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

The novel composite of $ZnMoO_4/Ni(OH)_2$ as an electrode material for enhanced performance of energy storage applications

Barani Kumar Duvaragan, Ganesan Shanmugam*, Arif Mohamed Shahul Hameed, Vetrivel Ramalingam

Energy conversion and Energy storage Laboratory, Department of Chemistry, SRM Institute of Science and Technology, Chengalpattu, Tamil Nadu, India.

E-mail: sakthi_ganesan@rediffmail.com, ganesans2@srmist.edu.in

Supporting Information

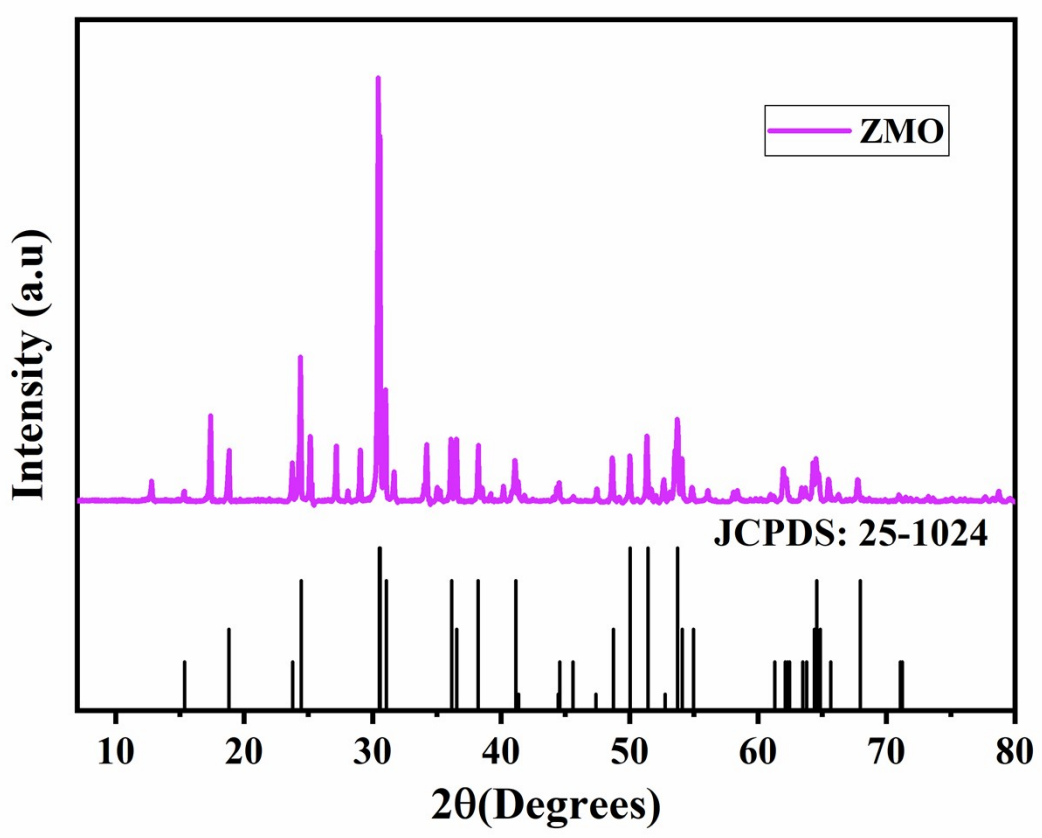


Fig. s1 XRD spectra of ZMO

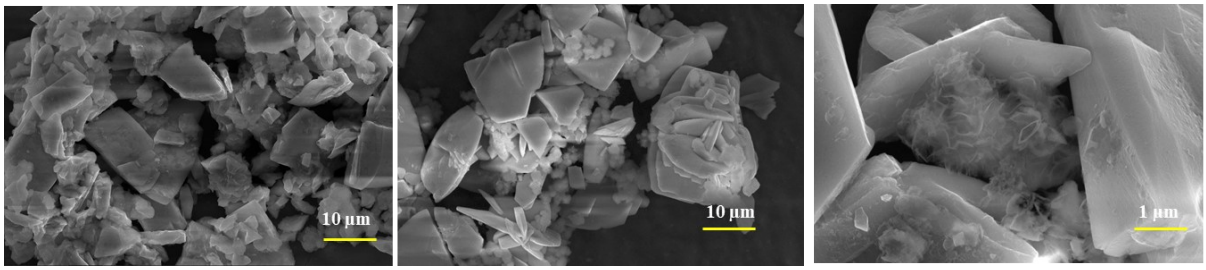


Fig. s2 SEM images of Z/N-1 composite

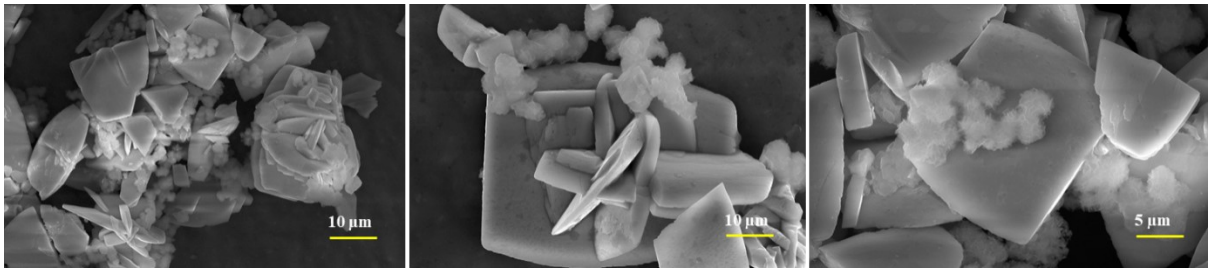
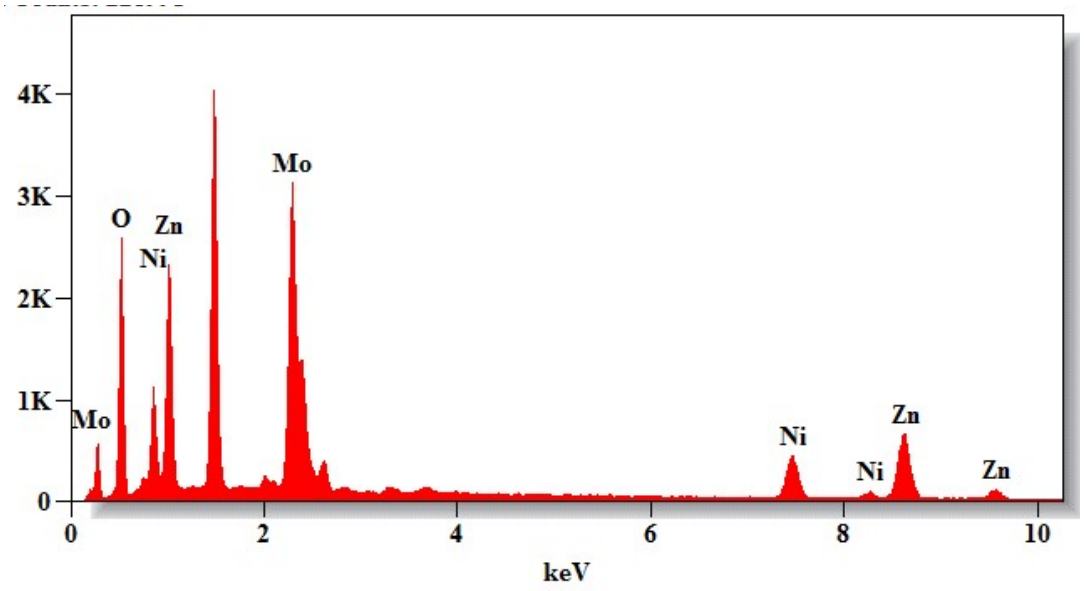


Fig. s3 SEM images of Z/N-3 composite



Element	Net Counts	Weight %	Atom %	Atom % Error	Formula
O	13610	33.86	70.65	± 0.76	O
Ni	6983	9.87	5.61	± 0.18	Ni
Zn	11130	25.56	13.05	± 0.31	Zn
Mo	46967	30.71	10.69	± 0.11	Mo
Total		100.00	100.00		

