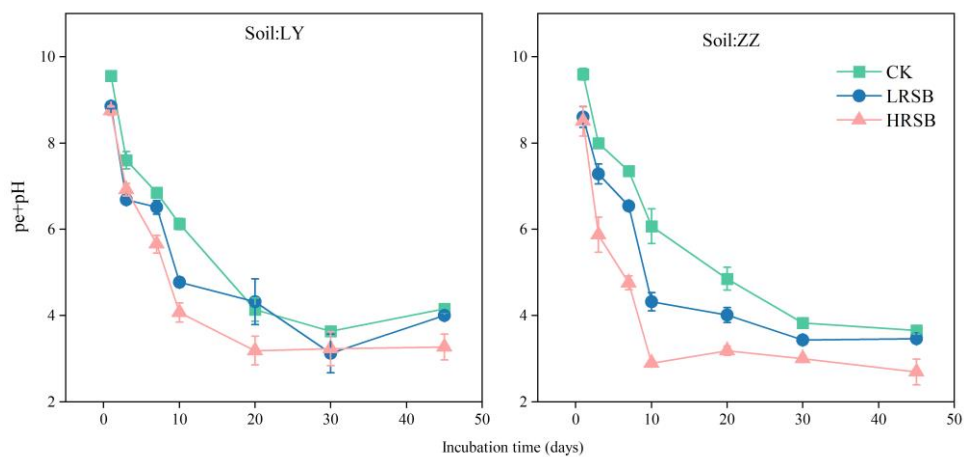


23 Figures

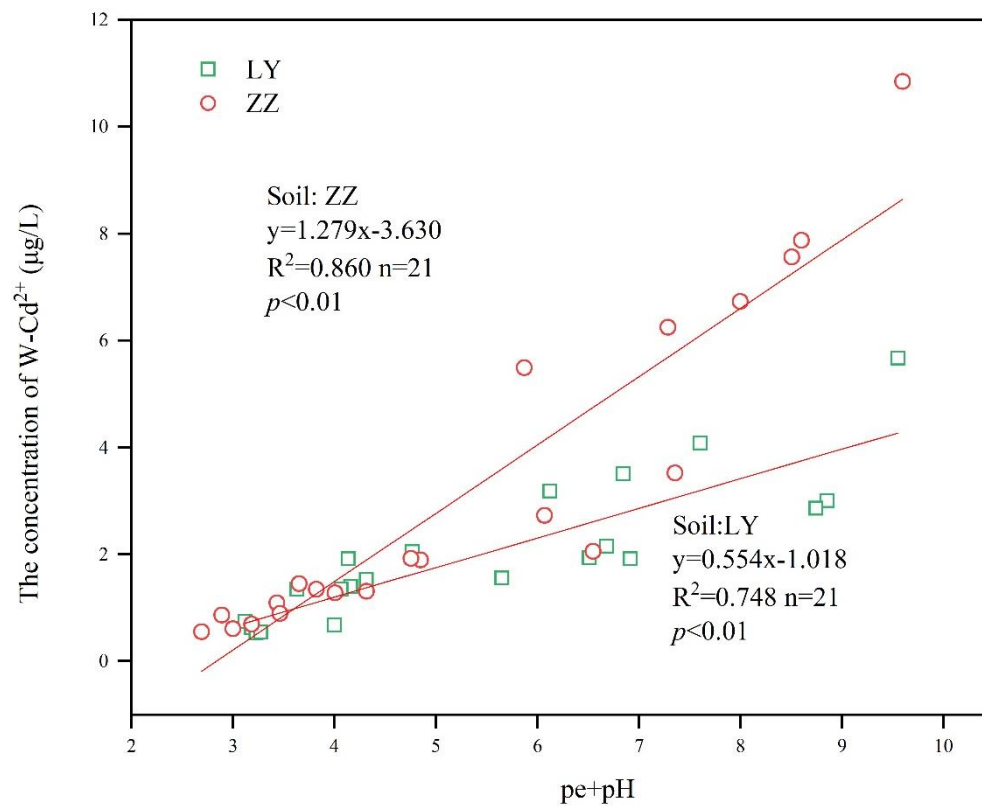


24

25 Fig. S1 Dynamics of pe+pH under anoxic conditions for batch experiments. The data

26 are expressed as the mean \pm SD, n=3.

