

## Supplementary Information

# Linear humidity response of carbon dots modified molybdenum disulfide

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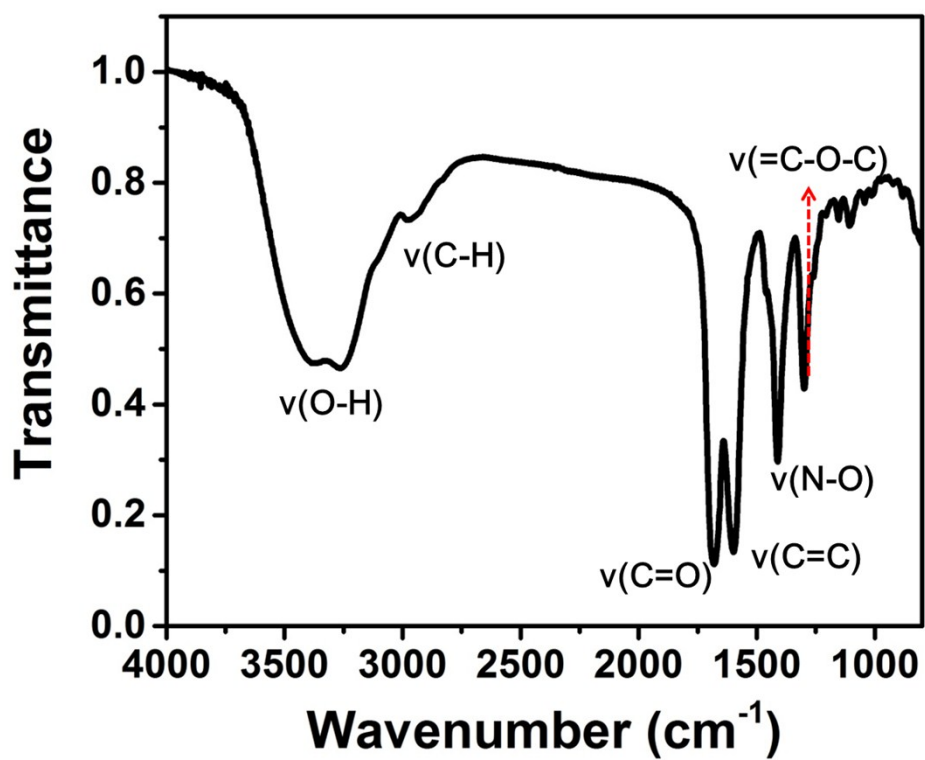
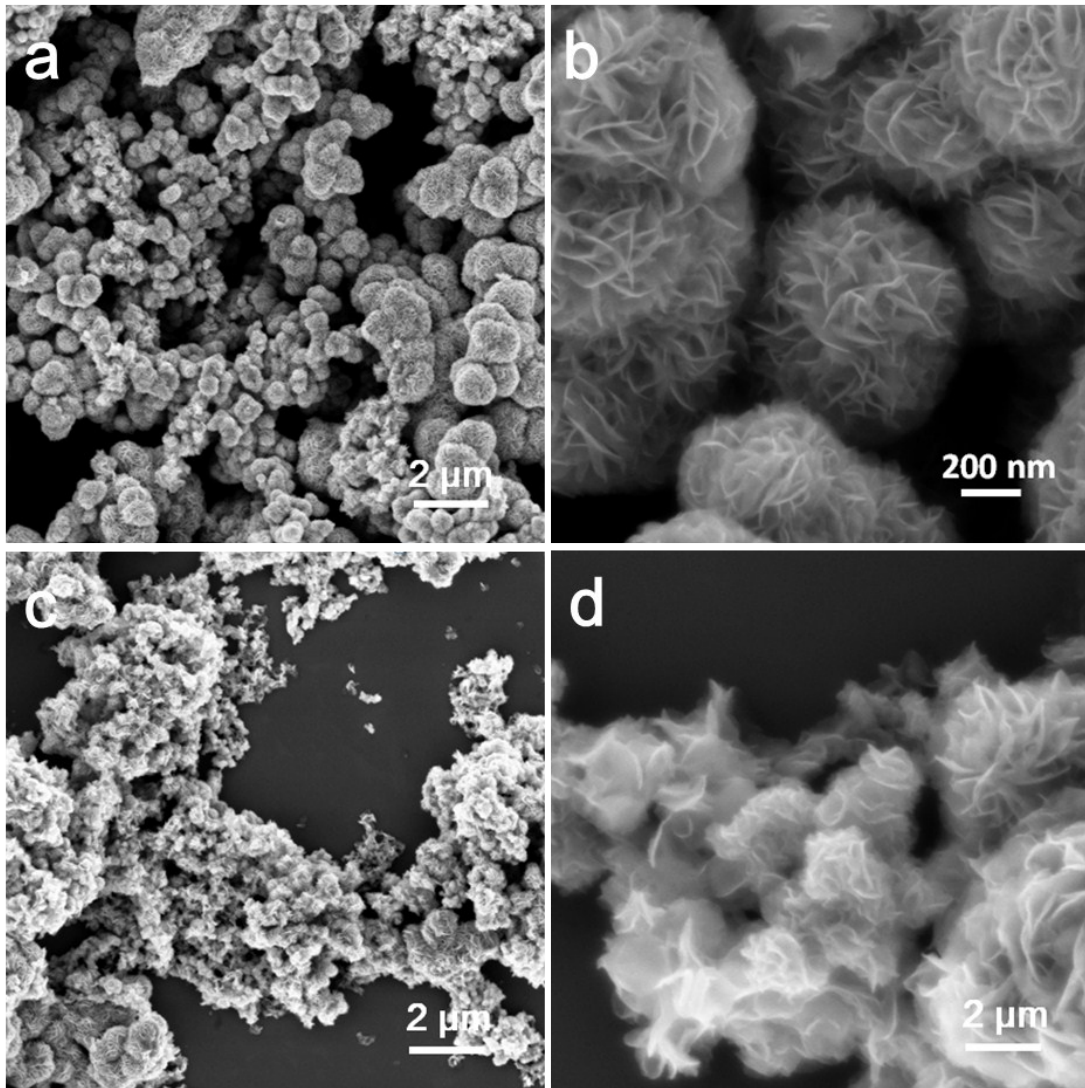


