

Annex B. Equilibrium data

Table 1.1. Parameters of isotherm fitting for Ni²⁺ adsorption on biochar

BC	Langmuir			Freundlich			
	Q _{max} (mg/g)	b (l/mg)	R ²	R _L	K, (mg/g)(l/mg) ^{1/n}	1/n	R ²
H ₂ O ₂ - Birch BC	769.23	0.0233	0.9412	0.2225- 0.8110	2.06	0.7799	0.9887
Birch BC	322.58	0.0269	0.9961	0.1988- 0.7883	1.47	0.6605	0.9695

Table 1.2. Parameters of isotherm fitting for Cr³⁺ adsorption on biochar

BC	Langmuir			Freundlich			
	Q _{max} (mg/g)	b (l/mg)	R ²	R _L	K, (mg/g)(l/mg) ^{1/n}	1/n	R ²
H ₂ O ₂ - Birch BC	833.33	0.0204	0.9704	0.2465- 0.8307	1.76	0.8046	0.9944
Birch BC	714.29	0.0081	0.9921	0.4510- 0.9249	5.61	0.8378	0.9967

Table 1.3. Parameters of isotherm fitting for Pb^{2+} adsorption on biochar

BC	Langmuir				Freundlich		
	Qmax (mg/g)	b (l/mg)	R ²	R _L	K (mg/g)(l/mg) ^{1/n}	1/n	R ²
H₂O₂ - Birch BC	833.33	0.1081	0.9817	0.0581- 0.4805	39.36	0.7461	0.9748
Birch BC	1250	0.0228	0.9712	0.2263- 0.8144	4.22	0.8652	0.9913

Table 1.4. Parameters of isotherm fitting for Cd^{2+} adsorption on biochar

BC	Langmuir				Freundlich		
	Qmax (mg/g)	b (l/mg)	R ²	R _L	K, (mg/g)(l/mg) ^{1/n}	1/n	R ²
H₂O₂ - Birch BC	1666.67	0.0130	0.8783	0.3387- 0.8848	2.60	0.8728	0.9993
Birch BC	666.67	0.0122	0.9777	0.3538- 0.8915	2.71	0.8208	0.992

Table 1.5. Parameters of isotherm fitting for Zn^{2+} adsorption on biochar

BC	Langmuir				Freundlich		
	Qmax (mg/g)	b (l/mg)	R ²	R _L	K, (mg/g)(l/mg) ^{1/n}	1/n	R ²
H ₂ O ₂ - Birch BC	1250	0.0179	0.9703	0.2714- 0.8482	2.83	0.8455	0.9978
Birch BC	1000	0.0064	0.9874	0.5109- 0.9400	5.27	0.8746	0.9977

Table 1.6. Parameters of isotherm fitting for Cu^{2+} adsorption on biochar

BC	Langmuir				Freundlich		
	Qmax (mg/g)	b (l/mg)	R ²	R _L	K, (mg/g)(l/mg) ^{1/n}	1/n	R ²
H ₂ O ₂ - Birch BC	1000	0.0228	0.934	0.2264- 0.8145	3.27	0.8024	0.9965
Birch BC	833.33	0.0135	0.9794	0.3314- 0.8814	1.47	0.8362	0.9926