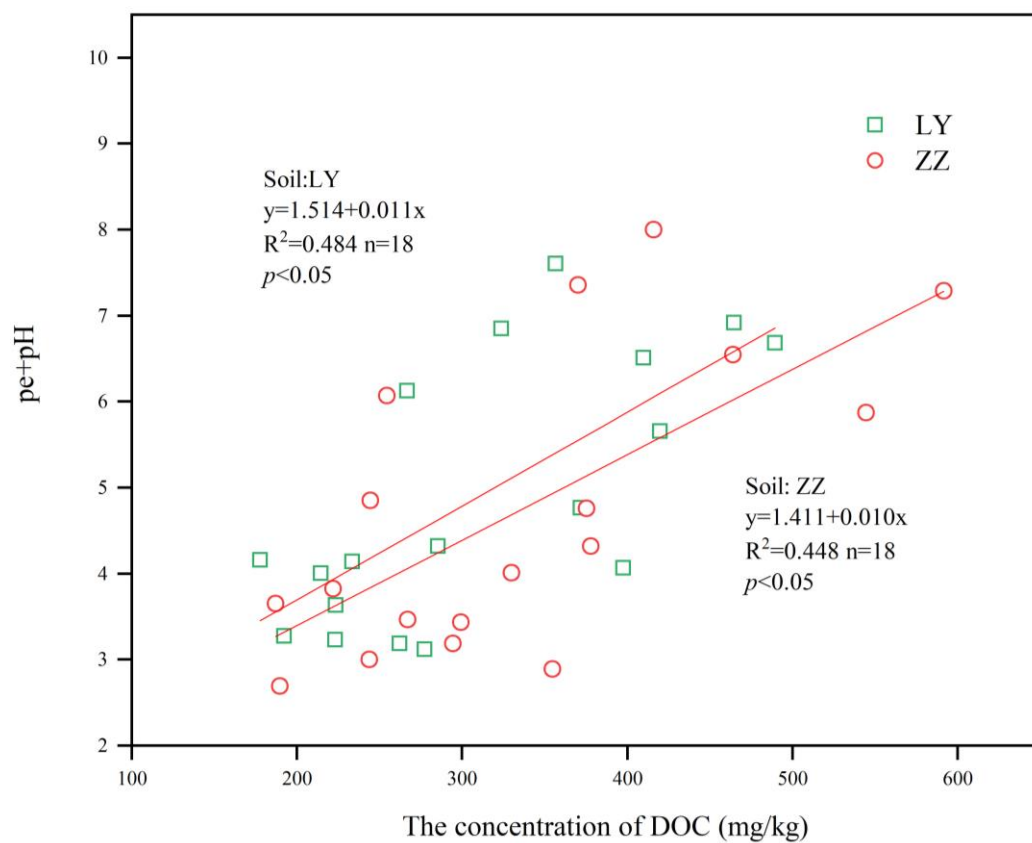
27



28

29 Fig. S2. The correlation analysis of pe+pH and W-Cd²⁺ concentration in LY and ZZ

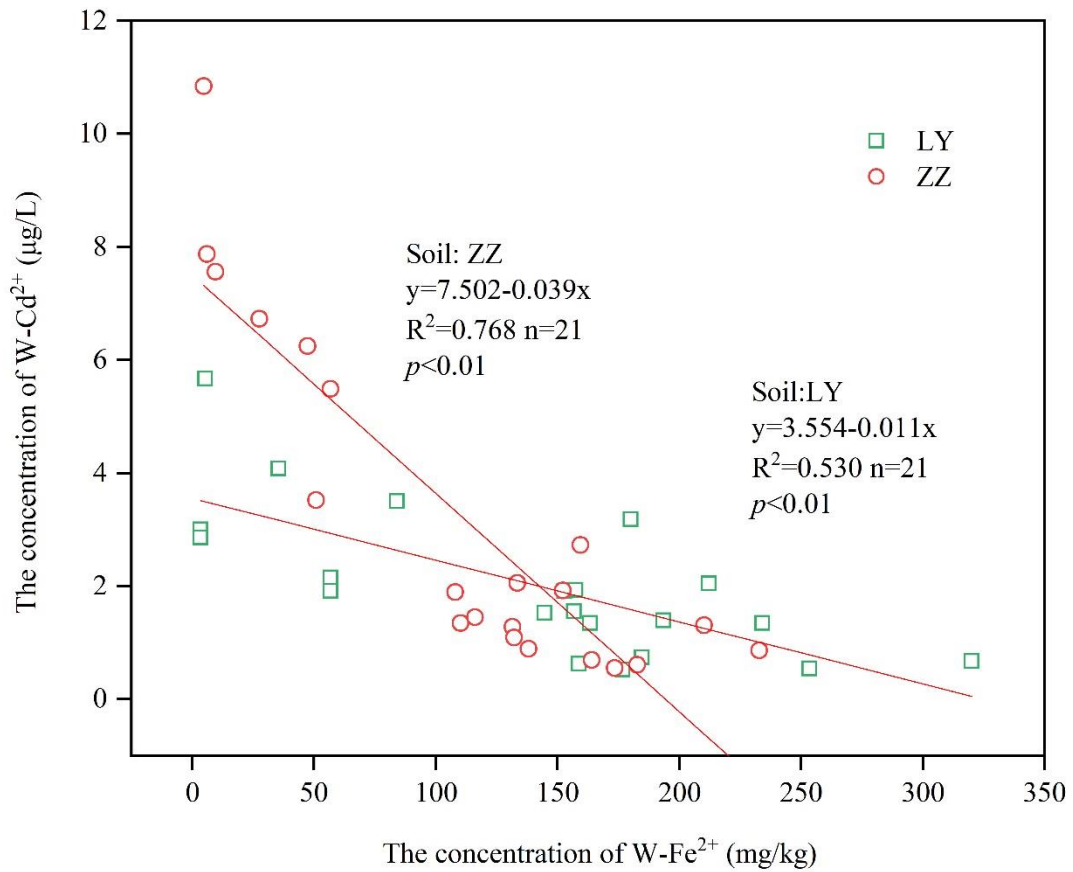
30 soils. The data are expressed as the mean \pm SD, $n = 3$.



31

32 Fig. S3 The correlation analysis of DOC and pe+pH in LY and ZZ soils. The data are

33 expressed as the mean \pm SD, $n = 3$.