Fig. S1. FT-IR spectrum of CDs



**Fig. S2.** SEM images of (a and b) CM6 and (c and d) CM12

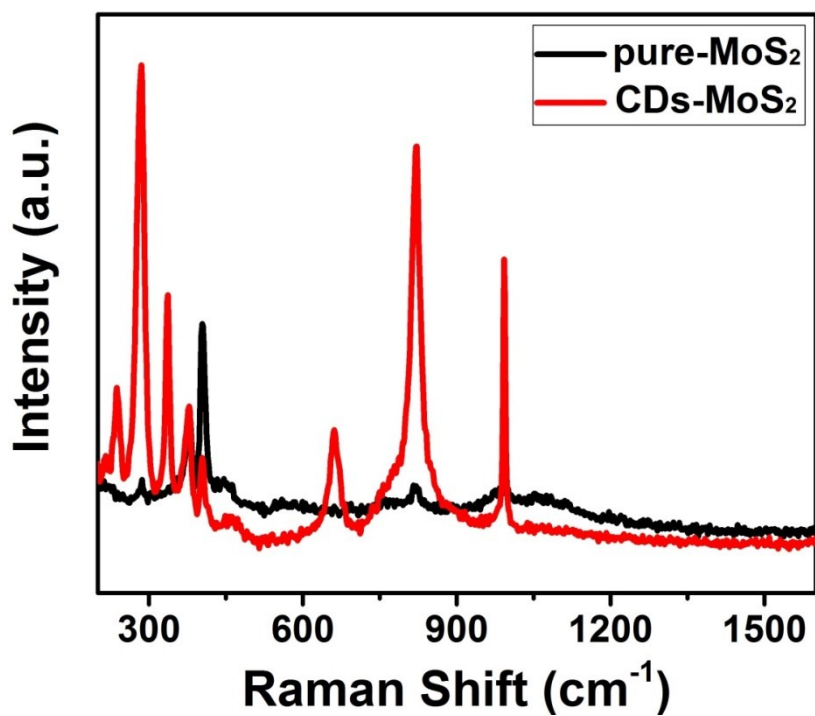


Fig. S3. Raman spectra of Pure-MoS<sub>2</sub> and CDs-MoS<sub>2</sub>

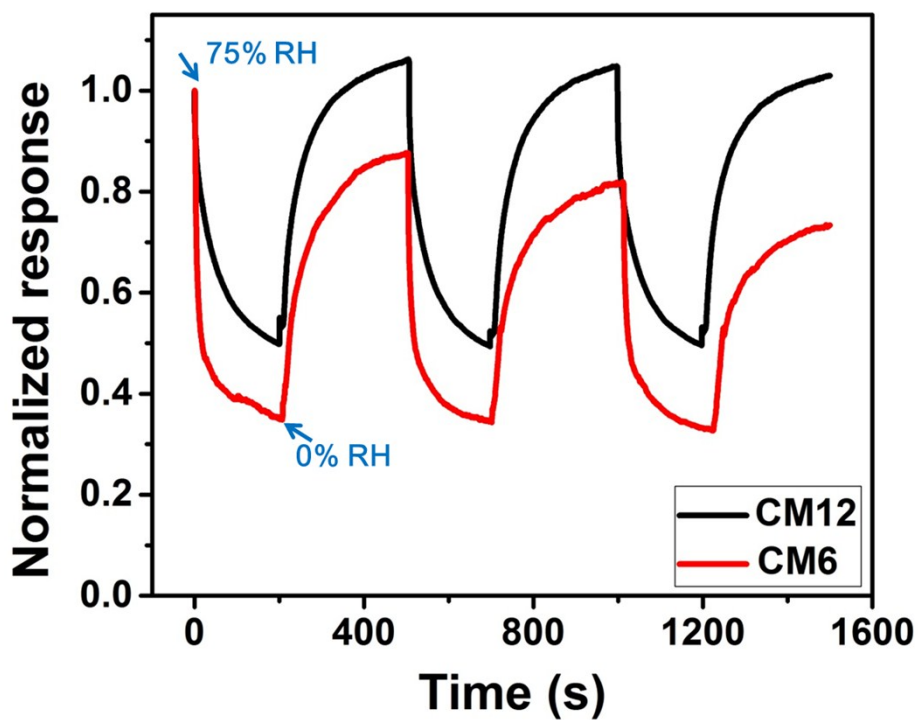


Fig. S4. Repeatability of humidity response for M6 and M12 at 75% RH

