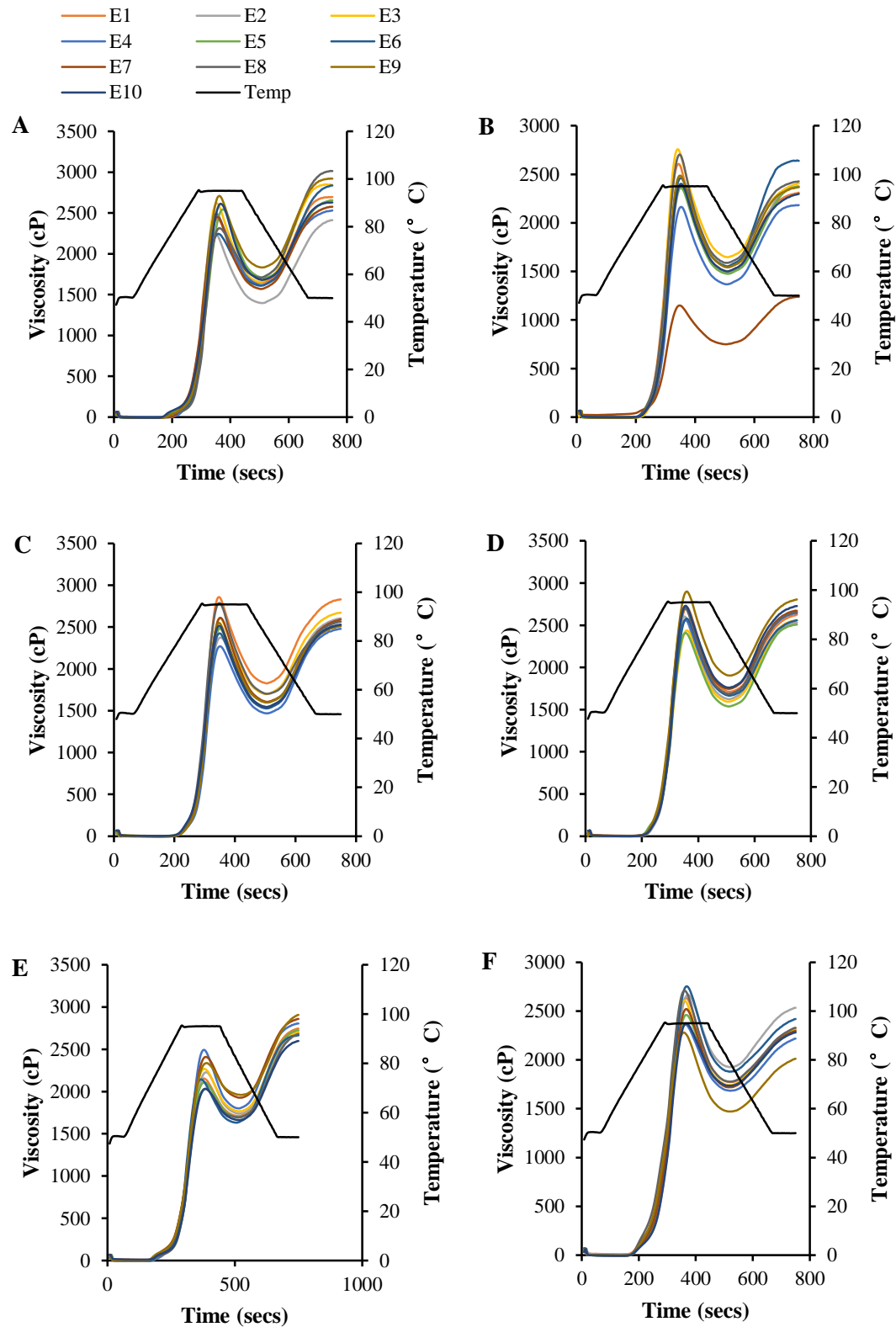


Supplementary Figure S1. Weather conditions per month during the period of rice growth in the ten environments.

Max Temp, the average of the maximum temperature per month; Min Temp, the average of the minimum temperature per month; Rainfall, total rainfall per month; E1–E10 indicates the ten environments.



