

Supplementary Materials

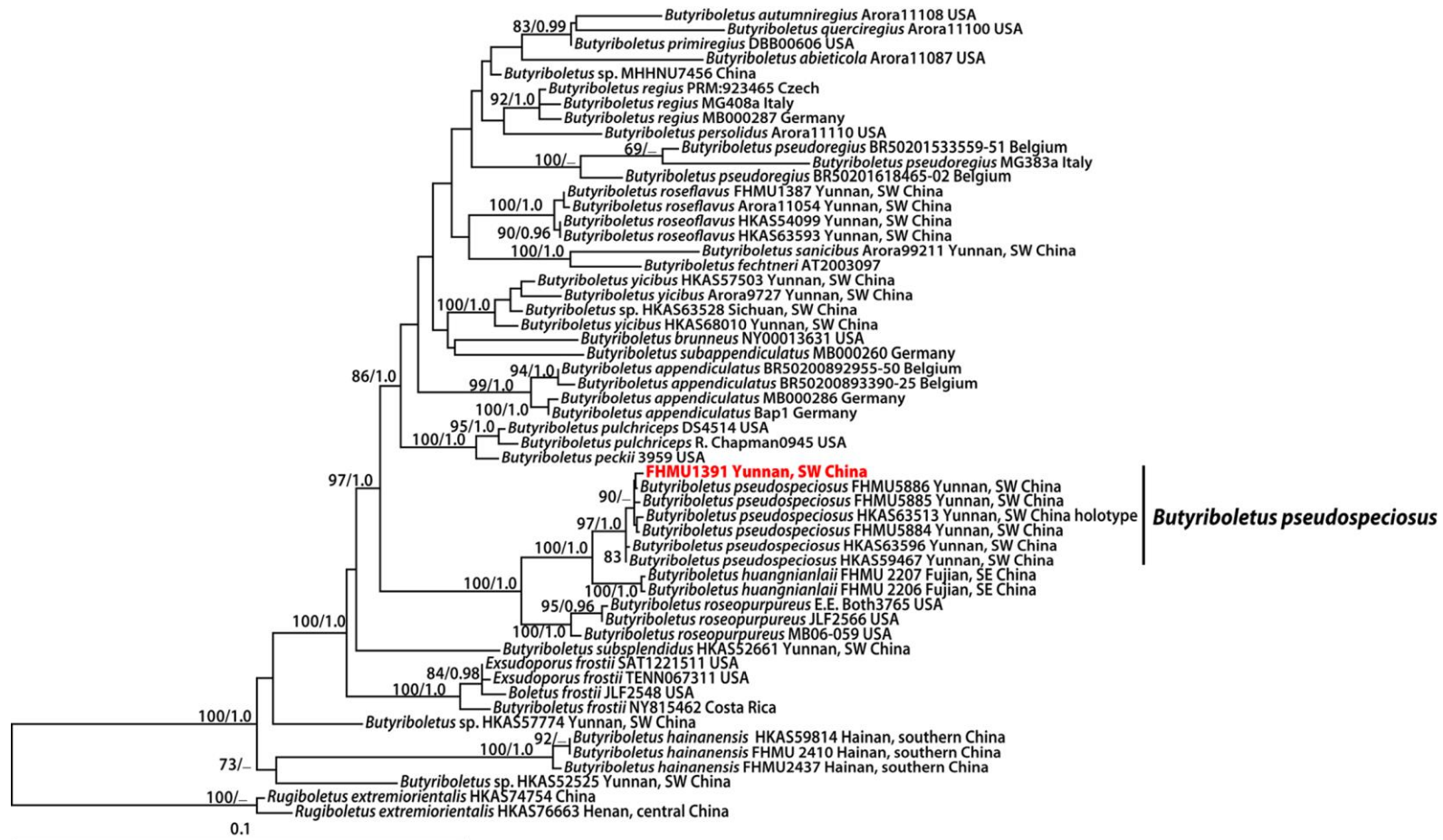


Figure S1: Phylogram of *Butyriboletus* inferred from a multilocus (rDNA 28S, ITS, tef1, and RPB2) dataset using RAxML. [BS ($\geq 50\%$) and PP (≥ 0.95) are indicated above the branches]

