

Structural Flexibility in Activated Carbon Materials Prepared under Harsh Activation Conditions

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SUPPORTING INFORMATION

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Sample:	Resistance / Ω :	R^2 :	Resistivity / Ω cm:
PAC-K 800 Raw	1070	0,9996	126,89
PAC-K 800 Nonane	880	0,9993	72,05
PAC-K 800 Hexane	2090	0,9997	186,26
PAC-K 800 Hexanol	1720	0,9836	199,50
PAC-K 800 Octanol	1360	0,9988	121,79
LACC-K 700 Raw	4294	1	410,15
LACC-K 700 Nonane	2792	1	277,40
LACC-K 700 Hexane	4980	1	1265,64
LACC-K 700 Hexanol	2590	0,9996	449,50
LACC-K 700 Octanol	3300	1	302,54
LACP-A 450 Raw	40600	0,9999	2337,20
LACP-A 450 Nonane	9560	0,9964	831,62
LACP-A 450 Hexane	11670	1	2244,31
LACP-A 450 Hexanol	6530	0,9999	2645,29
LACP-A 450 Octanol	5150	0,9996	1203,44

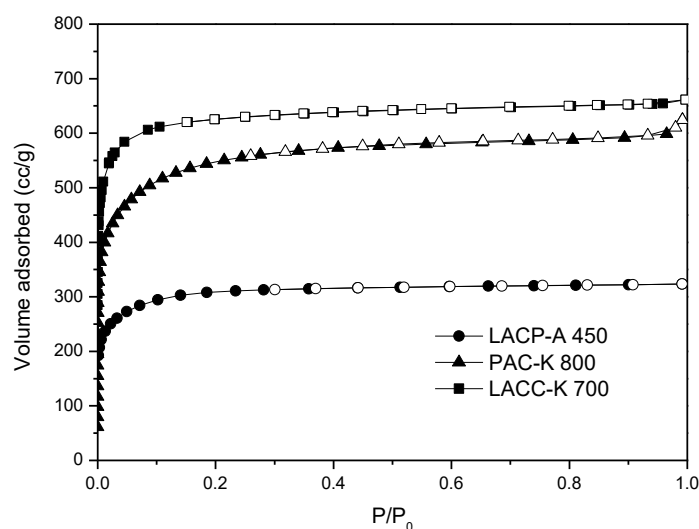


Figure S1. N_2 adsorption/desorption isotherms at 77 K for the three activated carbons evaluated.

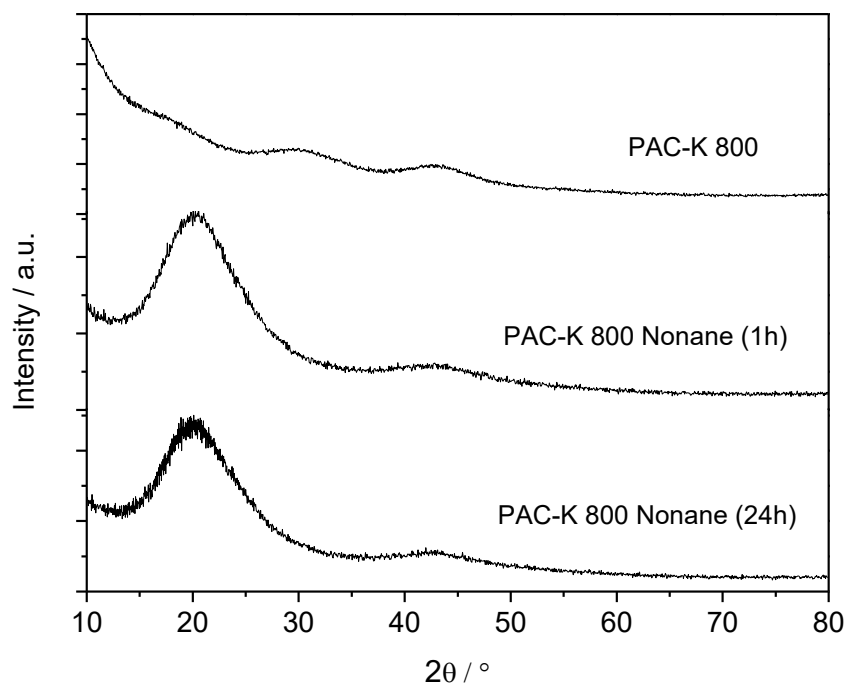


Figure S2. XRD pattern of the petroleum-based activated carbon (PAC-K 800) before and after n-nonane adsorption for 1 and 24 hours.

