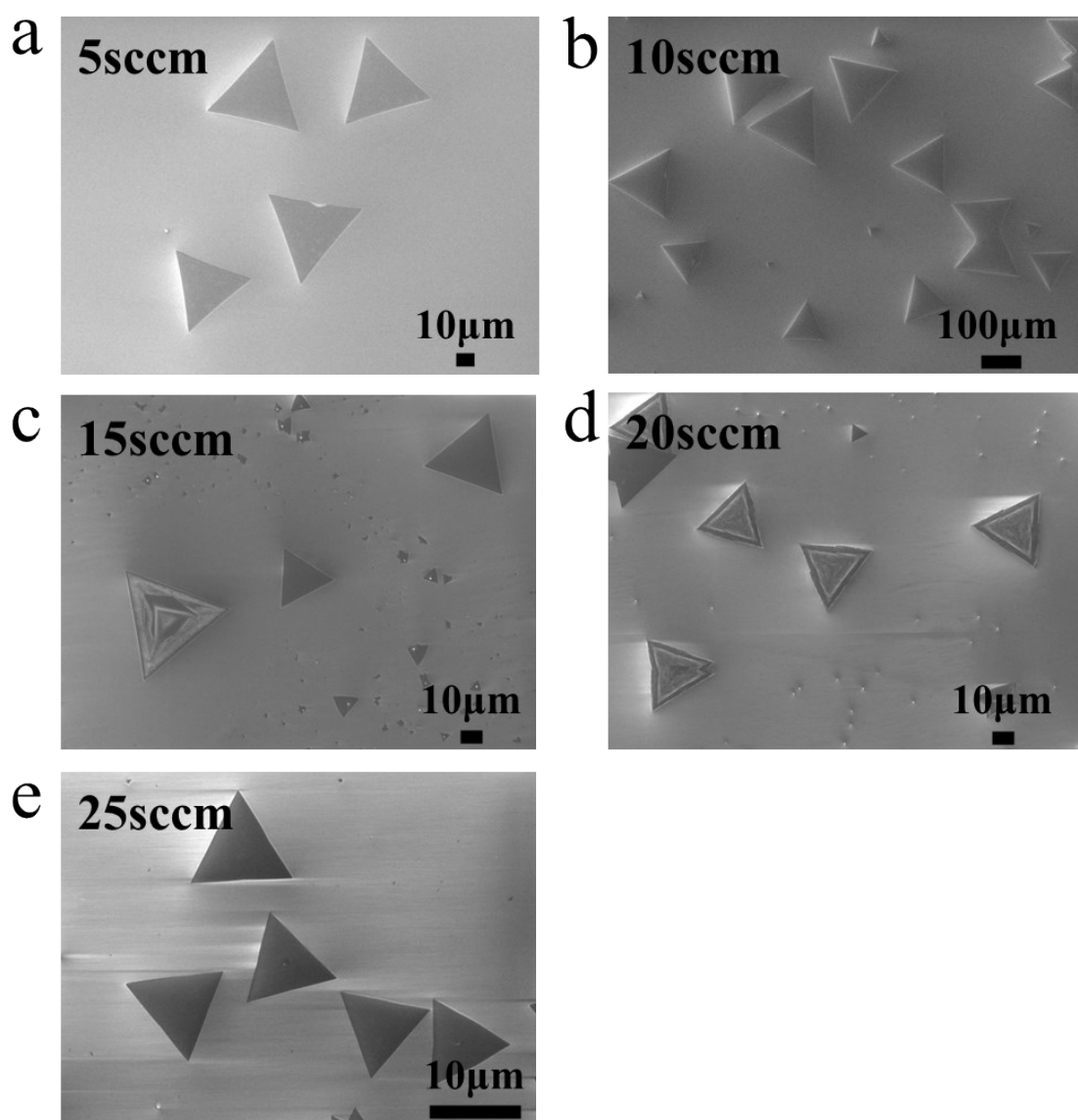


Fig.S5 Under different carrier gas flow rates, the SEM morphology of the MoS₂ films in the part of the Si/SiO₂ substrate back zone: (a) 5sccm, (b) 10sccm, (c) 15sccm, (d) 20sccm, (e) 25sccm.

