



Supplementary Fig. S3 Subgroup classification of the biochar properties and initial compost properties. (a) C/N ratio; (b) GI; (c) NO_3^- -N; (d) NH_4^+ -N; (e) CO_2 ; (f) CH_4 ; (g) N_2O ; (h) NH_3 . The black solid line in the middle of the violin plot represents the median, while the dashed lines represent the upper and lower quartiles. The highest and lowest points on each violin plot represent the maximum and minimum values, respectively. The lowercase letters within distinct subgroups of the same property indicate statistically significant differences. When there is no overlap in lowercase letters, it signifies a significant difference ($p < 0.05$). For instance, "a" and "b" denote significant differences between the two groups, while "a" and "ab" suggest no significant differences. FT, feedstock type; PT, pyrolysis temperature; C/N, carbon to nitrogen; EC, electricity conductivity; SA, surface area; PV, pore volume; AR, amendment rate; WT, waste type; IpH, initial pH; IC/N, initial carbon to nitrogen; IMC, initial moisture content; BAT, bulking agent type.