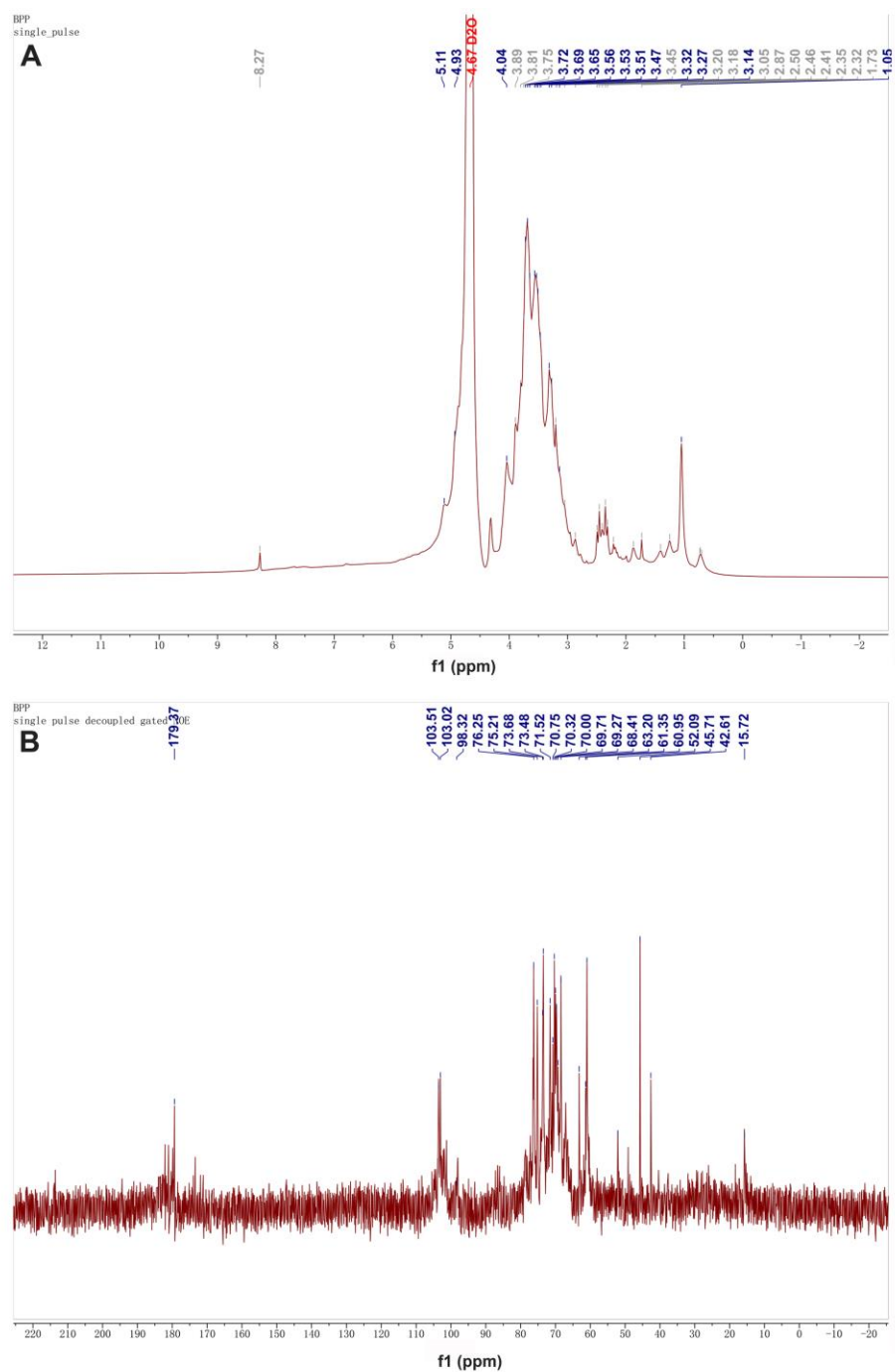


Figure S2: NMR spectra of BPP. (A) ^1H NMR spectrum of BPP. (B) ^{13}C NMR spectrum of BPP

