

Supporting Information

Surface Charge Transfer Doping of MoS₂ Monolayer by Molecules with Aggregation-Induced Emission Effect

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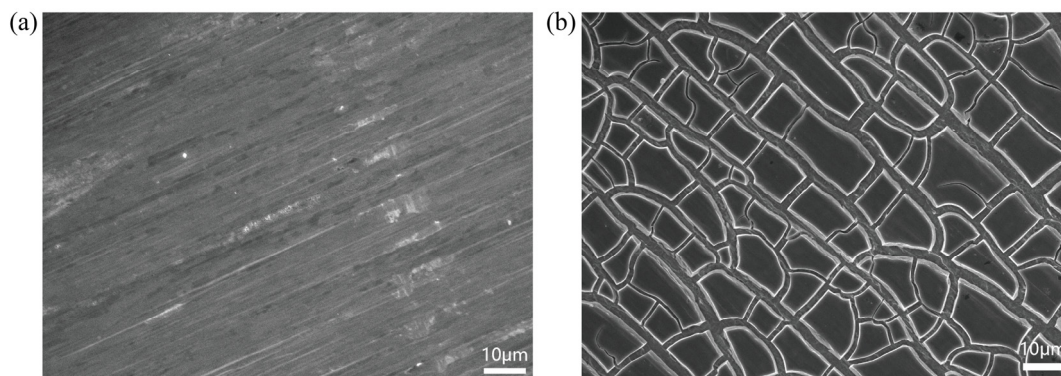
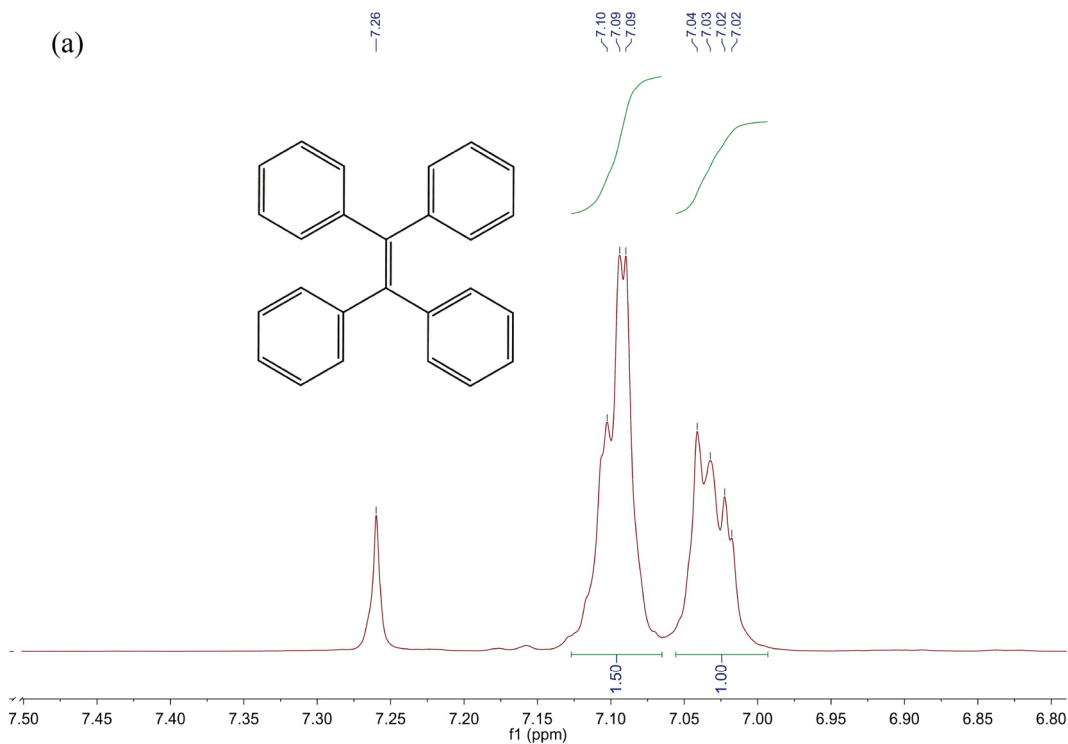


Figure S1 SEM images of (a) Pure Mo foil (b) The growth precursor of MoO_x was prepared by electrochemical anodization of Mo foil.



