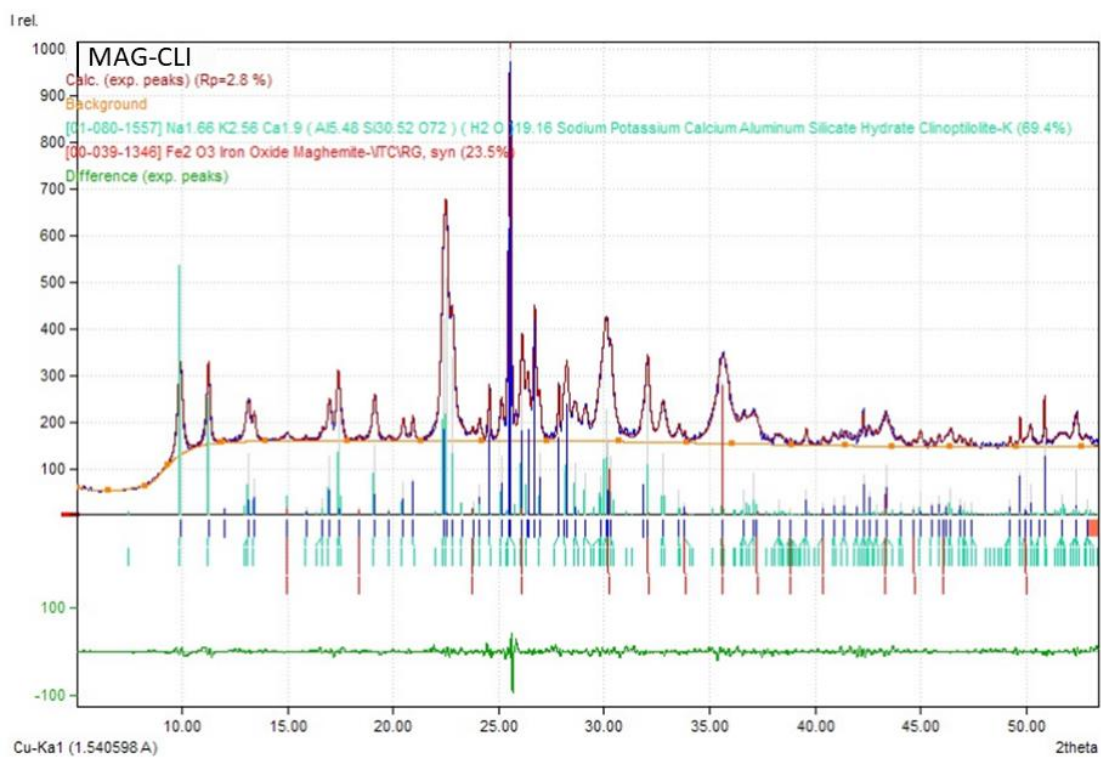
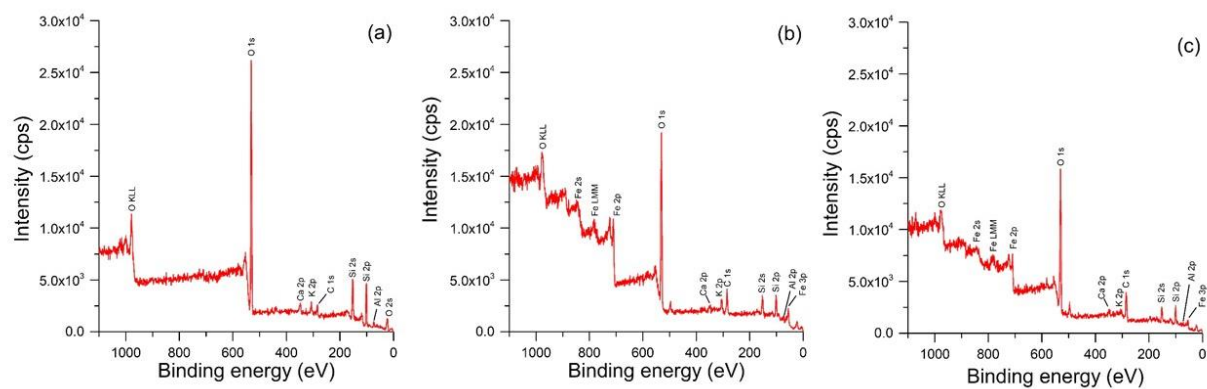


