

## Supplementary materials

**Title: Removal of Cu<sup>2+</sup> from AMD by goethite modified biochar  
combined with sodium alginate: characterization, performance and  
mechanisms**

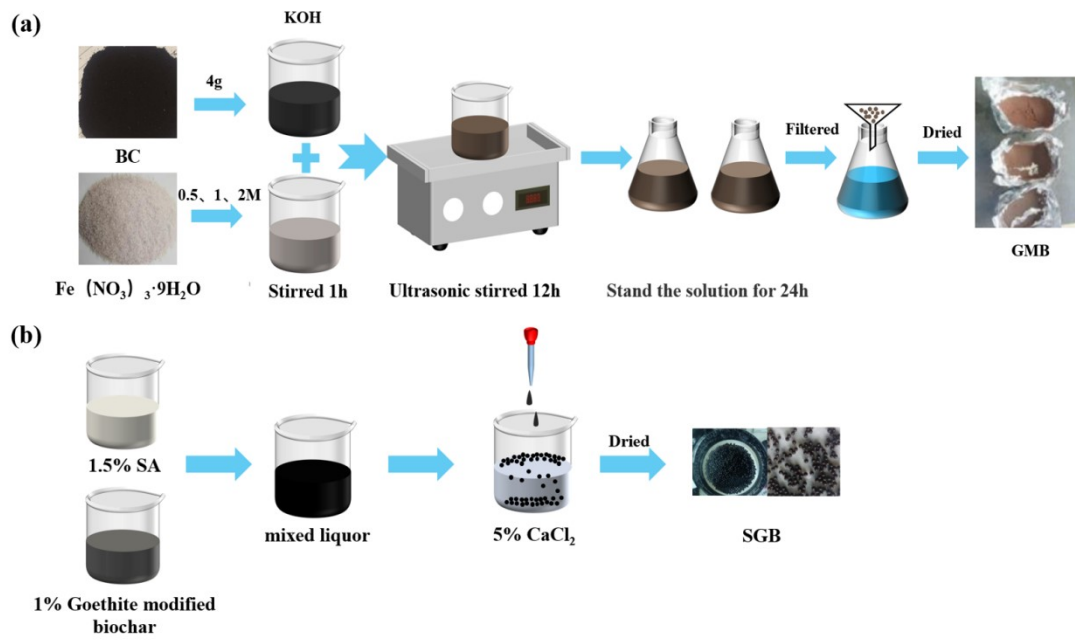
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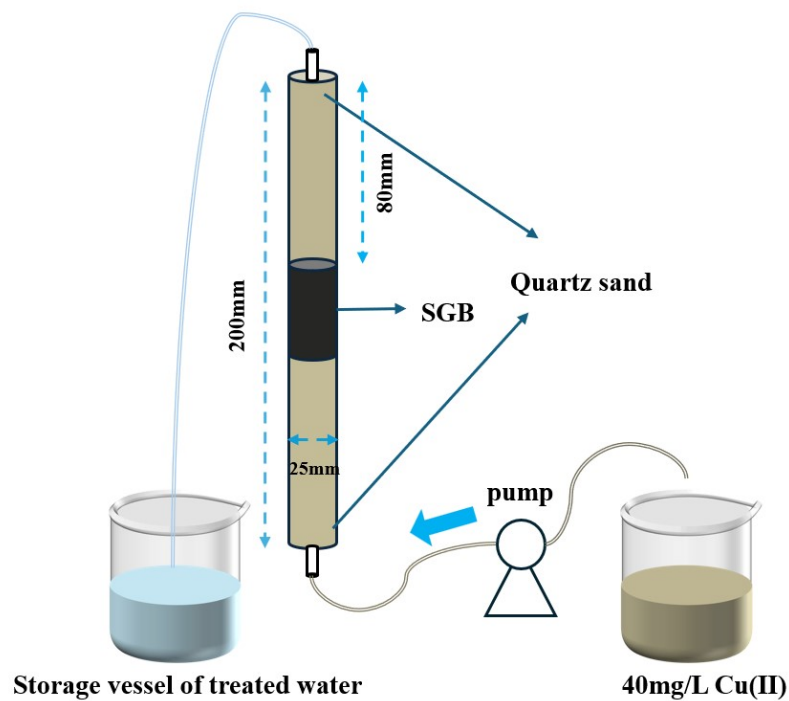
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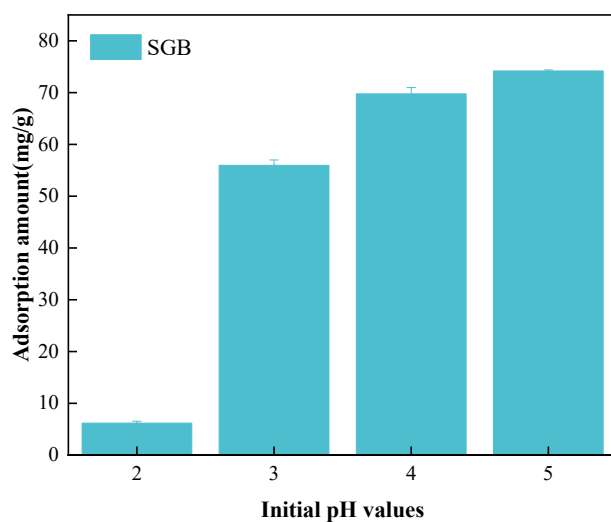
3 Pages, 1 Table, and 4 Figures



