

Supporting Information

Enhanced performances of PbS quantum dots modified MoS₂ composite for NO₂ detection at room temperature

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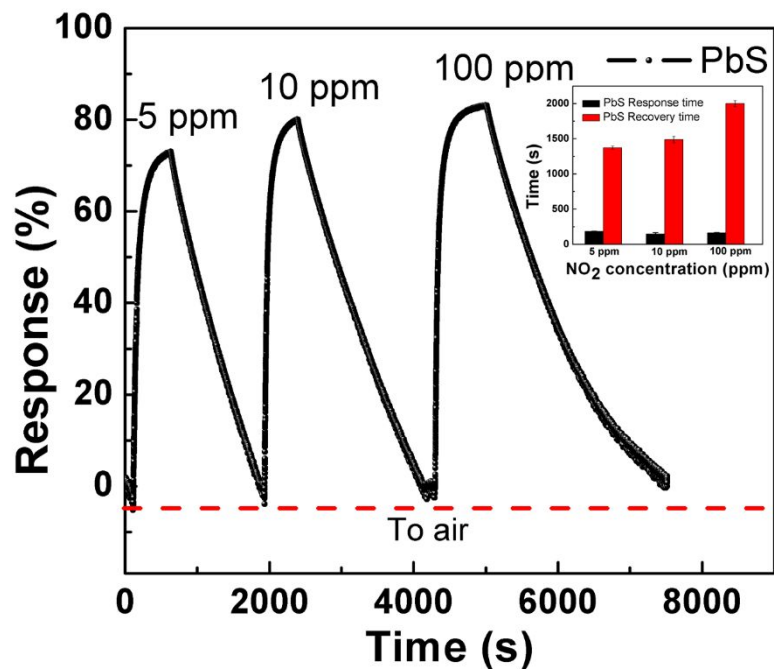


Figure S1. Dynamic response-recovery curves of pure PbS gas sensor at different NO₂ concentrations. The inset shows the response and recovery times of pure PbS gas sensor at different NO₂ concentrations.

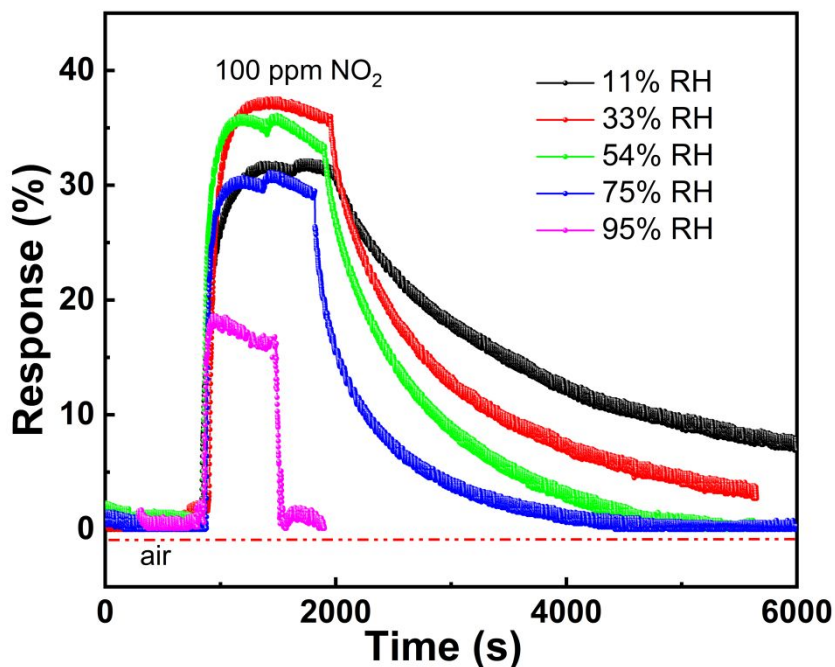


Figure S2. Response-recovery curves of MoS₂/PbS gas sensor at 100 ppm NO₂ under different humidity conditions.

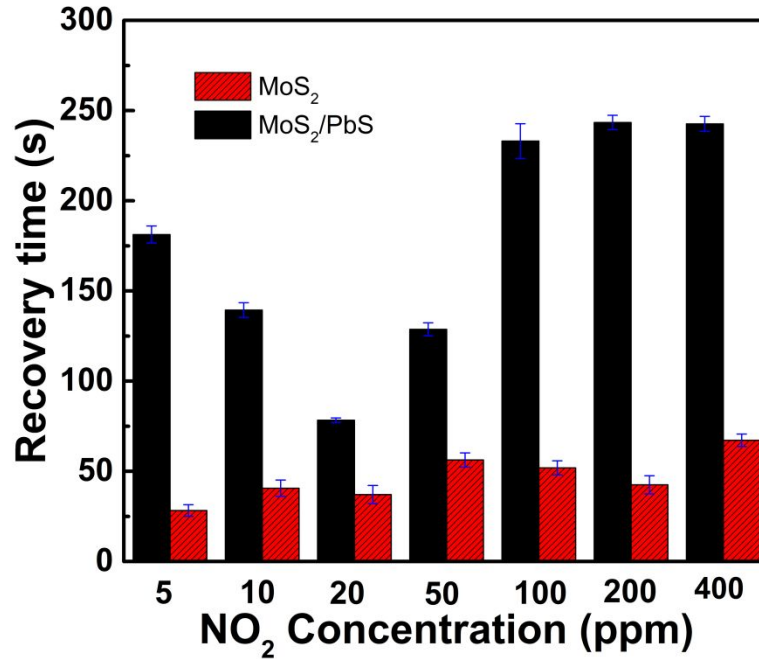


Figure S3. Recovery times of MoS₂ and MoS₂/PbS gas sensors at different NO₂ concentrations.