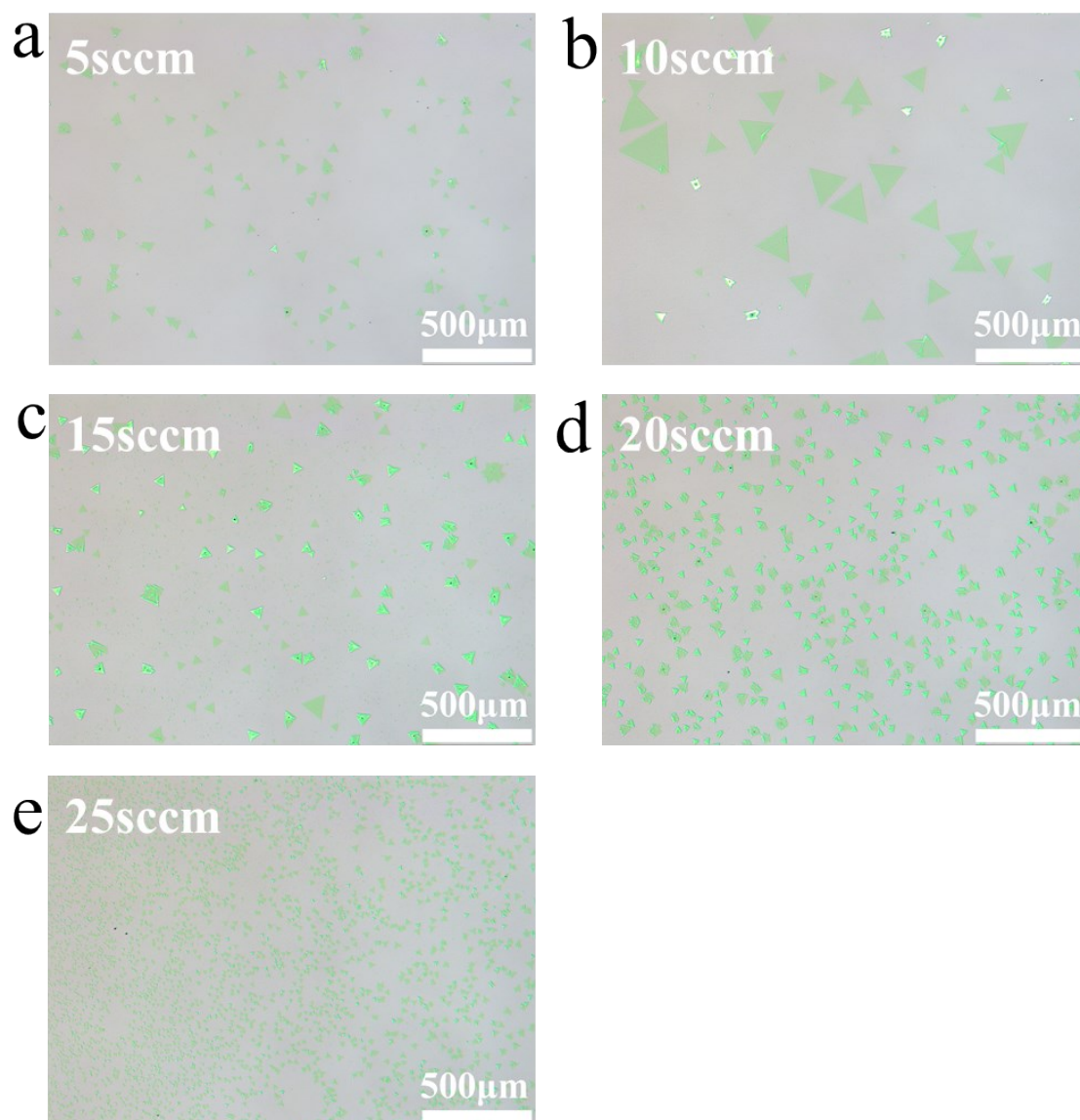


Fig.S6 Under different carrier gas flow rates, the OM morphology of MoS₂ films in the mono-layer rate statistics zone: (a) 5sccm, (b) 10sccm, (c) 15sccm, (d) 20sccm, (e) 25sccm.