

Table S1: ANOVA table of original FCCD model

Source	Sum of Squares	DF	Mean Square	F Value	Prob> F	Remarks
Model	8032.7811	14	573.7701	251.1699	< 0.0001	significant
A	14.9058	1	14.9058	6.525068	0.0220	
B	0.1300	1	0.1300	0.05693	0.8146	
C	4995.3344	1	4995.3344	2186.726	< 0.0001	
D	1743.6481	1	1743.6481	763.2883	< 0.0001	
AB	0.0008	1	0.0008	0.000331	0.9857	
AC	2.6651	1	2.6651	1.166638	0.2972	
AD	6.1380	1	6.1380	2.686934	0.1220	
BC	0.0248	1	0.0248	0.010859	0.9184	
BD	0.0452	1	0.0452	0.019767	0.8901	
CD	1064.8801	1	1064.8801	466.1551	< 0.0001	
A ²	0.0536	1	0.0536	0.023444	0.8803	
B ²	0.0573	1	0.0573	0.025103	0.8762	
C ²	1.4721	1	1.4721	0.644409	0.4347	
D ²	53.4916	1	53.4916	23.41612	0.0002	
Residual	34.2659	15	2.2844			not significant
Lack of Fit	32.5919	10	3.2592	9.73513	0.0107	
Pure Error	1.6739	5	0.3348			
Cor Total	8067.0469	29				

Table S2 ANOVA table of reduced FCCD model

Source	Sum of Squares	DF	Mean Square	FValue	Prob> F	Remarks
Model	8032.52	9	892.50	517.03	< 0.0001	significant
A	14.91	1	14.91	8.64	0.0081	
C	4995.33	1	4995.33	2893.84	< 0.0001	
D	1743.65	1	1743.65	1010.11	< 0.0001	
AC	2.67	1	2.67	1.54	0.2284	
AD	6.14	1	6.14	3.56	0.0739	
CD	1064.88	1	1064.88	616.89	< 0.0001	
A ²	0.10	1	0.10	0.06	0.8122	
C ²	1.81	1	1.81	1.05	0.3185	
D ²	59.75	1	59.75	34.61	< 0.0001	
Residual	34.52	20	1.73			not significant
Lack of Fit	32.85	15	2.19	6.54	0.0241	
Pure Error	1.67	5	0.33			
Cor Total	8067.05	29				

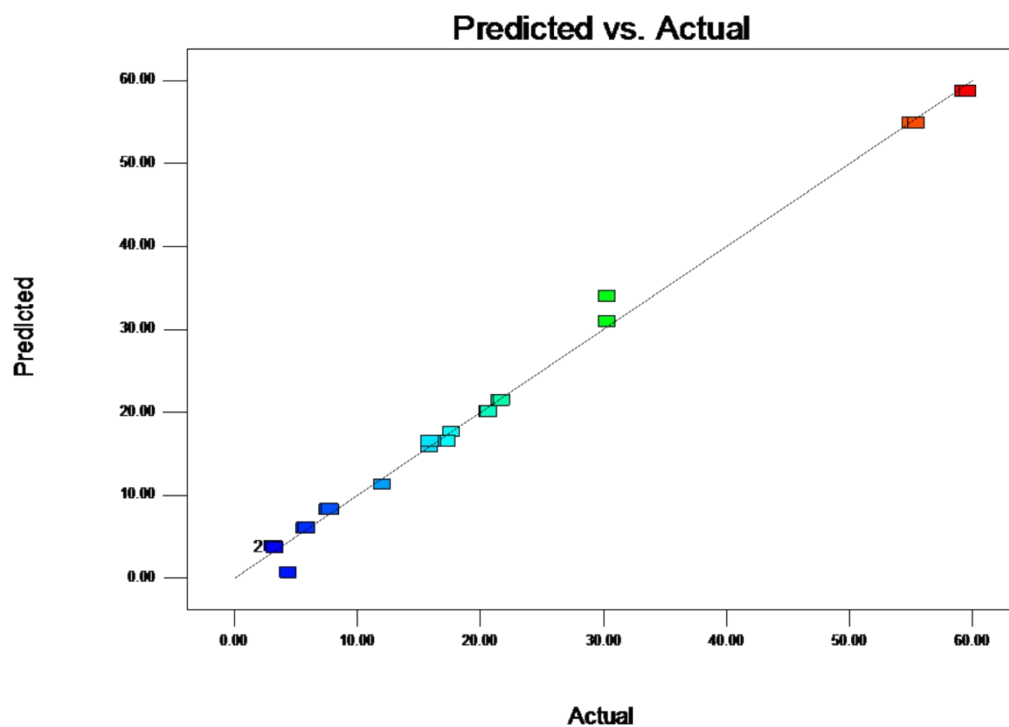


Fig. S1 Predicted versus actual value for adsorptive removal of fluoride in RSM study

