

## Supporting Information

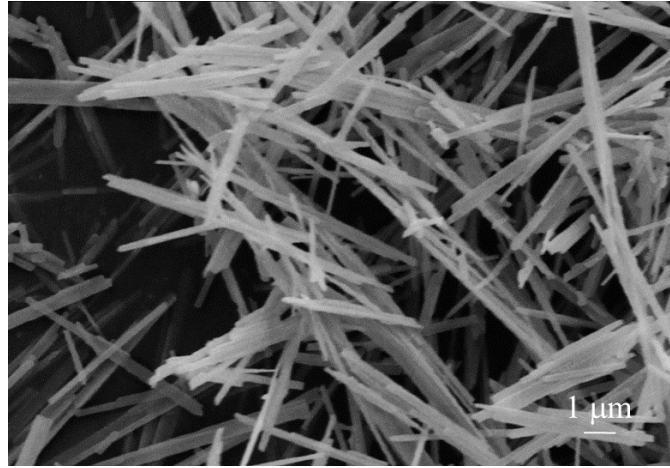
# Synthesis of Novel 1T/2H-MoS<sub>2</sub> from MoO<sub>3</sub> Nanowires with Enhanced Photocatalytic Performance

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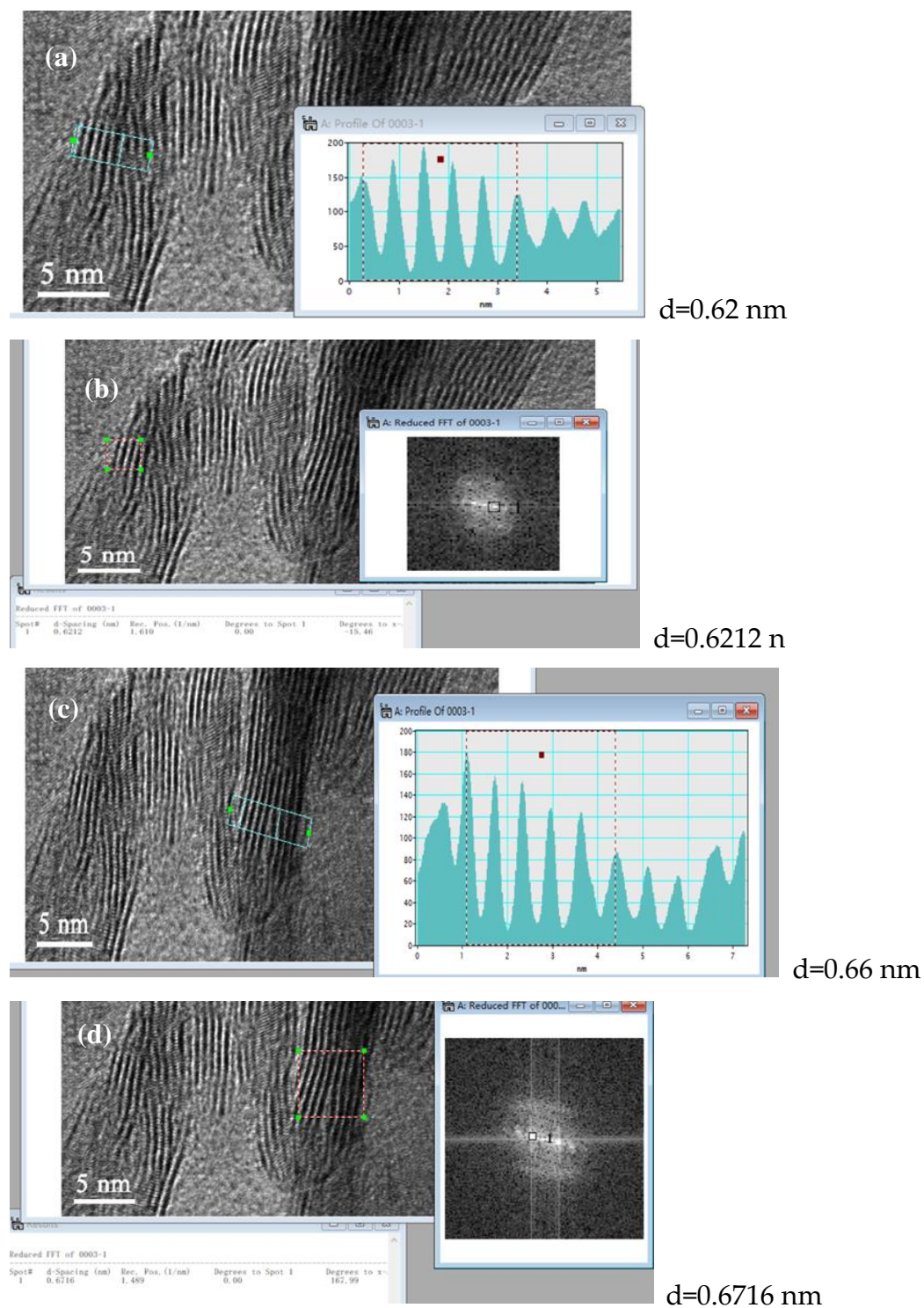
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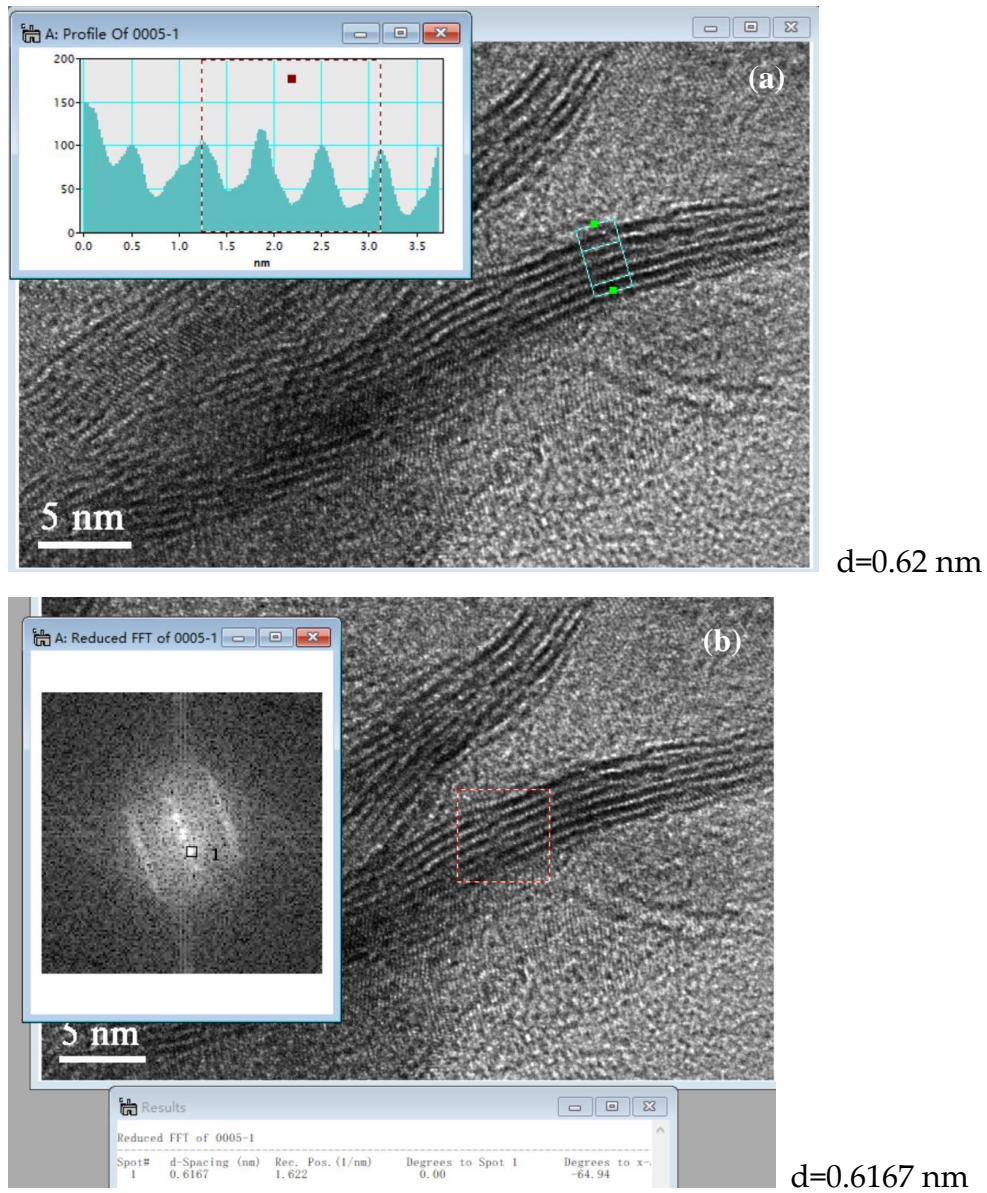
**Fig. S1.** SEM image of MoO<sub>3</sub> nanowires.

