

Supporting Information

Scalable Slot-die Coated Flexible Supercapacitors from Upcycled PET face shields

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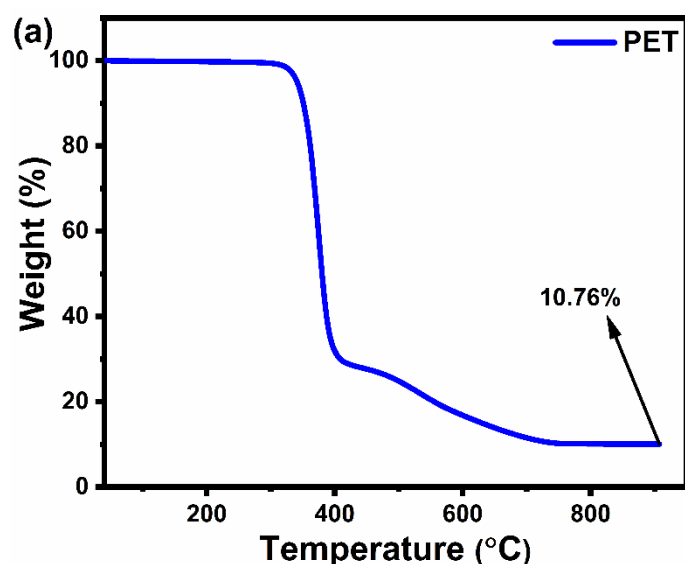
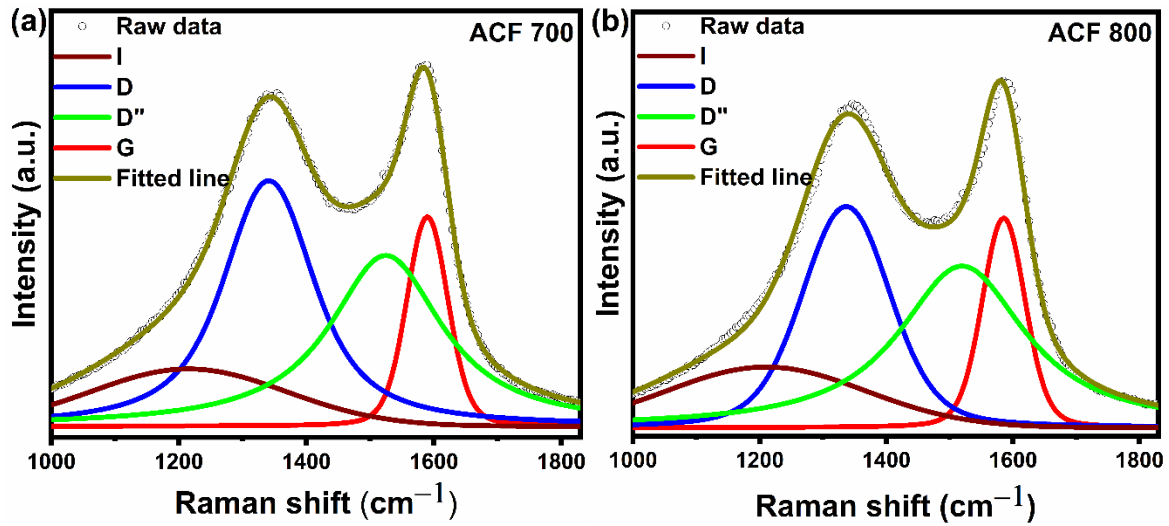


Fig. S1 (a) TGA thermogram of face shield (PET) pieces



Fig

. S2 Deconvoluted Raman spectra of (a) ACF-700 (b) ACF-800 samples

Table S1: Parameters employed for peak deconvolution

Sample	Peak Type	Center	Height	Area	FWHM	A_D/A_G	I_D/I_G
ACF-700	I	1215.26	517.76	198658	360.25	3.18	1.17
	D	1341.01	2217.94	532301	168.8		
	D''	1524.76	1542.82	511002	212.38		
	G	1589.84	1891.53	167142	76.31		
ACF-800	I	1210.3	730.04	287962	370.52	2.26	1.04
	D	1336.6	2661.31	520355	164.41		
	D''	1519.76	1944.12	721544	239.92		
	G	1585.46	2522.5	233720	63.24		
ACF-900	I	1210.78	472.64	168899	322.58	1.84	0.81
	D	1340.41	2921.62	598043	130.31		
	D''	1517.96	898.85	266487	188.76		
	G	1577.07	3594.27	388035	36.68		

