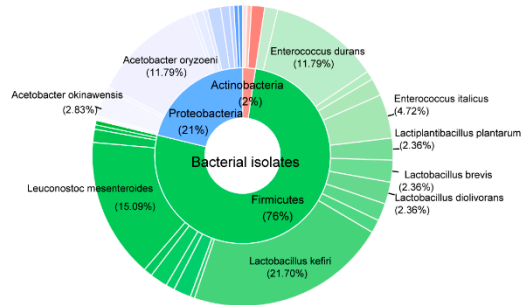
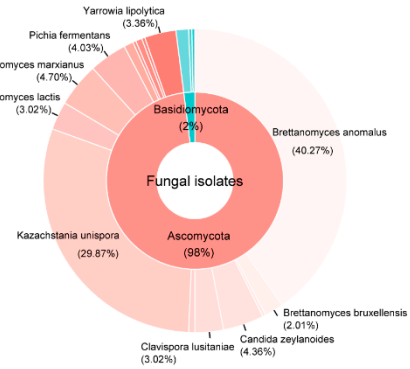


Supplementary figures

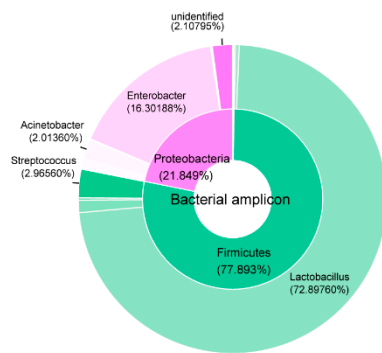
A



B



C



D

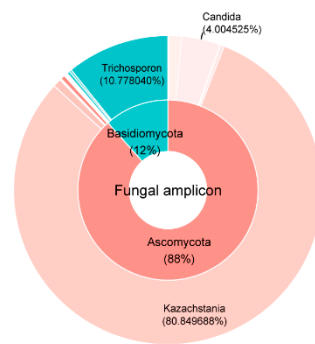


Figure S1. Global composition of bacteria and fungi based on (A, B) culture-dependent and (C, D) culture-independent methods.

