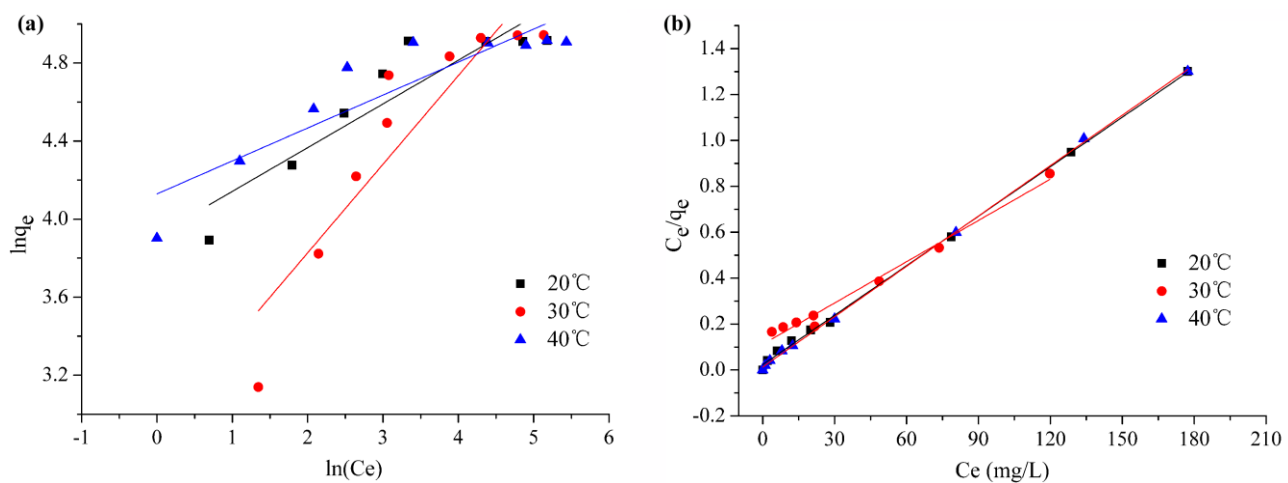
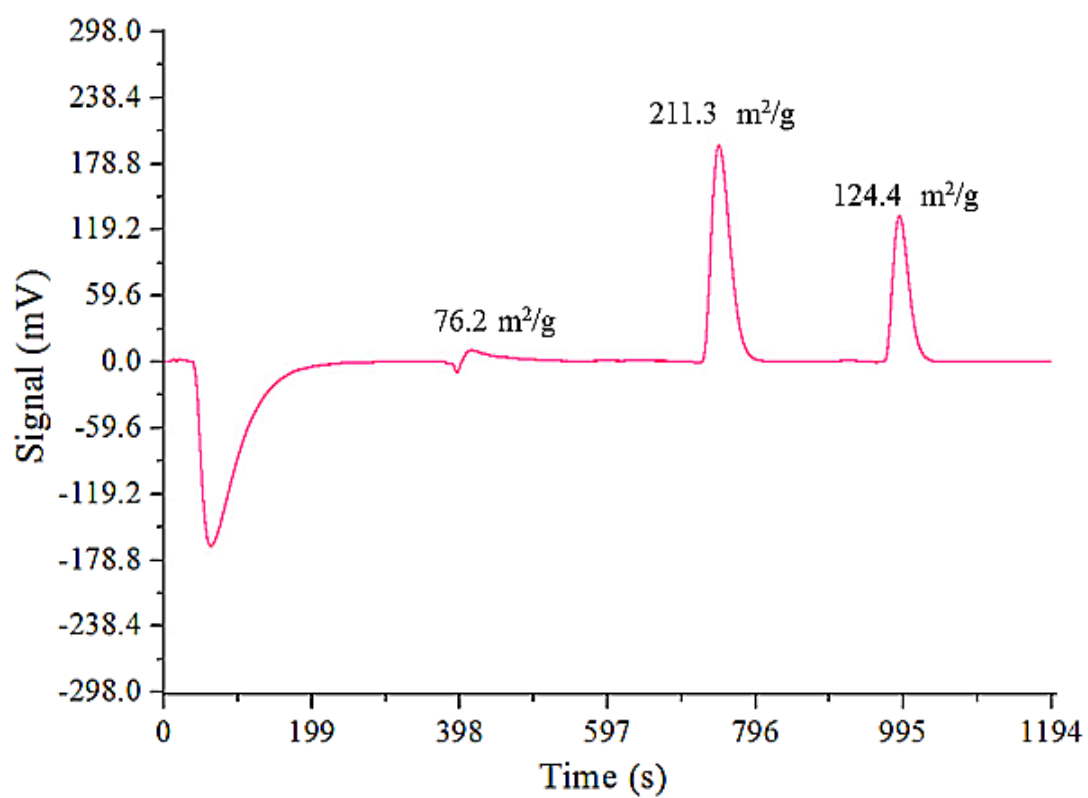


Supplemental Material 1 The fitted plots of the pseudo-first-order model (a) and pseudo-second-order kinetic model (b)



Supplemental Material 2 The fitted plots of Freundlich equation (a) and Langmuir equation (b)



Supplemental Material 3 BET surface area of SiO₂ Im⁺ HSO₄⁻ before and after adsorption