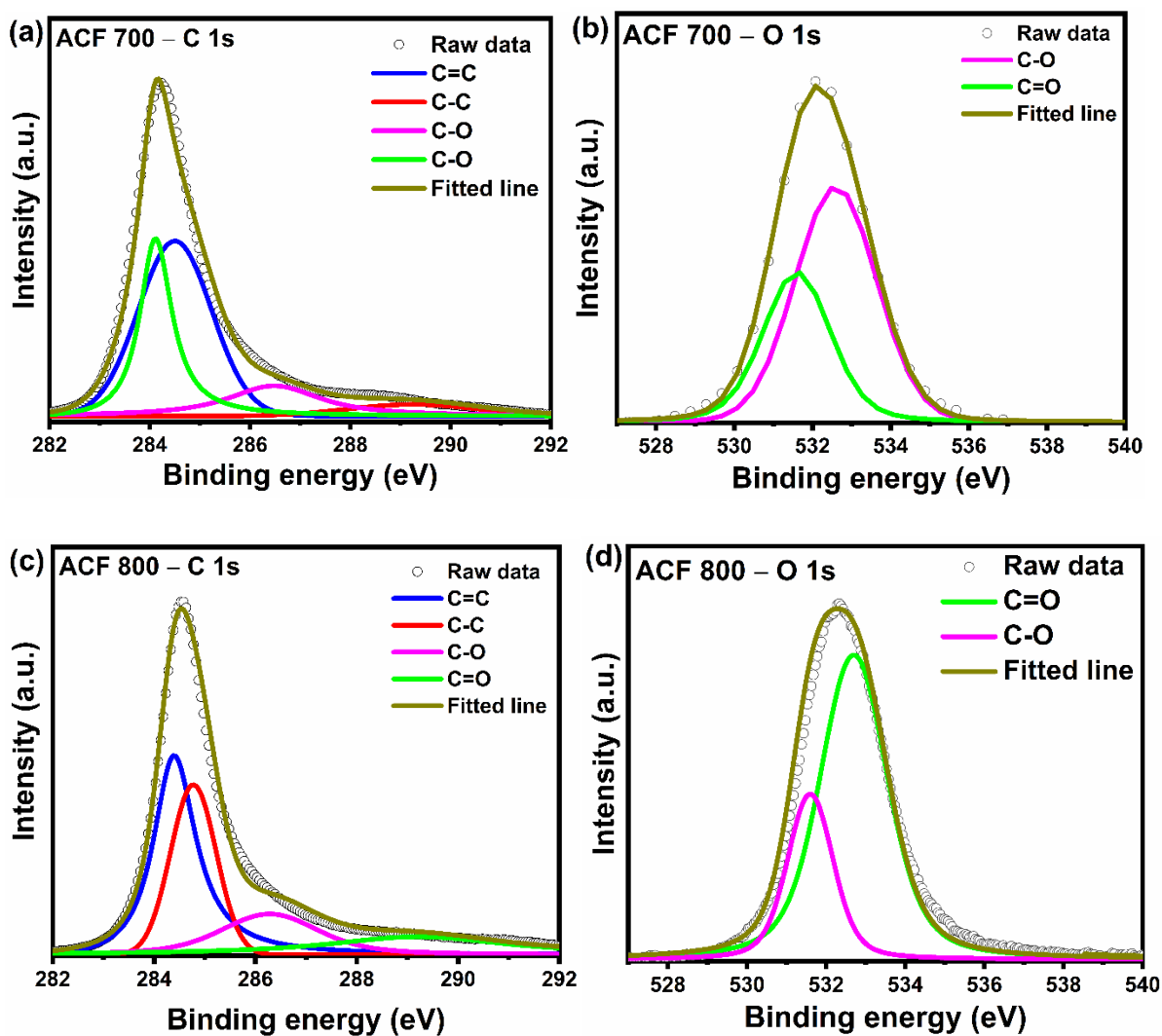


Fig. S3 (a) Deconvoluted C1s spectra of ACF-700 sample (b) Deconvoluted O1s spectra of ACF-700 sample (c) Deconvoluted C1s spectra of ACF-700 sample (d) Deconvoluted O1s spectra of ACF-700 sample

Table S2: The C and O contents of all samples from XPS analysis.

