Supplementary Information

Efficient remediation of cadmium contamination in soil by functionalized biochar: Recent advances, challenges, and future prospects

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Table S1. Common speciation analytic methods of heavy metals in soil.

Analytic method	Morphological division
Tessier	exchangeable state, carbonate bound state, Fe–Mn oxide bound state, organic matter bound state, residue state
BCR	acid-soluble state (such as carbonate bound state), reducible state (such as Fe–Mn oxide state), oxidizable state (such as organic state) and residual state
Forstner	exchangeable state, carbonate bound state, amorphous manganese oxide bound state, organic state, amorphous iron oxide bound state, crystalline iron oxide bound state, residue state
Shuman	exchangeable state, water-soluble state, carbonate bound state, weakly bound organic state, manganese oxide bound state, strongly bound organic state, amorphous iron oxide bound state and silicate mineral state
Cambrell	water soluble state, exchangeable state, inorganic compound precipitation state, macromolecular humus binding state, hydroxide precipitation absorption state or adsorption state, sulfide precipitation state and residue state
Leleyter	water soluble, exchangeable, carbonate bound, amorphous manganese oxide bound, amorphous iron oxide bound, crystalline iron oxide bound, organic and residual