

Supporting Information

Protection of high active sites on Cu_2O nanocages: an efficient crystalline catalyst for ammonium perchlorate decomposition

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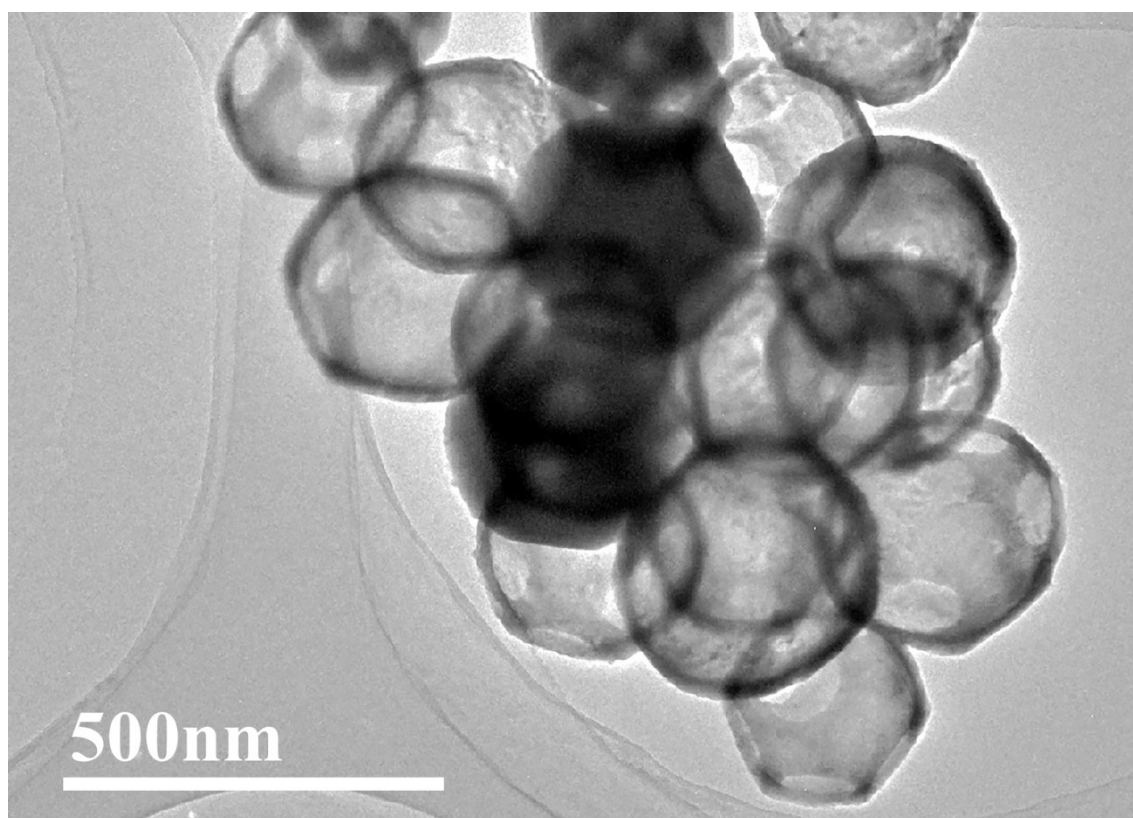


Fig. S1 TEM image of Cu_2O nanocages.