Sample	C (wt%)	O (wt%)
ACF-700	75.87	24.13
ACF-800	85.81	14.19
ACf-900	94.64	5.36

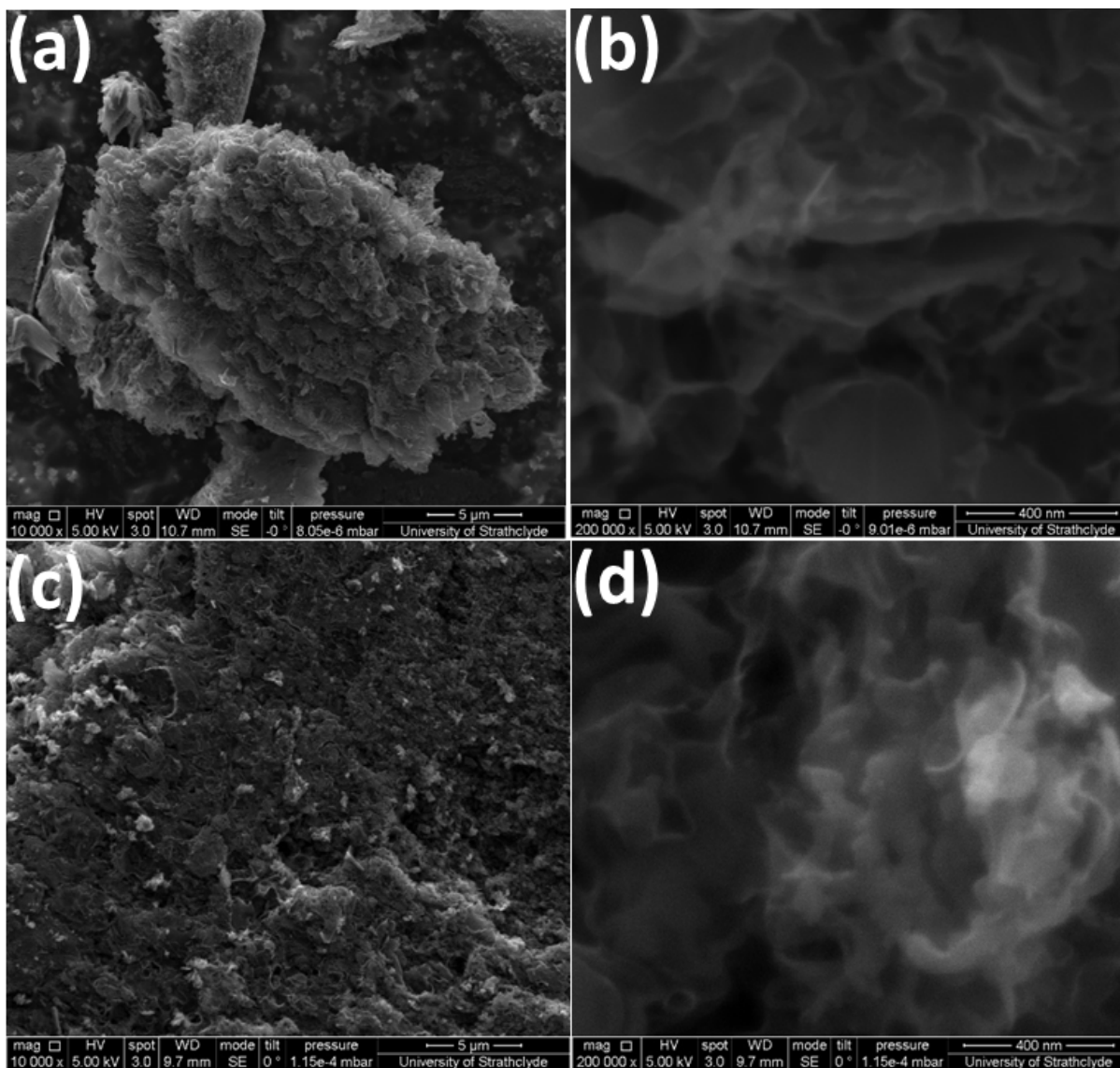
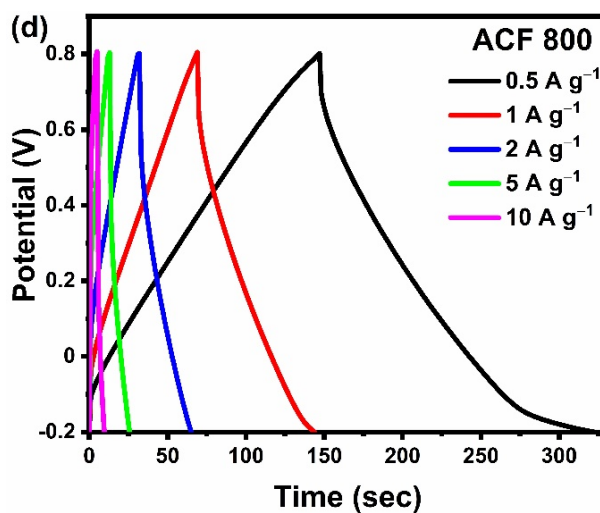
