## MnO<sub>2</sub> grafted V<sub>2</sub>O<sub>5</sub> nano structures: Formation mechanism, morphology and supercapacitive features

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## **Electronic Supplementary Information (ESI)**



Fig. S1 (a, b) SEM images of VNN (c) TEM image of VNN



Fig S2. SEM images of VNM2.5 with different magnifications.



Fig. S3 SEM images of VNN10 with different magnifications.



Fig. S4 SEM images of VNM15 with different magnifications.



Fig. S5 EDS line scan curves showing V, O and Mn element distribution across the VNM5.



Fig. S6 Variation of specific capacitance with scan rates for VNN5



Fig. S7 (a) Charge/ discharge curves of VNN (b) VNM2.5 (c) VNM5 (d) VNM10 and (e) VNM15 of different current densities.



Fig. S8 Equivalent circuit model



Fig. S9 Ragone plot of VNM5 // AC asymmetric supercapacitor