Supplementary materials

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5. (a) Effect of **CuMoV(450)** dosage on the reduction process, [Cr(VI)] = 0.1 mM (50 mL), [NaBH4] = 8 mM. (b) Effect of NaBH4 concentration on the reduction process, [Cr(VI)] = 0.1 mM (50 mL), **CuMoV(450)** dosage = 40 mg. (c) Effect of initial concentration of Cr(VI) on the reduction process, **CuMoV(450)** dosage = 40 mg, [NaBH4] = 8 mM. (**Figure S5**)

6. XPS results of **CuMoV** and **CuMoV(450)**: the surface element content, binding energy, weight ratio and atomic ratio. (**Table S1**)

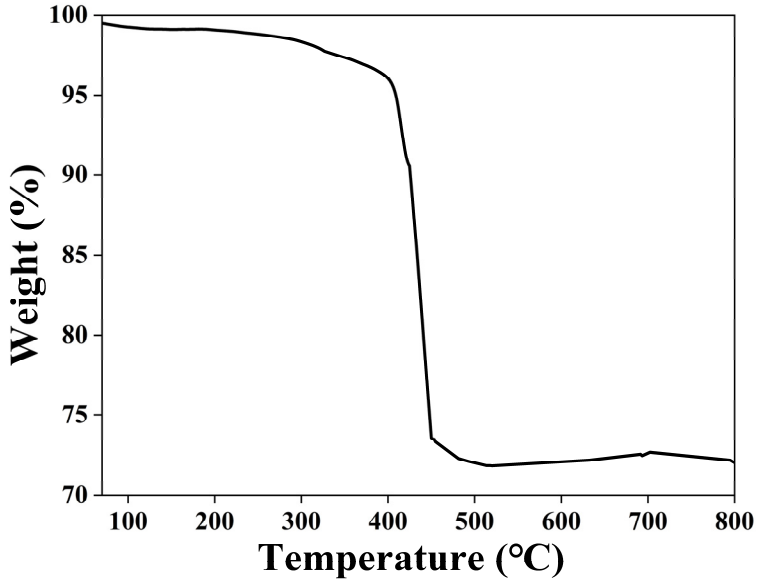


Figure S1

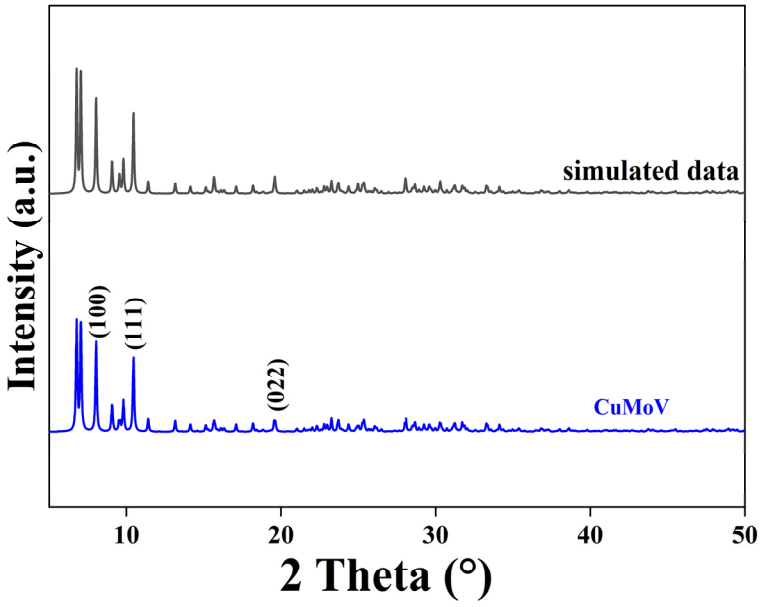


Figure S2

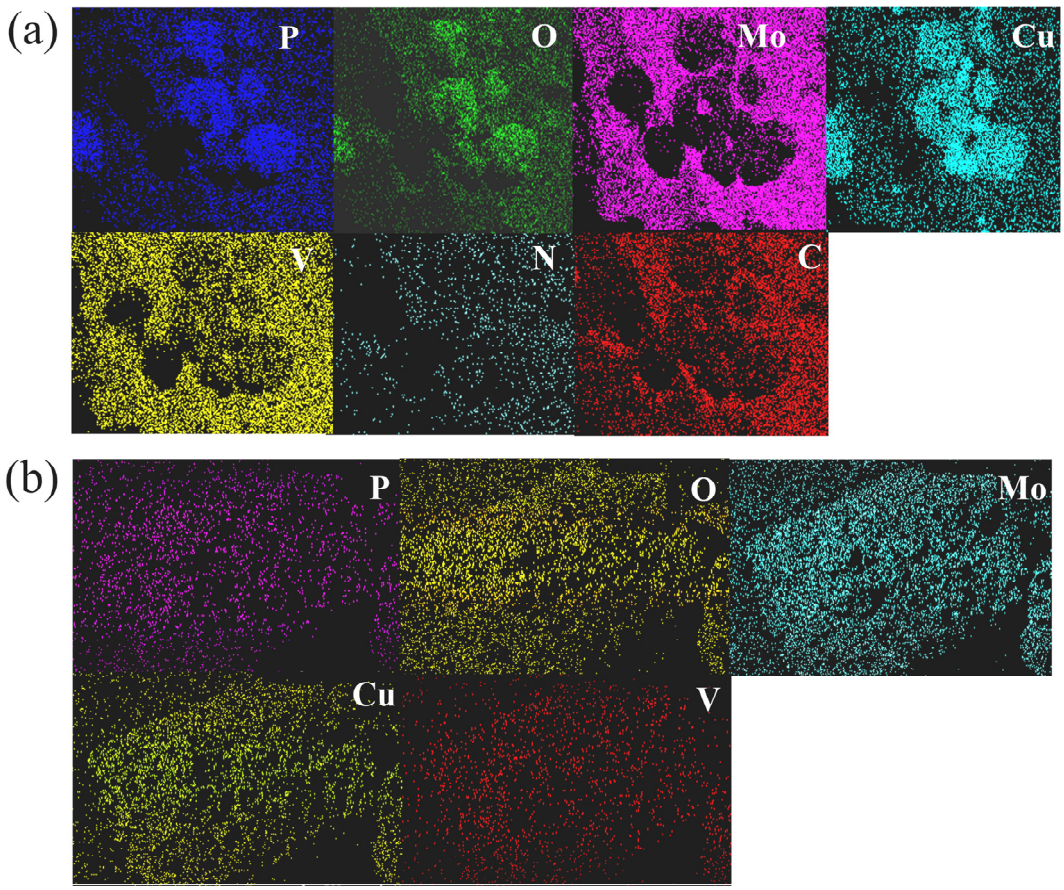