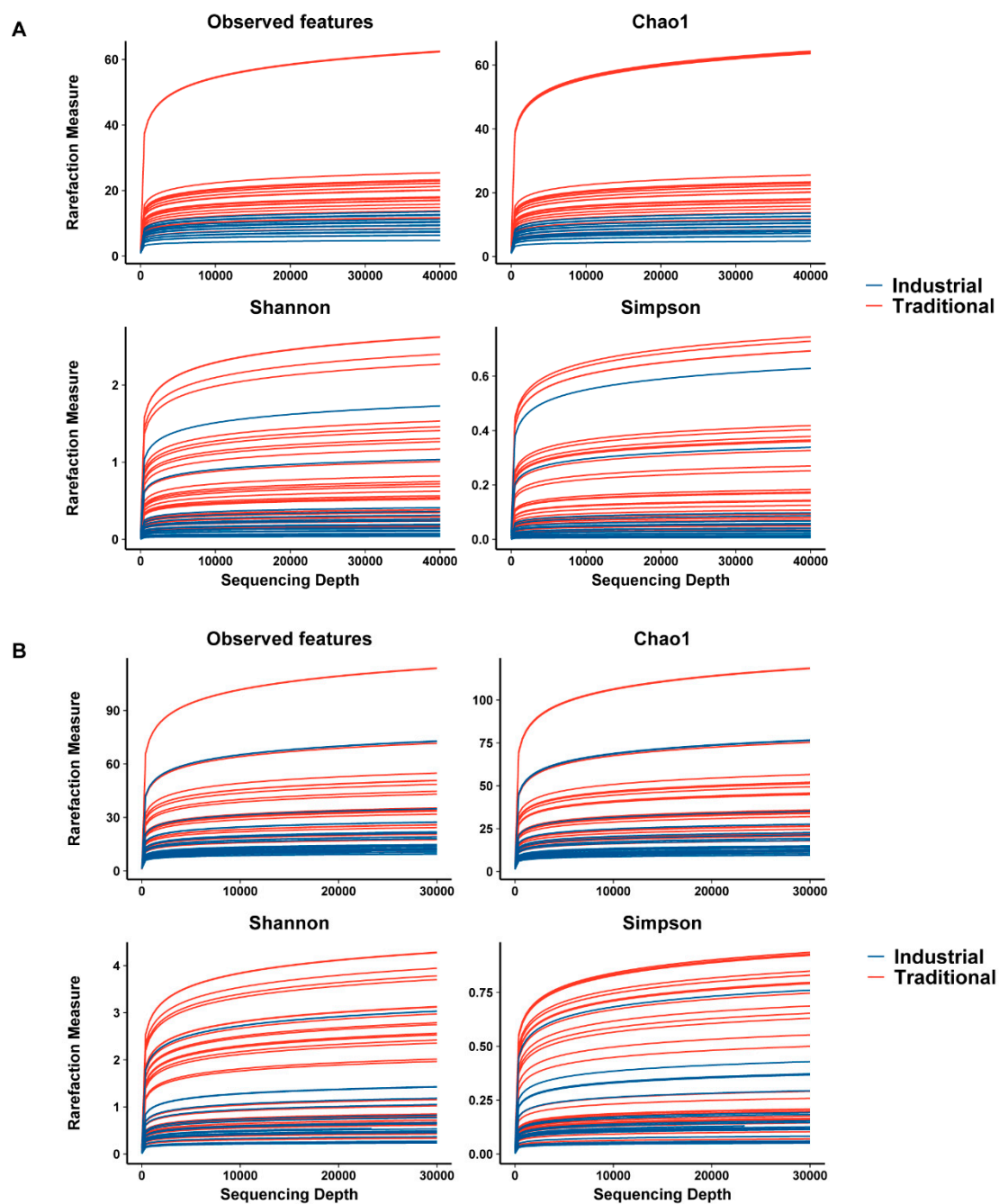


Figure S2. Rarefaction curves of samples from different fermentation modes. (A) Fungal rarefaction curves. (B) Bacterial rarefaction curves.