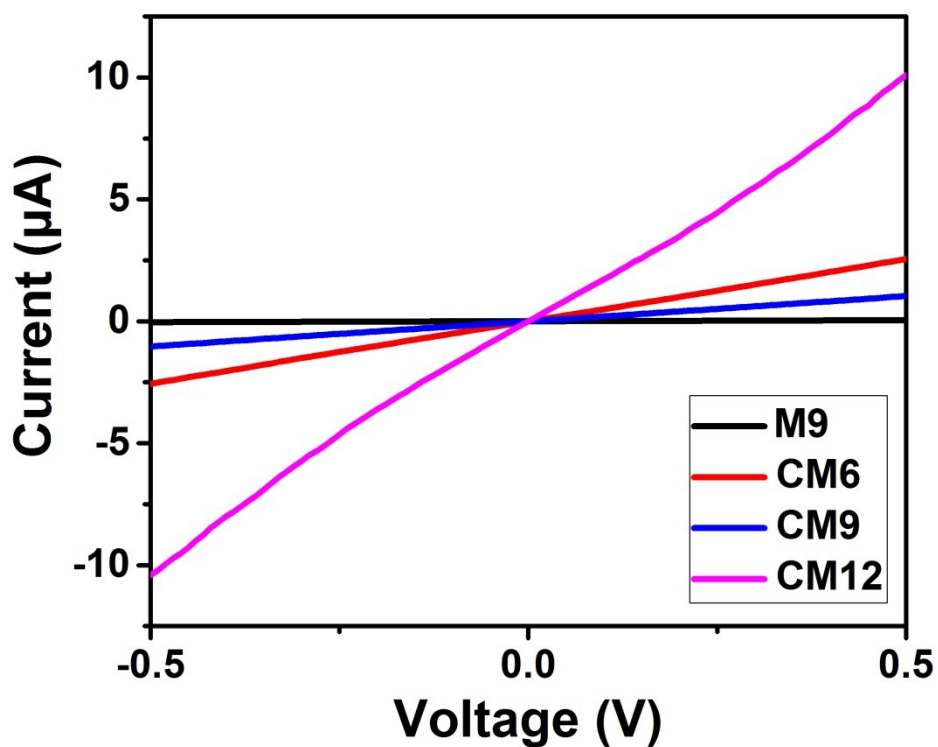


Fig. S5.  $I$ - $V$  curves of M9, CM6, CM9 and CM12

Table S1. Atomic percentages of C, O, S and Mo for M9, CM6, CM9 and CM12

Products \ elements	C (at%)	O (at%)	S (at%)	Mo (at%)
M9	0	12.34	51.78	35.88
CM6	21.19	53.56	0.71	24.54
CM9	20.17	20.58	34.01	25.24
CM12	19.81	18.33	34.68	27.19