

Winery wastes as precursors of sustainable porous carbons for environmental applications

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Figure S1. N₂ and CO₂ adsorption isotherms for the hydrochars. Inset: Pore size distribution

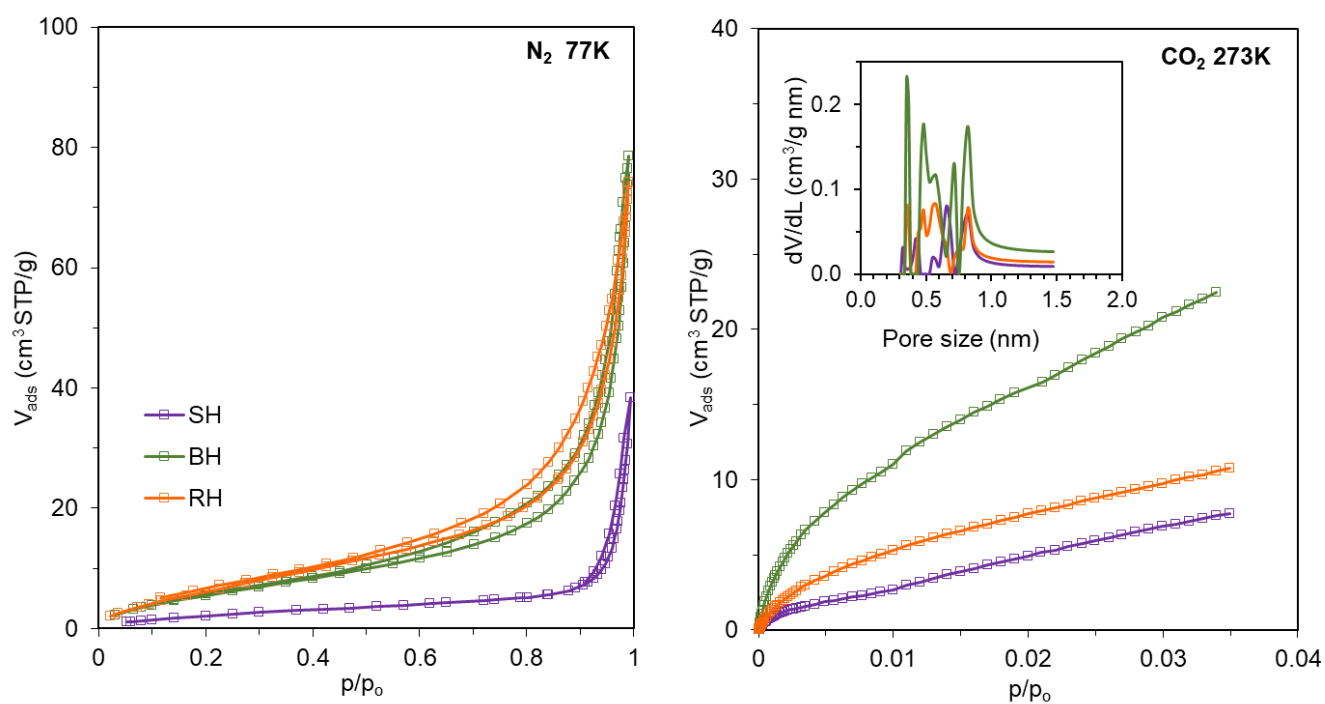
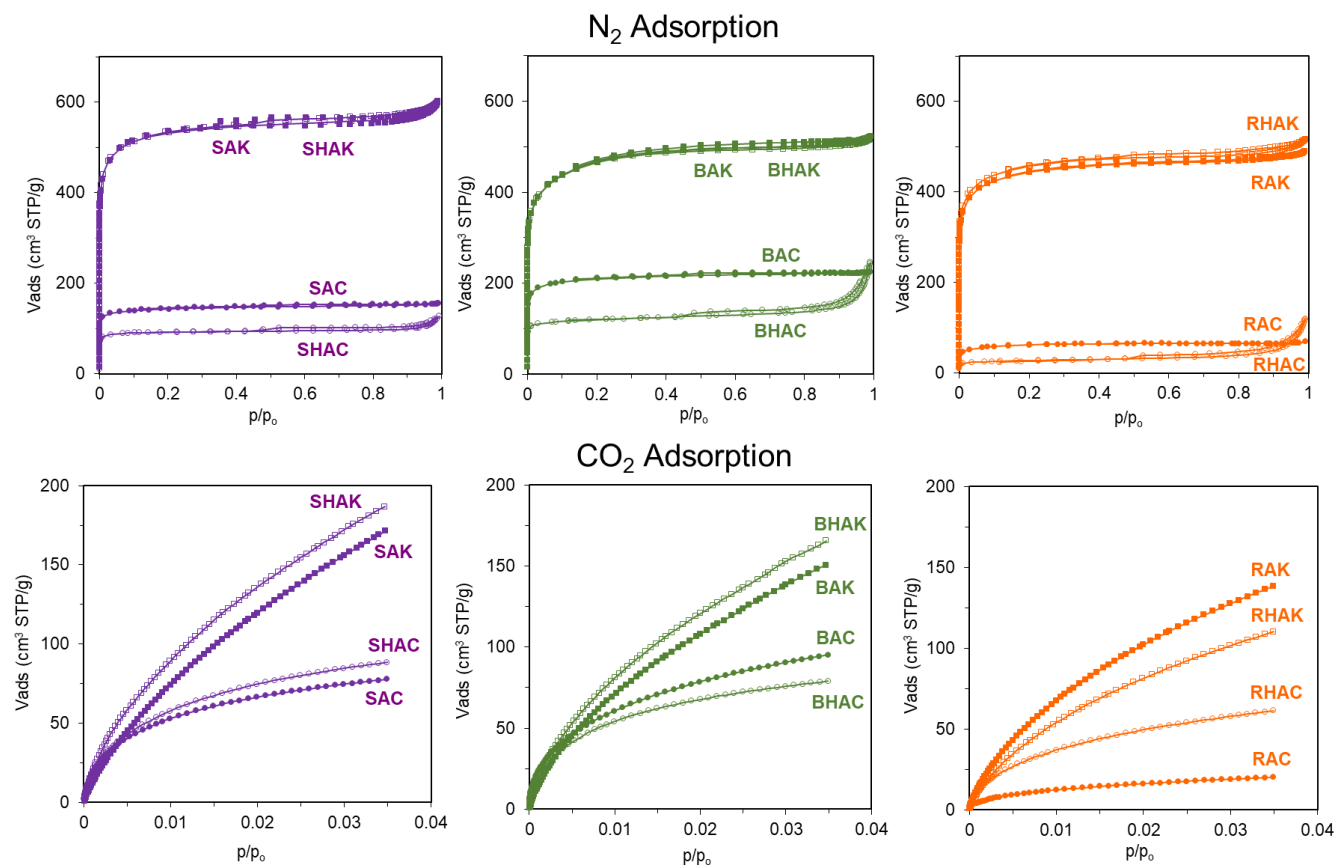


Figure S2: CO₂ and N₂ adsorption isotherms of the activated carbons derived from diverse winery solid residues.



Winery Waste	Sample	Carboxylic	Peroxide	Lactone	Phenol	Carbonyl and Quinone	Pyrone and Chromene
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	SAC	46	-	54	-	31	69
Oil free-seeds	SHAC	37	-	63	-	50	50
	SAK	29	-	71	-	100	-
	SHAK	20	-	80	-	100	-
	BAC	66	-	34	-	10	90
Bagasse	BHAC	49	-	51	-	62	38
	BAK	13	40	47	-	100	-
	BHAK	36	-	64	-	100	-
	RAC	66	-	34	-	38	62
Stalks	RHAC	22	-	78	86	-	14
	RAK	12	19	69	-	100	-
	RHAK	21	-	77	-	100	-

Table S1: Oxygen functionalities ($\mu\text{mol/g}$) in the surface of the activated carbons determined from the deconvolution of the TPD spectra shown in Fig. 2.