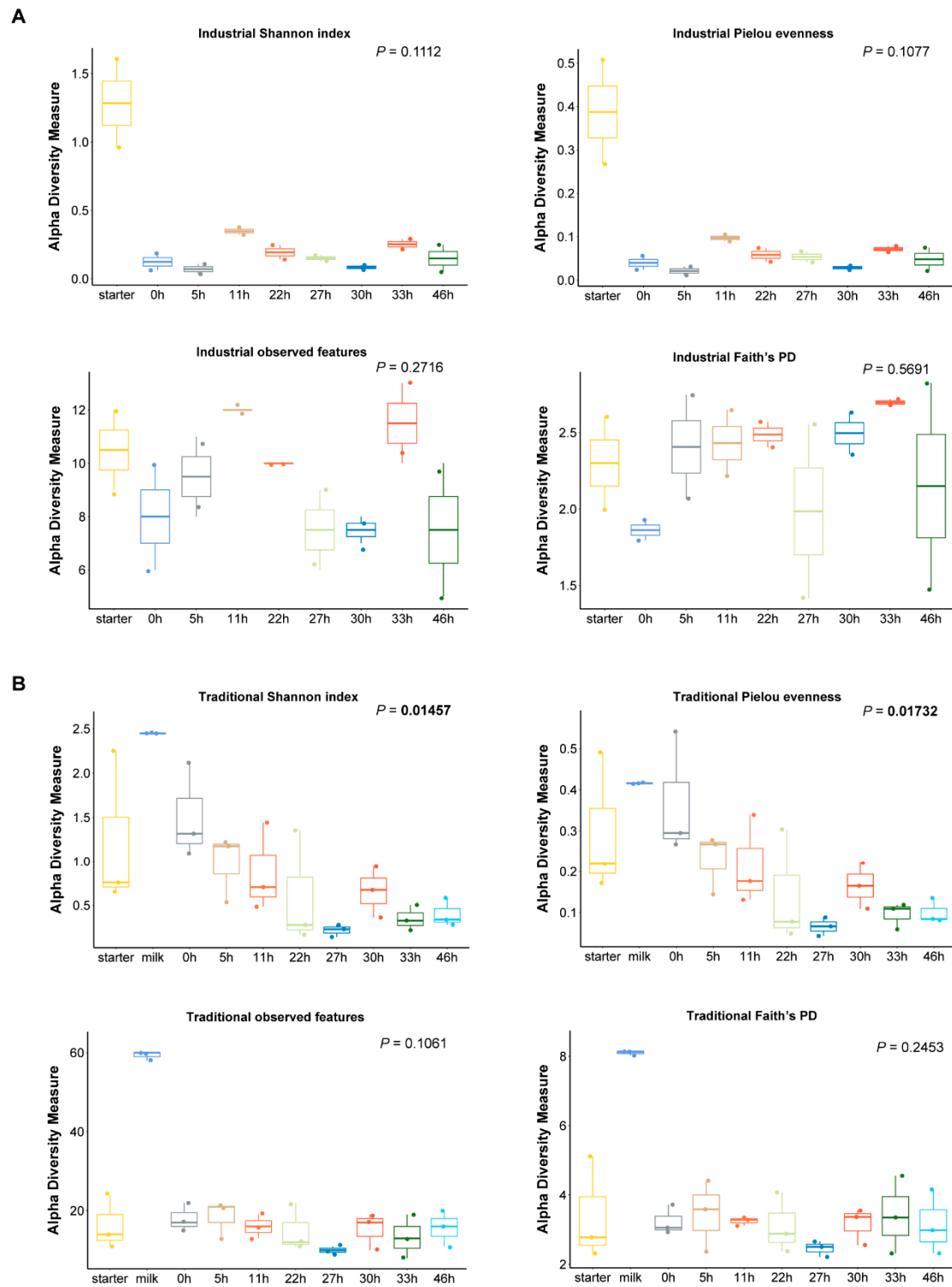


Figure S3. Dynamics in alpha diversity of fungal communities during (A) the industrial and (B) the traditional fermentation process. p-values were generated by Kruskal-Wallis test for the whole fermentation stage, bold values indicate statistically significant difference ($P < 0.05$).

