

Chapter	Table No	Title	Page No	
I	1.1	Arsenic in rock and sediment	4	
	1.2	Natural geochemical processes of Arsenic release	5	
	1.3	Regionwise population of arsenic effected people vs source of arsenic	6	
	1.4	Epidemiological status of arsenicosis in various states of India	12	
	1.5	Merits and demerits of the existing arsenic remediation techniques	16	
II	2.1	Chemicals used during the study along with the names of manufacturer	1	
III A	3.1.1	Isotherm parameters for Ct/Glu and MMT/Ct/Glu for different models	12	
	3.1.2	Comparison of Q_0 value with other reported adsorbent	13	
	3.1.3	First order kinetic parameters for Ct/Glu and MMT/Ct/Glu	16	
	3.1.4	Second order kinetic parameters for Ct/Glu and MMT/Ct/Glu	16	
	3.2.1	Parameters for different kinetic models for sorption of As(V) on CTN	28	
	3.2.2	Parameters of different isotherm models for sorption of As(V) on CTN	29	
	3.2.3	Comparison of efficiency with other established material	31	
	III B	3.3.1	First order Kinetic parameters for As(V) sorption	11
		3.3.2	Second order kinetic parameters at different initial As(V) concentrations	12
		3.3.3	Sorption parameters of different isotherm models	13
3.3.4		Comparison of adsorption capacity with other	15	

	established material	
3.4.0	Composition of the sorbent materials	18b
3.4.1	Experimental and theoretical infrared spectral data for the optimized complexes, ν is the vibrational frequency in cm^{-1}	20
3.4.2	Values of geometrical parameters (\AA) having d as bond length	21
3.4.3	Performance of different materials in As(III) remediation	26
3.4.4	Activation energy and thermodynamic parameters for sorption of As(III)	29
3.4.5	Parameters of different kinetic models on sorption of As(III)	31
3.4.6	Isotherm constants and correlation coefficients for sorption of As(III)	33
III C		
3.5.1	Composition of the sorbent materials	2
3.5.2	Effect of cross linking on turbidity	5
3.5.3	Parameters for different kinetic models for sorption of Arsenic on RP/10CA	10
3.5.4	Various isotherm models and related parameters	11
3.6.1	Experimental and theoretical infrared spectral data for the optimized complexes, ν is the vibrational frequency in cm^{-1}	16
3.6.2	Table showing the geometrical parameters where d is bond length in \AA	18
3.6.3	Parameters for different kinetic models for sorption of Arsenic on CT:RP/1:2	25
3.6.4	Values of different isotherm parameters for sorption of Arsenic	26