

## Low-Temperature Synthesis of Oval-Shaped CoWO<sub>4</sub> Nanomaterials for Enhanced Asymmetric Supercapacitor Performance

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## 1. Crystallographic information file for Rietveld refinement

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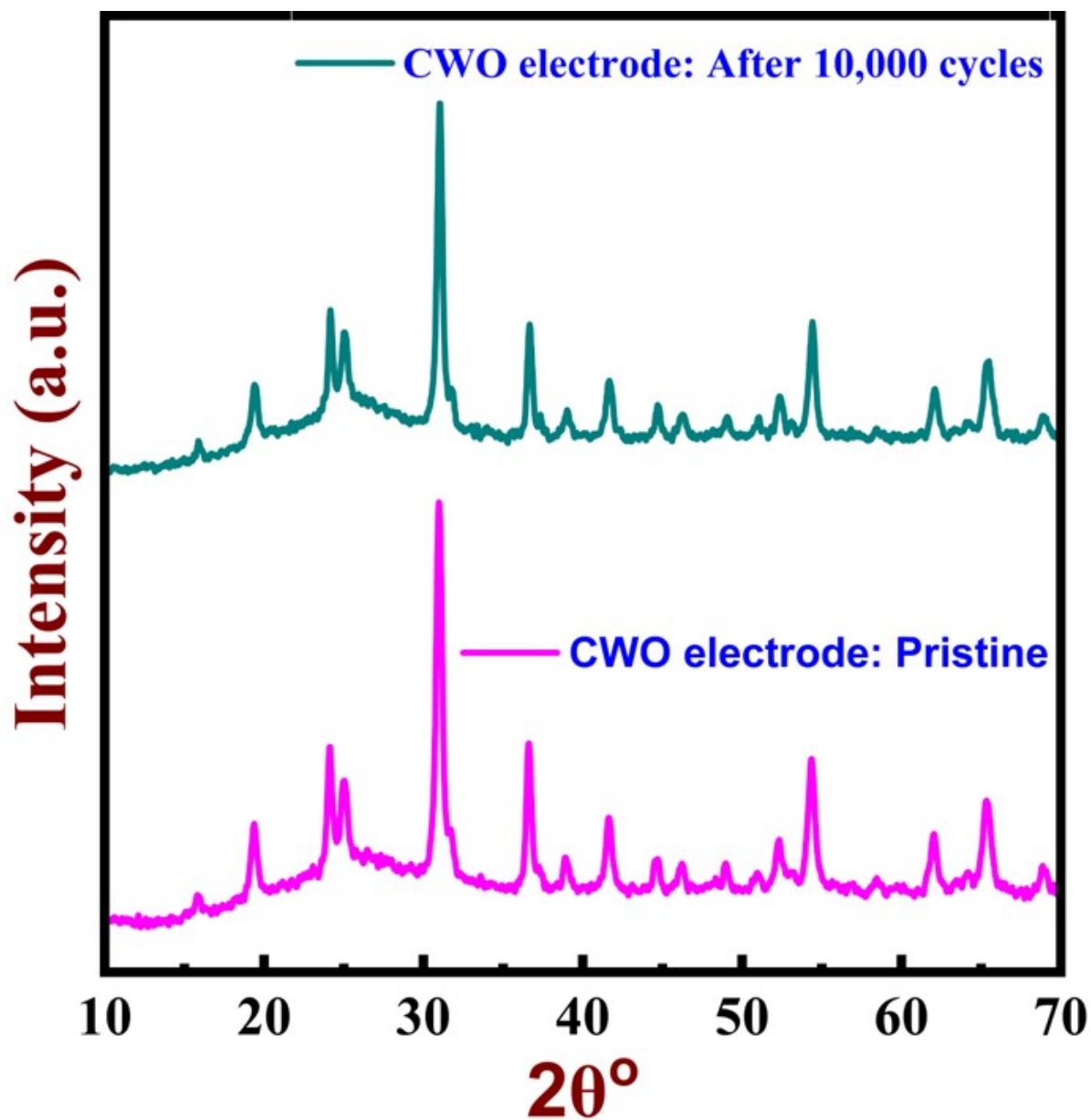
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**Table S.I. 1. Comparison of electrochemical data of various AWO<sub>4</sub> samples published previously to those acquired in the present study.**

