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List of abbreviations: ΔG^0 : Gibbs free surface energy change, ΔH^0 : Change in standard enthalpy, ΔS^0 : Change in standard entropy, q_e : Amount of adsorbate adsorbed per unit weight of adsorbent at equilibrium, C_e : Concentration of solute at equilibrium, q_{max} : Maximum monolayer adsorption capacity, b : Adsorption constant related to binding energy or affinity, R : Universal gas constant, T : Temperature, K_{eq} : Equilibrium constant, K_{aeq} : Apparent equilibrium constant, a_A : Activity of solute, θ_e : Fraction of surface covered at equilibrium, γ_e : Activity coefficient, C_f : Concentration of reference state, M_A : Molar weight of solute, Z : Charge of the ion, μ : Ionic strength of the solution.

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