

Supporting Information

Enhanced dimethyl methylphosphonate detection based on two-dimensional WSe₂ nanosheets at room temperature

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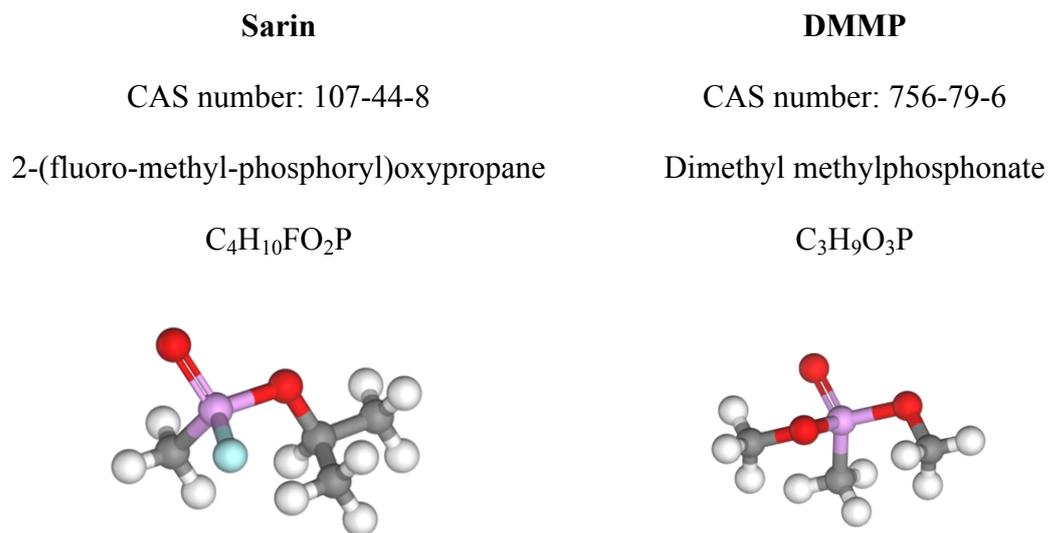


Fig. S1. Similarities among sarin and DMMP, as a simulant. Image key: C, grey; H, white; O, red; P, purple; F, blue.

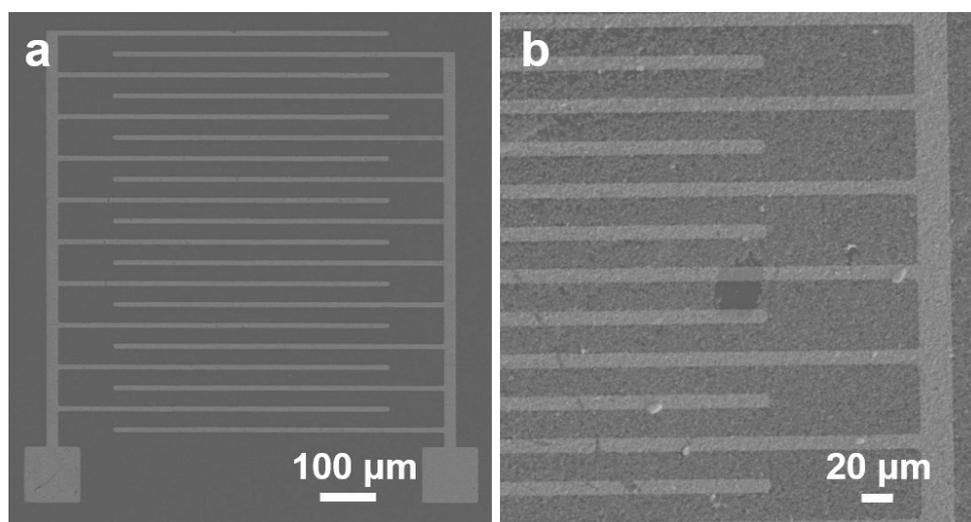


Fig. S2. SEM images of (a) the used interdigital electrode unit and (b) WSe₂ nanosheets deposited on the surface of the interdigital electrodes.

