Supplementary Information (SI) for Journal of Materials Chemistry A.

Oxygen-Vacancy-Engineered Urchin-Like $CoMoO_4$ Epitaxially Grown on Partially Oxidized Ti_3C_2 MXene Anchored on Nickel Nanocones for Efficient Oxygen Evolution Reaction

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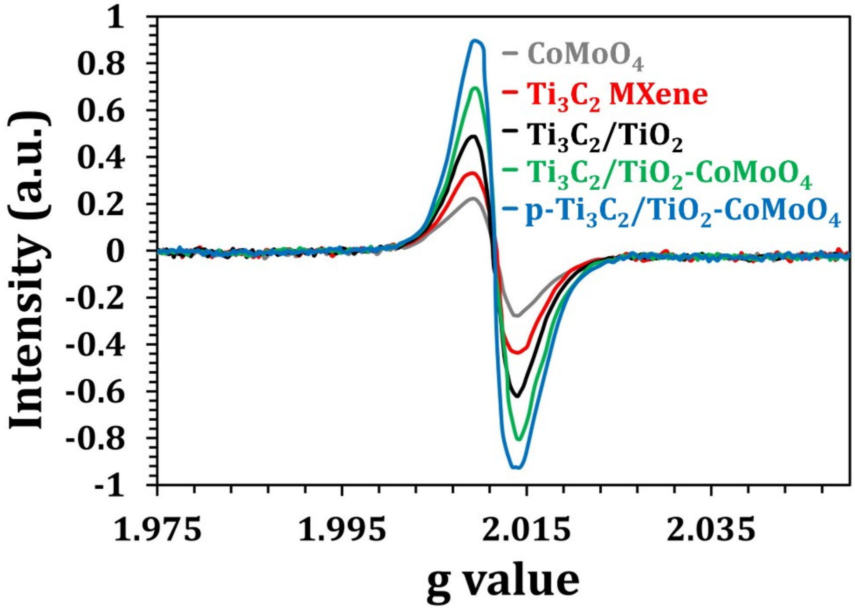

Figure S-1. EPR measurement of different nanomaterials.