## 1T/2H-MoS<sub>2</sub> (N)



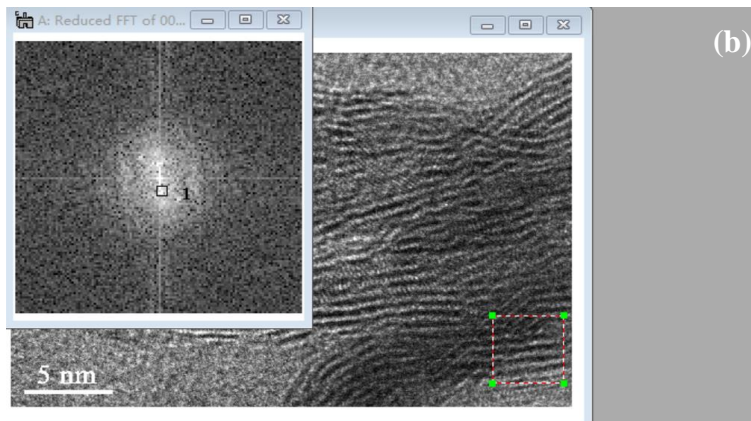
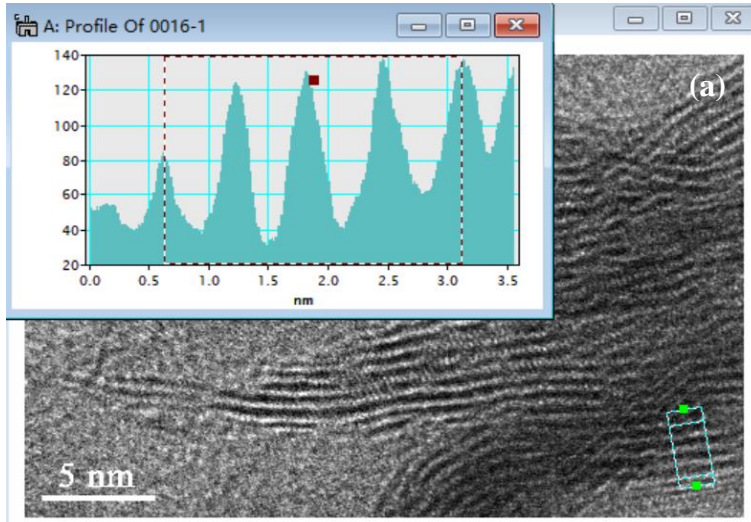
**Fig. S2.** (a) Line scan of 2H-MoS<sub>2</sub> image; (b) reduced FFT of 2H-MoS<sub>2</sub>; (c) Line scan of 1T-MoS<sub>2</sub> image; (d) reduced FFT of 1T-MoS<sub>2</sub>.

