Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Support information

Controlling formation of self-assembled Cu-Sn sulfide with hoya-like structure for their electrochemical performance

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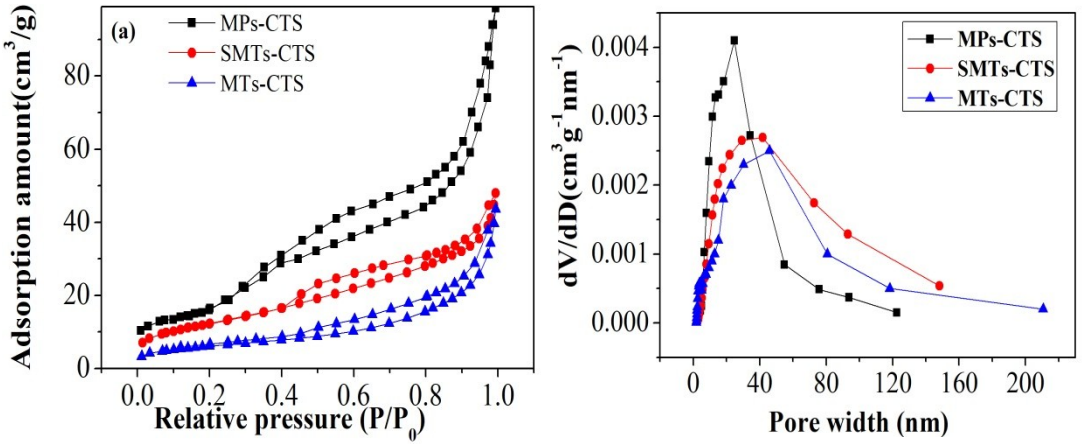

Fig. S1. (a) Nitrogen adsorption-desorption isotherm and (b) pore size distribution plot of MTs-CTS, SMTs-CTS and MPs-CTS