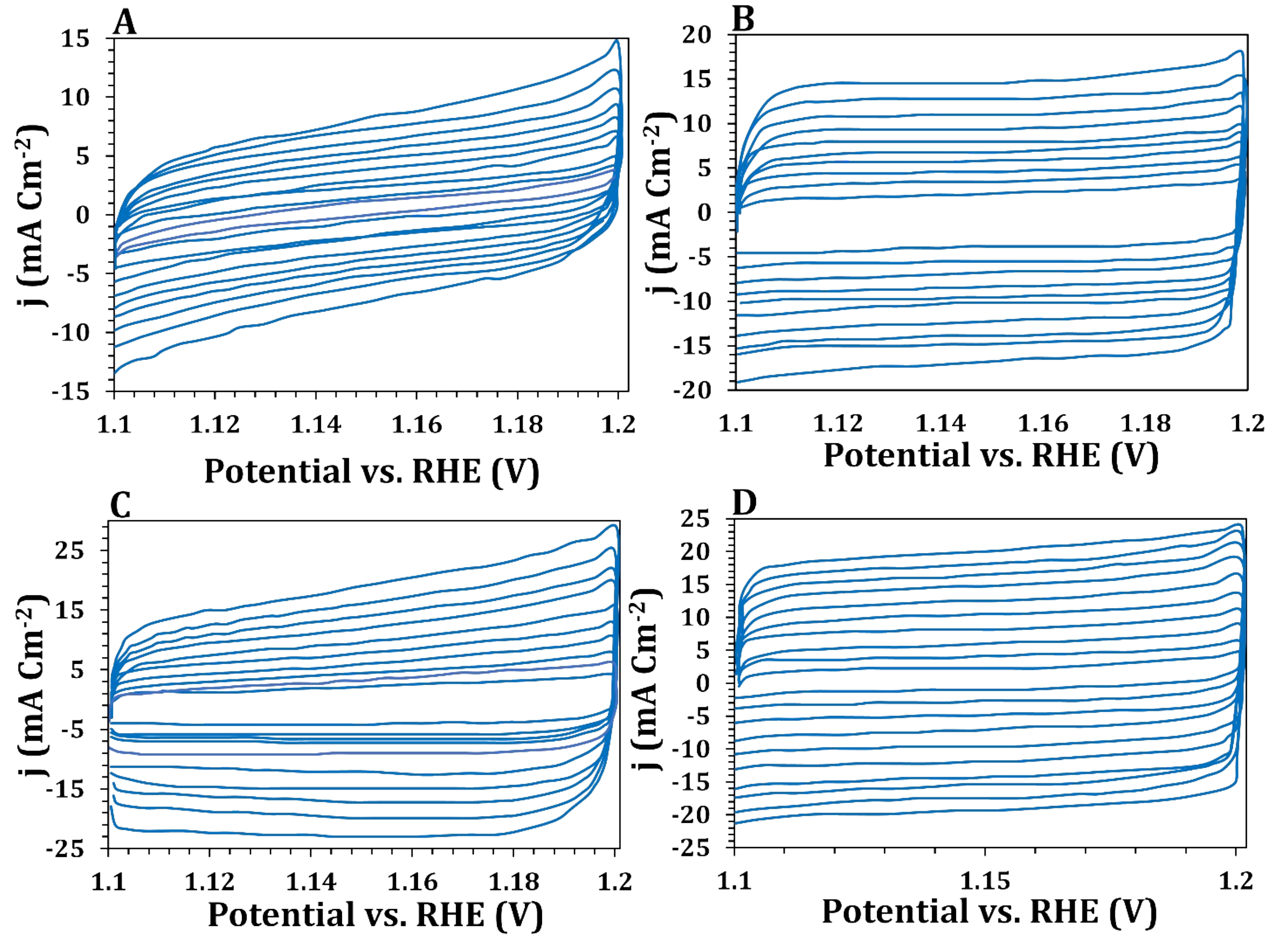

Figure S-2. CV curves of (A) $CoMoO_4$-NiNC-NF, (B) Ti_3C_2/TiO_2-NiNC-NF, (C) Ti_3C_2/TiO_2-$CoMoO_4$-NiNC-NF, and (D) p-Ti_3C_2/TiO_2-$CoMoO_4$-NiNC-NF in the non-Faradaic potential window at scan rates of 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100 mV s^{-1}.

Table S-1. Comparative evaluation of the OER activity of MXene-based electrocatalysts.

Row	Catalyst	η_{10} (mV)	Tafel slope (mV dec^{-1})	Ref.
1	FeNi-LDH/Ti_3C_2	298	43	1
2	Co-LDH@ $Ti_3C_2T_x$	340	82	2
3	Co_3O_4-RuO_2/ $Ti_3C_2T_x$	247	97	3
4	RuCoLDH// $Ti_3C_2T_x$	330	82	4
5	NiFeCe-LDH/MXene	260	42.8	5
6	NiMn-LDH/ Ti_3C_2	294	83.7	6
7	Cr-FeNi-LDH/MXene	232	54.4	7
8	PtOPdONPs@ $Ti_3C_2T_x$	303	63	8
9	$RuCo_2O_4$/ $Ti_3C_2T_x$	170	102	9
10	Mo_2CT_x MXene	230	56	10
11	Ti_3C_2-Co-TiO_2	276	58.3	11
12	$La_{0.9}Sr_{0.1}CoO_3$/$Ti_3C_2T_x$	279	74.3	12
13	Co-CoO/Ti_3C_2	271	47	13
14	$CuCo_2O_4$/$Ti_3C_2T_x$	380	71	14
15	CoP/MXene	298	51	15
16	MXene-NiCoP	237	104	16
17	NiFeCoP/MXene	240	55	17
18	NiFeMnCoCuP/ MXene	274	53.83	18
19	MX@C,N-Co_2P	246	28.18	19
20	FeS_2@MXene	240	58.7	20
21	MXene/MIL Fe-53/ZIF-67	237	64	21
22	1T/2H$MoSe_2$/MXene	340	90	22
23	Ni-$MoSe_2$/Ti_2NT_x	270	81.1	23
24	P-MoO_3-FeCo LDH/ MXene	179	40.44	24
25	MXene@RuCo	253	61.3	25
26	Co_3O_4@g-C_3N_4/ Ti_3C_2Tx	247	144.7	26
27	$CoMoSe_2$@Ti_3C_2Tx	329	69	27
28	CoNi-Ti_3C_2Tx	241	79.8	28
29	p-Ti_3C_2/TiO_2-$CoMoO_4$	190	56.1	This work

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