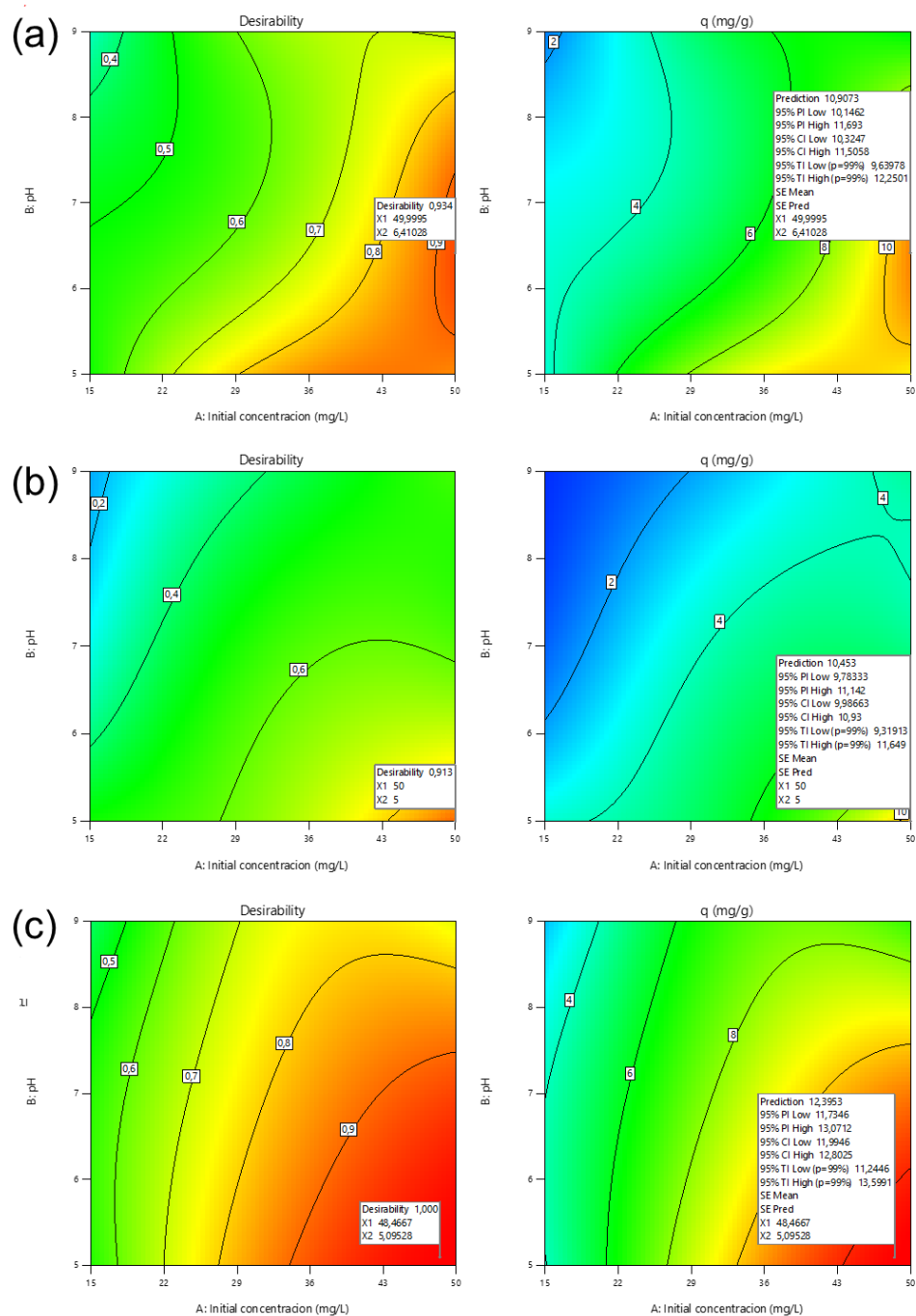
**Figure S1.** Diffraction pattern of MAG sample.