Supplementary Figure S2. The RVA profile of the six rice varieties under ten environments. A. HZY261; B. ZZY8; C. JFY2; D. YY15; E. JHX1; F. NJ46.

Supplementary Table S1. The information of the six rice varieties and ten environments <sup>a</sup>

Sample No.	Genotype	Environment	City	Location	Type
1	HZY261	E1	Hangzhou	119.1 °E, 29.3 °N	<i>Indica</i>
2	HZY261	E2	Ningbo	121.2 °E, 30.2 °N	<i>Indica</i>
3	HZY261	E3	Wenzhou	120.0 °E, 27.9 °N	<i>Indica</i>
4	HZY261	E4	Shaoxing	120.8 °E, 30.0 °N	<i>Indica</i>
5	HZY261	E5	Huzhou	120.3 °E, 30.6 °N	<i>Indica</i>
6	HZY261	E6	Jiaxing	120.9 °E, 30.8 °N	<i>Indica</i>
7	HZY261	E7	Jinhua	119.6 °E, 28.7 °N	<i>Indica</i>
8	HZY261	E8	Quzhou	118.6 °E, 29.0 °N	<i>Indica</i>
9	HZY261	E9	Taizhou	120.8 °E, 28.7 °N	<i>Indica</i>
10	HZY261	E10	Lishui	118.9 °E, 27.8 °N	<i>Indica</i>
11	ZZY8	E1	Hangzhou	119.1 °E, 29.3 °N	<i>Indica</i>
12	ZZY8	E2	Ningbo	121.2 °E, 30.2 °N	<i>Indica</i>
13	ZZY8	E3	Wenzhou	120.0 °E, 27.9 °N	<i>Indica</i>
14	ZZY8	E4	Shaoxing	120.8 °E, 30.0 °N	<i>Indica</i>
15	ZZY8	E5	Huzhou	120.3 °E, 30.6 °N	<i>Indica</i>
16	ZZY8	E6	Jiaxing	120.9 °E, 30.8 °N	<i>Indica</i>
17	ZZY8	E7	Jinhua	119.6 °E, 28.7 °N	<i>Indica</i>
18	ZZY8	E8	Quzhou	118.6 °E, 29.0 °N	<i>Indica</i>
19	ZZY8	E9	Taizhou	120.8 °E, 28.7 °N	<i>Indica</i>
20	ZZY8	E10	Lishui	118.9 °E, 27.8 °N	<i>Indica</i>
21	JFY2	E1	Hangzhou	119.1 °E, 29.3 °N	<i>Indica-japonica</i>
22	JFY2	E2	Ningbo	121.2 °E, 30.2 °N	<i>Indica-japonica</i>
23	JFY2	E3	Wenzhou	120.0 °E, 27.9 °N	<i>Indica-japonica</i>
24	JFY2	E4	Shaoxing	120.8 °E, 30.0 °N	<i>Indica-japonica</i>
25	JFY2	E5	Huzhou	120.3 °E, 30.6 °N	<i>Indica-japonica</i>
26	JFY2	E6	Jiaxing	120.9 °E, 30.8 °N	<i>Indica-japonica</i>
27	JFY2	E7	Jinhua	119.6 °E, 28.7 °N	<i>Indica-japonica</i>
28	JFY2	E8	Quzhou	118.6 °E, 29.0 °N	<i>Indica-japonica</i>
29	JFY2	E9	Taizhou	120.8 °E, 28.7 °N	<i>Indica-japonica</i>
30	JFY2	E10	Lishui	118.9 °E, 27.8 °N	<i>Indica-japonica</i>
31	YY15	E1	Hangzhou	119.1 °E, 29.3 °N	<i>Indica-japonica</i>
32	YY15	E2	Ningbo	121.2 °E, 30.2 °N	<i>Indica-japonica</i>
33	YY15	E3	Wenzhou	120.0 °E, 27.9 °N	<i>Indica-japonica</i>
34	YY15	E4	Shaoxing	120.8 °E, 30.0 °N	<i>Indica-japonica</i>
35	YY15	E5	Huzhou	120.3 °E, 30.6 °N	<i>Indica-japonica</i>