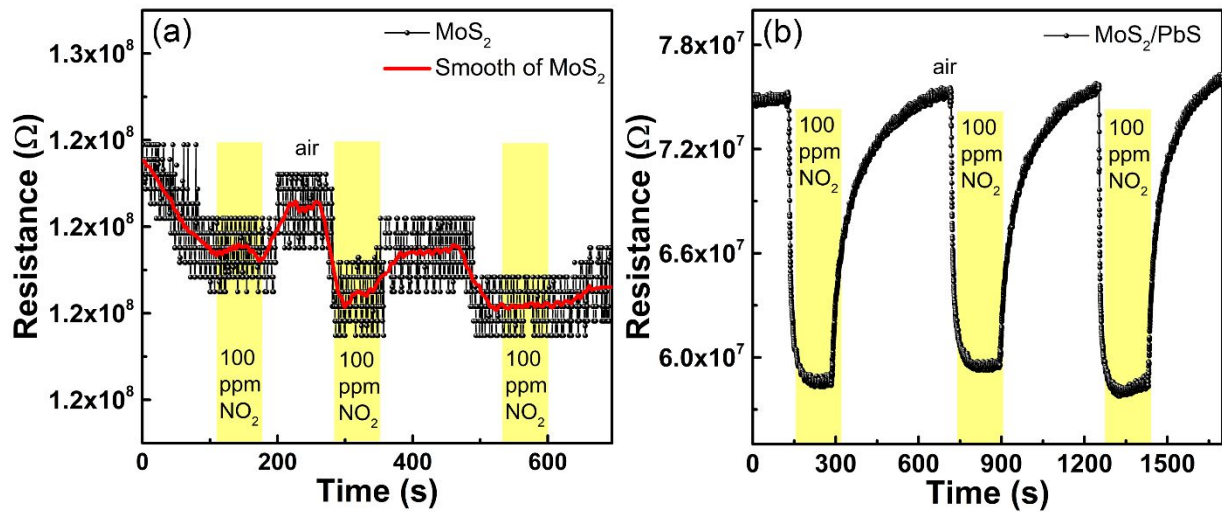


Figure S4. Dynamic response and recovery curves of (a) MoS₂ and (b) MoS₂/PbS gas sensors between air and 100 ppm NO₂ for three cycles.

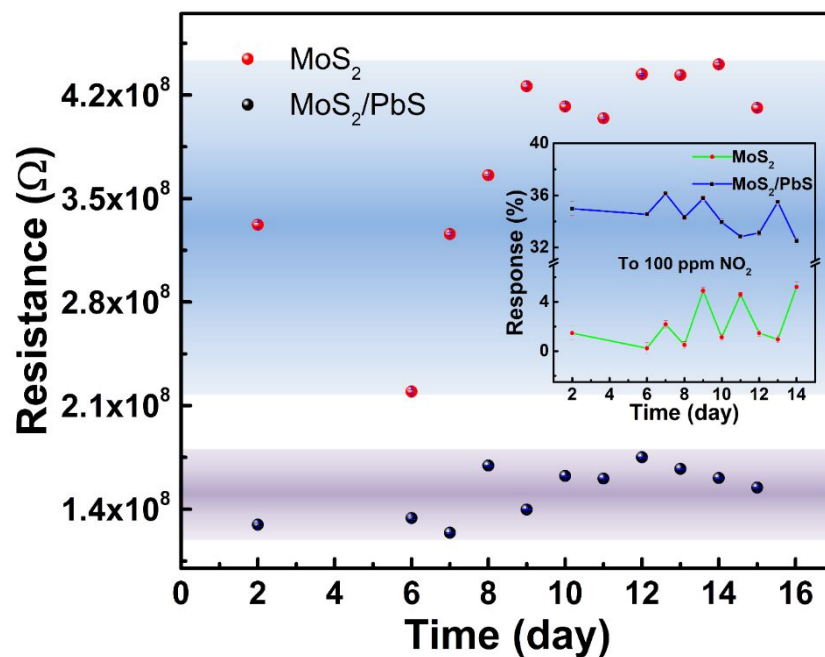


Figure S5. Long-term stabilities of MoS₂ and MoS₂/PbS gas sensors after exposing to the air. The inset shows the responses of MoS₂ and MoS₂/PbS gas sensors to NO₂ for 15 days.

Table S1. The recovery ratios of MoS₂ and MoS₂/PbS gas sensors at different NO₂ concentrations.

	5 ppm	10 ppm	20 ppm	50 ppm	100 ppm	200 ppm
MoS ₂ gas sensor	100%	98%	94%	70%	50%	34%
MoS ₂ /PbS gas sensor	100%	100%	100%	100%	100%	99%