Figure S3

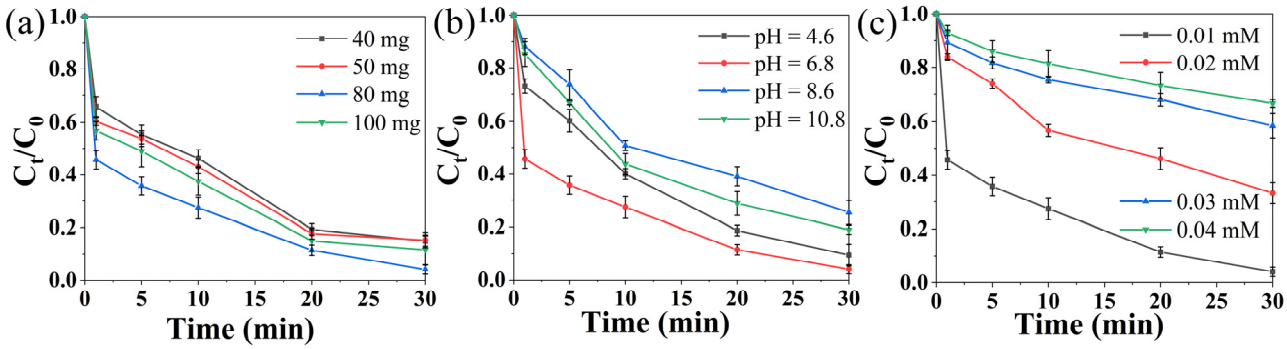


Figure S4

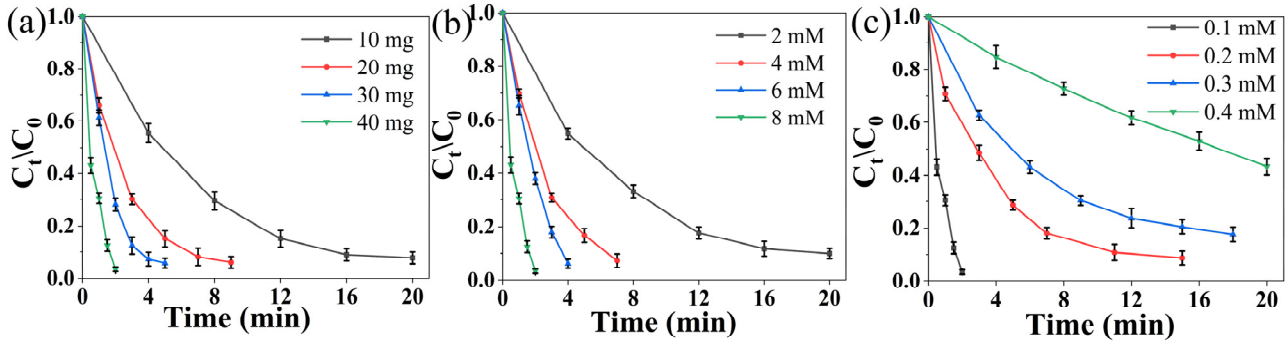

(a)
(b)
(c)
$C_t \backslash C_0$
Time (min)
10 mg
20 mg
30 mg
40 mg
2 mM
4 mM
6 mM
8 mM
0.1 mM
0.2 mM
0.3 mM
0.4 mM

Figure S5

Table S1

		CuMoV	CuMoV(450)
	eV	530.0/530.4/530.8/531.6	530.0/530.4/530.8/531.6
O 1s	at.%	25.89	72.96
	wt.%	21.65	37.88
	eV	133.1	133.4
P 2p	at.%	1.39	2.33
	wt.%	2.25	2.34
	eV	516.0/523.0	516.1/523.6
V 2p	at.%	3.49	7.18
	wt.%	9.28	11.87
	eV	934.4/954.2	935.0/954.8
Cu 2p	at.%	1.36	6.36
	wt.%	4.52	13.12
	eV	232.3/235.4	232.8/236.0/232.4/235.1
Mo 3d	at.%	4.06	11.17
	wt.%	20.35	34.78
	eV	284.8/285.9/287.3	-
C 1s	at.%	45.74	-
	wt.%	28.72	-
	eV	398.2/399.6	-
N 1s	at.%	18.07	-
	wt.%	13.23	-