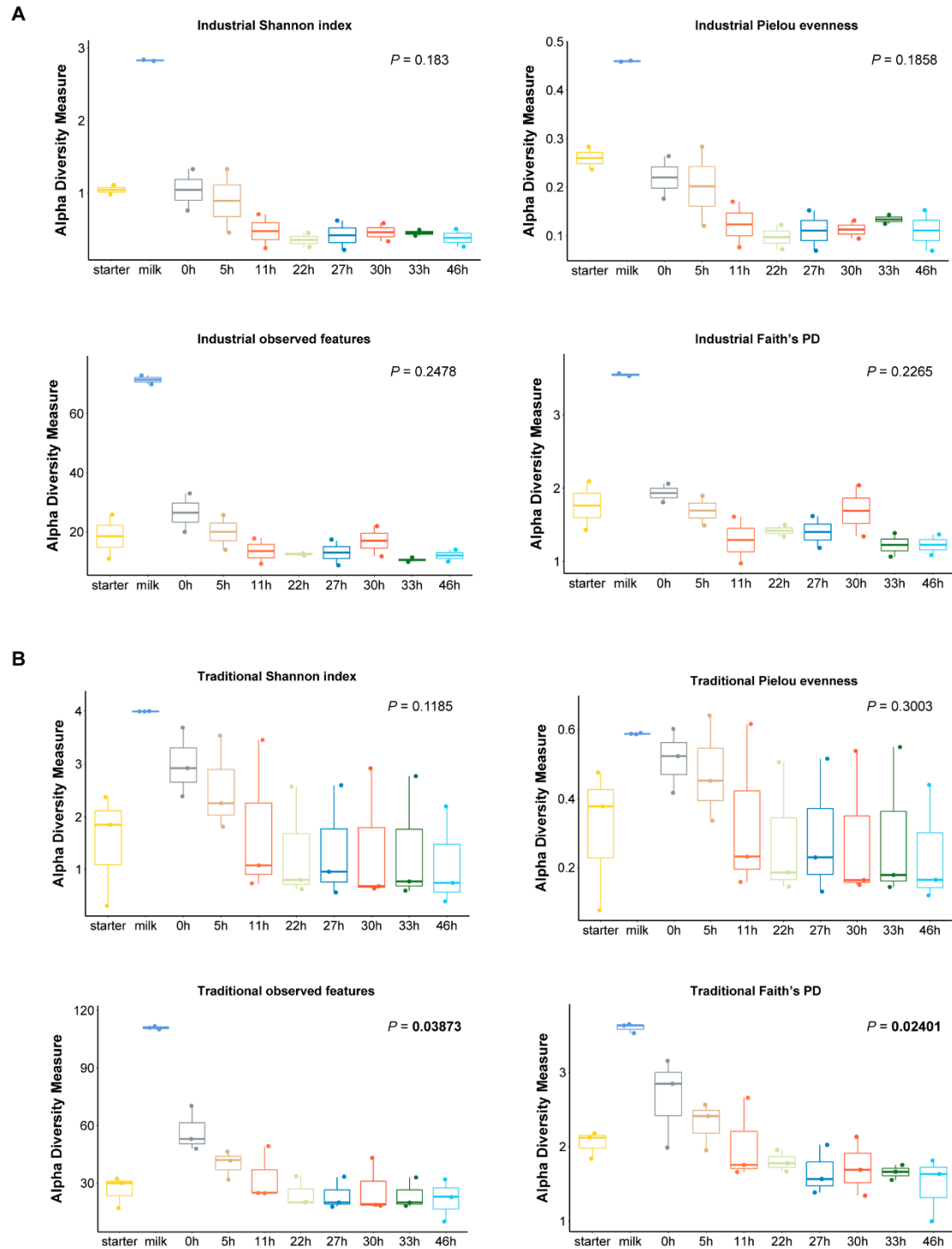


Figure S4. Dynamics in alpha diversity of bacterial communities during fermentation in (A) industrial and (B) traditional mode. p-values were generated by Kruskal-Wallis test for the whole fermentation stage, bold values indicate statistically significant results ($P < 0.05$).

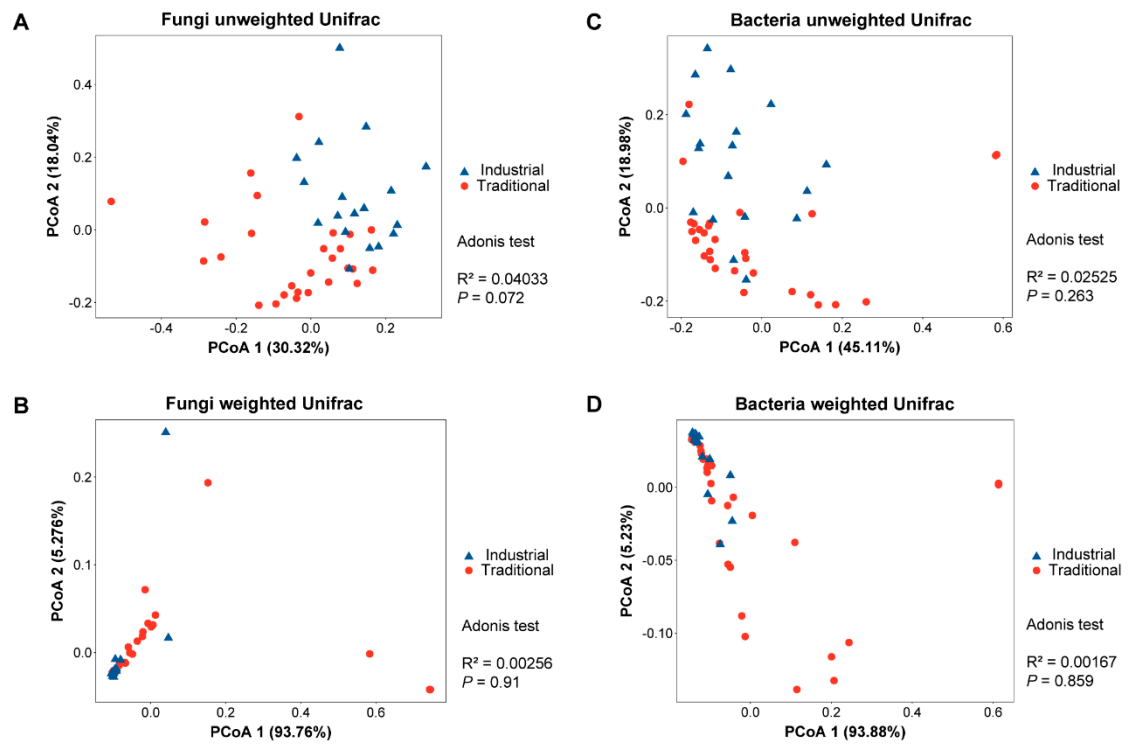


Figure S5. Principal Coordinate analysis (PCoA) based on unweighted and weighted Unifrac distances of (A, B) fungal and (C, D) bacterial communities. R^2 and p-value were obtained using Adonis test with 999 permutations for significance testing and partitioning of variance according to fermentation mode.