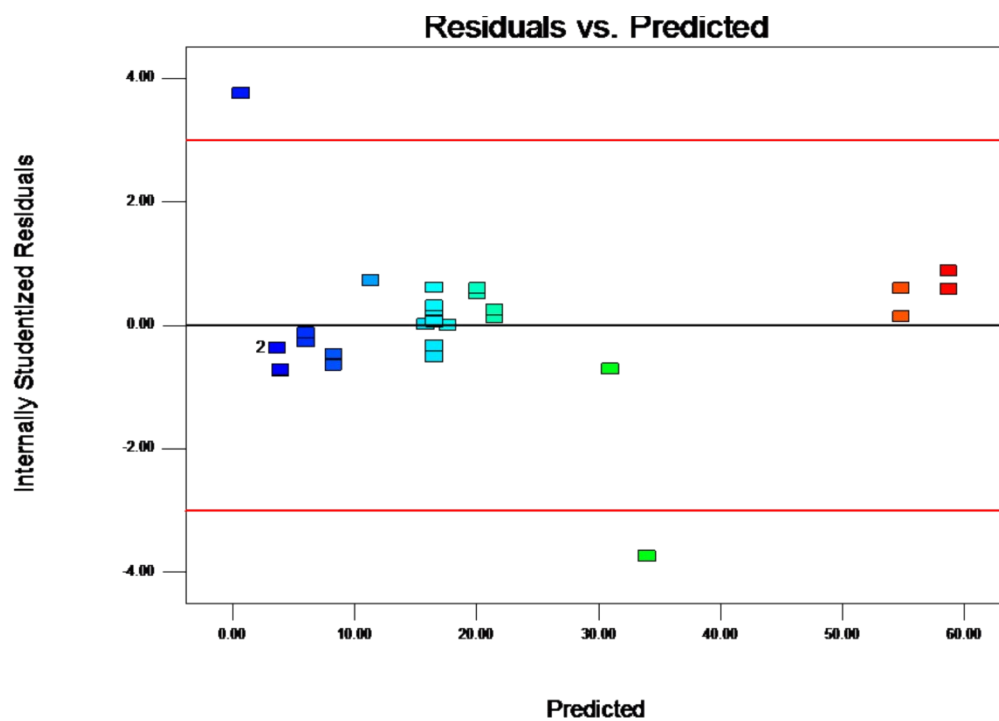


Fig. S2 Internally studentized residual versus predicted value for adsorptive removal of fluoride in RSM study

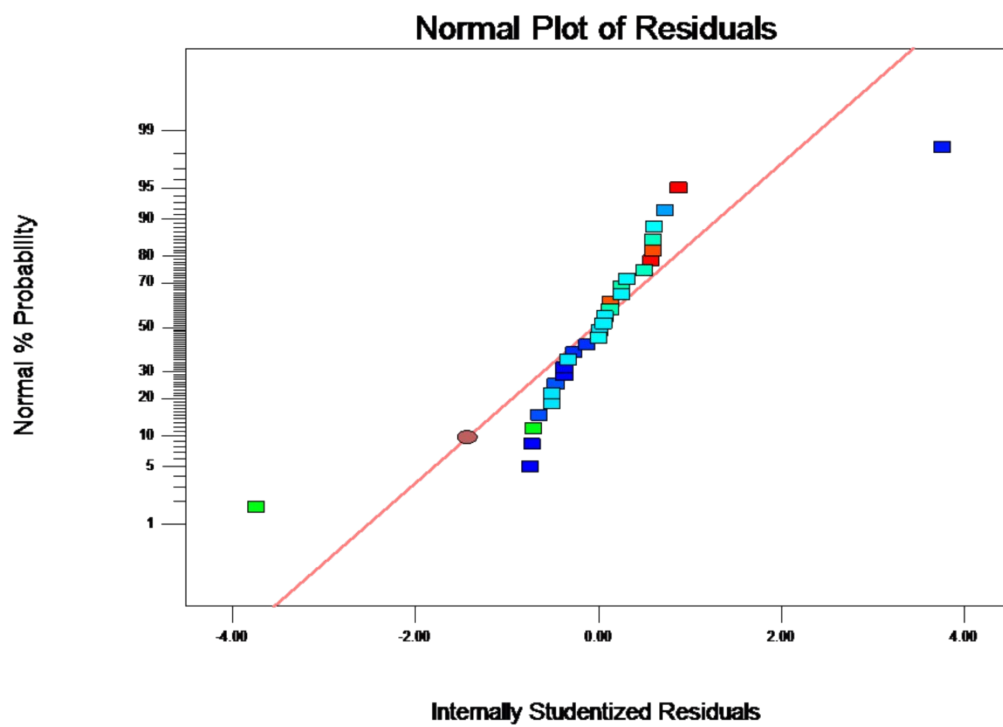


Fig. S3 Normal probability plot of studentized residual for adsorptive removal of fluoride in RSM study