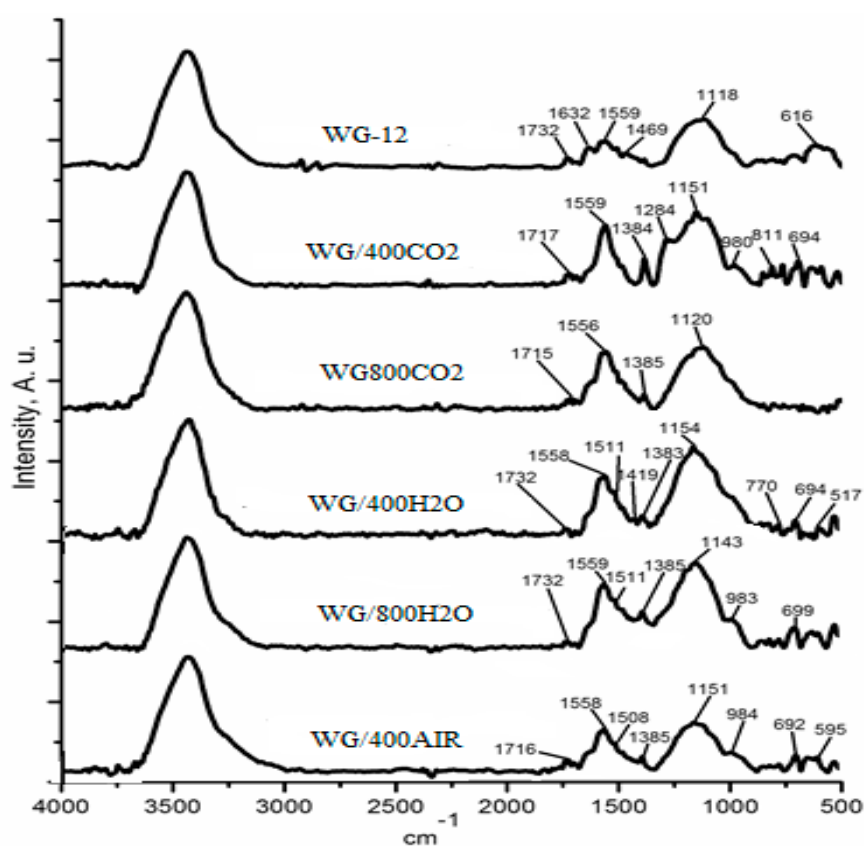


Supporting information

**Table S1.** Number of surface functional groups at the initial WG0 and oxidized activated carbons determined by the Boehm method.

Activated carbon	Surface functional groups, mmol/g					
	Carboxylic groups	Lactonic groups	Phenolic groups	Carbonyl groups	Basic groups/sites	Acidic groups
WG0	0,182±0.071	0,209±0.022	0,110±0.022	0,085±0.015	0.467±0.087	0,586±0.142
WG/400/1CO <sub>2</sub>	0,133±0.044	0,205±0.052	0,291±0.038	0,000±0.000	0.535±0.204	0,629±0.092
WG/400/1H <sub>2</sub> O	0,146±0.039	0,252±0.034	0,187±0.040	0,019±0.003	0.521±0.185	0,585±0.075
WG/400/1AIR	0,307±0.062	0,193±0.019	0,358±0.031	0,011±0.005	0.525±0.076	0,858±0.049
WG/800/1CO <sub>2</sub>	0,109±0.026	0,151±0.037	0,302±0.107	0,000±0.000	0.546±0.110	0,562±0.077
WG/800/1H <sub>2</sub> O	0,103±0.034	0,100±0.028	0,346±0.117	0,000±0.000	0.539±0.097	0,549±0.016



**Figure S1.** FTIR spectra for the initial and modified activated carbon.