Material	Synthesis method	Temp (°C)	Time (hr.)	Electrolyte	Scan rate	Specific capacitance	Capacity retention / Cyclic stability	Reference
CoWO <sub>4</sub> powder	Sol-gel green method	800	2	3M KOH	1 A/g	77 C/g	98% / 1000 at 1A/g	12
CoWO <sub>4</sub> nanocrystals	Polymeric precursor method	800	4	Na <sub>2</sub> SO <sub>4</sub>	5 mV/s	249 F/g	-	19
MnWO <sub>4</sub>	Microwave assisted method	80	5 min.	0.1M Na <sub>2</sub> SO <sub>4</sub>	1 mA/cm <sup>2</sup>	34 F/g	-	39
CoWO <sub>4</sub> nanostructures	Microwave mediated method	500	2	2M KOH	0.25 A/g	45 F/g	-	40
CoWO <sub>4</sub> powder	Co-precipitation method	450	2	6M KOH	2 A/g	97 F/g	-	41
Flower like CoWO <sub>4</sub>	Hydrothermal method	150	10	2M KOH	5 mV/s	154 F/g	-	42
CoWO <sub>4</sub> nanocrystalline	One pot hydrothermal method	180	12	2M KOH	5 mV/s	60.6 F/g	88.1 % / 1000 at 1 A/g	43
graphene oxide/CoWO <sub>4</sub> nanocomposite	One pot hydrothermal method	180	12	2M KOH	5 mV/s	159.9 F/g	94.7 % / 1000 at 1 A/g	43
Large chain like NiWO <sub>4</sub>	Self-assembled method	60	1.5	2M KOH	5 mV/s	134 F/g	82 % / 1000 at 2 mA/cm <sup>2</sup>	44
Small chain like NiWO <sub>4</sub>	Self-assembled method	60	1.5	2M KOH	5 mV/s	173 F/g	90 % / 1000 at 2 mA/cm <sup>2</sup>	44
CuWO <sub>4</sub> nanopowder	Microwave irradiation assisted method	600	6	0.5M HCl	20 mV/s	77 F/g	-	45
Sulphur doped cobalt tungstate nanosphere	Hydrothermal method	140	10	1 M KOH	1.33 A/g	177.25 F/g	94.85 % / 10,000 at 6 A/g	46
CoWO <sub>4</sub>	Wet chemical method	Ambient temperature	~14	1 M KOH	1A/g	128 F/g	-	47
CoWO <sub>4</sub> / Ni nanocomposite (CWO/Ni <sub>3</sub> )	Wet chemical method	Ambient temperature	~18	6 M KOH	1 A/g	271 F/g	86.4% / 1500 at 5 A/g	47
CoWO <sub>4</sub>	Hydrothermal method	180	8	3 M KOH	2 A/g	262.7 F/g	-	48
CoWO <sub>4</sub> / reduced graphene oxide	Hydrothermal method	180	8	3 M KOH	2 A/g	382.7 F/g	96 % / 5000 at 10 A/g	48
Chain like ZnWO <sub>4</sub>	Sonochemical method	600	3	1 M KOH	5 mV/s	602 F/g	93 % / 3000 at 100 mV/s	49
CoWO <sub>4</sub> nanostructures	Hydrothermal method followed by calcination	300	2	1M KOH	10 mV/s	235 F/g	93.25 % / 10,000 at 1 A/g	<b>Present work</b>

## 2. XRD data of CWO electrode



S.I. 1. XRD pattern of CWO electrode before and after 10,000 cycles