

Electronic Supplementary Information

The synthesis of two-dimensional MoS₂ nanosheets for enhanced tribological property as oil additives

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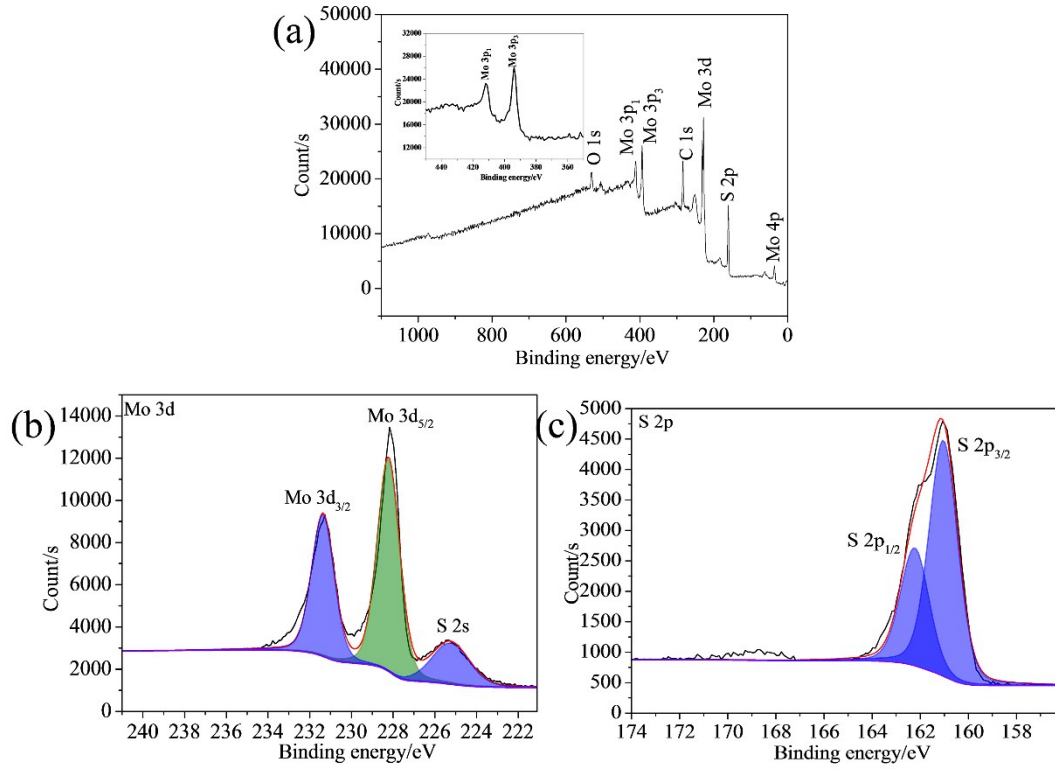


Fig. S1 (a) XPS survey spectrum and high-resolution XPS spectra of (b) Mo 3d; (c) S 2p for the synthesized ML MoS₂

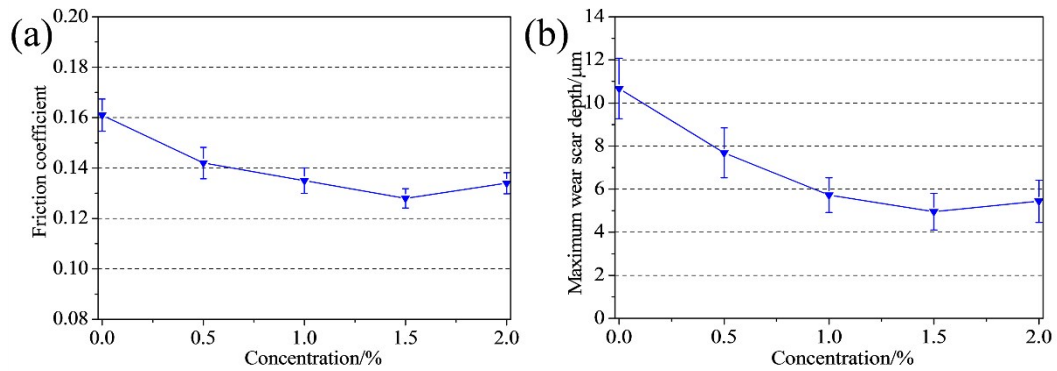


Fig. S2 (a) Friction coefficients and (b) maximum wear scar depth as functions of the ML MoS₂ concentration in oils