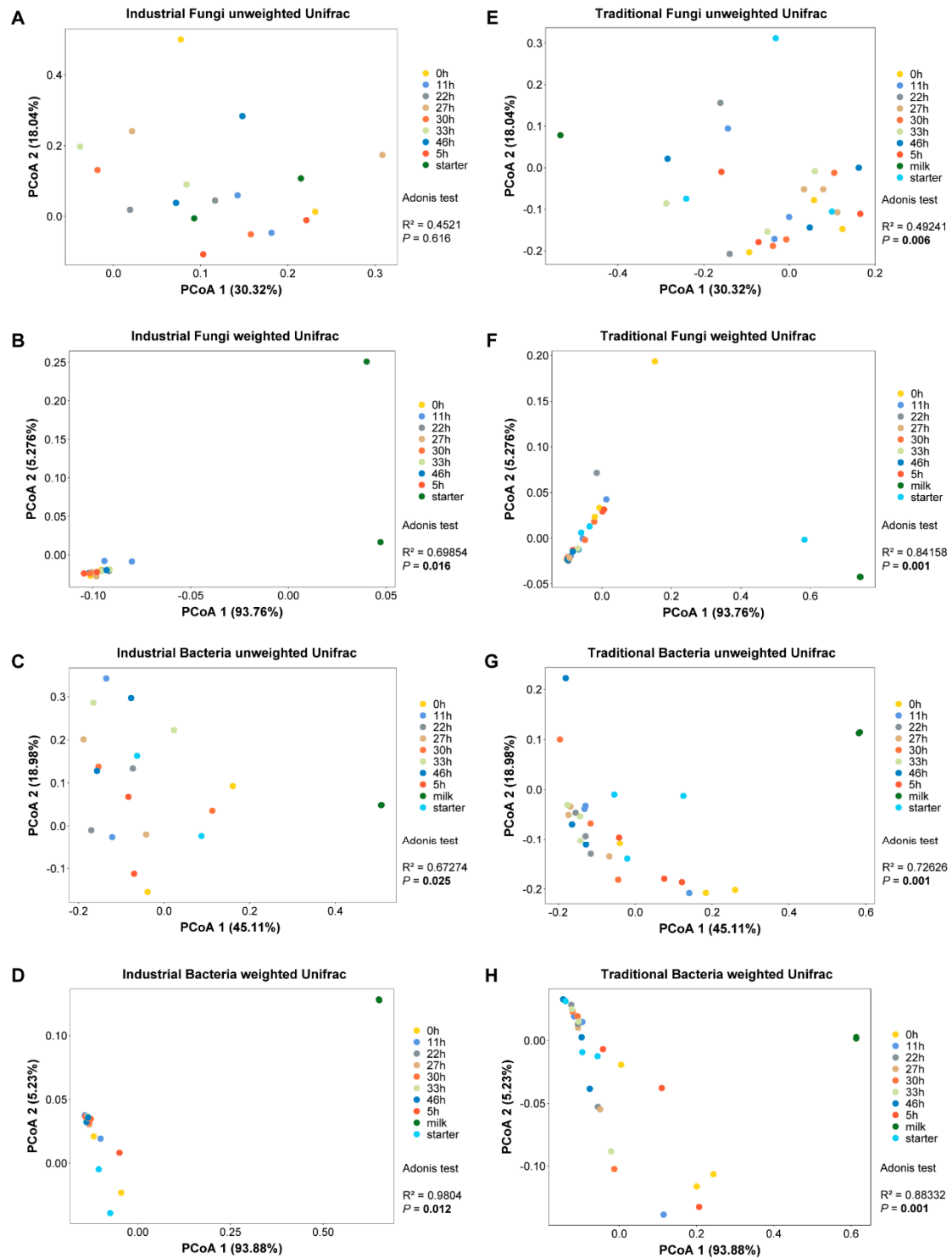


Figure S6. Principal Coordinate analysis (PCoA) based on unweighted and weighted Unifrac distances of the fungal and bacterial communities in different fermentation stages of the industrial (A, B, C, D) and traditional (E, F, G, H) modes. R^2 and p-value were obtained using Adonis test with 999 permutations for significance testing and partitioning of variance according to fermentation stage, bold values indicate statistically significant results ($P < 0.05$).