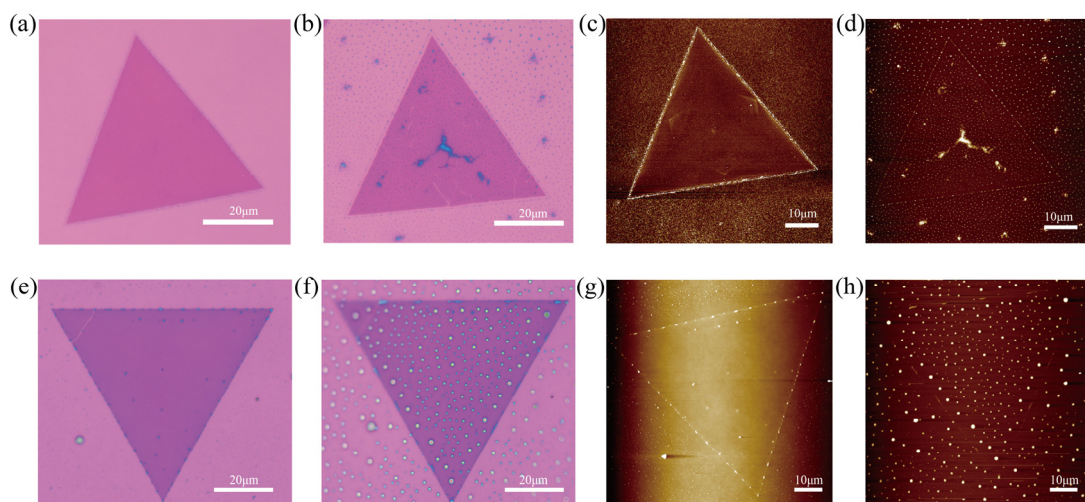


Figure S3. (a–d). Images of OM and AFM before and after TPE-4NO₂ doping. (e–h). Images of OM and AFM before and after TPE-4OCH₃ doping.

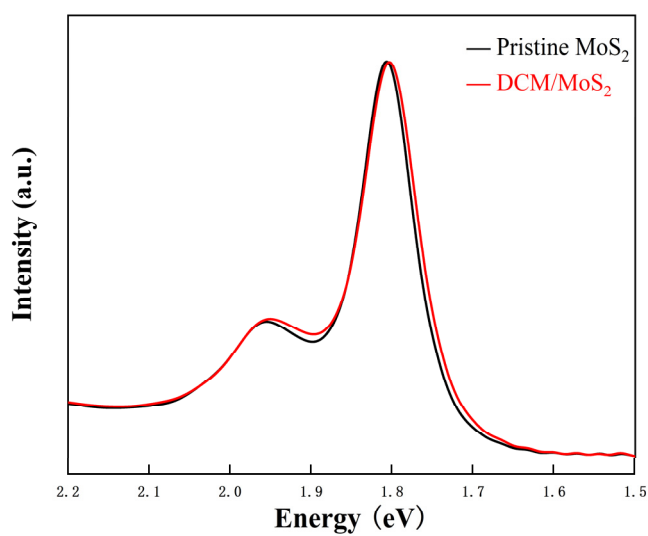


Figure S4. PL spectra of monolayer MoS₂ before and after soak in DCM for 12 hours.

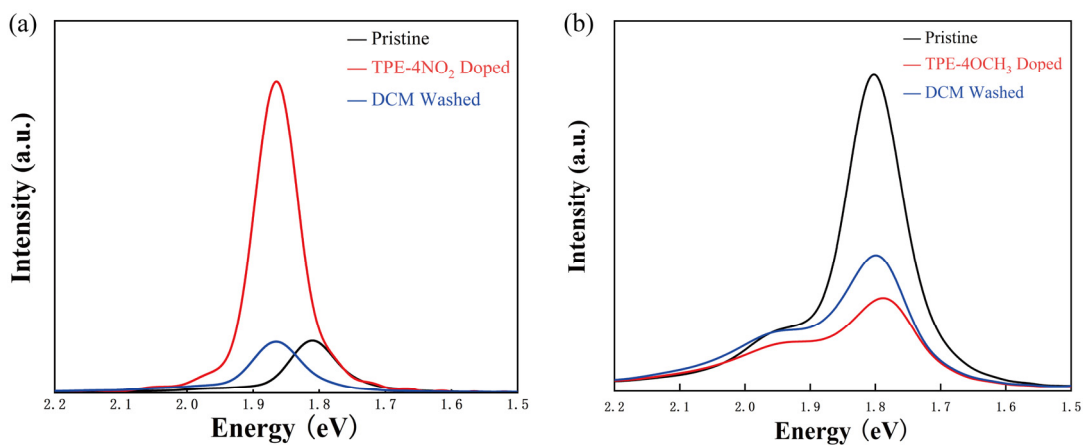


Figure S5. PL spectra of TPE-4NO₂ (a) and TPE-4OCH₃ (b) doped of immersion in dichloromethane (DCM) 12 hours.