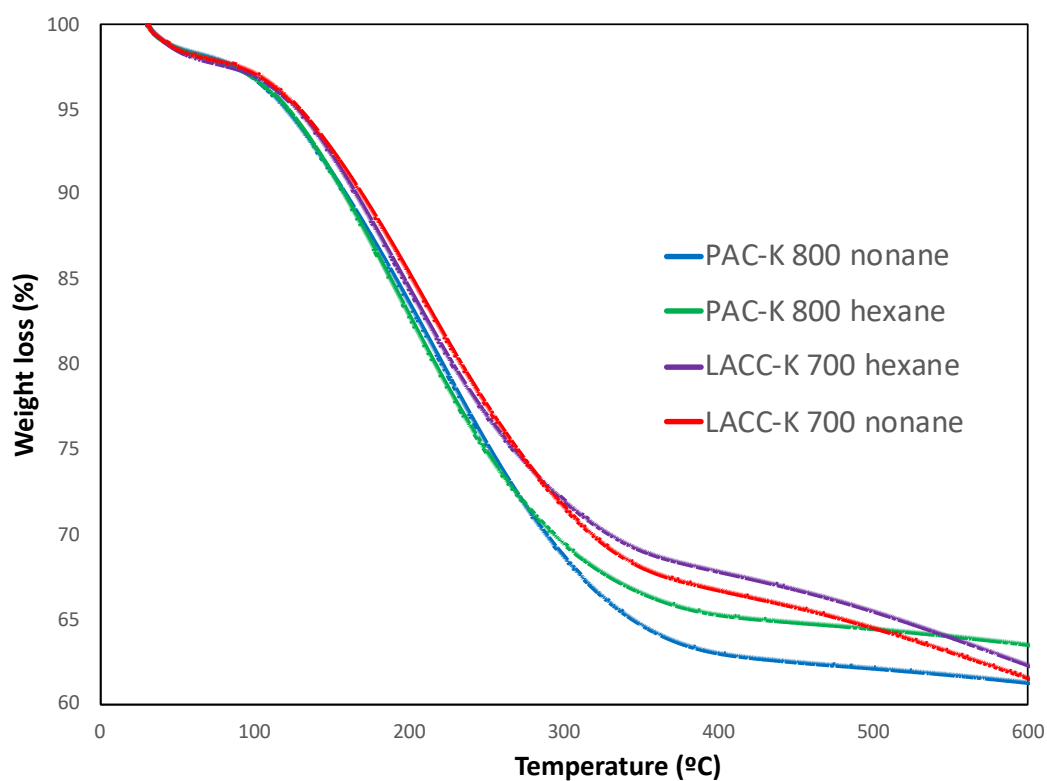


Figure S3. Thermogravimetric analysis (TG) of the LACC-K 700 and PAC-K 800 samples after pre-impregnation with nonane and hexane and a subsequent drying step at 60°C for 1h under low vacuum.

