

Electronic supplementary information (ESI)

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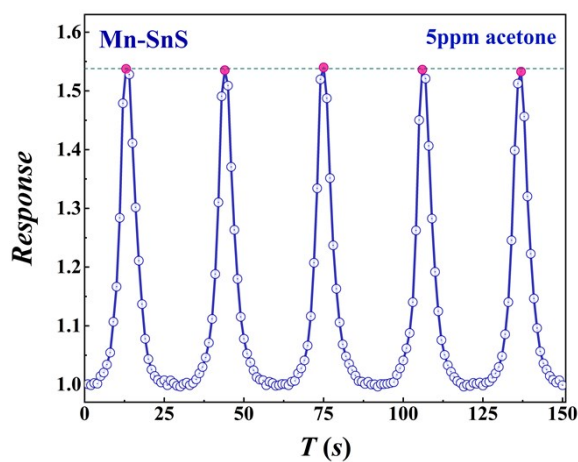


Fig. S1 Continuous responses of the Mn-substituted SnS sensor exposure to 5 ppm acetone

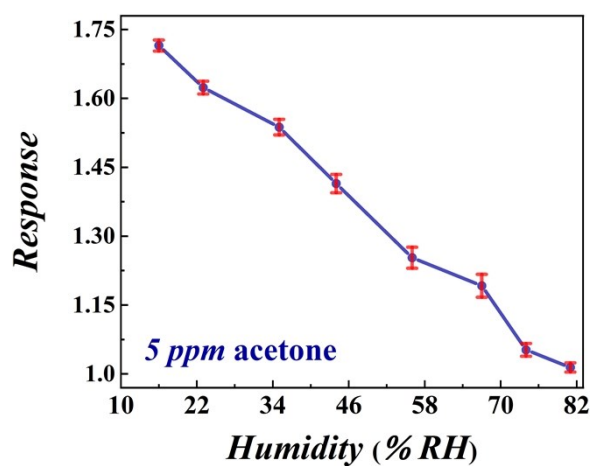


Fig. S2 Response of Mn-SnS sensor to 5 ppm acetone with varying humidity

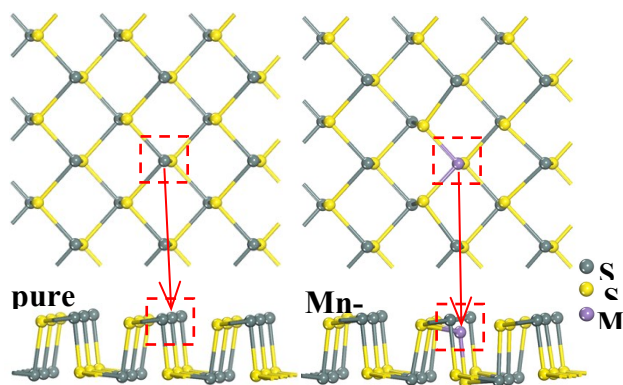


Fig. S3 The optimal geometries of SnS and Mn-substituted SnS monolayer

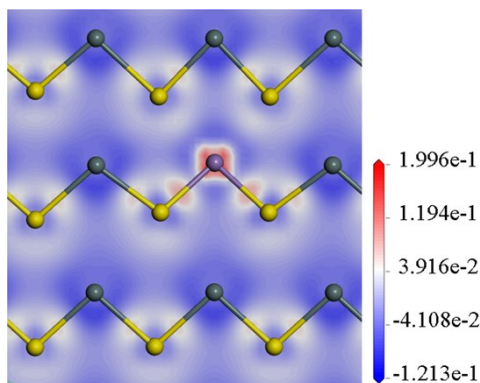


Fig. S4 The top view of the charge density difference of Mn-substituted SnS monolayer