## 2H-MoS<sub>2</sub>



**Fig. S3.** (a) Line scan of 2T-MoS<sub>2</sub> image; (b) reduced FFT of 2T-MoS<sub>2</sub>.

# 1T/2H-MoS<sub>2</sub> (N)

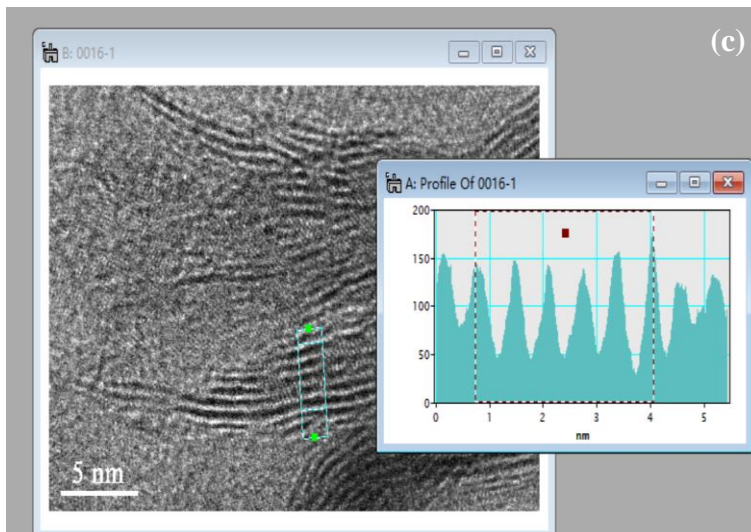


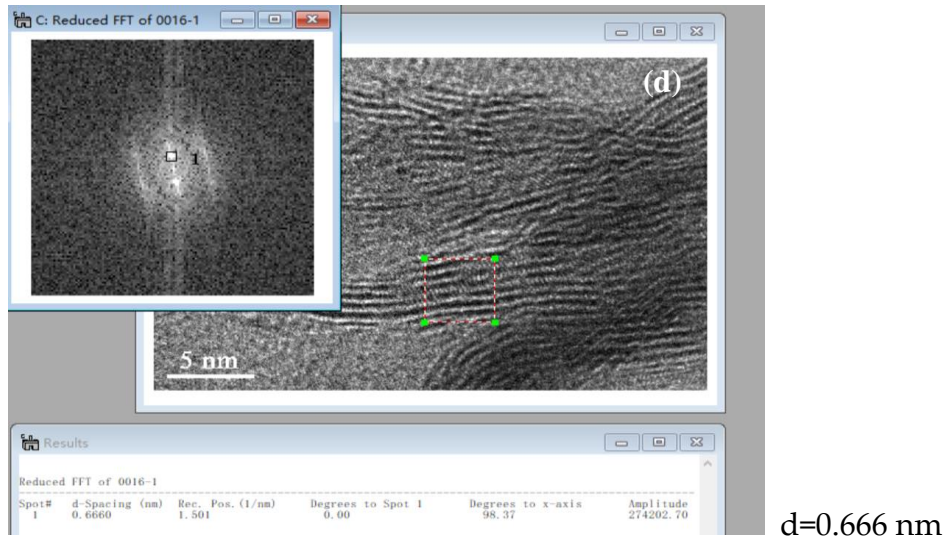
Results

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Reduced FFT of 0016-1

Spot#	d-Spacing (nm)	Rec. Pos. (1/nm)	Degrees to Spot 1	Degrees to x-
1	0.6236	1.604	0.00	-79.80





**Fig. S4.** (a) Line scan of 2H-MoS<sub>2</sub> image; (b) reduced FFT of 2H-MoS<sub>2</sub>; (c) Line scan of 1T-MoS<sub>2</sub> image; (d) reduced FFT of 1T-MoS<sub>2</sub>.