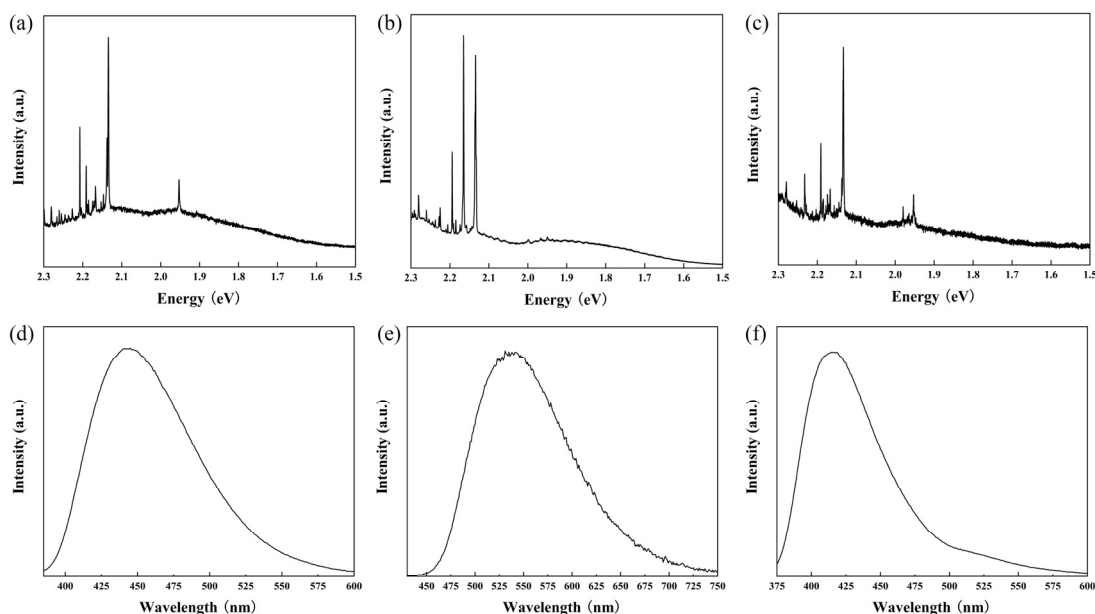


Figure S6. (a–c) PL spectra of TPE, TPE-4NO₂ and TPE-4OCH₃ molecular. (d–f) Fluorescence spectra TPE, TPE-4NO₂ and TPE-4OCH₃ molecular, excitation wavelength is at 365nm.

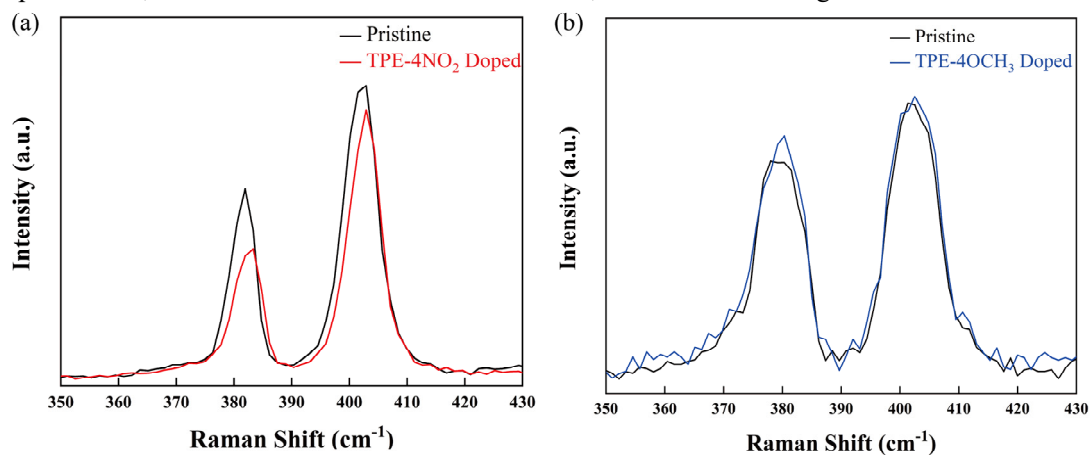


Figure S7. Raman spectra of TPE-4NO₂ (a) and TPE-4OCH₃ (b) doped.

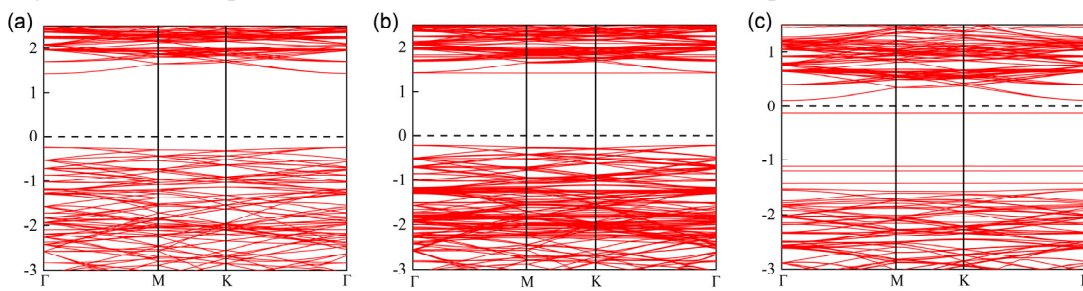


Figure S8. The electronic band structure of (a) the monolayer MoS₂, (b) MoS₂/TPE-4NO₂, (c) MoS₂/TPE-4OCH₃.