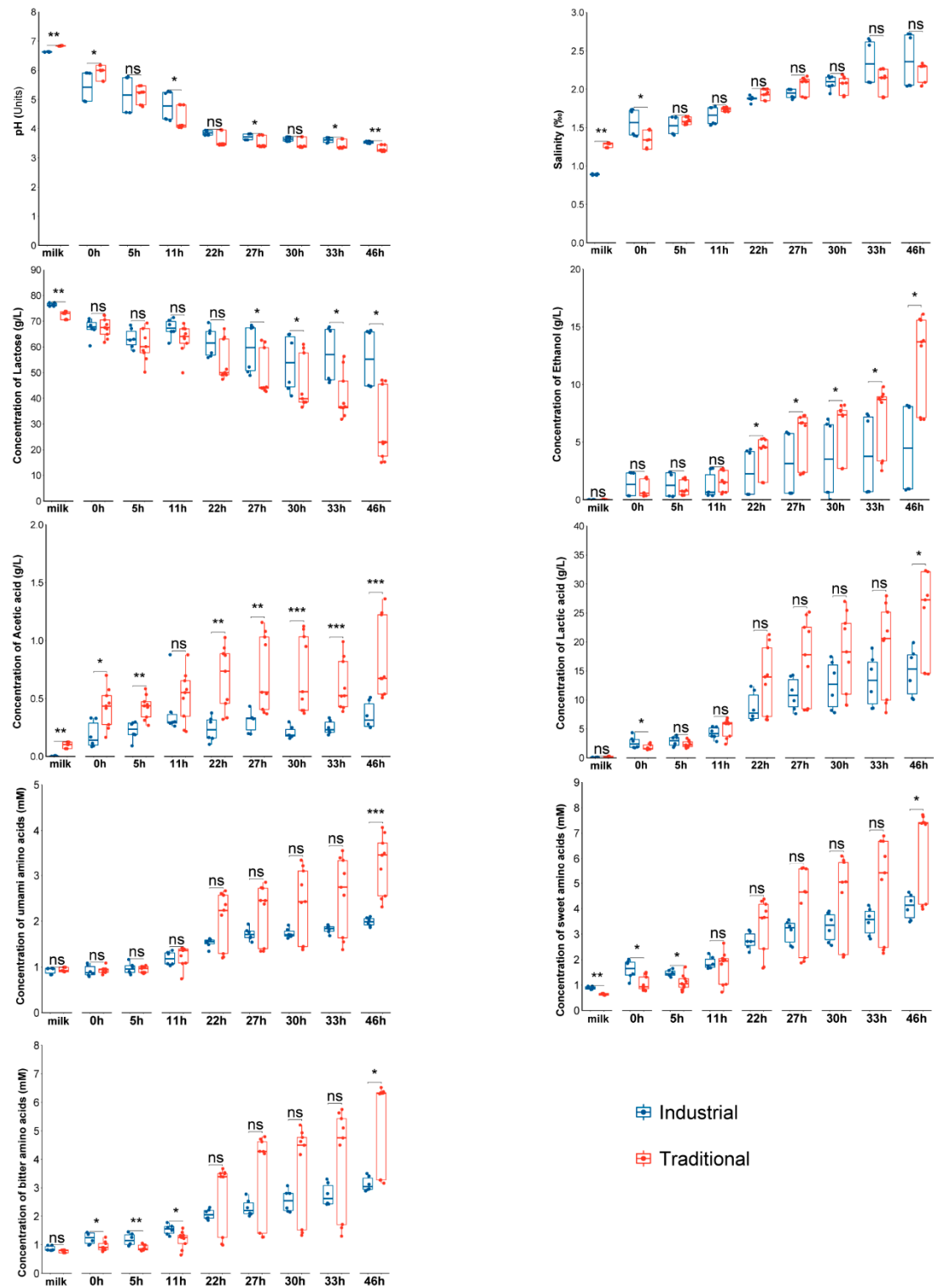


Figure S7. Comparison of the dynamics of pH, salinity, lactose, ethanol, acetic acid, lactic acid, and free amino acids with different tastes between industrial and traditional modes during fermentation. ns means $P > 0.05$, * $P \leq 0.05$, ** $P \leq 0.01$, *** $P \leq 0.001$, **** $P \leq 0.0001$.

