

Supplementary information

Flexible nanoporous activated carbon for adsorption of organics from industrial effluents

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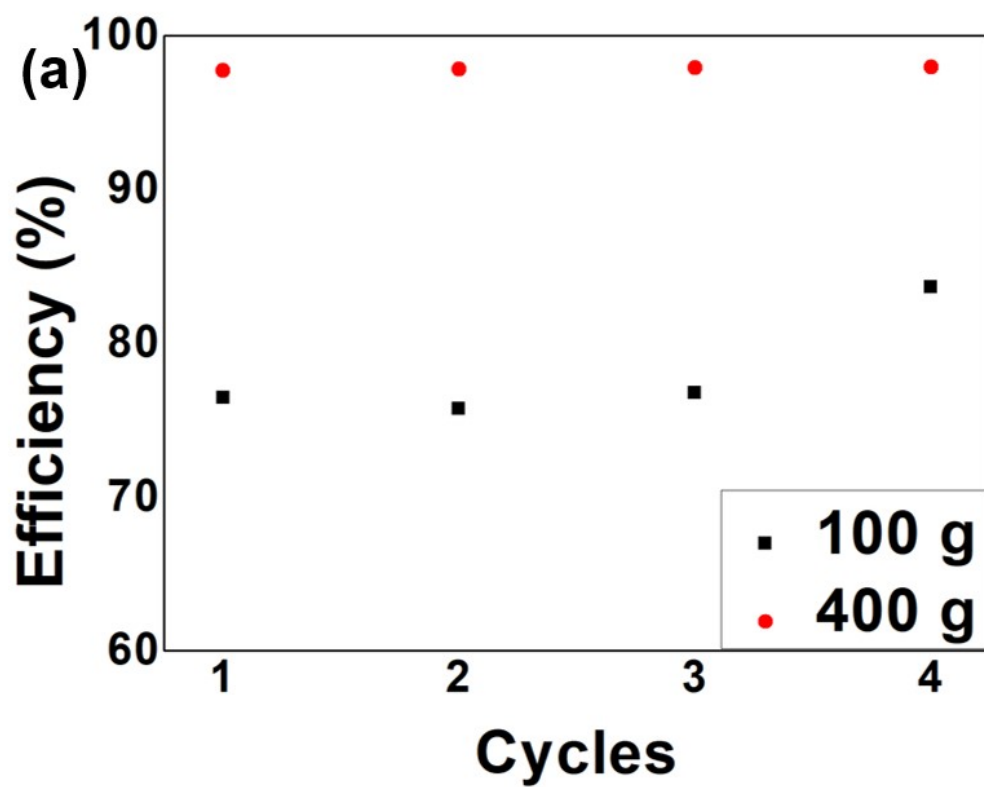


Figure S1: (a) The graph shows the emulsion separation efficiency of FACC powder for four cycles.