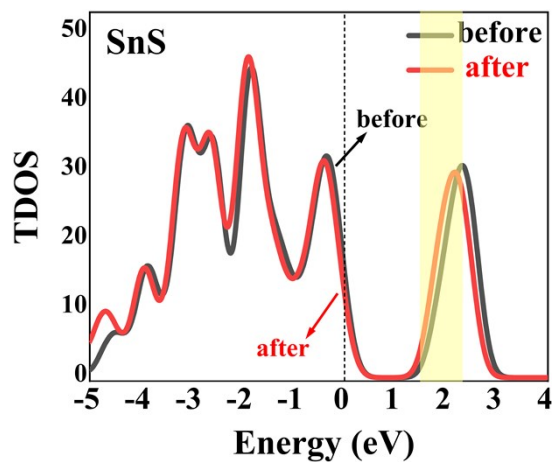


Fig. S5 TDOS of pure SnS monolayer before and after acetone adsorption

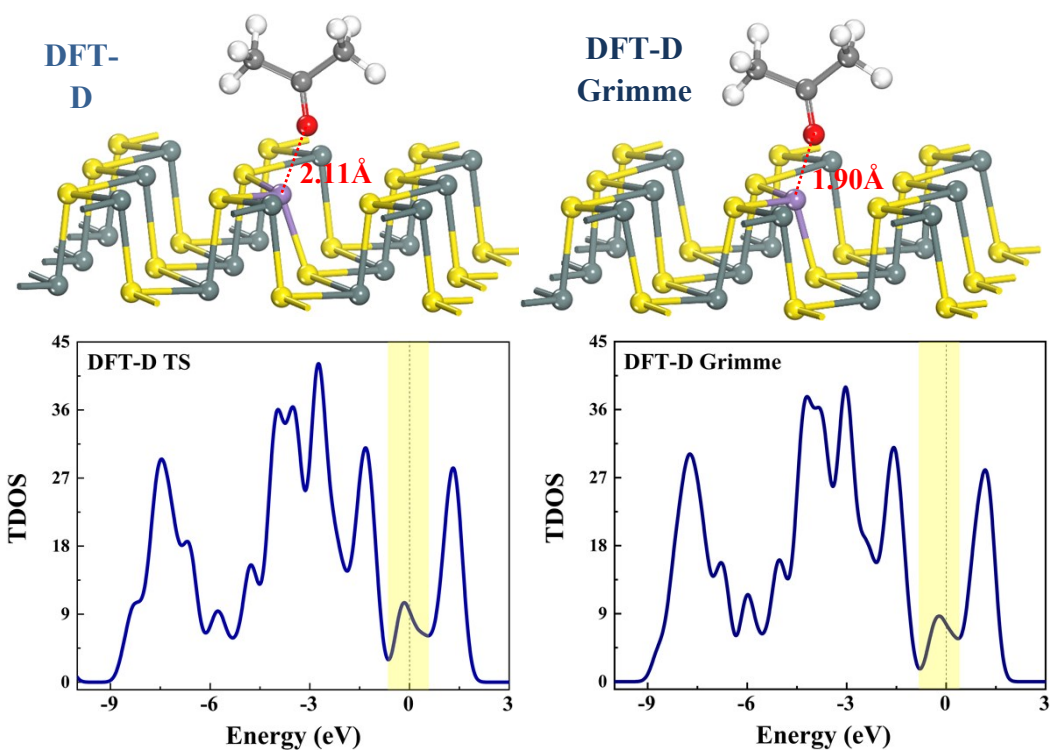


Fig. S6 The configurations and TDOS of Mn-SnS monolayer after acetone adsorption with Hubbard U and DFT-D correction (TS and Grimme)

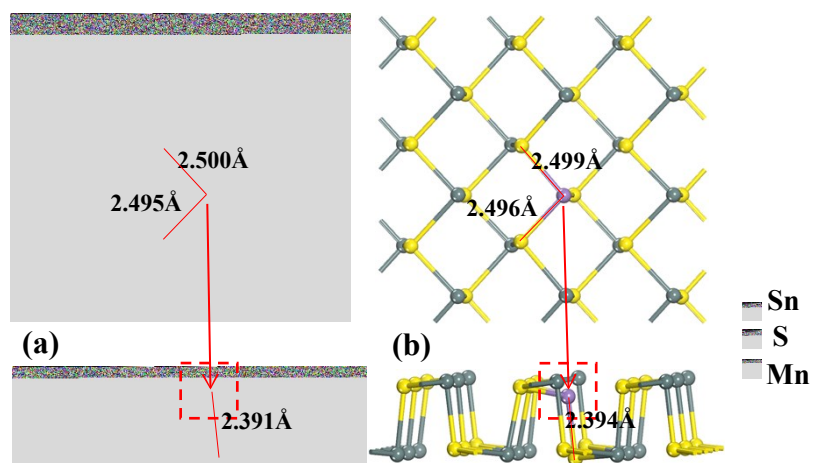


Fig. S7 The optimal geometries of Mn-substituted SnS monolayer before adsorption (a) and after desorption (b)