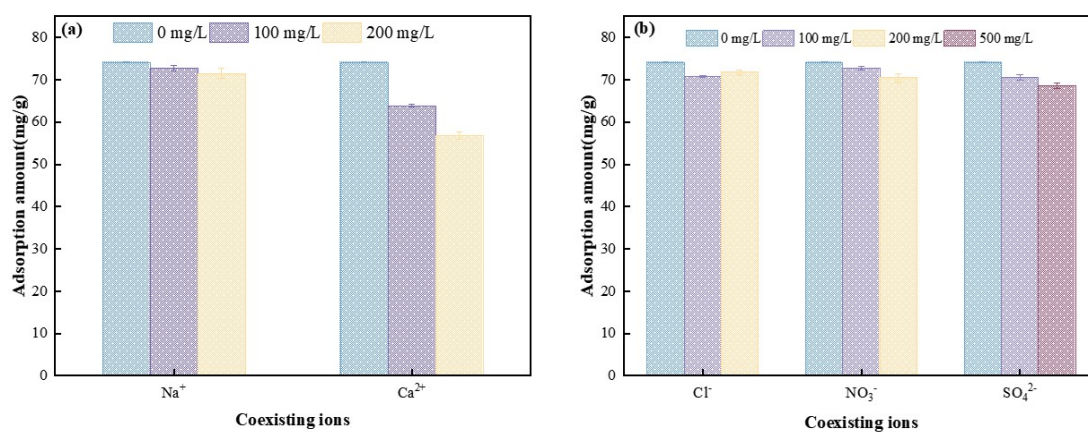
**Fig. S1.** Material preparation of GMB (a) and SGB (b)



**Fig. S2.** Continuous flow column experimental setup diagram



**Fig. S3.** Effect of different initial pH on the Cu<sup>2+</sup> adsorption properties of SGB



**Fig. S4.** Effects of coexisting ions (a) Na<sup>+</sup>, Ca<sup>2+</sup> and (b) Cl<sup>-</sup>, NO<sub>3</sub><sup>-</sup> and SO<sub>4</sub><sup>2-</sup> on SGB for Cu<sup>2+</sup> removal.

**Table.S1.** Parameters fitted to the Thomas mode.

Materials	C <sub>0</sub> (mg/L)	Flow rates (mL/min)	Dosage (g)	K	q (mg/g)	R <sup>2</sup>
SGB	40.32	3.0	2.0	9.82×10 <sup>-6</sup>	117.68	0.92