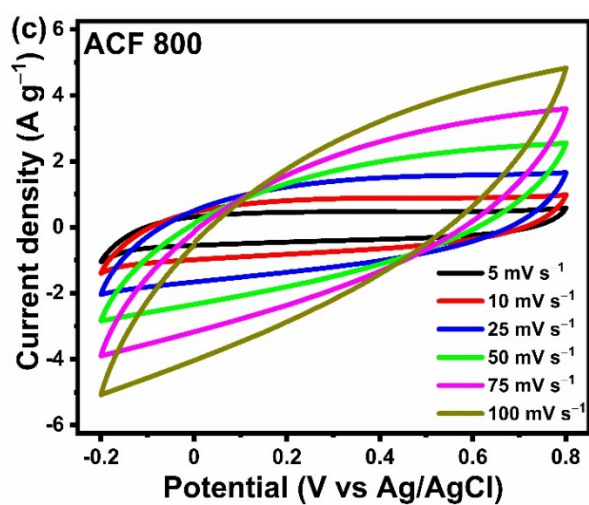
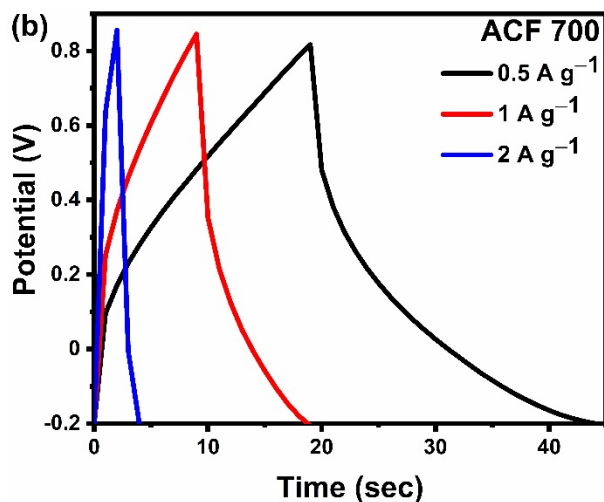
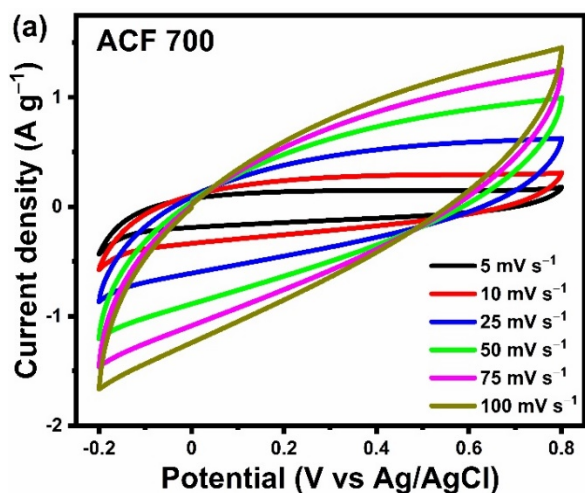