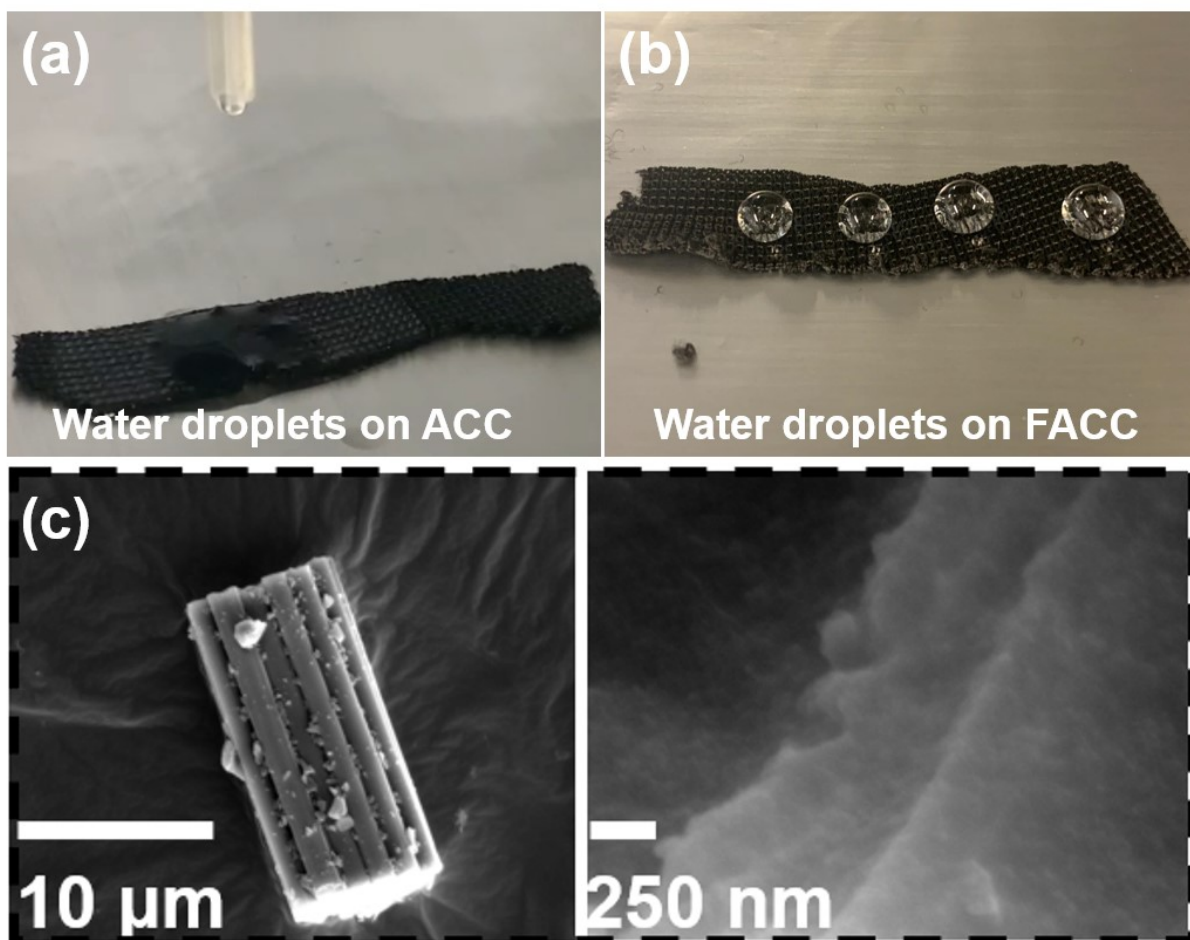


Figure S2: (a and b) The digital images show water droplets on ACC and FACC samples. FACC sample shows good repellency towards water even after 30 cycles of separation. The pristine ACC is presented as a comparison to show the hydrophilic nature of ACC before modification. (c) SEM images showing the FACC and nanostructures on the surface of fractured FACC particles.

Elements	FACC (at.%)	FACC (at.%)	FACC (at.%)	FACC (at.%)	FACC (at.%)	FACC (at.%)
	Before separation		After separation of oil/water mixtures		After separation of emulsion	
C	84	82.51	81.8	81.98	84.02	85.6
O	7.35	8.46	8.89	8.12	8.08	6.12
F	3.45	4.12	3.61	3.72	3.41	3.56
Si	0.63	0.55	1.29	1.31	0.76	0.39
Pt	2.83	2.53	2.8	2.92	2.13	2.48

Table S1: The table shows the quantification of elements on the surface of FACC before and after separation cycles with oil/water mixtures and emulsions.

