Supporting Information

Comparative Mechanistic Study of Nitrogen- and Oxygen-Functionalized Activated Carbons for Dual-Phase Adsorption

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1. Thermal analysis

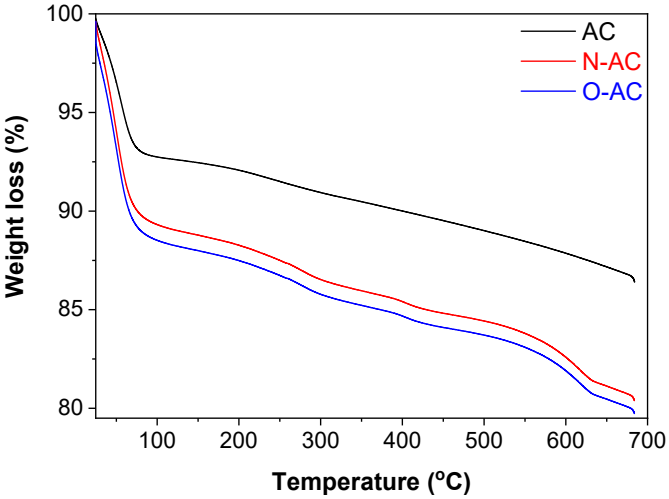

Figure S1. TGA profile of AC, N-AC and O-AC.

2. Adsorption kinetics

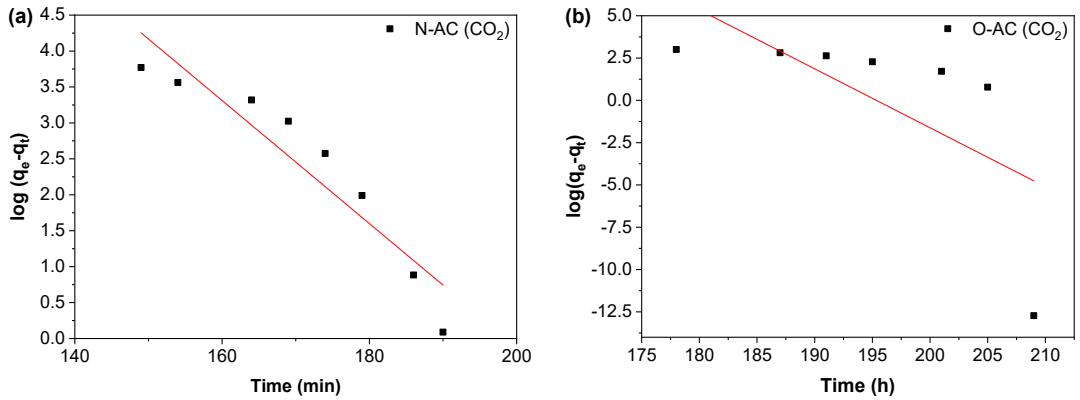

Figure S2. Pseudo first order model fitting plot

3. Kinetic fitting parameter

Table S1 Pseudo first order and intraparticle diffusion model fitting parameter

Sample	**Pseudo first order model**		**Intraparticle diffusion model**	
	Rate (K_1) (min^{-1})	**R^2**	**Rate (K_{iD}) (cc g^{-1} $min^{0.5}$)**	**R^2**
N-AC	0.1971	0.8836	34.94359	0.99555
O-AC	0.8024	0.43745	23.04952	0.98944