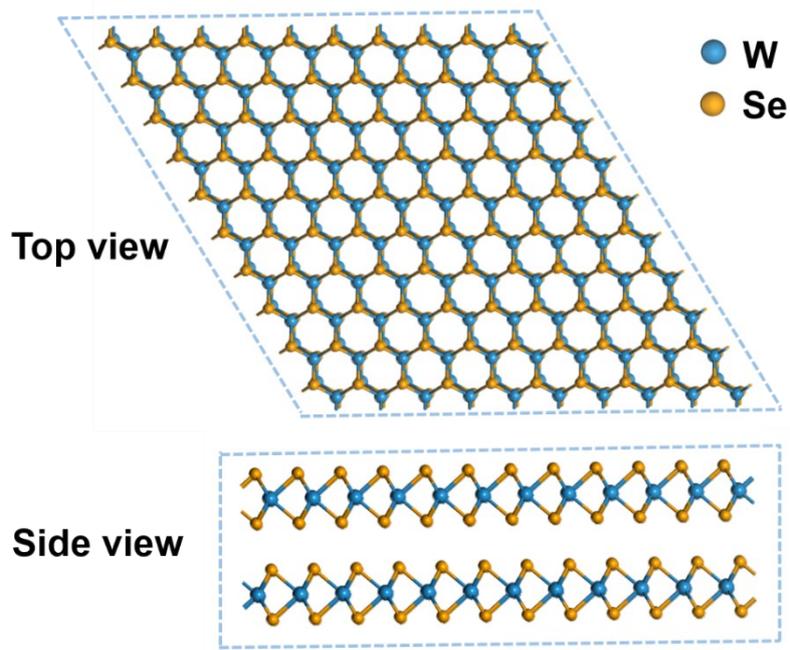


Fig. S3. Schematic atomic structures of WSe₂.

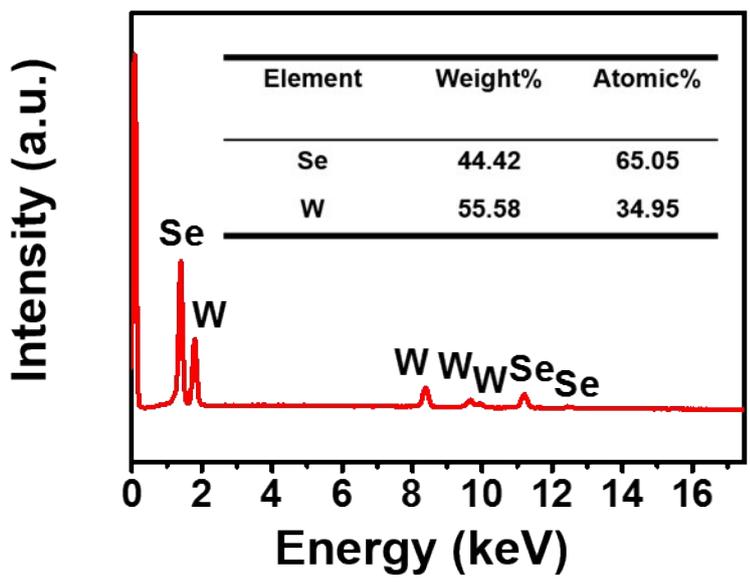


Fig. S4. EDS spectrum of exfoliated WSe₂ nanosheets.

