

Table S1 Importance of the variables on classification of different culture fermentations

| Variables | %IncMSE (%) | Variables | IncNodePurity |
|-----------------------|-------------|-----------------------|---------------|
| Ethyl acetate | 14 | Ethyl acetate | 78 |
| 3-Methylbutyric acid | 12.5 | 3-Methylbutyric acid | 67 |
| Ethyl hexanoate | 10 | Ethyl hexanoate | 25 |
| Geranyl acetone | 9.5 | 4-Vinylguaiacol | 20 |
| 2-Phenylethanol | 7.4 | Geranyl acetone | 18 |
| Isobutanol | 6.1 | Isobutanol | 17 |
| Ethyl succinate | 5.8 | 2-Phenylethanol | 14 |
| 2-Phenylethyl acetate | 5.5 | 2-Methylbutyl acetate | 12 |
| 4-Vinylguaiacol | 5.1 | Benzaldehyde | 11 |
| 2-Methylbutyl acetate | 4.8 | Ethyl octanoate | 10 |
| Benzaldehyde | 4.6 | Tetramethylpyrazine | 9.2 |
| 2,3-Butanediol | 4.5 | Ethyl caprate | 8.2 |
| 1-Nonanol | 4.3 | γ -Octalactone | 7.5 |
| Nonanoic acid | 4.1 | Isobutyric acid | 6.9 |
| Isobutyric acid | 3.7 | 1-Nonanol | 6.1 |
| Ethyl octanoate | 3.5 | 2-Phenylethyl acetate | 5.3 |
| Ethyl propionate | 3.2 | Acetic acid | 4.5 |
| Ethyl oenanthate | 2.9 | Octanoic acid | 4.0 |
| Tetramethylpyrazine | 2.7 | Isoamyl alcohol | 3.2 |
| 1-Octen-3-ol | 2.4 | Ethyl phenylacetate | 2.6 |
| Acetic acid | 2.3 | 3-Methylthiopropanol | 1.8 |
| Octanoic acid | 2.1 | 3-Hydroxy-2-butanone | 1 |
| Capric acid | 1.8 | | |
| 3-Methylthiopropanol | 1.5 | | |