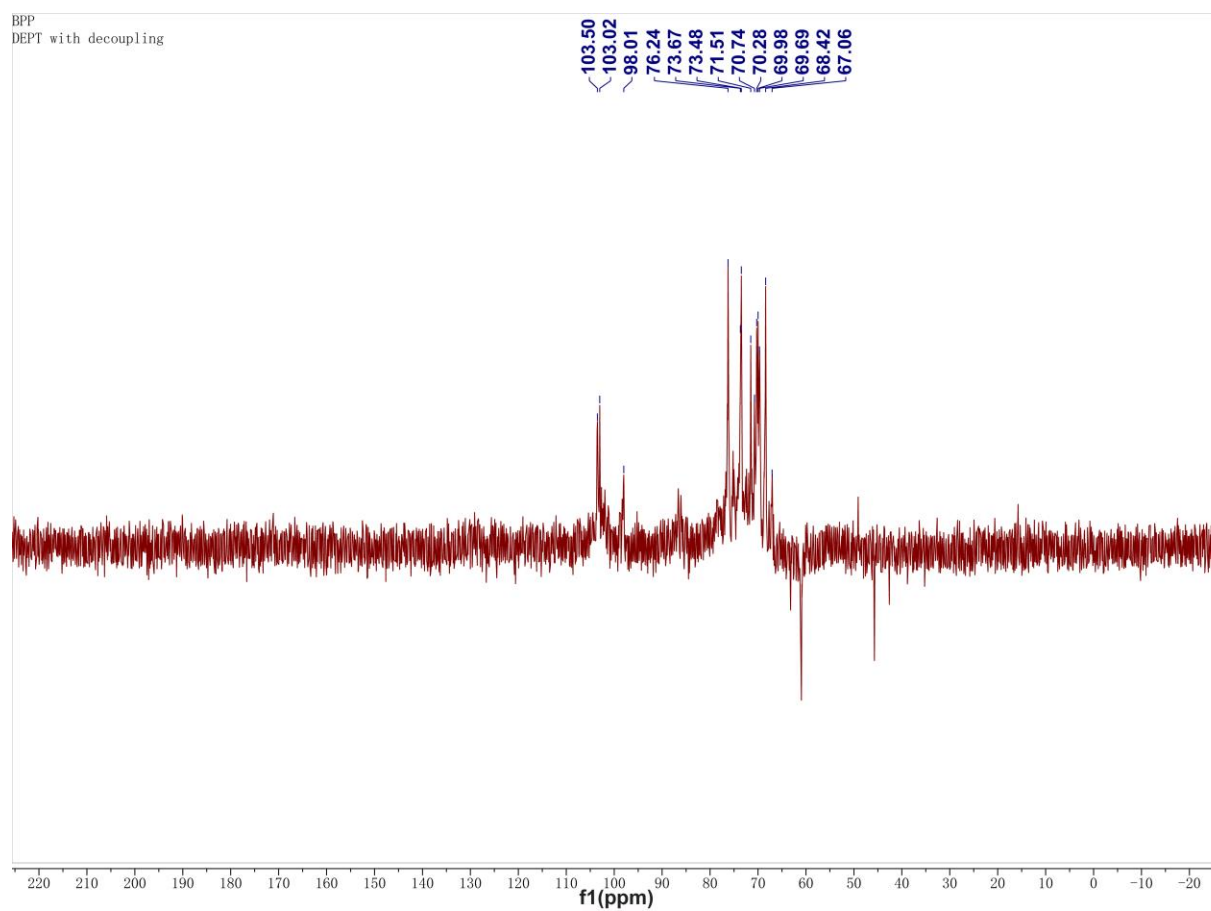


Figure S3: DEPT-135 spectra of BPP;

