Electronic Supplementary Information

One-step Fabrication of CdS:Mo/$CdMoO_4$ Core-Shell Nanoribbons-Based Nonvolatile Memory with High Resistance Switching

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Table S1. Comparison of device performances of semiconductor nanostructure FET-based NVMs.

Semiconductor channel	**Trapping layer**	**ON/OFF**	**Memory window / Operating voltage (V)**	**Reference**
CdS	$CdMoO_4$	10^6	60/120	**Our work**
Si, GaN, InP	Redox active molecules	10^4	10/20	**1**
Ge	Water molecule	10^3	30/80	**2**
ZnO	Ferroelectric	10^4	5/12	**3**
ZnO	Ferroelectric	10^4	10/25	**4**
QQT(CN)4	Ferroelectric	10^3	25/100	**5**
ZnO	Protons	10^5	30/45	**6**
CdS	Au	10^5	4/10	**7**
Si	Ag	10	60/120	**8**
P3HT	Au	10^4	10/25	**9**
Si	Ta_2O_5	10^5	6/30	**10**
P3HT	MoS_2 nanoflakes	10^5	20/160	**11**

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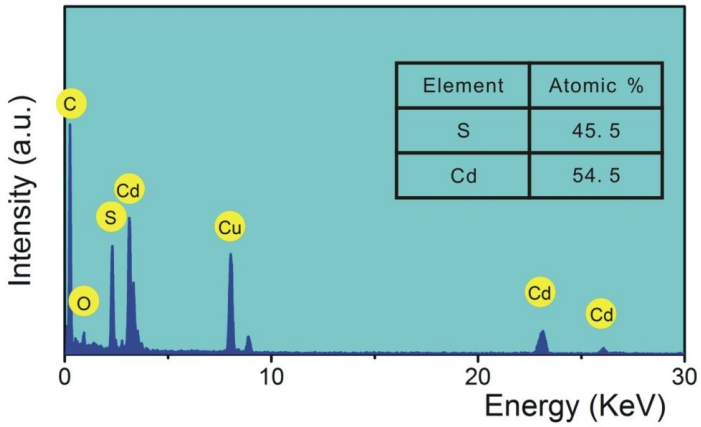

Fig. S1 EDS spectrum of the CdS-$CdMoO_4$ core-shell NRs.

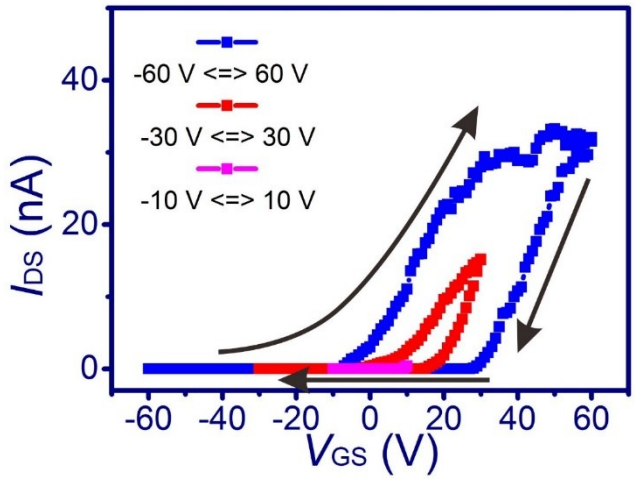

Fig. S2 Electrical transfer characteristics of intrinsic CdS NR based NVM devices at different operating voltages with linear coordinate.

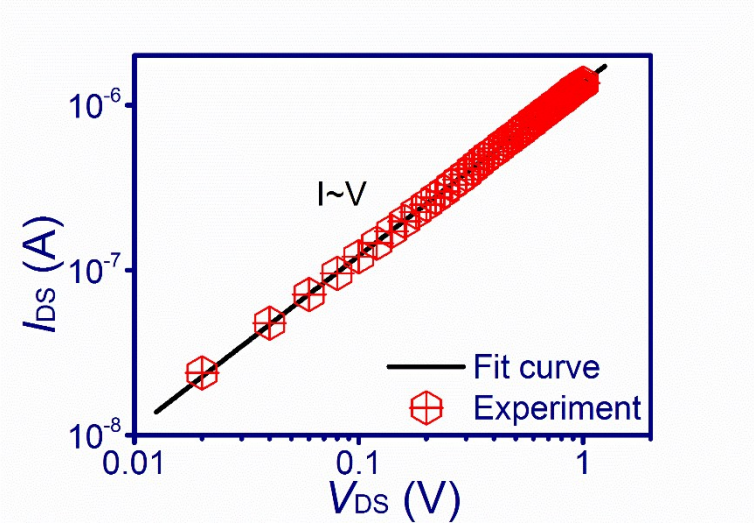

Fig. S3 I_{DS}-V_{DS} curves of the CdS-$CdMoO_4$ core-shell NR plotted in double logarithmic scales. The curves were fitted with straight lines according to the relation of I_{DS}~V_{DS}.