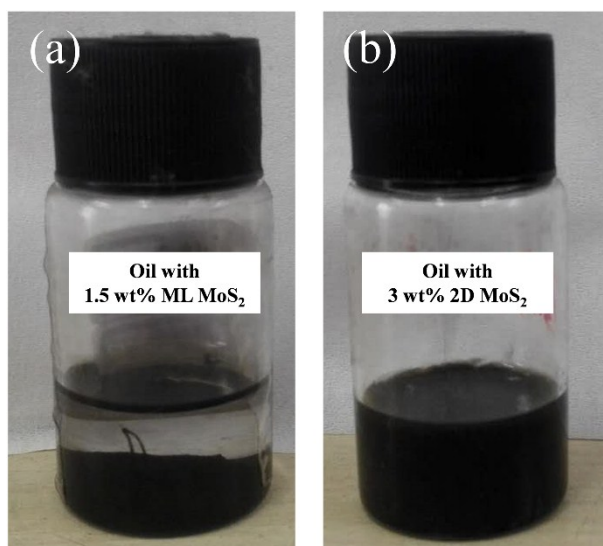


Fig. S3 Photos of the oils after standing 7 days

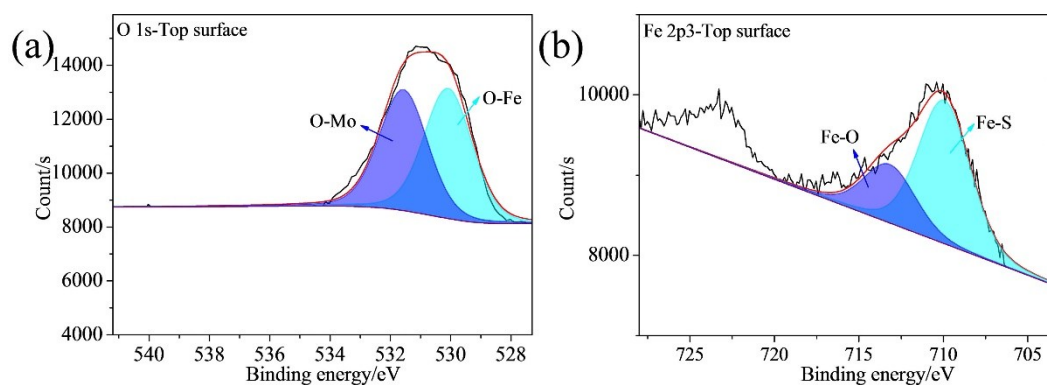


Fig. S4 XPS spectra of (a) O 1s and (b) Fe 2p3

for the wear track lubricated with the 2D MoS₂

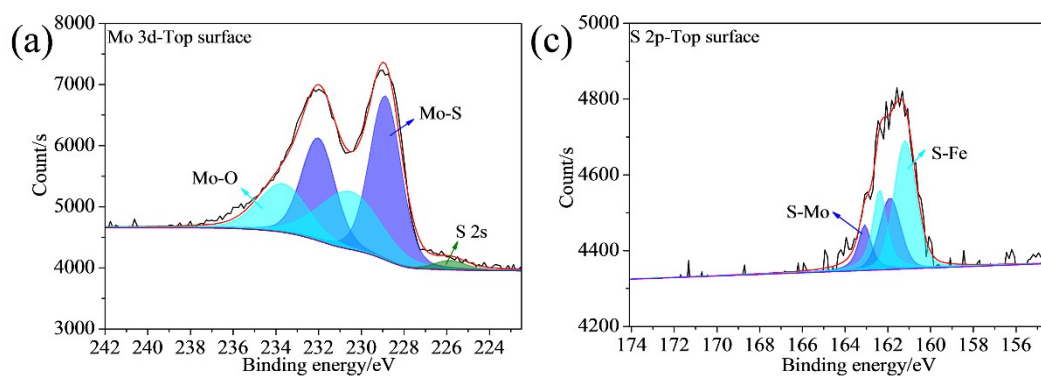


Fig. S5 XPS spectra of (a) Mo 3d and (b) S 2p for the wear track lubricated with the ML MoS₂