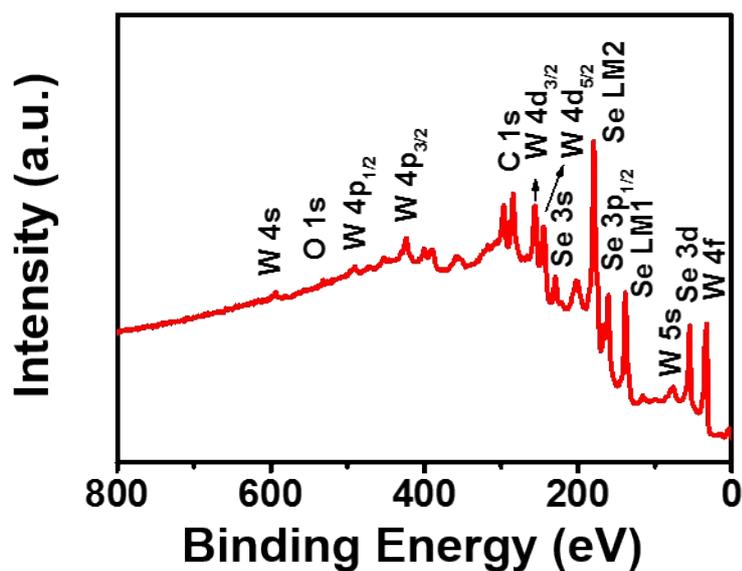


Fig. S5. XPS survey spectrum of exfoliated WSe₂ nanosheets.

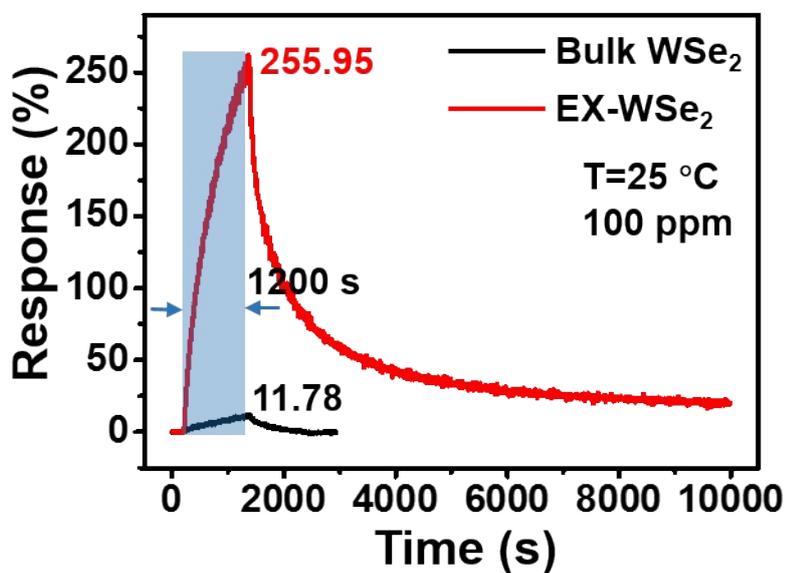
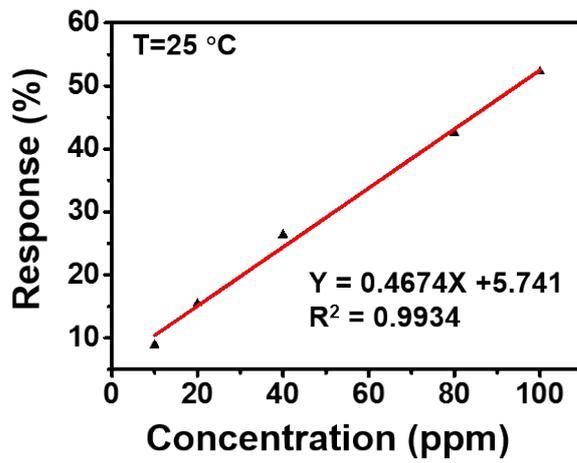


Fig. S6. The long-time response and recovery curves of bulk WSe₂ and exfoliated WSe₂ nanosheets upon exposure to 100 ppm DMMP at room temperature (25 °C).



	Value	Standard Error
Intercept	5.7411	1.15806
Slope	0.4674	0.01904

Fig. S7. The function fitting between the response value and DMMP concentration.