Supporting Information

HMTA-assisted Formation of Hierarchical Co-based Materials Built by Lowdimensional Substructures as Water Oxidation Electrocatalysts

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Fig. S1 SEM images of samples prepared with different amounts of HMTA at low (a: 0.5 mmol; b:1.0 mmol; c:1.5 mmol; d:2.0 mmol)



Fig. S2 EDS of all samples prepared with different amounts of HMTA. (a: 0.5 mmol; b:1.0 mmol; c:1.5 mmol; d:2.0 mmol)

Samples	Before reaction	After reaction
1:0.5	7.50	7.03
1:1.0	7.48	7.20
1:1.5	7.50	8.01
1:2.0	7.90	8.98

 Table S1 pH of all solutions before and after reaction

Table S2 Surface area calculated with the Brunauer-Emmett-Teller (BET) model ofall samples prepared with different amounts of HMTA.

		Muti Point	S _(Meso)	V _(Meso)	Radius
Sample	Morphology	$BET(m^2/g)$	(m^{2}/g)	(cm^{3}/g)	(nm)
1:0.5	flowerlike	41.5	37.9	0.1	18.5
1:1.0	flowerlike	53.5	43.1	0.2	18.5
1:1.5	urchin-like	52.6	42.8	0.2	19.7
1:2.0	filament-like	49.8	40.1	0.2	19.6