Sample No.	Genotype	Environment	City	Location	Type
36	YY15	E6	Jiaxing	120.9 E, 30.8 N	<i>Indica-japonica</i>
37	YY15	E7	Jinhua	119.6 E, 28.7 N	<i>Indica-japonica</i>
38	YY15	E8	Quzhou	118.6 E, 29.0 N	<i>Indica-japonica</i>
39	YY15	E9	Taizhou	120.8 E, 28.7 N	<i>Indica-japonica</i>
40	YY15	E10	Lishui	118.9 E, 27.8 N	<i>Indica-japonica</i>
41	JHX1	E1	Hangzhou	119.1 E, 29.3 N	<i>Japonica</i>
42	JHX1	E2	Ningbo	121.2 E, 30.2 N	<i>Japonica</i>
43	JHX1	E3	Wenzhou	120.0 E, 27.9 N	<i>Japonica</i>
44	JHX1	E4	Shaoxing	120.8 E, 30.0 N	<i>Japonica</i>
45	JHX1	E5	Huzhou	120.3 E, 30.6 N	<i>Japonica</i>
46	JHX1	E6	Jiaxing	120.9 E, 30.8 N	<i>Japonica</i>
47	JHX1	E7	Jinhua	119.6 E, 28.7 N	<i>Japonica</i>
48	JHX1	E8	Quzhou	118.6 E, 29.0 N	<i>Japonica</i>
49	JHX1	E9	Taizhou	120.8 E, 28.7 N	<i>Japonica</i>
50	JHX1	E10	Lishui	118.9 E, 27.8 N	<i>Japonica</i>
51	NJ46	E1	Hangzhou	119.1 E, 29.3 N	<i>Japonica</i>
52	NJ46	E2	Ningbo	121.2 E, 30.2 N	<i>Japonica</i>
53	NJ46	E3	Wenzhou	120.0 E, 27.9 N	<i>Japonica</i>
54	NJ46	E4	Shaoxing	120.8 E, 30.0 N	<i>Japonica</i>
55	NJ46	E5	Huzhou	120.3 E, 30.6 N	<i>Japonica</i>
56	NJ46	E6	Jiaxing	120.9 E, 30.8 N	<i>Japonica</i>
57	NJ46	E7	Jinhua	119.6 E, 28.7 N	<i>Japonica</i>
58	NJ46	E8	Quzhou	118.6 E, 29.0 N	<i>Japonica</i>
59	NJ46	E9	Taizhou	120.8 E, 28.7 N	<i>Japonica</i>
60	NJ46	E10	Lishui	118.9 E, 27.8 N	<i>Japonica</i>

a HZY261, huazheyoun261; ZZY8, zhongzheyoun8; JFY2, jiafengyou2; YY15, yongyou15; JHX1, jiahexiang1; NJ46, nanjing46; E1-E10, the ten environments, respectively.

Supplementary Table S2. The sensitive evaluations of the cooked rice of six rice varieties under ten environments <sup>a</sup>

