

Table S1 The concentration of volatile flavor compounds in Suancai fermented with different LABs

NO.	Compounds	RI	Formula	CON	LP	LB	LM
C01	Acetic acid	1453	C ₂ H ₄ O ₂	nd	0.202±0.101 ^a	0.148±0.062 ^a	0.124±0.134 ^a
C02	Dimethyl trisulfide	1344	C ₂ H ₆ S ₃	nd	0.008±0.005	nd	nd
C03	1,1-Dicyanoethane	1237	C ₄ H ₄ N ₂	nd	nd	0.029±0.025	nd
C04	4-Isothiocyanato-1-Butene	1433	C ₅ H ₇ NS	0.140±0.014 ^b	0.469±0.191 ^{ab}	0.556±0.220 ^{ab}	1.554±0.907 ^a
C05	5-Cyano-1-pentene	1332	C ₆ H ₉ N	0.033±0.023 ^b	0.097±0.048 ^{ab}	0.256±0.073 ^a	0.189±0.103 ^{ab}
C06	1-Cyano-4,5-epithiopentane	2079	C ₆ H ₉ NS	nd	0.847±0.337 ^a	0.396±0.498 ^a	2.352±1.337 ^a
C07	3-Hexen-1-ol	1383	C ₆ H ₁₂ O	nd	0.010±0.007 ^a	0.021±0.003 ^a	0.016±0.023 ^a
C08	1-Hexanol	1354	C ₆ H ₁₄ O	nd	0.012±0.009 ^a	0.014±0.010 ^a	0.010±0.010 ^a
C09	Benzonitrile	1584	C ₇ H ₅ N	nd	0.064±0.046	nd	nd
C10	Benzaldehyde	1307	C ₇ H ₆ O	nd	0.004±0.006 ^a	0.199±0.281 ^a	0.047±0.066 ^a
C11	Butanedioic acid, methylene-, dimethyl ester	1097	C ₇ H ₁₀ O ₄	0.223±0.034	nd	nd	nd
C12	8-Oxabicyclo[5.1.0]octane	1677	C ₇ H ₁₂ O	nd	0.061±0.042	nd	nd
C13	6-(Methylthio)hexanenitrile	2052	C ₇ H ₁₃ NS	nd	nd	0.105±0.042 ^a	0.067±0.038 ^a
C14	Berteroin	2263	C ₇ H ₁₃ NS ₂	nd	0.063±0.016 ^a	0.113±0.028 ^a	0.132±0.080 ^a
C15	1-Heptanol	1448	C ₇ H ₁₆ O	nd	0.011±0.008	nd	nd
C16	2-Amino-4-methyl-Benzoic acid	949	C ₈ H ₉ NO ₂	0.183±0.110 ^a	0.333±0.352 ^a	0.158±0.172 ^a	nd
C17	Phenylethyl Alcohol	1698	C ₈ H ₁₀ O	nd	0.012±0.011 ^a	0.019±0.017 ^a	0.022±0.014 ^a

