succinic acid Weight of nanoplastic content in leaf (ng) 10 S 24 soil Fe-biochar nanoplastic S 23 soil Fe-biochar nanoplastic S 22 soil Fe-biochar nanoplastic S 21 soil Fe-biochar nanoplastic S 20 soil Fe-biochar S 19 soil Fe-biochar S 18 soil Fe-biochar S 17 soil Fe-biochar S 16 soil biochar nanoplastic S 15 soil biochar nanoplastic S 14 soil biochar nanoplastic Metabolite weight S 13 soil biochar nanoplastic S 12 soil biochar Nanoplastic content S 11 soil biochar S 10 soil biochar S 9 soil biochar S 8 soil nanoplatic S 7 soil nanoplatic S 6 soil nanoplatic S 5 soil nanoplatic

0.5

0.0

1.0

1.5

2.0

Weight of metabolite succinic acid (ng/g)

2.5

3.0

3.5

4.0

1e6

S 4 soil alone S 3 soil alone S 2 soil alone S 1 soil alone