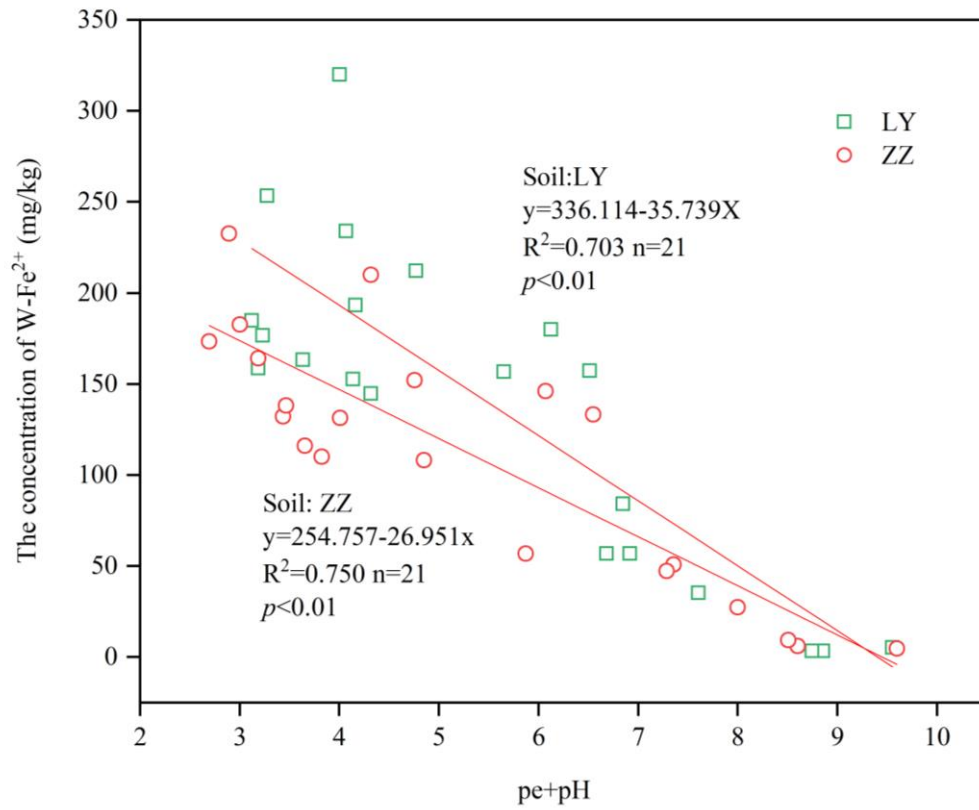


34

35 Fig. S4 The correlation analysis of W-Fe²⁺ and W-Cd²⁺ concentration in LY and ZZ

36 soils. The data are expressed as the mean \pm SD, $n = 3$.

