

Electronic Supplementary Material (ESI) for Industrial Chemistry  
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## Supporting Information

### Supercritical CO<sub>2</sub>-induced Room-temperature Ferromagnetism in Two-dimensional MoO<sub>3-x</sub>

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Table S1. Magnetic properties of the reported various undoped and transition metal-doped molybdenum oxides.

Material	$M_s$ (emu g <sup>-1</sup> )	$M_r$ (emu g <sup>-1</sup> )	$H_c$ (Oe)	$T_c$ (K)	Ref.
MoO <sub>3</sub>	$2.96 \times 10^{-4}$	$8.10 \times 10^{-6}$	56.38	>300K	1
MoO <sub>3</sub>	$5.43 \times 10^{-4}$	$9.82 \times 10^{-6}$	26.41	>300K	2
MoO <sub>3</sub>	$1.46 \times 10^{-2}$	-	144	>300K	3
MoO <sub>3</sub>	$2.78 \times 10^{-2}$	$1.52 \times 10^{-2}$	56	>300K	4
MoO <sub>3</sub> :Co(2%)	$3.25 \times 10^{-4}$	$5.49 \times 10^{-6}$	64.8	>300K	1
MoO <sub>3</sub> :H	$1.7 \times 10^{-2}$	-	127	>300K	5
MoO <sub>3</sub> :Te	$4.2 \times 10^{-2}$	$7.1 \times 10^{-3}$	72.7	>350K	6
MoO <sub>3-x</sub>	$1.0 \times 10^{-2}$	$1.0 \times 10^{-3}$	52	>380K	This work

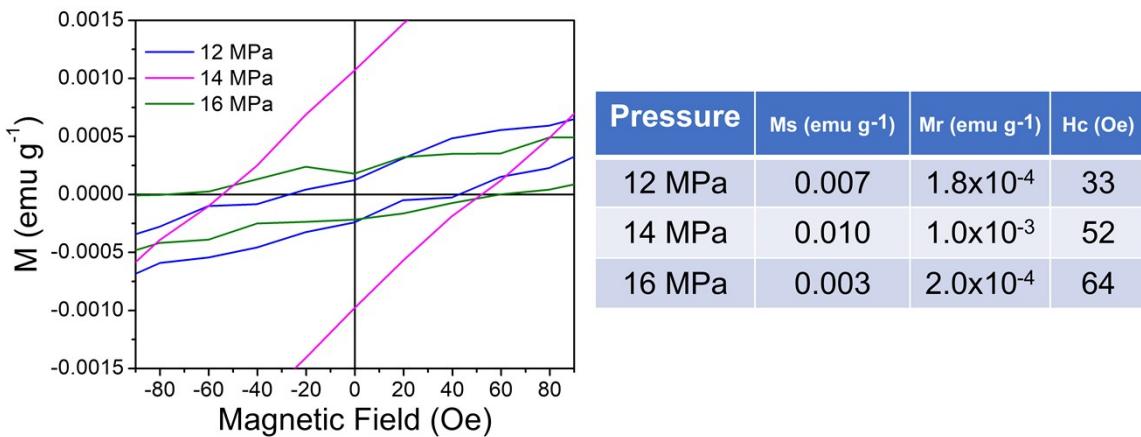


Fig. S1. The magnified curves near  $H=0$  of magnetization hysteresis loop and magnetic properties of the  $\text{MoO}_{3-x}$  sample obtained at 12 MPa, 14 MPa, 16 MPa at 300 K.

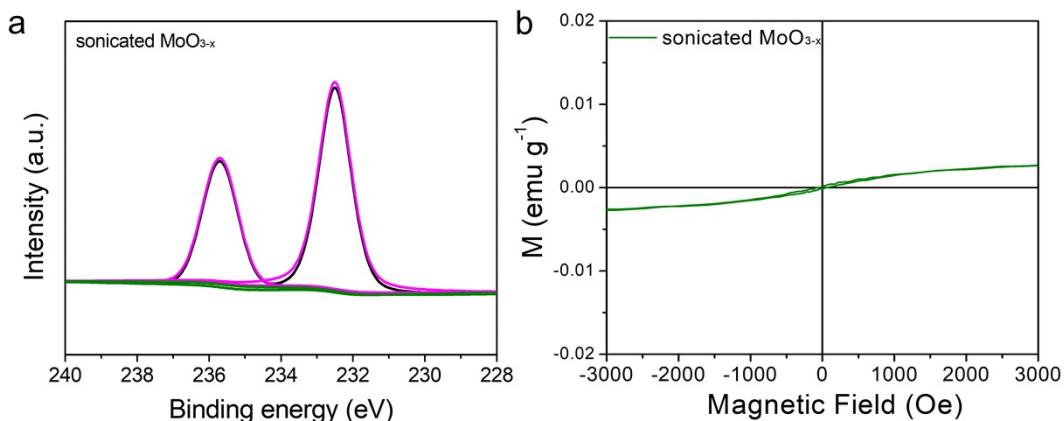


Fig. S2. XPS spectrum detail of Mo 3d binding energy regions and magnetization hysteresis loop of the  $\text{MoO}_{3-x}$  nanosheets obtained by sonication treatment without SC  $\text{CO}_2$ .

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