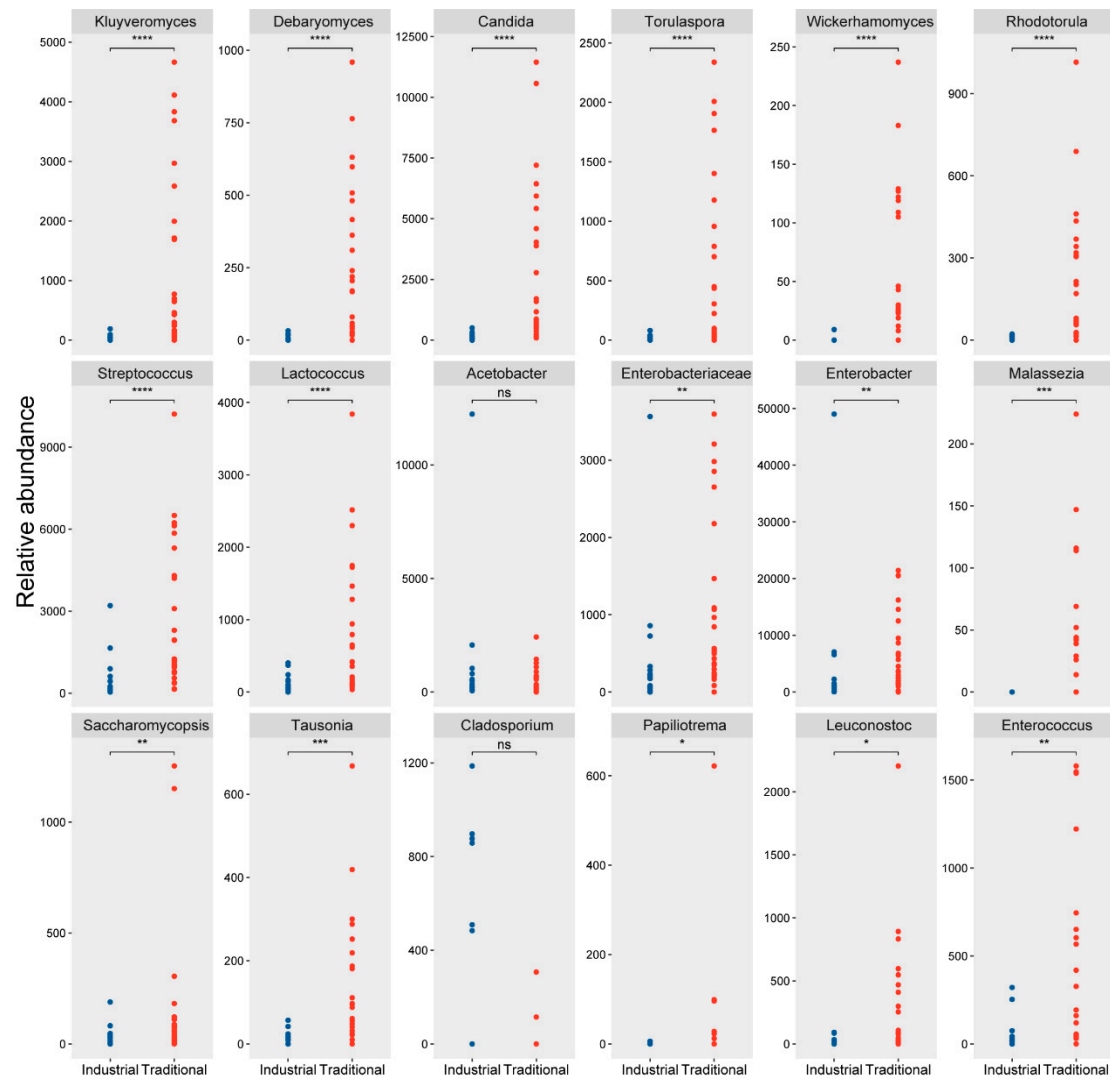


Figure S8. Comparison of the relative abundance of the top 18 fungal and bacterial genera between industrial and traditional fermentation modes. ns means $P > 0.05$, * $P \leq 0.05$, ** $P \leq 0.01$, *** $P \leq 0.001$, **** $P \leq 0.0001$.