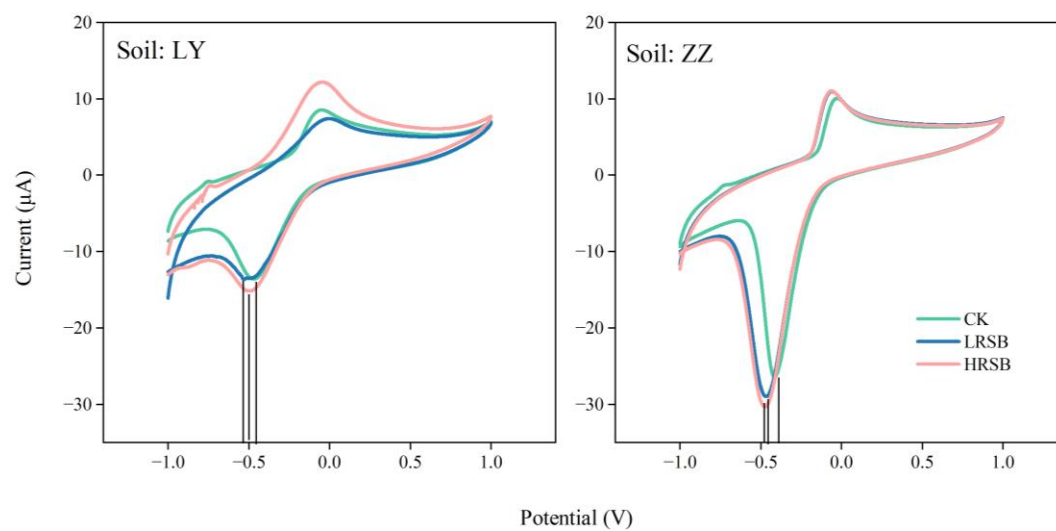
37



38

39 Fig. S5 The correlation analysis of pe+pH and W-Fe²⁺ concentration in LY and ZZ soils.

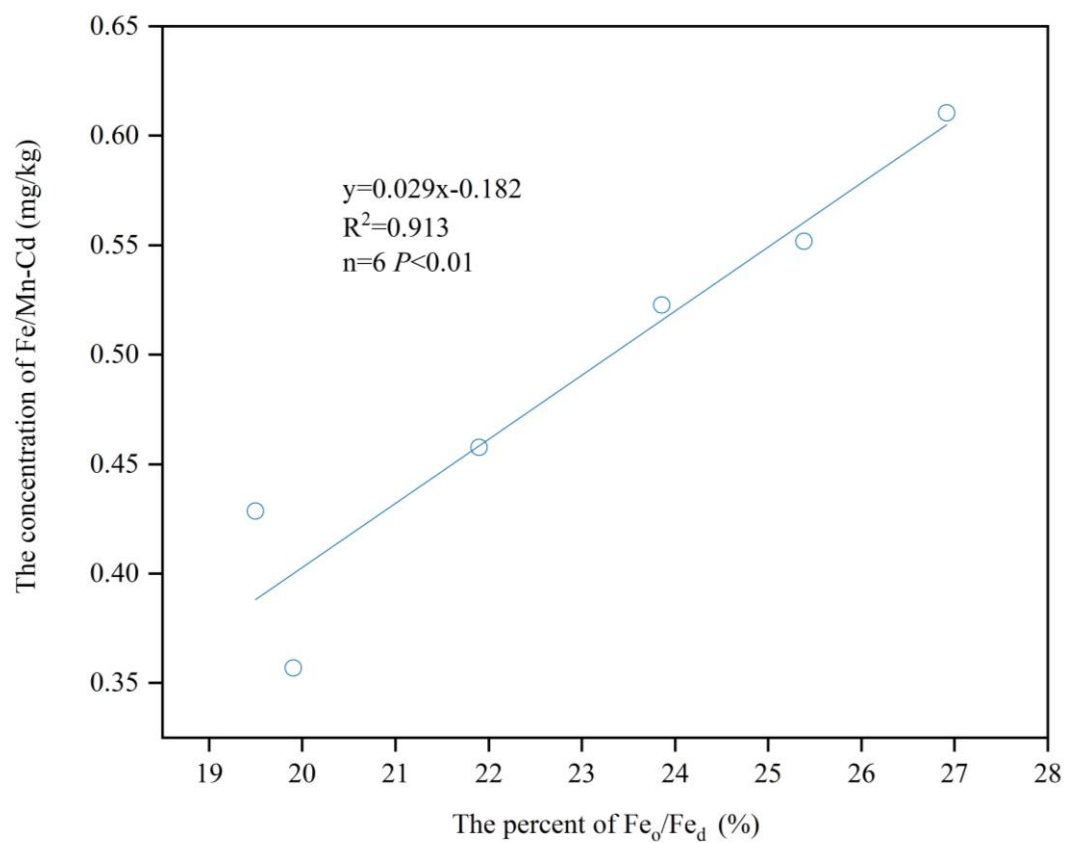
40 The data are expressed as the mean \pm SD, n = 3.



