

**Table S5 Volatile alcohols and esters present in the fermentation media at day 5 of fermentation.**

DAY5	VIN13	SOK2-VIN13	BM45	RAP1-BM45	DV10
Ethyl Acetate	19.74 ± 2.48	22.52 ± 2.65	20.52 ± 1.13	19.38 ± 0.95	28.38 ± 1.69
Propanol	70.22 ± 2.34	<b>82.06 ± 4.97</b>	48.65 ± 3.43	44.66 ± 3.02	66.88 ± 5.64
Isobutanol	12.97 ± 1.95	<b>18.17 ± 1.84</b>	20.14 ± 1.96	17.29 ± 1.55	16.42 ± 1.81
Isoamyl Acetate	0.30 ± 0.09	<b>0.70 ± 0.17</b>	0.36 ± 0.02	0.36 ± 0.04	0.38 ± 0.09
Butanol	0.59 ± 0.09	<b>0.88 ± 0.04</b>	0.52 ± 0.03	0.58 ± 0.04	0.69 ± 0.05
Isoamyl alcohol	78.74 ± 4.54	<b>106.80 ± 8.47</b>	85.54 ± 4.69	89.53 ± 2.01	95.87 ± 7.52
Ethyl Hexanoate	0.11 ± 0.18	0.15 ± 0.01	0.16 ± 0.16	0.10 ± 0.08	0.18 ± 0.05
Hexanol	Bd	bd	Bd	bd	Bd
Ethyl Caprylate	0.11 ± 0.04	0.12 ± 0.01	0.14 ± 0.00	<i>0.10 ± 0.01</i>	0.15 ± 0.03
Acetic Acid	792.6 ± 16.4	<b>1047.3 ± 72.87</b>	1131.1 ± 44.0	1159.9 ± 113.6	1093.2 ± 81.7
Propionic Acid	4.58 ± 0.42	<b>6.56 ± 0.44</b>	2.62 ± 0.10	2.78 ± 0.28	5.05 ± 0.39
Iso-Butyric Acid	0.83 ± 0.03	0.87 ± 0.05	0.90 ± 0.05	0.81 ± 0.06	0.89 ± 0.06
Butyric Acid	0.65 ± 0.08	0.67 ± 0.05	0.68 ± 0.04	0.71 ± 0.05	0.80 ± 0.08
Ethyl Caprate	0.24 ± 0.05	<b>0.35 ± 0.03</b>	0.30 ± 0.04	0.33 ± 0.07	0.46 ± 0.03
Iso-Valeric Acid	0.65 ± 0.07	0.66 ± 0.04	0.62 ± 0.09	0.50 ± 0.06	0.64 ± 0.06
Diethyl Succinate	0.03 ± 0.05	<b>0.14 ± 0.03</b>	0.10 ± 0.00	<b>0.15 ± 0.00</b>	0.11 ± 0.01
Valeric Acid	0.02 ± 0.03	0.06 ± 0.01	0.02 ± 0.02	<b>0.07 ± 0.00</b>	0.05 ± 0.00
2-Phenylethyl Acetate	0.01 ± 0.67	0.04 ± 0.00	0.03 ± 0.60	0.02 ± 0.01	0.03 ± 0.04
Hexanoic Acid	1.11 ± 0.17	1.40 ± 0.16	1.37 ± 0.28	1.56 ± 0.32	2.19 ± 0.24
2-Phenyl Ethanol	10.74 ± 0.68	<b>14.62 ± 0.84</b>	12.66 ± 0.66	13.10 ± 2.10	13.52 ± 1.25
Octanoic Acid	1.38 ± 0.08	<b>1.65 ± 0.13</b>	1.34 ± 0.21	1.28 ± 0.09	2.65 ± 0.12
Decanoic Acid	2.80 ± 0.17	3.28 ± 0.21	2.98 ± 0.39	3.80 ± 0.14	4.50 ± 0.29

All values are expressed in mg.L<sup>-1</sup> and are the average of 4 biological repeats ± standard deviation. Metabolites present at concentrations below the detection limit are indicated by “bd”. Values in bold indicate a statistically significant increase in concentration for a given metabolite relative to the untransformed control, whereas values in italics indicate a significant decrease in concentration.