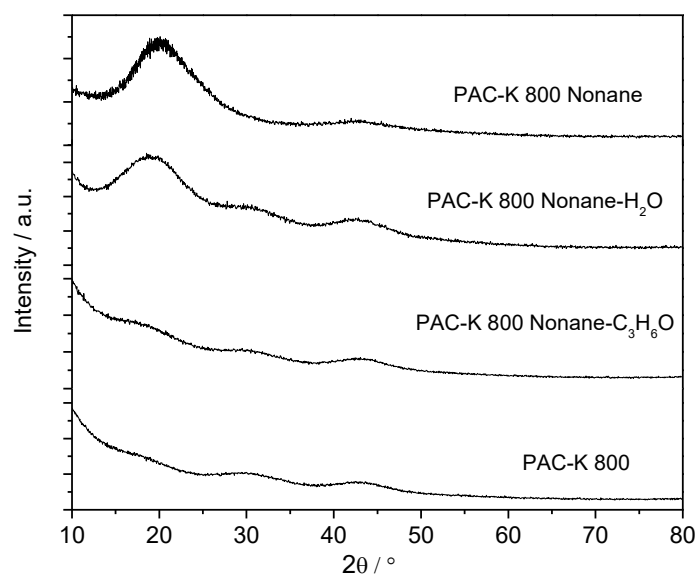
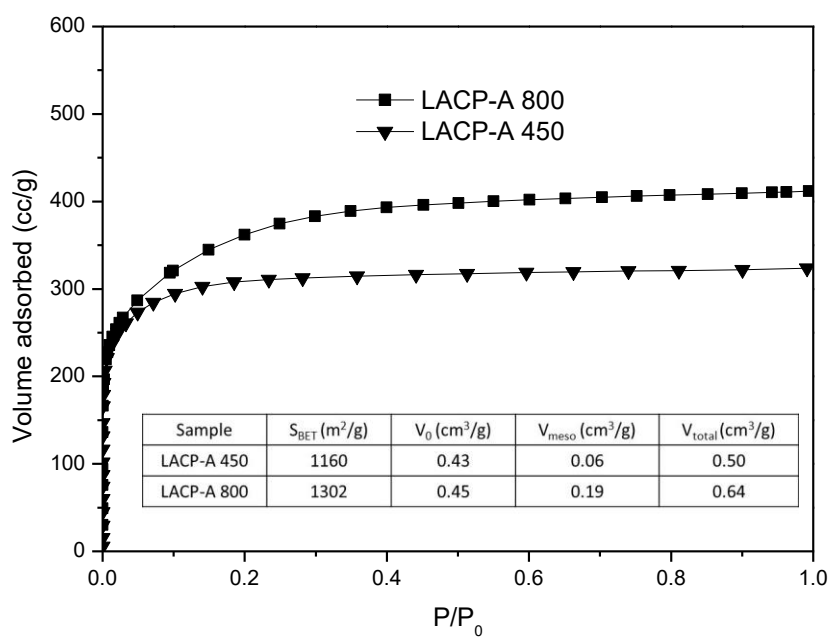


Figure S4. XRD pattern of the petroleum-based activated carbon (PAC-K 800) before and after n-nonane adsorption and after a washing treatment with H₂O and acetone (C₃H₆O).



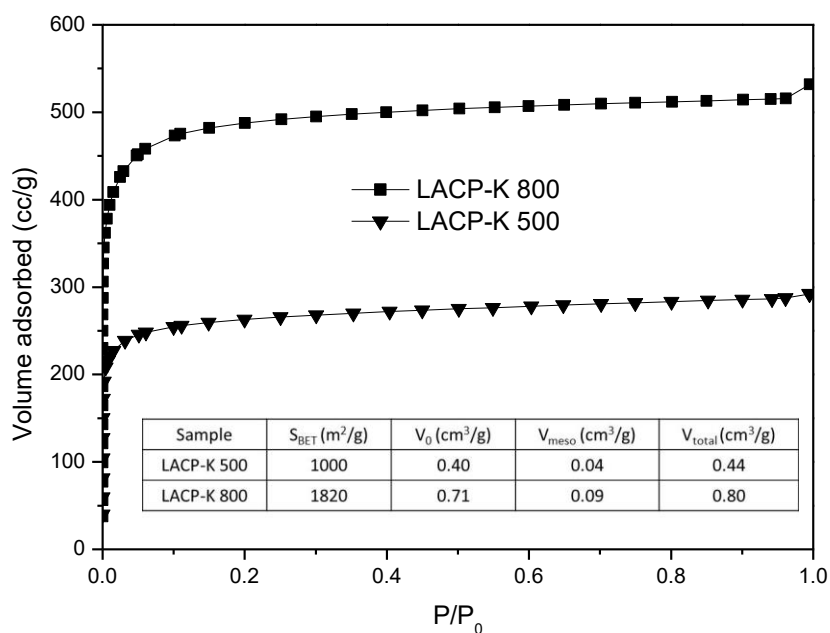


Figure S5. N_2 adsorption/desorption isotherms at 77 K for the peach stones derived activated carbons evaluated (LACP-A and LACP-K) prepared at low and high activation temperatures.

