

Binder Free and Flexible Asymmetric Supercapacitor Exploiting Mn₃O₄ and MoS₂ Nanoflakes on Carbon Fibers

Amjid Rafique ^{1,*}, Usman Zubair ^{1,2}, Mara Serrapede ³, Marco Fontana ³, Stefano Bianco ¹, Paola Rivolo ¹, Candido F. Pirri ^{1,3} and Andrea Lamberti ^{1,3,*}

¹ Politecnico di Torino, Dipartimento di Scienza Applicata e Tecnologia (DISAT), Corso Duca Degli Abruzzi, 24, 10129 Turin, Italy; usman.zubair@polito.it (U.Z.); stefano.bianco@polito.it (S.B.); paola.rivolo@polito.it (P.R.); fabrizio.pirri@polito.it (C.F.P.)

² Faculty of Engineering and Technology, National Textile University, Faisalabad 38000, Pakistan

³ Istituto Italiano di Tecnologia, Center for Sustainable Future Technologies, Corso Trento, 21, 10129 Turin, Italy; mara.serrapede@iit.it (M.S.); marco.fontana@iit.it (M.F.)

* Correspondence: amjid.rafique@polito.it (A.R.); andrea.lamberti@polito.it (A.L.)

Table S1. comparison of Voltage windows and specific capacitances.

Electrode composition	electrolyte	Voltage window (V)	Specific Capacitance (F g ⁻¹)	Energy density W h kg ⁻¹	Power density kW kg ⁻¹	Ref
Graphene/MnO ₂ //Graphene	1M Na ₂ SO ₄	1.7	25.5	10.03	2.53	S1
AC// MnO ₂	1M Na ₂ SO ₄	1.8	23.1	10.4	14.7	S2
AC// NaMnO ₂	1M Na ₂ SO ₄	1.9	38	19.5	0.13	S3
VO ₂ / rGO// Mn ₃ O ₄ /rGO	1M Na ₂ SO ₄	2.2	90	42.7	1.1	S4
AC//Mn ₃ O ₄ /Graphite paper	1MNa ₂ SO ₄	1.6	91	47	0.202	S5
MnO ₂ Nanosheet// Carbon Fiber	PVA/LiCl	1.5	87.1	27.7		S6
MnO ₂ /GNS//MoS ₂ /GNS	PVA/Na ₂ SO ₄ (1M Na ₂ SO ₄)	2.0	142	78.9	0.248	S7
Fe ₂ O ₃ /Carbon fabric// MnO ₂ /Carbon fabric	PVA/LiCl (1M LiCl)	1.8	119	53		S8
MoS ₂ /CF//Mn ₃ O ₄ /CF	1M Na ₂ SO ₄	1.8	70	30	9	This work
MoS ₂ /CF//Mn ₃ O ₄ /CF	PVA/Na ₂ SO ₄ (1M Na ₂ SO ₄)	1.8	65	29	0.45	This work

The above table S1 give the comparison of our devices with literature to show that we have the comparable results. The data shows, we succeed in getting high voltage of 1.8 V with comparable specific capacitance.

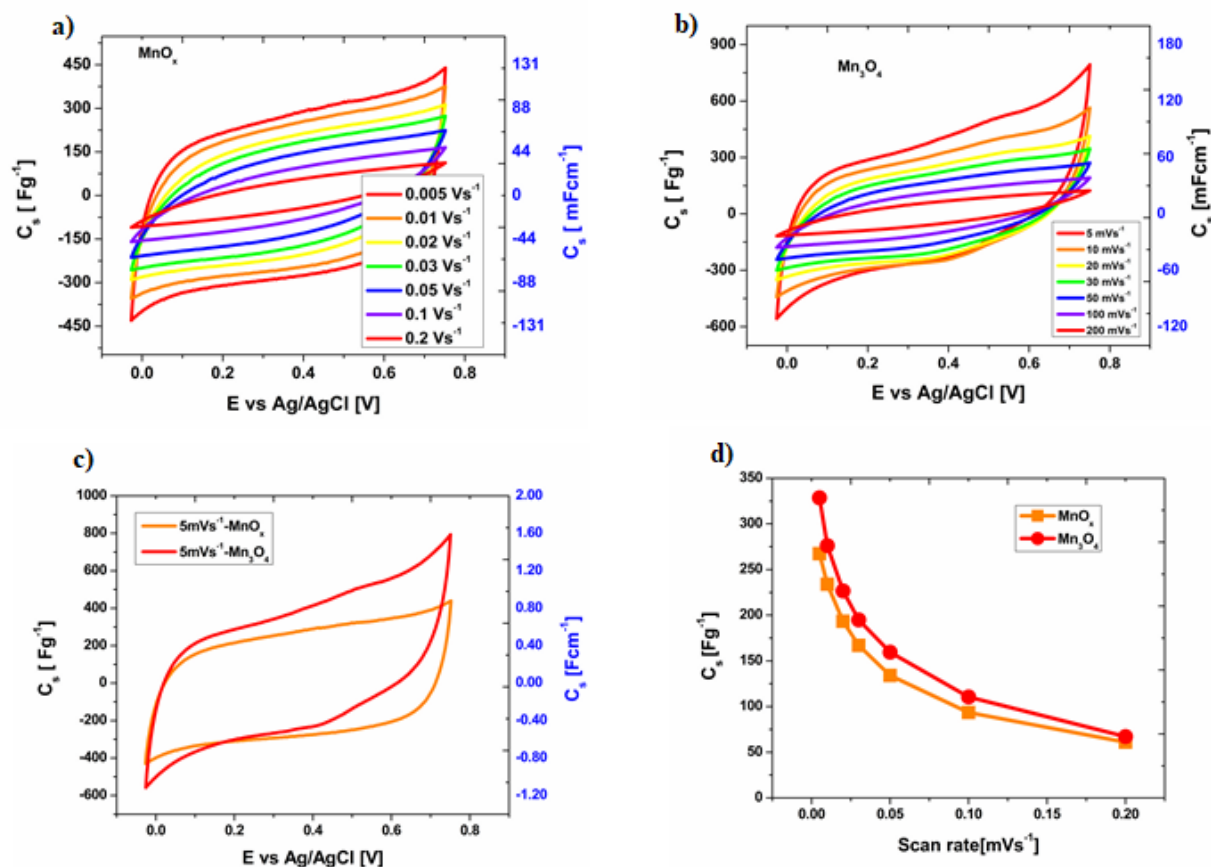


Figure S1. a–b CV's recorded at different scan rate for both MnO_x and Mn₃O₄ (before and after thermal treatment, c-d) show the CV and capacitance comparison for MnO_x and Mn₃O₄.

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