	<b>FCR</b>	<b>ACR</b>	<b>PCR</b>	<b>TCR</b>	<b>TCCR</b>	<b>SEV</b>
<b>Genotype</b>						
HZY261	17.1±1.3 <sup>A</sup>	17.3±1.2 <sup>A</sup>	25.1±2.0 <sup>A</sup>	21.3±1.6 <sup>A</sup>	4.3±0.3 <sup>A</sup>	85.1±3.7 <sup>A</sup>
ZZY8	16.8±1.6 <sup>AB</sup>	16.5±1.3 <sup>BC</sup>	25.1±2.0 <sup>A</sup>	21.1±1.7 <sup>AB</sup>	4.2±0.4 <sup>AB</sup>	83.6±5.1 <sup>AB</sup>
JFY2	16.9±1.3 <sup>AB</sup>	16.4±1.3 <sup>C</sup>	24.6±1.9 <sup>A</sup>	20.6±1.6 <sup>BC</sup>	4.2±0.4 <sup>AB</sup>	82.7±3.8 <sup>BC</sup>
YY15	17.0±1.5 <sup>AB</sup>	16.9±1.3 <sup>B</sup>	24.8±2.2 <sup>A</sup>	20.8±1.8 <sup>A-C</sup>	4.2±0.3 <sup>AB</sup>	83.6±5.0 <sup>AB</sup>
JHX1	16.4±1.7 <sup>B</sup>	15.9±1.0 <sup>D</sup>	23.0±3.5 <sup>B</sup>	20.6±1.6 <sup>BC</sup>	4.0±0.4 <sup>BC</sup>	79.8±5.0 <sup>D</sup>
NJ46	16.6±1.5 <sup>AB</sup>	16.2±1.2 <sup>CD</sup>	24.4±1.9 <sup>A</sup>	20.3±2.0 <sup>C</sup>	4.0±0.4 <sup>C</sup>	81.6±4.2 <sup>C</sup>
<b>Environment</b>						
E1	17.3±1.2 <sup>A</sup>	16.5±1.3 <sup>AB</sup>	24.4±2.2 <sup>A</sup>	21.1±1.6 <sup>A</sup>	4.2±0.4 <sup>A</sup>	83.5±4.2 <sup>AB</sup>
E2	16.1±1.9 <sup>B</sup>	16.2±1.2 <sup>B</sup>	24.3±2.1 <sup>A</sup>	20.4±1.6 <sup>A</sup>	4.0±0.4 <sup>A</sup>	81.0±5.3 <sup>B</sup>
E3	16.7±1.4 <sup>AB</sup>	16.4±1.3 <sup>AB</sup>	24.5±1.9 <sup>A</sup>	20.4±1.8 <sup>A</sup>	4.0±0.4 <sup>A</sup>	82.1±4.6 <sup>AB</sup>
E4	16.5±1.3 <sup>AB</sup>	16.5±1.3 <sup>AB</sup>	24.0±2.0 <sup>A</sup>	20.8±1.7 <sup>A</sup>	4.2±0.4 <sup>A</sup>	82.0±4.6 <sup>AB</sup>
E5	17.0±1.3 <sup>A</sup>	16.4±1.3 <sup>AB</sup>	23.8±4.6 <sup>A</sup>	20.9±1.7 <sup>A</sup>	4.1±0.4 <sup>A</sup>	82.3±6.2 <sup>AB</sup>
E6	17.2±1.2 <sup>A</sup>	17.0±1.3 <sup>A</sup>	25.2±2.0 <sup>A</sup>	20.9±1.7 <sup>A</sup>	4.2±0.3 <sup>A</sup>	84.4±3.6 <sup>A</sup>
E7	17.2±1.3 <sup>A</sup>	16.1±1.2 <sup>B</sup>	24.7±1.9 <sup>A</sup>	21.0±1.7 <sup>A</sup>	4.2±0.3 <sup>A</sup>	83.1±3.5 <sup>AB</sup>
E8	16.7±1.5 <sup>AB</sup>	16.8±1.3 <sup>AB</sup>	24.9±2.0 <sup>A</sup>	20.9±1.7 <sup>A</sup>	4.2±0.4 <sup>A</sup>	83.5±4.4 <sup>AB</sup>
E9	16.5±2.0 <sup>AB</sup>	16.7±1.3 <sup>AB</sup>	24.4±1.9 <sup>A</sup>	20.2±2.0 <sup>A</sup>	4.1±0.5 <sup>A</sup>	81.9±6.0 <sup>AB</sup>
E10	16.9±1.7 <sup>AB</sup>	16.6±1.3 <sup>AB</sup>	24.9±2.1 <sup>A</sup>	21.0±1.9 <sup>A</sup>	4.2±0.3 <sup>A</sup>	83.5±5.3 <sup>AB</sup>

<sup>a</sup> The results are presented as mean ± standard deviation on 100-point scale, and values in each column of genotype or environment with different letters are significantly different (P < 0.05). FCR, flavor of cooked rice; ACR, appearance of cooked rice; PCR: palatability of cooked rice; TCR, taste of cooked rice; TCCR, texture of cooled cooked rice; SEV, sensitive evaluation value.