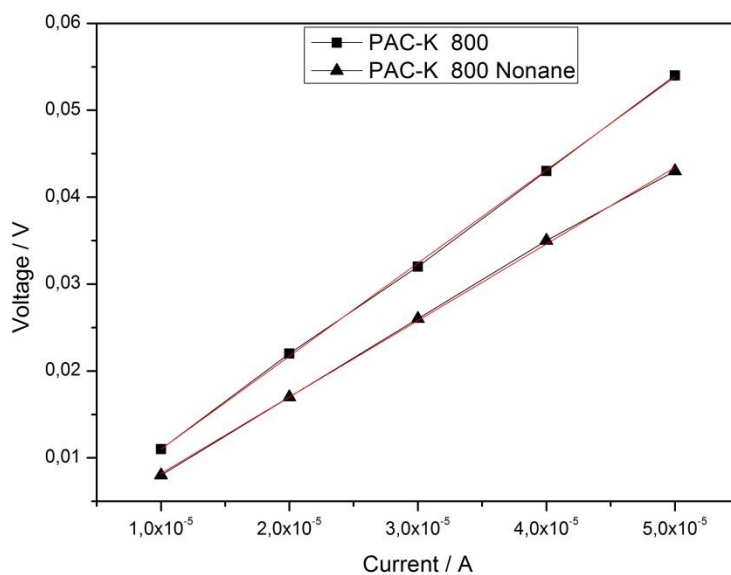


Figure S6. DC electrical resistivity measurements for PAC-K 800 sample before and after n-nonane adsorption using fourpoint probe method. The resistance values were obtained from the slope of the voltage versus current curves in ohmic regime.

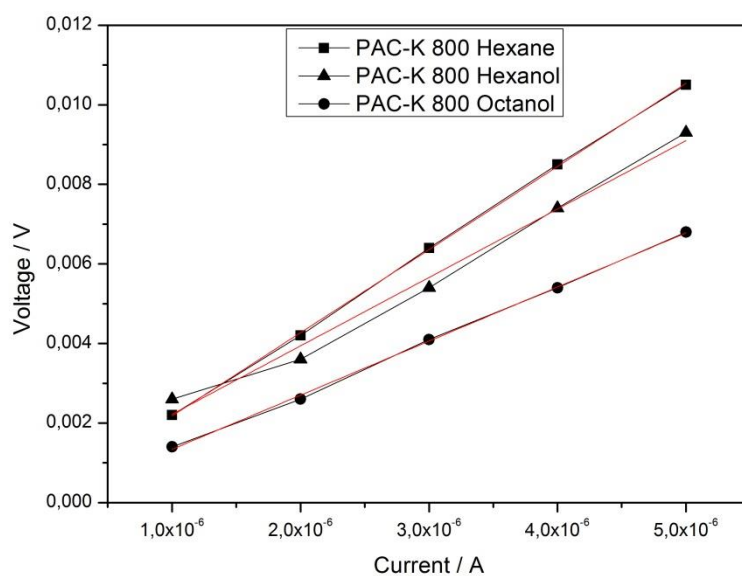


Figure S7. DC electrical resistivity measurements for PAC-K 800 sample after adsorption of hexane, hexanol and octanol using fourpoint probe method. The resistance values were obtained from the slope of the voltage versus current curves in ohmic regime.

