Supporting information

Unique nanopetals of nickel vanadate: crystal structure elucidation and supercapacitive performance

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Figure file

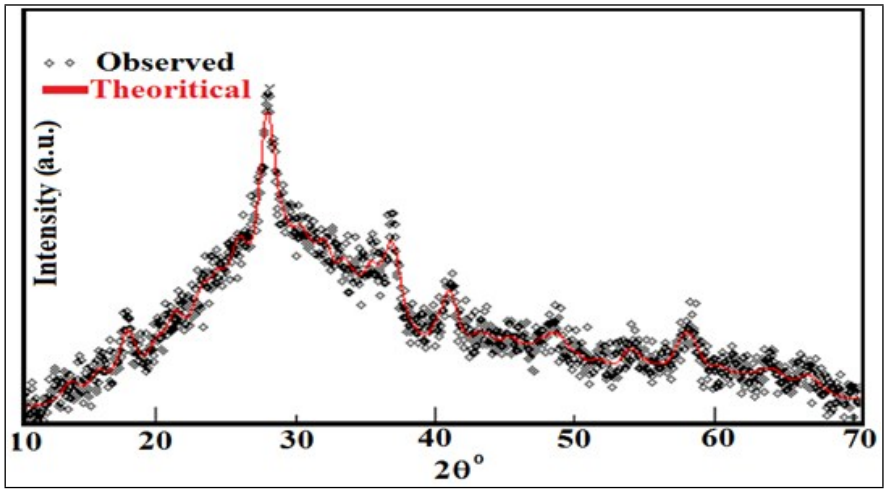

Fig. S1 Powder X-ray diffraction of hydrothermally synthesized NiV_2O_6 with experimentally observed (black dotted) and theoretically simulated (red solid) pattern.