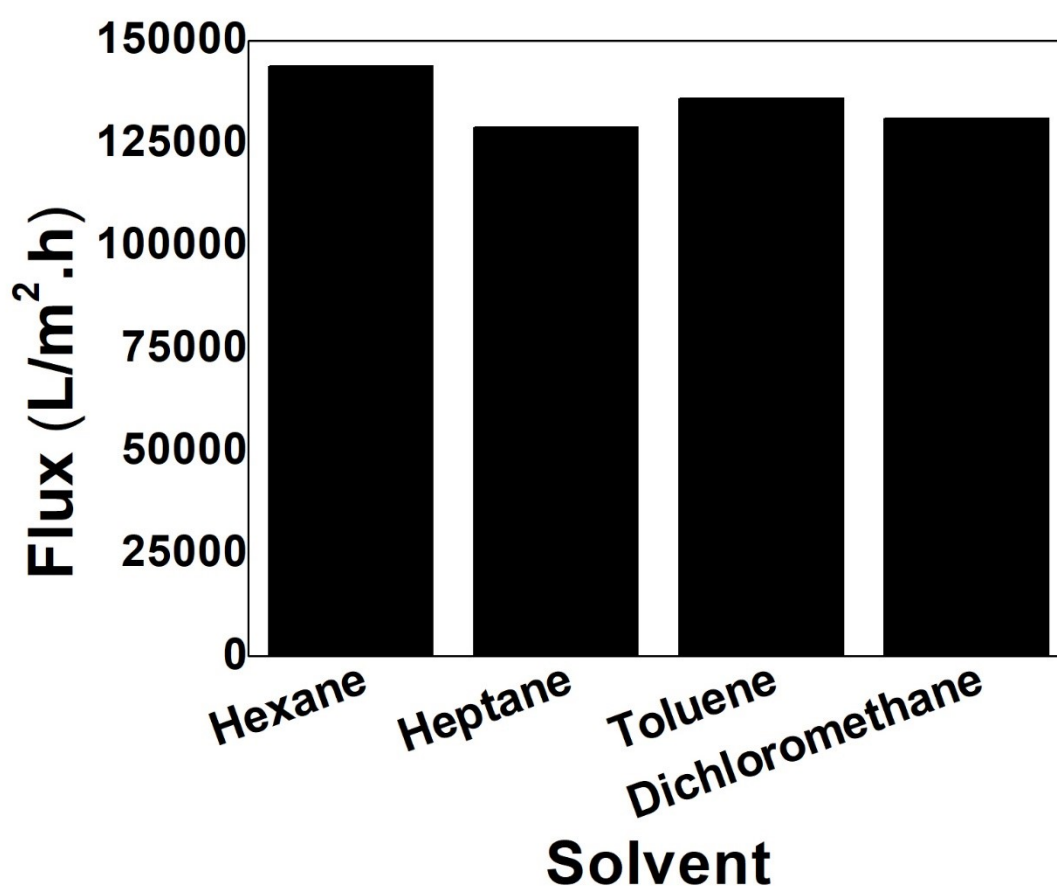


Figure S3: Figure shows the flow rates of various organic solvents under gravity without any external force.

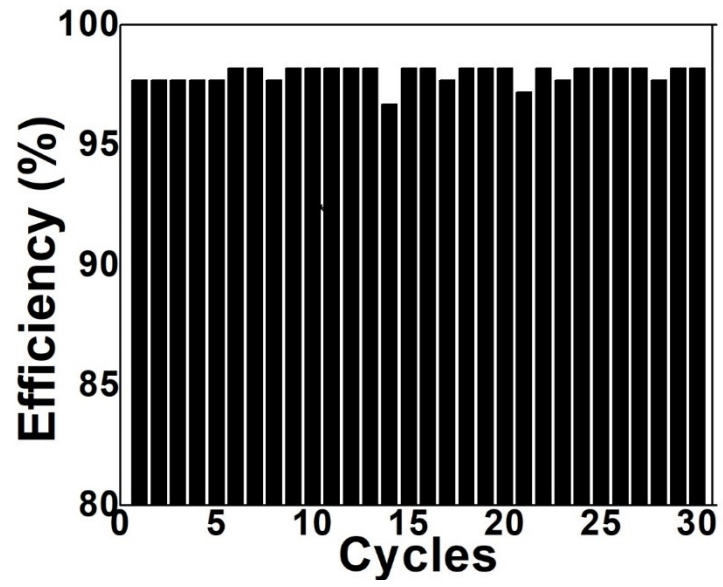


Figure S4: Figure shows the separation efficiency of FACC up to 30 cycles.