Table S1 Sequential chemical extraction method of heavy metals in RDs

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| Step | Chemical fraction | Reagent | Conditions |
| F1 | Water-soluble  /exchangeable | 16 ml 1 M Mg2Cl2 solution (pH 7.0) | Agitation (40rmp) for 1h at room temperature |
| F2 | Carbonate bound | 8 ml 1mol/L NaOAC (pH 5.0 with HOAc) | Agitation (40rmp) for 5h at room temperature |
| F3 | Fe-Mn oxide bound | 40ml 0.04M NH2OH·HCl in 25% (v/v) HOAC | Heating at 96±2℃ and intermittently shaking for 6h |
| F4 | Organically bound | 20ml 7M NaOCl (pH8.5 with HCl) (two times) | Heating at 96±2℃ and intermittently shaking for 2h (two times) |
| F5 | Residual | Aqua regia | Heating |