41

42 Fig. S6 The CVs in LY and ZZ soils at scan rates of 0.05 V s^{-1} .

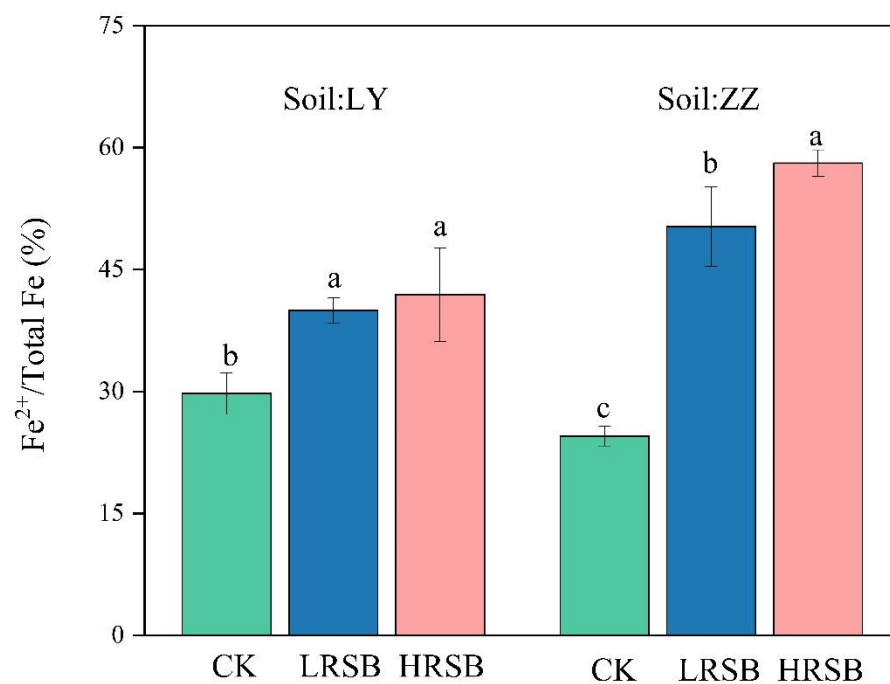
43



44

45 Fig. S7 The correlation analysis of percent of Fe_o/Fe_d and Fe/Mn-Cd under anoxic

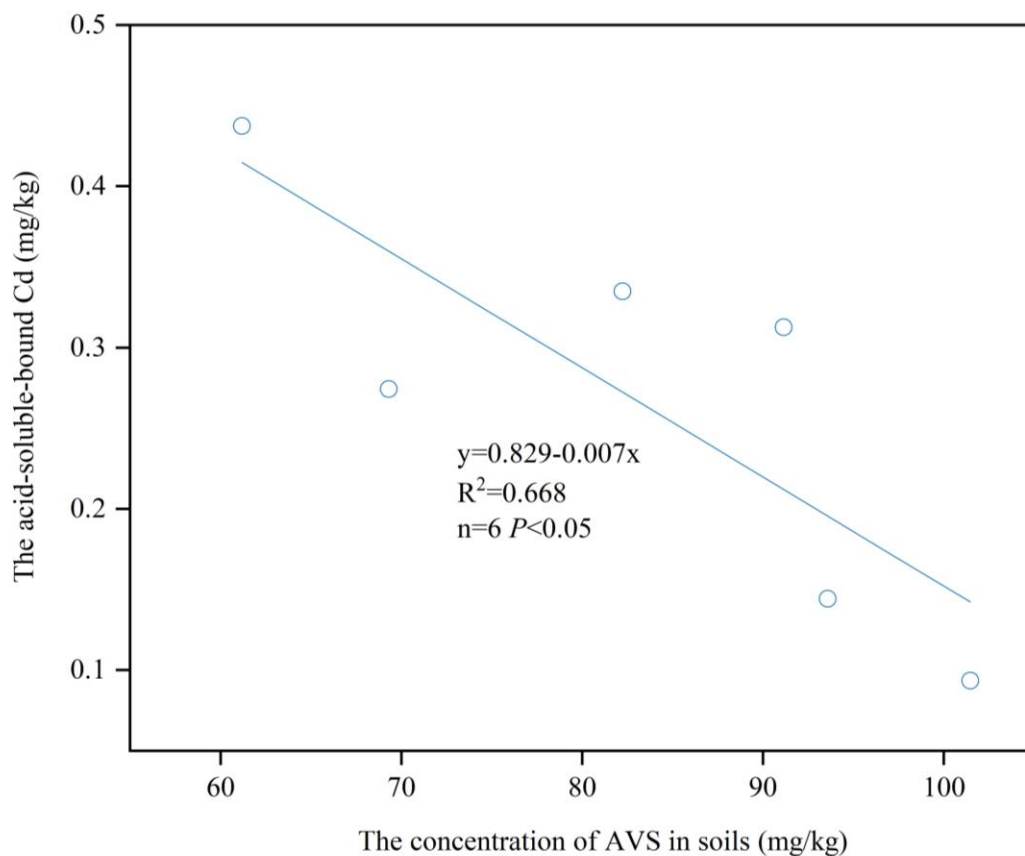
46 conditions for batch experiments. The data are expressed as the mean \pm SD, $n = 3$.