Fig. s4 EDAX spectrum of Z/N-2 composite

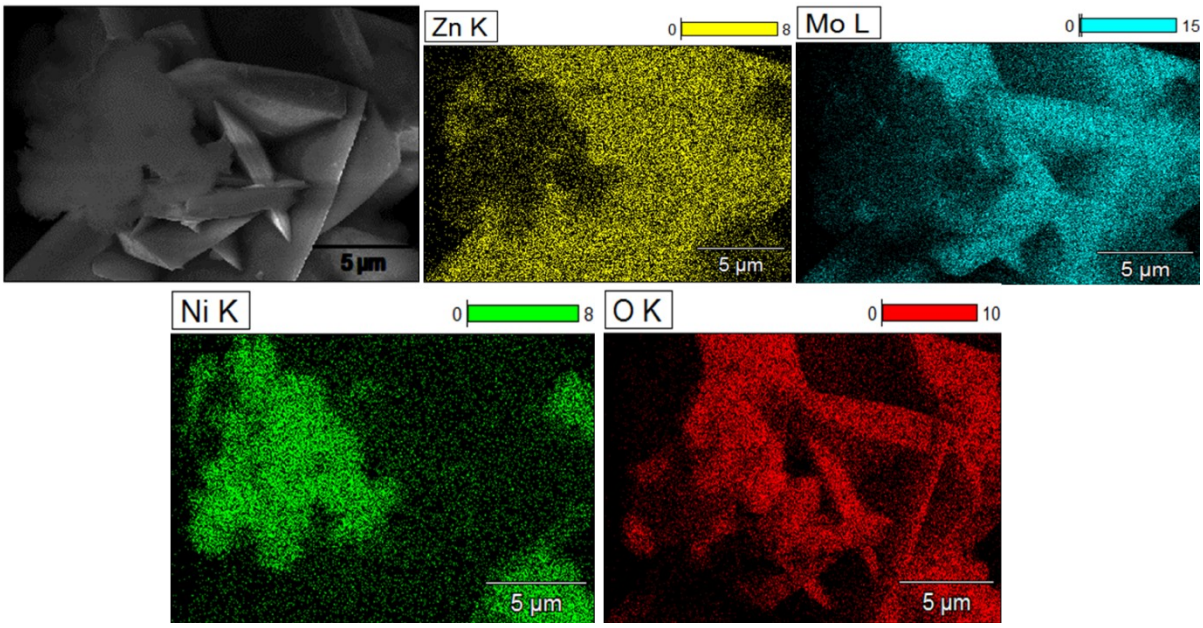


Fig. s5 Elemental mapping of Z/N-2 composite

Table. s1 R_s, R_{ct} and ESR values of the prepared electrode materials

Electrode	R_s (Ω)	R_{ct} (Ω)	ESR (Ω)
ZMO	2.26	72.5	74.76
NOH	1.87	20.44	22.31
Z/N-1	1.68	11.92	13.6
Z/N-2	1.4	4.86	6.73
Z/N-3	2.2	20.44	22.64

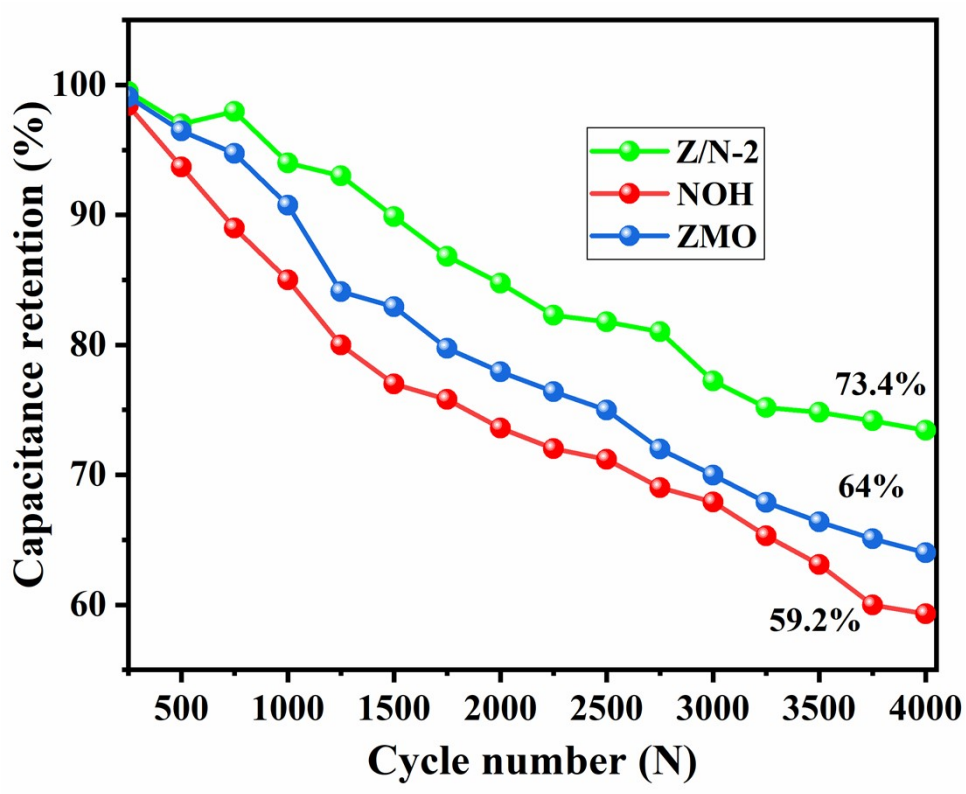


Fig. s6 Cycling stability of ZMO, NOH and Z/N-2 composite