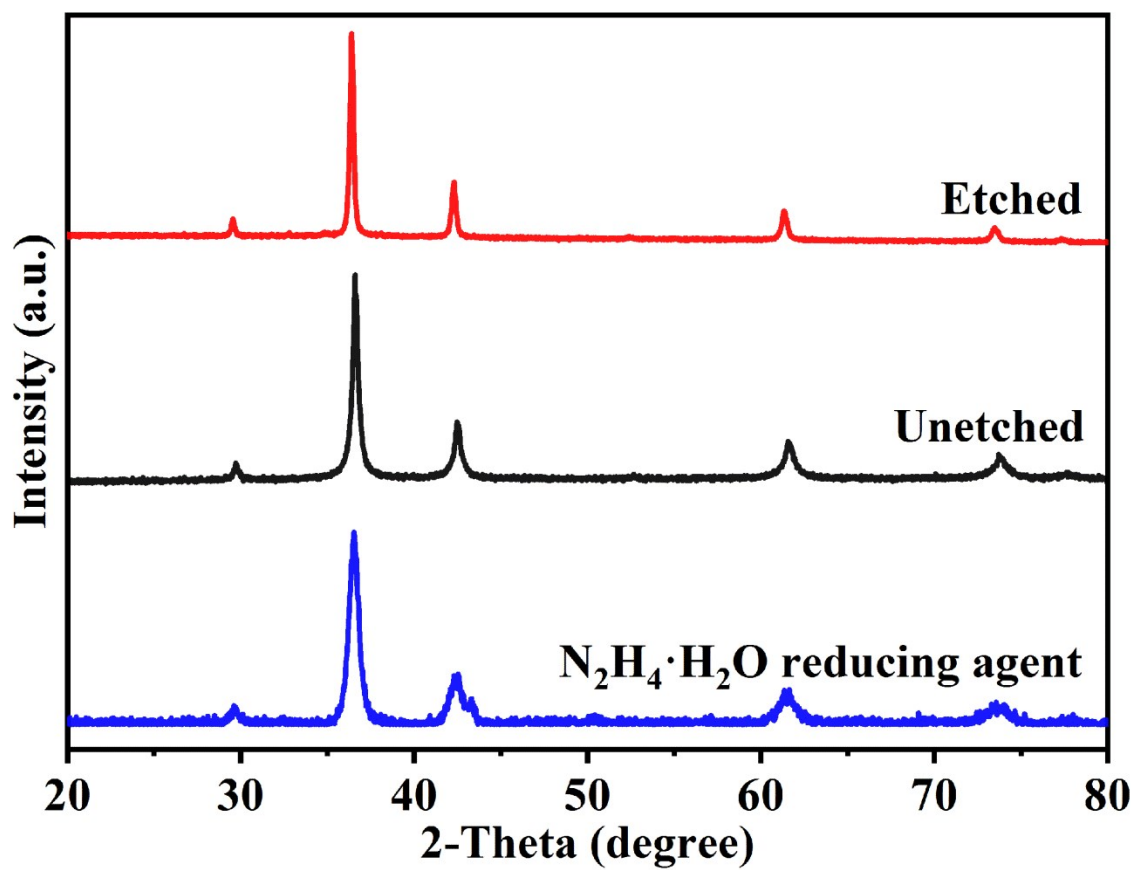


Fig. S2 Comparison of XRD patterns: etched, unetched and Cu₂O by a reducing agent of N₂H₄·H₂O.

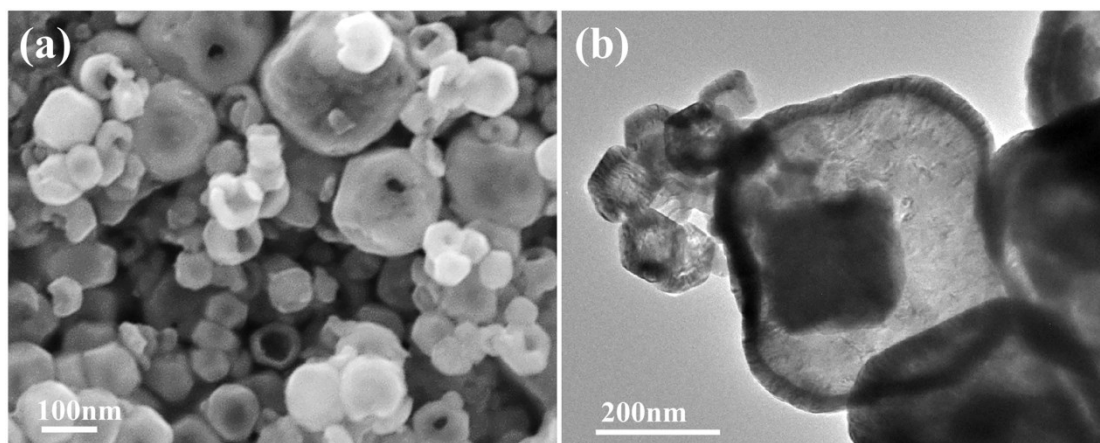


Fig. S3 (a) SEM and (b) TEM of Cu₂O without SDS added during synthesis.