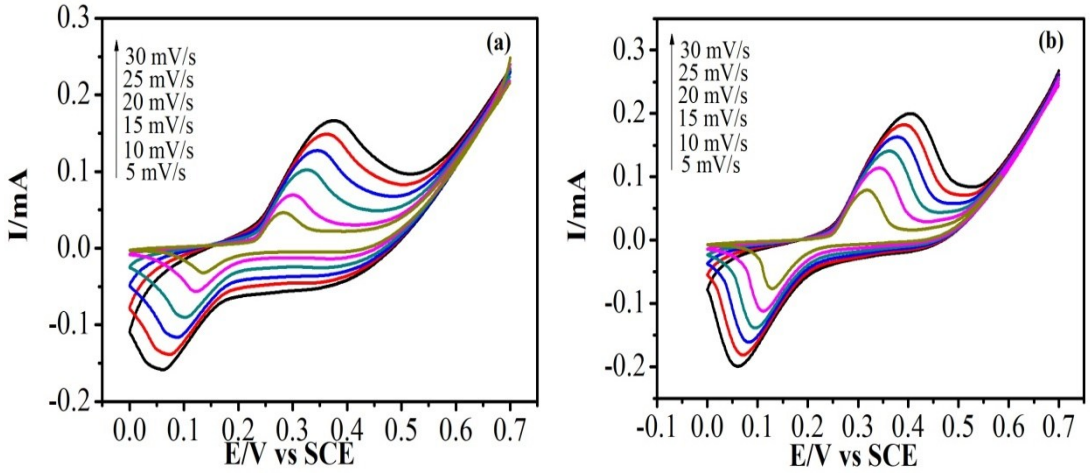

Fig.S2. CV curves of MTs-CTS (a) and SMTs-CTS (b) at various scan rates

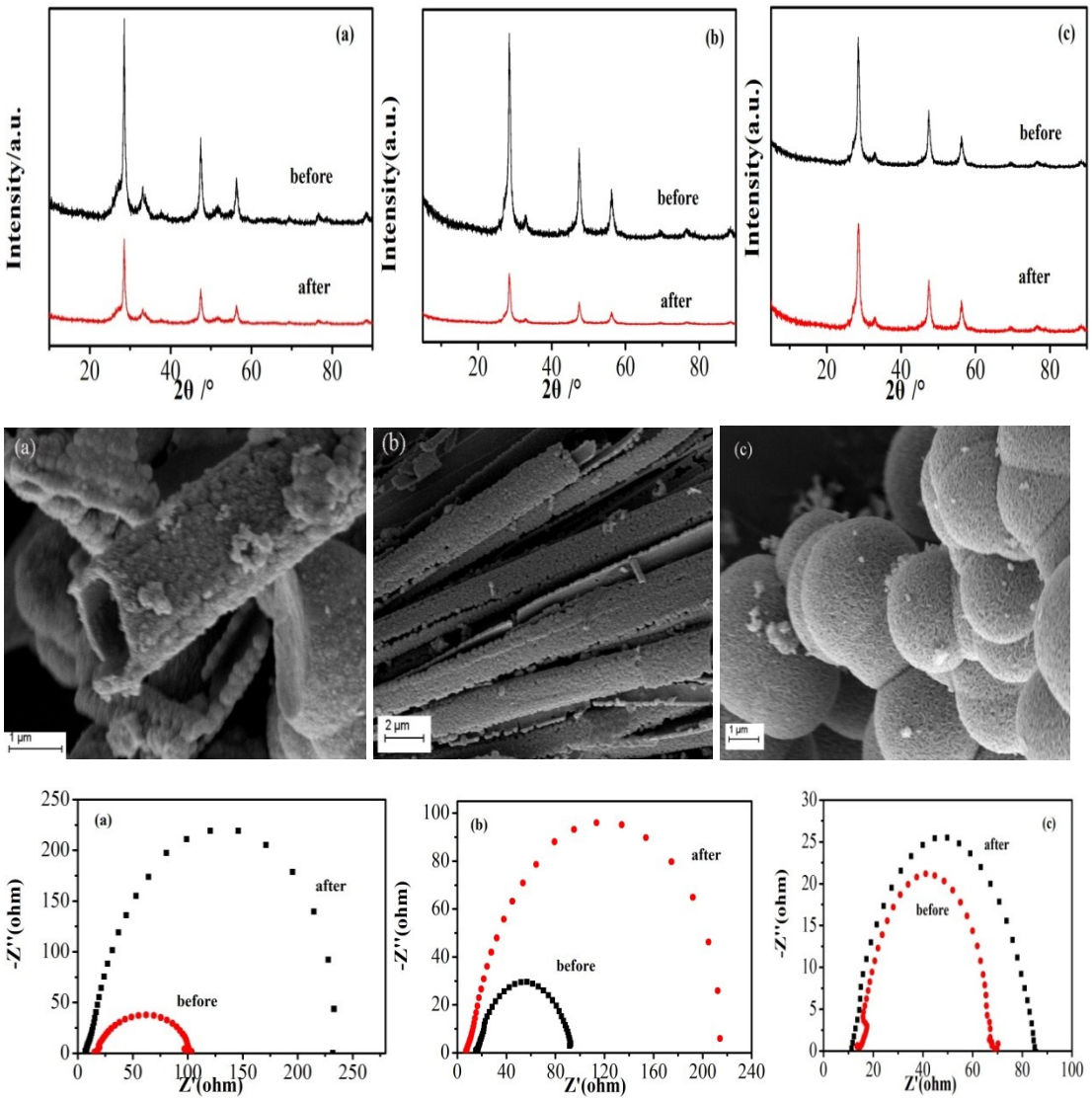

Fig.S2 The XRD , SEM and EIS of MTs-CTS, SMTs-CTS and MPs-CTS before and after long cycling electrochemical tests

Table S1. Comparison of SC performance of the prepared samples with reported metallic sulfide

Electrode	Specific capacitance	Current density	Retention	cycles	Ref
CF-SnS_2	524.5F/g	0.08A/g	68%	1000	[1]
FL-SnS_2	431.82F/g	1A/g	90%	2000	[2]
2DCoSNC	360.1F/g	1.5A/g	90%	2000	[3]
CuS	49.8mA/g	1A/g	80.5%	1500	[4]
CuMoS	127F/g	1.5mA/cm^2	92%	3000	[5]

Cu_2SnS_3	406C/g	1A/g	60%	2000	[6]
Cu_4SnS_4	704F/g	1A/g	89.9%	1000	[7]
Cu_2ZnSnS_4/RGO	591F/g	0.25A/g	80.6%	1000	[8]
MTs- CTS	74.8F/g	1A/g	74.2%	2000	This work
SMTs-CTS	89.1F/g	1A/g	89.1%	2000	This work
MPs-CTS	1134.2F/g	1A/g	94.2%	2000	This work

Table S2. Comparison of HER performance of the prepared samples with reported electrocatalytic

Electrode	Electrolye	Overpotential	Tafel slope	Ref
CuS	0.5M H_2SO_4	449	171	[9]
SnS	0.5M H_2SO_4	-	266	[10]
MoS_2	0.5M H_2SO_4	350	138	[11]
CoS_2	0.5M H_2SO_4	206	71	[12]
NiS	0.5M HCl	560	182	[13]
Cu_2SnS_3	0.5M H_2SO_4	749	127	[14]
Cu_3SnS_3	0.5M H_2SO_4	330	98	[15]
Cu_4SnS_4	0.5M H_2SO_4	358	110	[15]
CTS-MT	0.5M H_2SO_4	461	182	This work
CTS-SMT	0.5M H_2SO_4	435	84	This work
CTS-MP	0.5M H_2SO_4	301	78	This work

Notes and references

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