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Single-Step Rapid Synthesis of Monolithic Mesoporous Carbon/Graphene Aerogels with Improved Double Layer Capacitance

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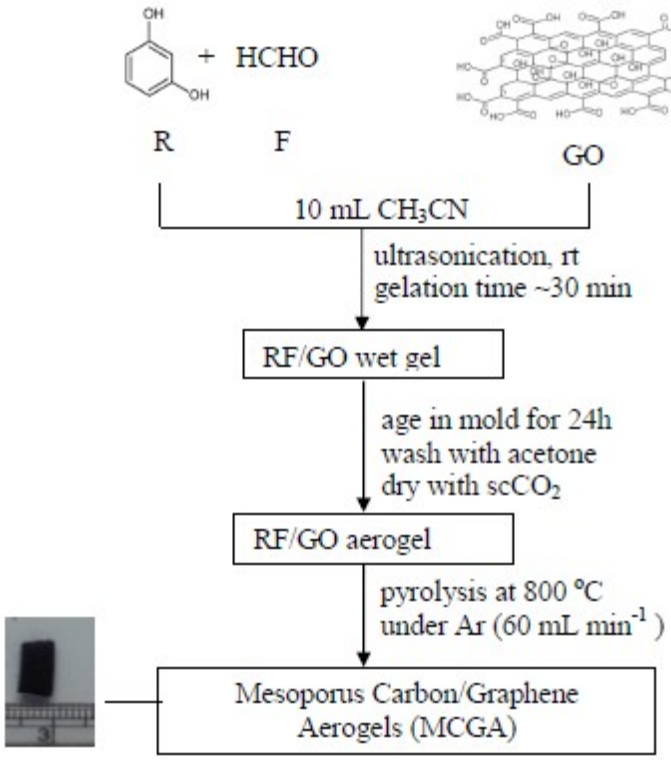
Supporting Information:



Scheme 1: Synthesis of Mesorporous Carbon/Graphene aerogels (MCGA)

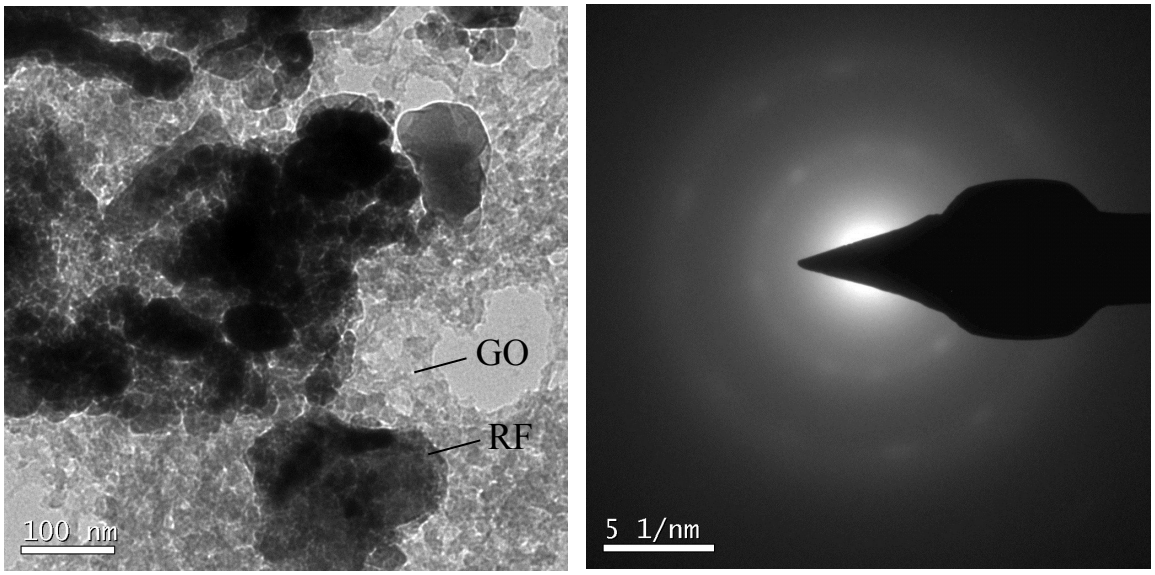


Figure S1: Transmission Electron Microscope (TEM) images for (a) RF-GO aerogels, (b) Selective Area Diffraction Pattern (SAED) of RF-GO aerogels