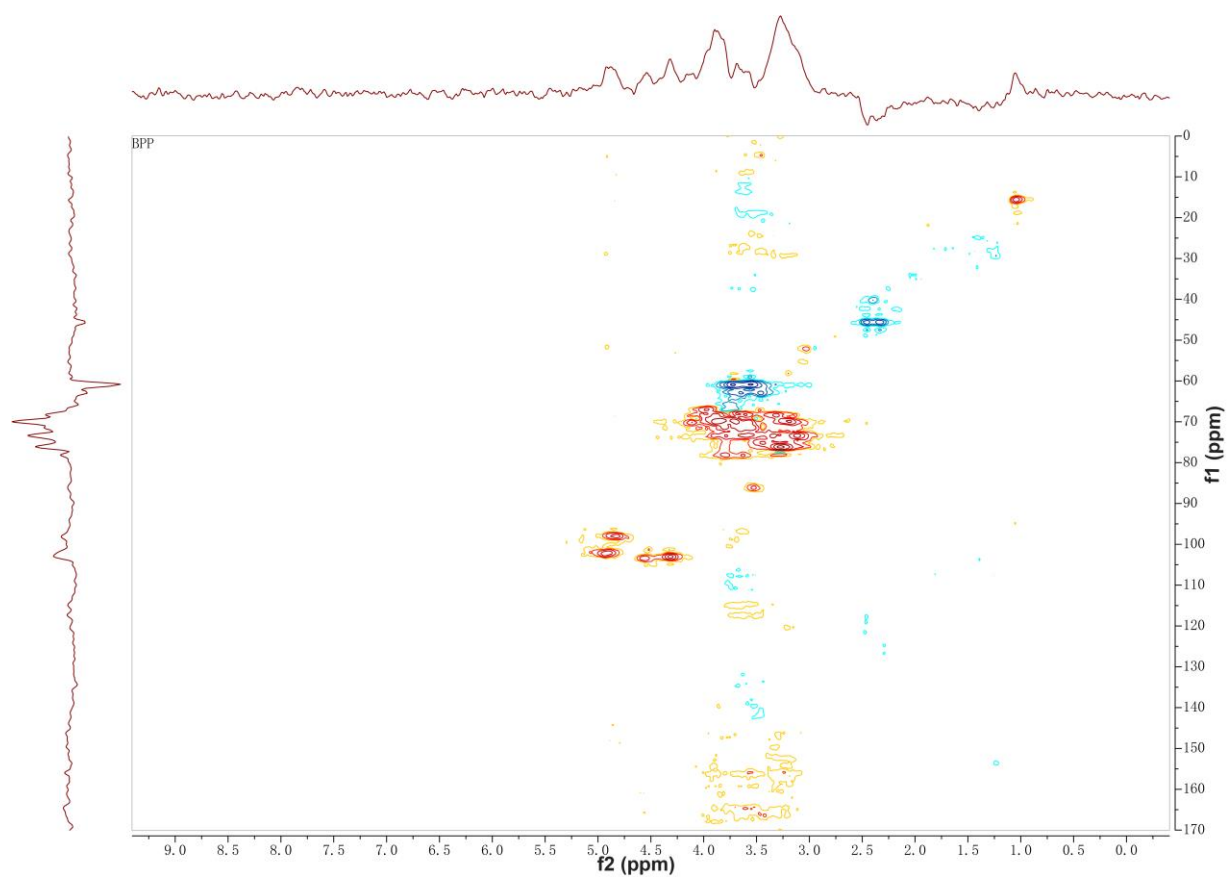


Figure S4: HSQC spectra of BPP;