Fig. S4 (a - b) FESEM images of ACF-700 sample (c - d) FESEM images of ACF-800 samples



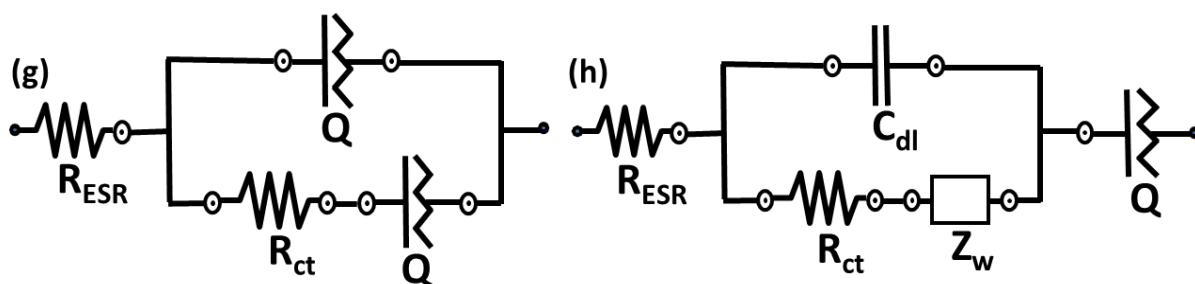
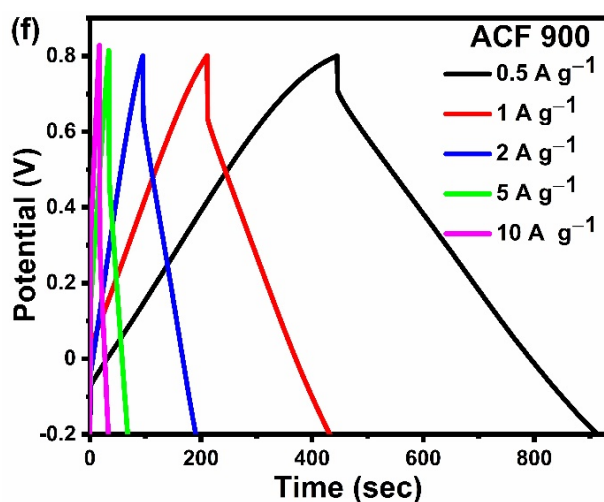
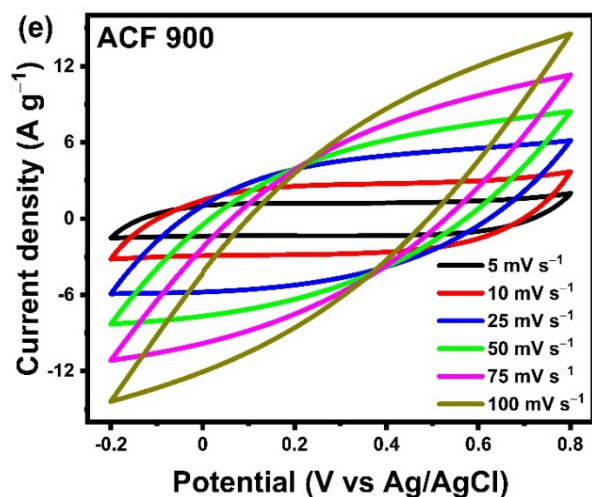


Fig. S5 (a & b) CV graph at different scan rates and GCD at different current densities for ACF-700 electrode (c & d) CV graph at different scan rates and GCD at different current densities for ACF-800 electrode (e & f) CV graph at different scan rates and GCD at different current densities for ACF-900 electrode tested in three-electrode configuration in 1M Na₂SO₄ electrolyte (g) Equivalent circuit model of ACF-700 (h) Equivalent circuit model of ACF-800