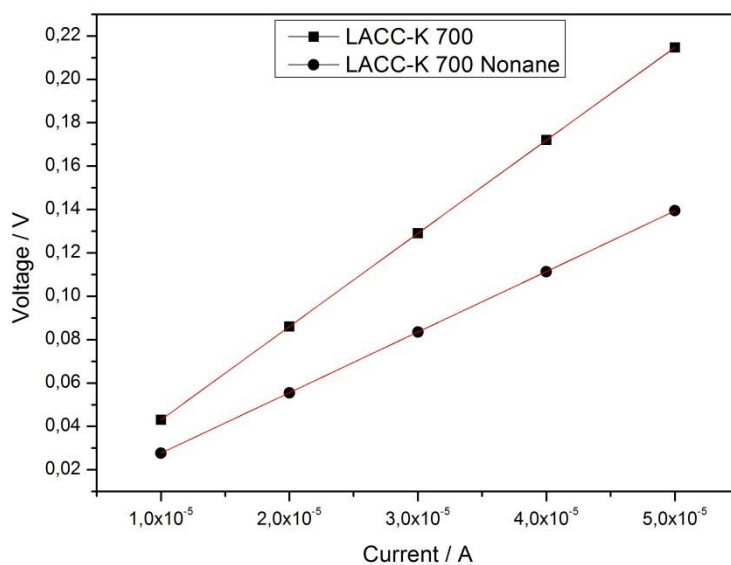


Figure S8. DC electrical resistivity measurements for LACC-K 700 sample before and after n-nonane adsorption using fourpoint probe method. The resistance values were obtained from the slope of the voltage versus current curves in ohmic regime.

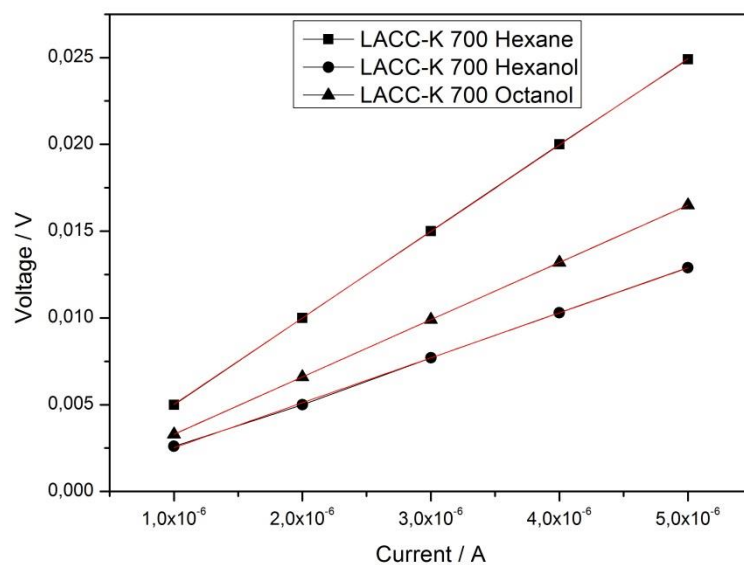


Figure S9. DC electrical resistivity measurements for LACC-K 700 sample after adsorption of hexane, hexanol and octanol using fourpoint probe method. The resistance values were obtained from the slope of the voltage versus current curves in ohmic regime.

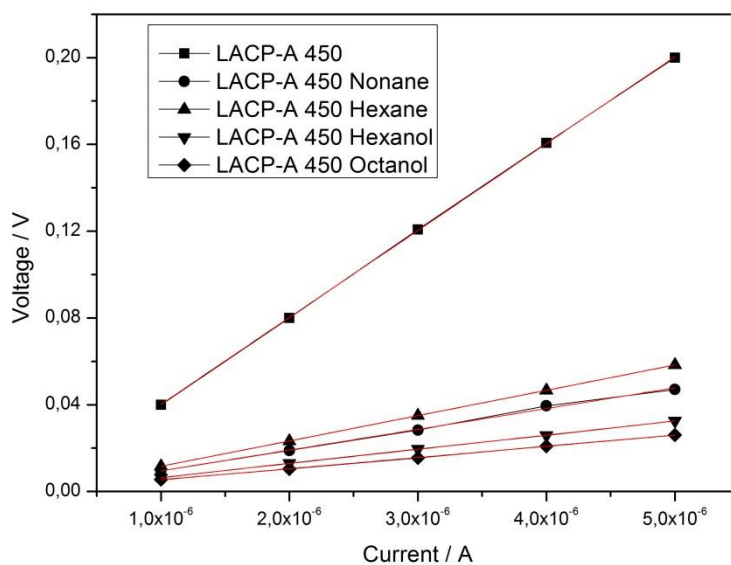


Figure S10. DC electrical resistivity measurements for LACP-A 450 before and after adsorption of n-nonane, hexane, hexanol and octanol using fourpoint probe method. The resistance values were obtained from the slope of the voltage versus current curves in ohmic regime.