**Figure S2.** Diffraction pattern of MAG-CLI sample.



**Figure S3.** XPS survey spectra from the surface of (a) CLI, (b) MAG-CLI and (c) GO-MAG-CLI.



**Figure S4.** Contour diagrams for (a) CLI, (b) MAG-CLI, and (c) GO-MAG-CLI adsorption capacity optimization.

**Table S1.** The ANOVA results of the model.

Source	Sum of squares	df	Mean square	F-value	p-value	Importance
<b>Model</b>	43.95	53	0.8293	596.73	< 0.0001	significant
A-Initial concentration	18.56	1	18.56	13351.50	< 0.0001	
B-pH	10.89	1	10.89	7836.64	< 0.0001	
C-Temperature	0.0007	1	0.0007	0.5325	0.4703	
D-Contact time	0.2781	1	0.2781	200.10	< 0.0001	
E-Adsorbent	6.97	2	3.48	2506.08	< 0.0001	
AB	0.1302	1	0.1302	93.72	< 0.0001	
AD	0.0165	1	0.0165	11.84	0.0015	
AE	0.2206	2	0.1103	79.37	< 0.0001	
BC	0.0553	1	0.0553	39.78	< 0.0001	
BE	1.71	2	0.8528	613.63	< 0.0001	
CE	2.11	2	1.05	758.14	< 0.0001	
DE	0.0698	2	0.0349	25.10	< 0.0001	
B <sup>2</sup>	0.0107	1	0.0107	7.67	0.0088	
C <sup>2</sup>	0.0097	1	0.0097	7.00	0.0120	
D <sup>2</sup>	0.0078	1	0.0078	5.62	0.0233	
ABC	0.0108	1	0.0108	7.74	0.0085	
ABE	0.1039	2	0.0519	37.38	< 0.0001	
ACE	0.3642	2	0.1821	131.04	< 0.0001	
ADE	0.0137	2	0.0068	4.92	0.0129	
BCD	0.0094	1	0.0094	6.80	0.0132	
BCE	1.28	2	0.6383	459.31	< 0.0001	
CDE	0.0091	2	0.0045	3.27	0.0494	
A <sup>2</sup> B	0.0347	1	0.0347	24.97	< 0.0001	
A <sup>2</sup> C	0.0787	1	0.0787	56.60	< 0.0001	
A <sup>2</sup> E	0.0765	2	0.0382	27.51	< 0.0001	
B <sup>2</sup> E	0.0603	2	0.0302	21.70	< 0.0001	
C <sup>2</sup> E	0.0532	2	0.0266	19.14	< 0.0001	
ABCE	0.0567	2	0.0283	20.39	< 0.0001	
A <sup>2</sup> B <sup>2</sup>	0.0390	1	0.0390	28.06	< 0.0001	
A <sup>2</sup> BE	0.0325	2	0.0162	11.68	0.0001	
A <sup>2</sup> CE	0.0921	2	0.0461	33.15	< 0.0001	
AB <sup>2</sup> E	0.0680	2	0.0340	24.48	< 0.0001	
ABCDE	0.0141	2	0.0071	5.09	0.0113	
A <sup>2</sup> B <sup>2</sup> E	0.3640	2	0.1820	130.97	< 0.0001	
<b>Residual</b>	0.0500	36	0.0014			not significant
Lack of Fit	0.0297	21	0.0014	1.04	0.4770	
Pure Error	0.0203	15	0.0014			
<b>Cor Total</b>	44.00	89				