بسم الله الرحمن الرحيم

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كليه العلوم – قسم الكيمياء

Removal of Some Environmental Pollutants and Radionuclides from Waste Water Using Novel Adsorbents

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CONTENTS

LIST OF SYMBOLS

Symbol	Description	Unit
C_o	Initial metal ions concentration in solution	mg/l
C_e	Equilibrium concentration of ions in solution.	mg/l
C_t	Concentration of ions in solution after time (t)	mg/l
M	Mass of nano bentonite used	G
V	Volume of the solution	Cm^3
q_e	Equilibrium adsorption capacity	mg/g
q_t	Adsorption capacity after time (t)	mg/g
Δq	Normalized standard deviation	dimensionless
R^2	Coefficient of determination	dimensionless
K	Equilibrium constant of the reaction	dimensionless

K	Mass transfer coefficient	cm s^{-1}
T	Time	Min
D	Diffusion coefficient	$cm^2 s^{-1}$
Δ	Diffusion layer	Dimensionless
Sh	Sherwood number	Dimensionless
Sc	Schmidt number	Dimensionless
R_e	Reynolds number	Dimensionless
N	Kinematic viscosity	cm^2 sec^{-1}
T	Absolute temperature	K
$\Delta G^{\neq}$	Activation Gibbs free energy	kJ/mol
$\Delta H^{\neq}$	Activation enthalpy change	kJ/mol
$\Delta S^{\neq}$	Activation entropy change	J/mol K
D	Diameter	Cm
P	Density of solution	g cm^{-3}
Ω	Angular velocity	rad s^{-1}
µ	Dynamitic viscosity of solution	Poise