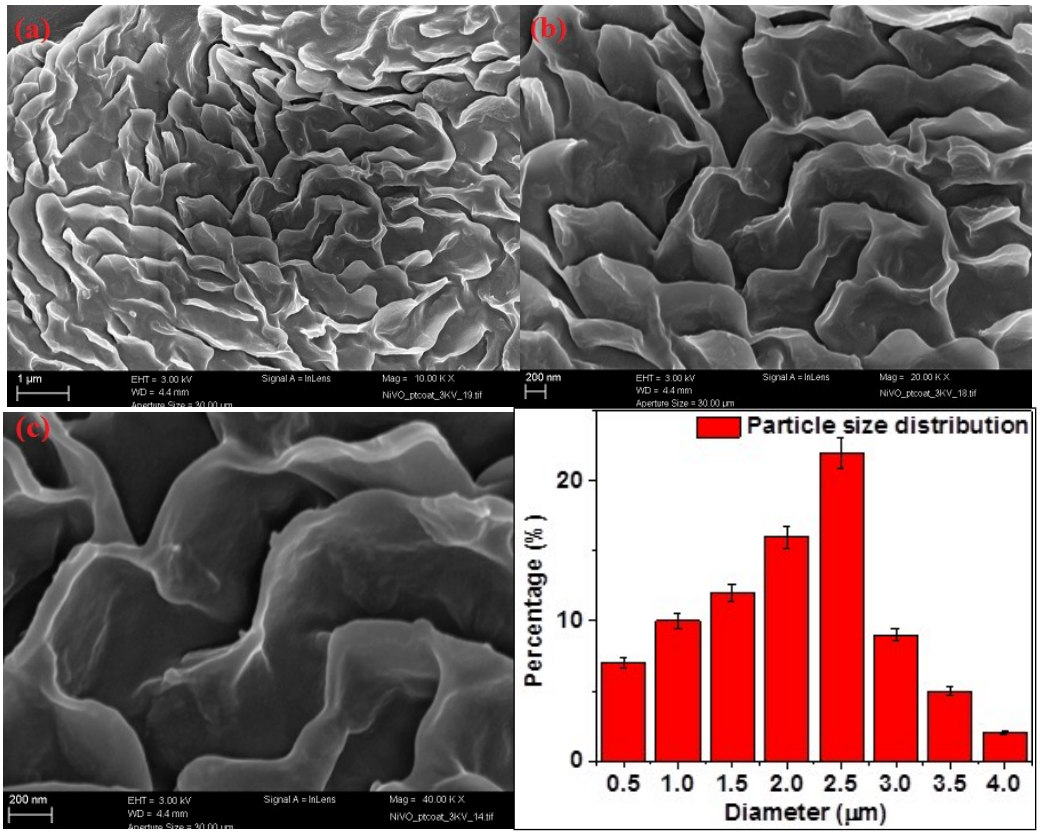

Fig. S2 SEM images (a) 10 K, (b) 20 K, (c) 40 K of NNV captured at different location, (d) Particle size distribution.

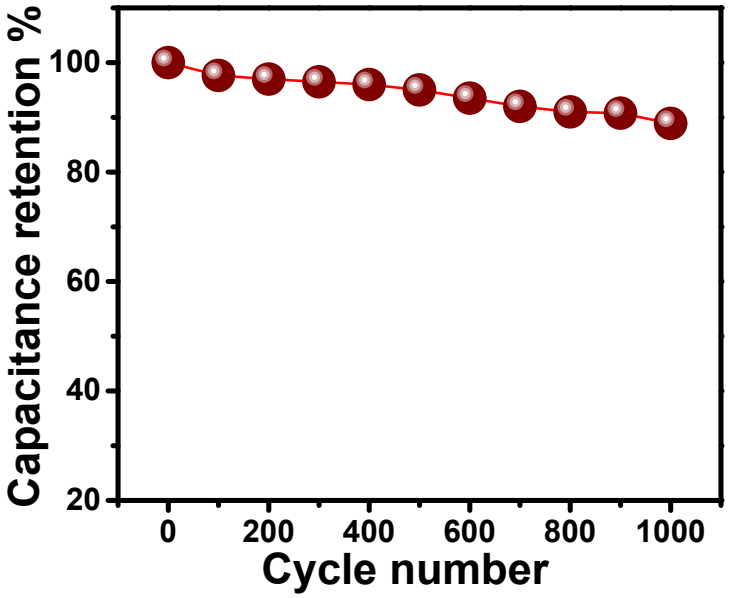

Fig. S3 Percentages of capacitance retention upto 1000 cycle at 2 A g^{-1} current density.

Table file

Table S1 Parameters obtained from XRD analyses of NNV.

2theta	d-spacing	h	k	l	multiplicity
18.31	4.84	1	0	1	2
20.06	4.42	0	0	2	2
21.50	4.12	-1	1	0	2
24.91	3.57	-2	1	2	2
26.14	3.40	1	0	2	2
27.92	3.19	-2	1	0	2
28.03	3.18	2	0	0	2
37.04	2.42	0	-1	2	2
41.19	2.18	-3	2	2	2
48.56	1.87	-4	1	2	2
53.96	1.69	-4	1	4	2
57.70	1.59	-4	2	0	2
63.77	1.46	2	0	5	2
66.84	1.39	1	-2	3	2

Table S2 Different crystal structure parameters used in the refinement analyses of NNV crystal.

Atom	Wyckoff	Site	x/a	y/b	z/c
Ni1	1a	-1	0	0	0
Ni2	2i	1	0.085	0.100	0.367
V1	2i	1	0.484	0.960	0.208
V2	2i	1	0.620	0.429	0.758
V3	2i	1	0.715	0.441	0.407
V4	2i	1	0.730	0.450	0.060
O1	2i	1	0.142	0.376	0.031
O2	2i	1	0.002	0.439	0.414
O3	2i	1	0.039	0.088	0.765
O4	2i	1	0.285	0.034	0.297
O5	2i	1	0.203	0.892	0.572
O6	2i	1	0.142	0.050	0.901
O7	2i	1	0.518	0.253	0.261
O8	2i	1	0.485	0.396	0.608
O9	2i	1	0.508	0.258	0.007