47

48 Fig. S8. The percent of Fe²⁺/Total Fe under anoxic conditions for batch experiments.

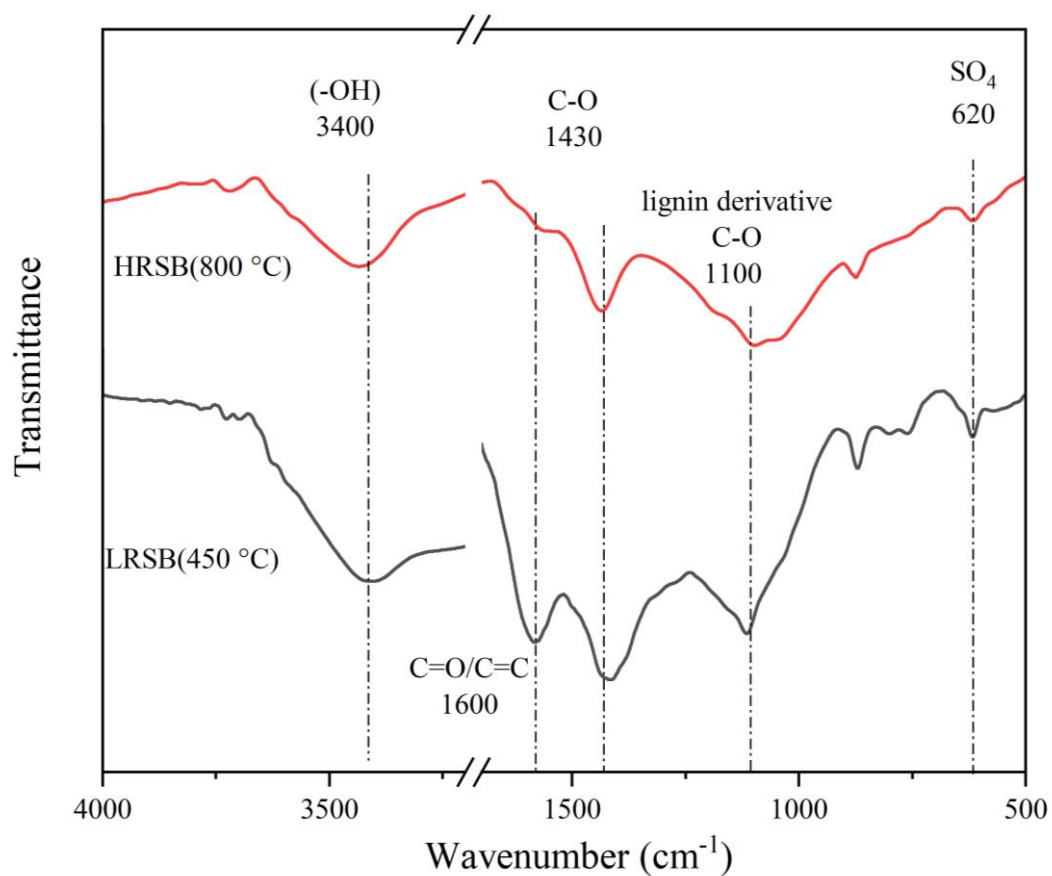
49 The data are expressed as the mean \pm SD, n=3.



50

51 Fig. S9 The correlation analysis of AVS and $\text{CaCl}_2\text{-Cd}$ in soil. The data are expressed

52 as the mean \pm SD, $n = 3$.



53

54 Fig. S10 The FTIR of rape straw biochar.