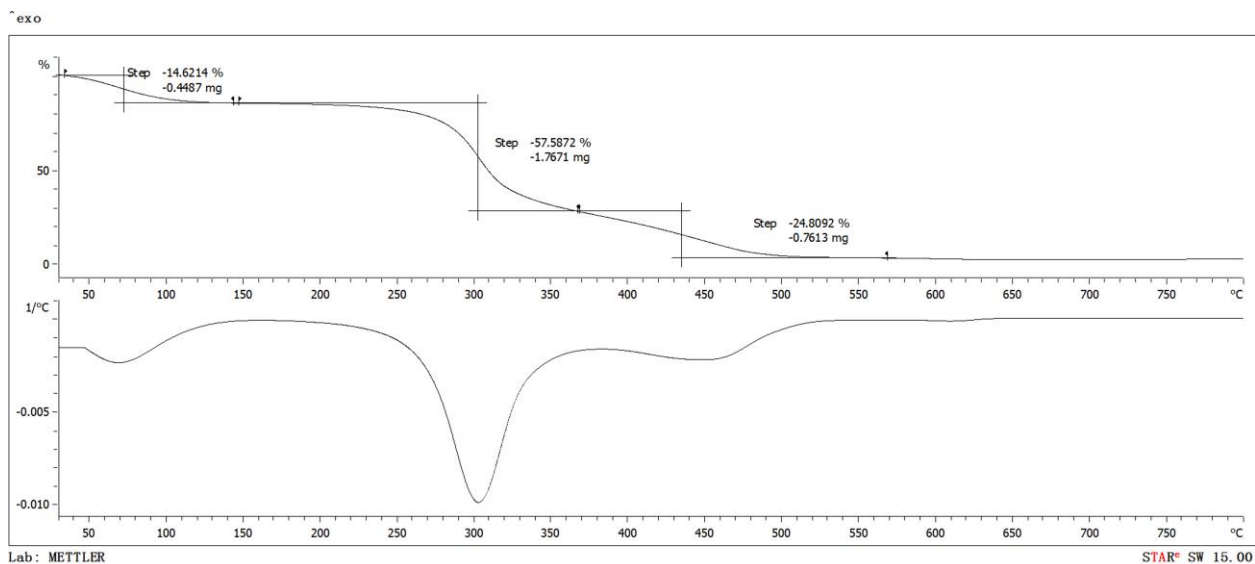


Figure S5: TG analysis of BPP under atmosphere at a heating rate of 10 K/min

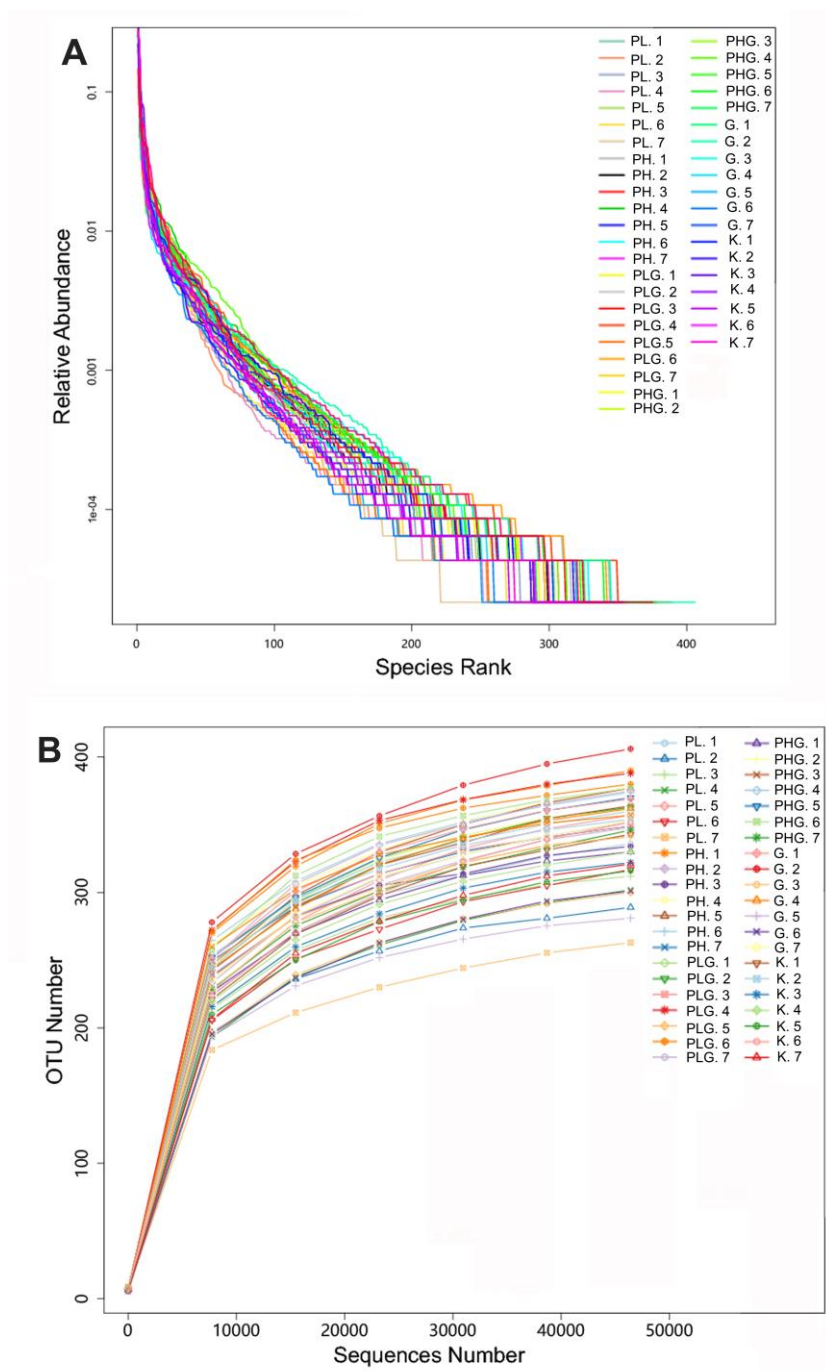