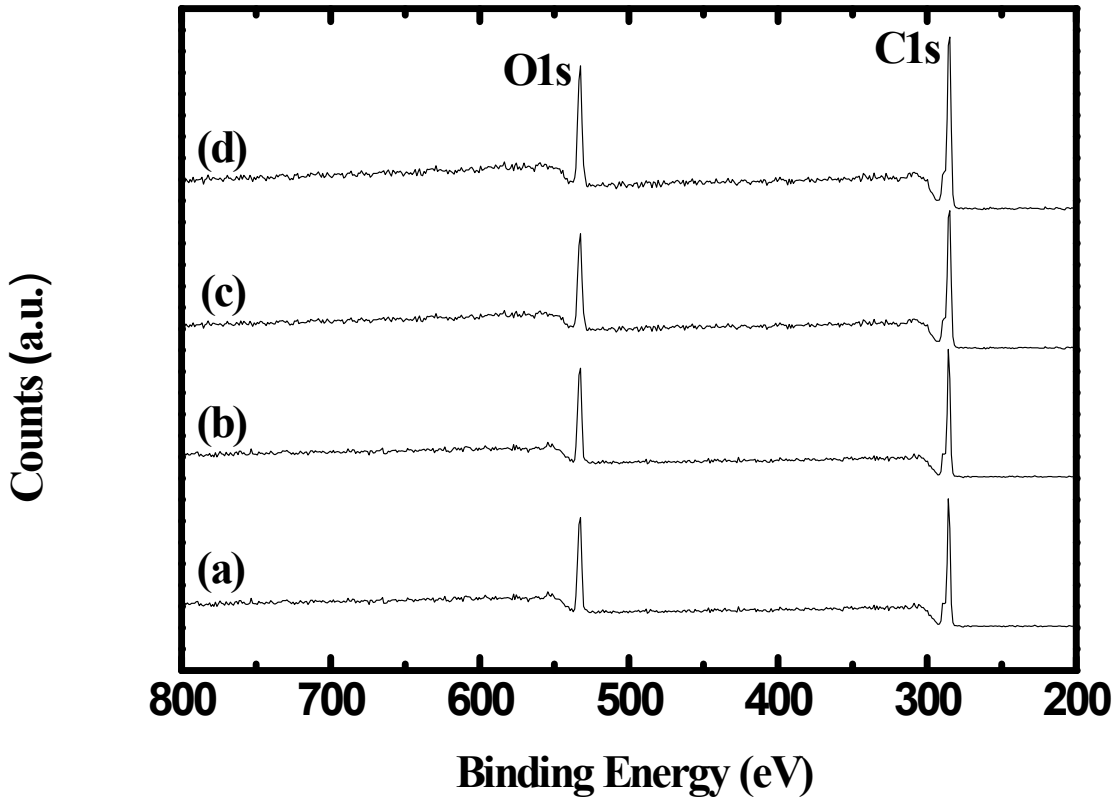


Figure. S2: Overall XPS spectra of (a) GO, (b) MC, (c) MCGA-0.4, (d) MCGA-0.8.