C18	(E)-2-Octenal	1476	C ₈ H ₁₄ O	nd	0.044±0.034 ^a	0.036±0.015 ^a	0.028±0.015 ^a
C19	1-Octen-3-ol	1442	C ₈ H ₁₆ O	nd	0.032±0.023 ^a	0.036±0.027 ^a	nd
C20	(E)-2-Octen-1-ol	1599	C ₈ H ₁₆ O	nd	0.045±0.064 ^a	nd	0.074±0.038 ^a
C21	Octanoic acid	1852	C ₈ H ₁₆ O ₂	nd	0.109±0.040	nd	nd
C22	1-Octanol	1545	C ₈ H ₁₈ O	0.053±0.017 ^b	0.067±0.035 ^b	0.199±0.087 ^a	0.081±0.045 ^{ab}
C23	Benzenepropanenitrile	2032	C ₉ H ₉ N	0.011±0.016 ^b	0.149±0.060 ^{ab}	0.254±0.094 ^a	0.206±0.114 ^a
C24	(2-isothiocyanatoethyl)-Benzene	2225	C ₉ H ₉ NS	0.098±0.020 ^a	0.362±0.112 ^a	0.789±0.295 ^a	0.933±0.527 ^a
C25	2,4-dimethyl-Benzaldehyde	1797	C ₉ H ₁₀ O	nd	0.066±0.093 ^a	0.259±0.195 ^a	0.306±0.221 ^a
C26	Isophorone	1575	C ₉ H ₁₄ O	nd	0.179±0.144 ^a	0.151±0.046 ^a	0.119±0.065 ^a
C27	3,5,5-trimethyl-2-Hexene	1276	C ₉ H ₁₈	nd	0.002±0.002 ^a	0.078±0.110 ^a	nd
C28	(6Z)-Nonen-1-ol	1171	C ₉ H ₁₈ O	0.029±0.022	nd	nd	nd
C29	1-Nonanol	1647	C ₉ H ₂₀ O	nd	0.081±0.049 ^a	0.049±0.021 ^a	0.037±0.018 ^a
C30	Naphthalene	1716	C ₁₀ H ₈	nd	nd	0.057±0.041	nd
C31	4-propyl-Benzaldehyde	1617	C ₁₀ H ₁₂ O	0.021±0.016 ^a	0.002±0.003 ^a	0.017±0.025 ^a	nd
C32	1,2,4,5-tetramethyl-Benzene	1404	C ₁₀ H ₁₄	nd	nd	0.062±0.073	nd
C33	3-Methylene-1-oxa-spiro[4.5]decan-2-one	1995	C ₁₀ H ₁₄ O ₂	nd	0.016±0.007 ^a	0.027±0.007 ^a	0.021±0.011 ^a
C34	3,7-dimethyl-1,3,7-Octatriene	1026	C ₁₀ H ₁₆	nd	0.019±0.004 ^a	0.051±0.027 ^a	0.021±0.018 ^a
C35	2,6-dimethyl-2,4,6-Octatriene	1339	C ₁₀ H ₁₆	nd	0.022±0.010 ^a	0.011±0.008 ^a	nd
C36	β-Myrcene	1143	C ₁₀ H ₁₆	nd	0.033±0.016 ^a	0.085±0.044 ^a	0.071±0.042 ^a

C37	trans, trans-Octa-2,4-dienyl acetate	1671	C ₁₀ H ₁₆ O ₂	nd	0.075±0.050 ^a	0.049±0.016 ^a	0.060±0.030 ^a
C38	(Z)- 3,7-dimethyl-2,6-Octadien-1-ol	1846	C ₁₀ H ₁₈ O	0.031±0.044 ^a	nd	nd	0.102±0.061 ^a
C39	Geraniol	1845	C ₁₀ H ₁₈ O	nd	0.070±0.026 ^b	0.153±0.048 ^a	nd
C40	Linalool	1338	C ₁₀ H ₁₈ O	0.043±0.061 ^{ab}	0.008±0.011 ^b	0.132±0.059 ^a	0.082±0.047 ^{ab}
C41	Citronellol	1228	C ₁₀ H ₂₀ O	0.007±0.005	nd	nd	nd
C42	Decanal	1206	C ₁₀ H ₂₀ O	0.003±0.002	nd	nd	nd
C43	Dodecanoic acid	2271	C ₁₂ H ₂₄ O ₂	nd	0.011±0.004	nd	nd
C44	1-Dodecanol	1763	C ₁₂ H ₂₆ O	nd	0.028±0.012 ^a	0.019±0.026 ^a	nd
C45	2,4-Di-tert-butylphenol	2297	C ₁₄ H ₂₂ O	0.153±0.020 ^a	0.062±0.017 ^a	0.131±0.028 ^a	0.224±0.170 ^a
C46	2,6-Di-Tert-Butyl-4-Methylphenol	1513	C ₁₅ H ₂₄ O	0.022±0.002	nd	nd	nd
C47	4,6-di-tert-Butyl-m-cresol	2090	C ₁₅ H ₂₄ O	nd	nd	0.015±0.021 ^a	0.016±0.016 ^a
C48	Butylated Hydroxytoluene	1898	C ₁₅ H ₂₄ O	nd	0.030±0.014 ^a	0.037±0.024 ^a	0.018±0.020 ^a
C49	n-Hexadecanoic acid	2697	C ₁₆ H ₃₂ O ₂	nd	0.031±0.010	nd	nd
C50	Heptadecane	1700	C ₁₇ H ₃₆	0.014±0.004	nd	nd	nd
Total				1.065±0.096 ^b	3.739±1.666 ^{ab}	4.710±0.878 ^{ab}	6.913±3.899 ^a

The concentrations were calculated through an internal standard method (mg/kg)

Values are means ± standard deviation. Different superscript letters in a row indicate significant differences (p < 0.05).

nd, not detected.

CON, natural fermented Suancai. LP, LB and LM represent the inoculated Suancai with *Lb. plantarum*, *Lb. brevis* and *Leu. mesenteroides*.