Figure S6: KEGG metabolic pathways at the second level

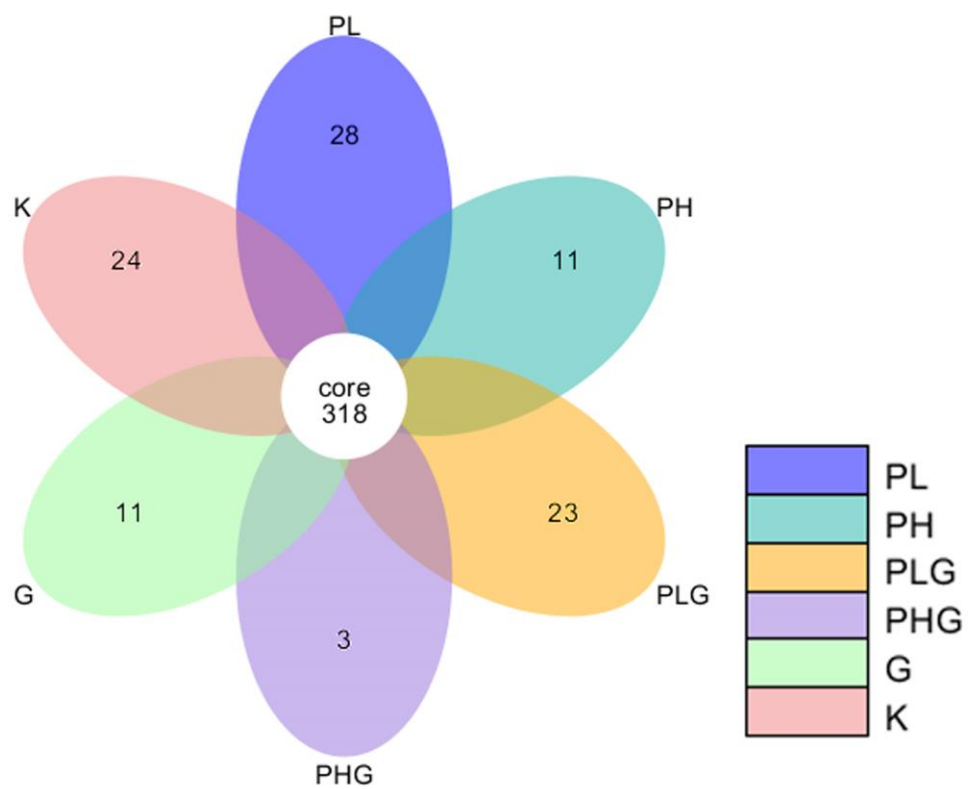


Figure S7: The flower figure OTUs distribution of flora with different treatments