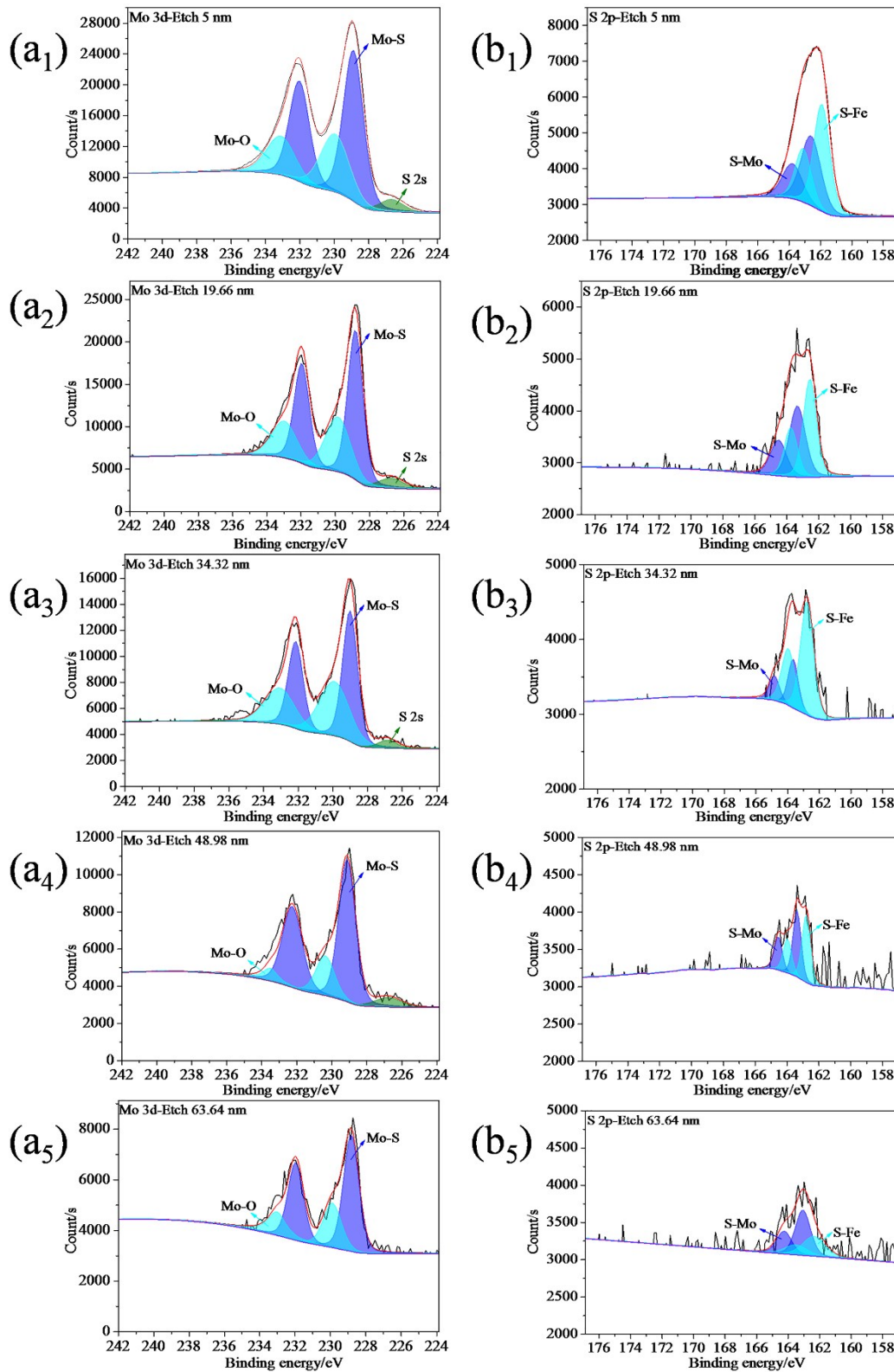


Fig. S6 XPS spectra of (a) Mo 3d and (b) S 2p with etching depth for the wear track lubricated with the 2D MoS₂