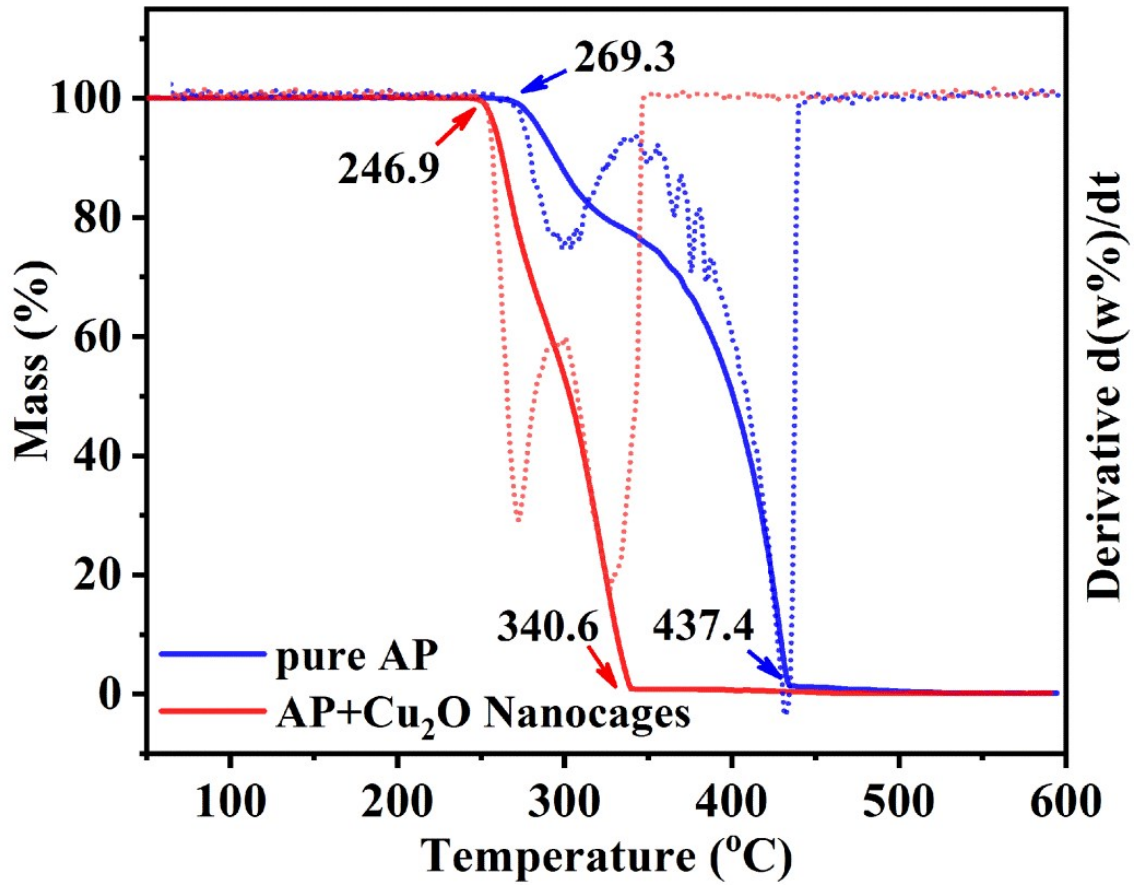


Fig. S4 TG and DTG curves for pure AP and AP with Cu₂O nanocage.

Tab. S1 Comparison of DSC data of Cu₂O and other catalysts in AP thermal decomposition.

Nanocatalyst	M (%)	dT/dt °C/min	LTD		HTD		Ref.
			LTD AP	AP+Cat	HTD AP	AP+Cat	
CeO ₂	4	5	301.9	289.5	428.5	378.1	[1]
α-Fe ₂ O ₃	2	10	313.2	297.5	437.4	386.8	[2]
CuO	5	10	293.4	271.5	435.2	353.8	[3]
CuO/MoS ₂	5	10	293.4	296.8	435.2	323.5	[4]
LaMnO ₃	5	10	295.8	290.3	416.0	331.8	[5]
Cu₂O	2	5	295.9	268.8	431.9	324.9	Our work

References

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