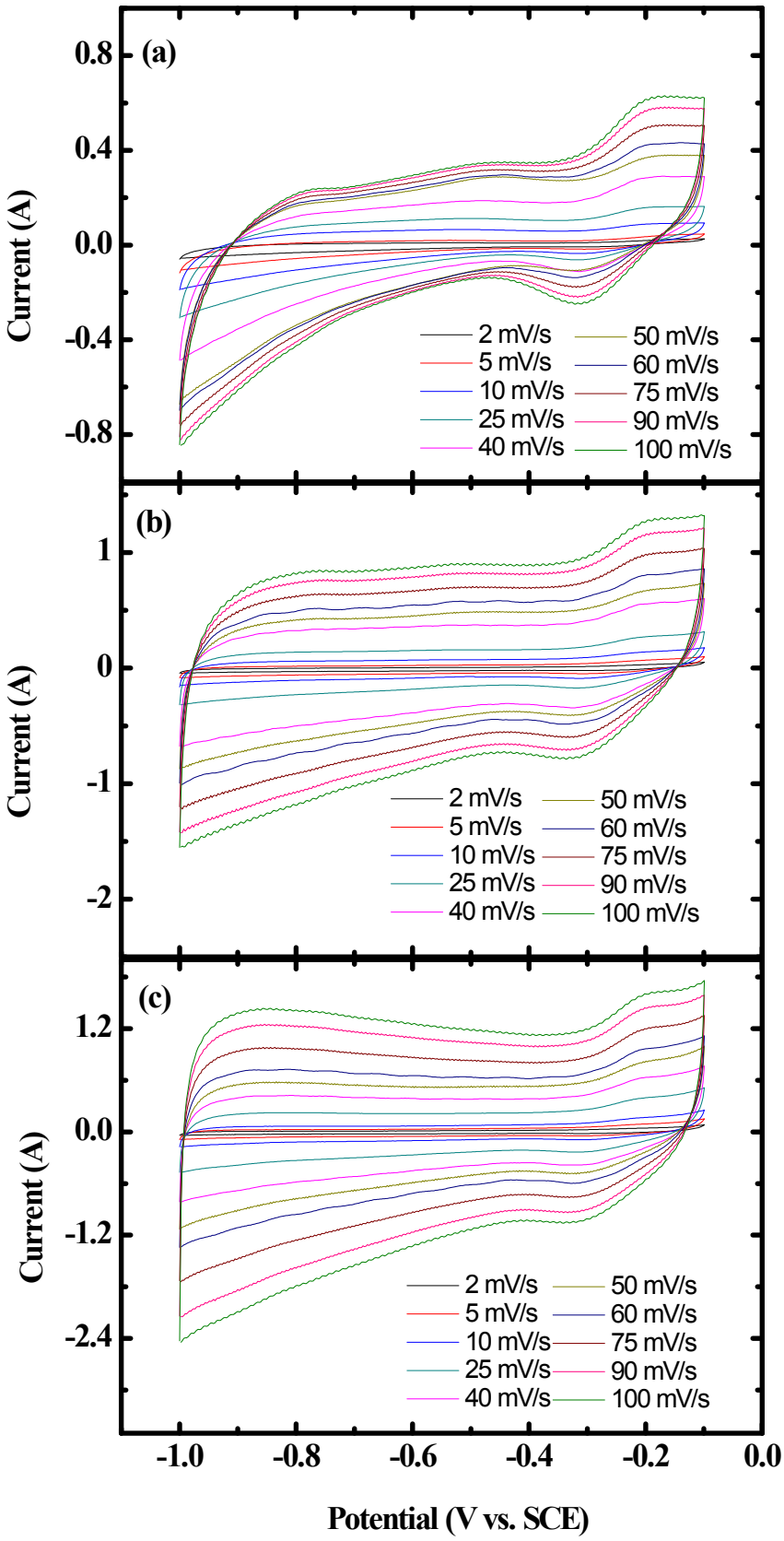


Figure. S3: Cyclic voltammograms of MCA, MCGA-0.4, MCGA-0.8 at different sweep rates

Table S1. Selected physical properties of MCA, MCGA-0.4 and MCGA-0.8 samples

Sample	bulk [a] density	skeletal density	% porosity	pore size	pore volume	BET surface area	I_D/I_G ratio	C/O ratio	electrical conductivity
	(ρ_b,g/cc)	(ρ_s,g/cc)	(Π)	(nm)	(cc/g)	(m^2/g)			(S/m)
MC A	0.127±0.013	2.05	93.7	8.9	1.136	337.2	0.85	3.76	68
MCGA-O.4	0.143±0.015	1.97	92.5	6.5	1.194	418.4	0.97	10.1	89
MCGA-0.8	0.171±0.015	2.01	90.9	7.2	1.283	533.5	1.05	15.6	128