Supplementary Table S3. The compound information corresponding to the selected characteristic signals <sup>a</sup>

Category	Signal No.	Compounds	Retention time (s)	Drift time (ms)	Intensity values of characteristic peaks / V																							
					HZY261-L		HZY261-H		ZZY8-L		ZZY8-H		JFY2-L		JFY2-H		YY15-L		YY15-H		JHX1-L		JHX1-H		NJ46-L		NJ46-H	
					m	sd	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd	m	sd
Aldehydes	11	pentanal dimer	180.682	1.41873	0.360	0.024	0.233	0.016	0.187	0.035	0.153	0.060	0.416	0.010	0.458	0.034	0.653	0.008	0.465	0.023	0.120	0.073	0.204	0.099	0.237	0.037	0.289	0.137
	12	pentanal	180.355	1.20197	0.817	0.020	0.554	0.026	0.486	0.047	0.517	0.087	0.764	0.030	0.869	0.042	1.011	0.003	1.077	0.008	0.411	0.175	0.591	0.184	0.575	0.095	0.697	0.266
	17	phenylacetaldehyde	646.207	1.26414	0.098	0.004	0.125	0.002	0.106	0.007	0.096	0.003	0.261	0.011	0.188	0.003	0.196	0.001	0.184	0.004	0.104	0.008	0.128	0.002	0.126	0.007	0.128	0.005
	23	2-pentenal (E)	232.182	1.122	0.524	0.000	0.739	0.018	0.771	0.096	0.737	0.182	0.918	0.022	0.640	0.035	0.560	0.001	0.311	0.003	0.486	0.218	0.951	0.368	1.010	0.073	0.913	0.421
	27	2-nonenal (E)	921.024	1.40658	0.192	0.001	0.330	0.003	0.251	0.006	0.220	0.005	0.226	0.000	0.178	0.012	0.145	0.001	0.137	0.000	0.168	0.010	0.246	0.020	0.162	0.000	0.140	0.007
	28	2-furfural	303.343	1.09822	0.190	0.009	0.186	0.007	0.219	0.002	0.178	0.007	0.154	0.003	0.125	0.007	0.124	0.004	0.115	0.001	0.172	0.042	0.120	0.009	0.108	0.001	0.123	0.012
	37	(E)-2-hexenal dimer	321.762	1.51364	0.079	0.003	0.109	0.009	0.089	0.005	0.096	0.018	0.098	0.009	0.082	0.024	0.072	0.002	0.067	0.003	0.128	0.008	0.084	0.004	0.093	0.001	0.070	0.001
	38	(E)-2-hexenal	324.733	1.17923	0.280	0.002	0.372	0.001	0.326	0.007	0.345	0.009	0.404	0.016	0.325	0.044	0.349	0.003	0.324	0.004	0.427	0.021	0.353	0.009	0.380	0.021	0.262	0.002
	39	benzaldehyde dimer	511.975	1.46856	0.179	0.011	0.206	0.011	0.163	0.004	0.177	0.003	0.164	0.005	0.160	0.021	0.150	0.006	0.197	0.009	0.186	0.016	0.176	0.005	0.141	0.001	0.151	0.004
	40	benzaldehyde	512.482	1.14934	0.944	0.034	1.015	0.009	0.854	0.004	0.870	0.003	0.848	0.038	0.807	0.041	0.762	0.001	0.965	0.013	0.908	0.041	0.922	0.001	0.681	0.000	0.742	0.007
	41	butanal dimer	136.246	1.28694	0.689	0.000	0.255	0.022	0.212	0.006	0.419	0.013	0.566	0.005	0.636	0.060	0.464	0.050	0.395	0.009	0.499	0.043	0.660	0.078	0.471	0.098	0.083	0.017
	42	butanal	134.12	1.10788	2.193	0.034	2.169	0.072	2.077	0.007	2.160	0.021	2.007	0.051	1.988	0.008	1.989	0.005	2.130	0.040	2.081	0.047	1.792	0.086	1.341	0.034	0.357	0.054

	43	heptanal dimer	384.742	1.6860 1	0.68 2	0.00 9	0.62 0	0.01 1	0.39 6	0.00 4	0.79 9	0.00 8	0.56 0	0.02 4	0.56 0	0.02 3	0.69 2	0.00 2	0.52 5	0.01 0	0.41 8	0.02 5	0.64 6	0.00 3	0.58 8	0.01 3	0.67 0	0.04 1
	44	heptanal	385.337	1.3447 1	0.77 3	0.03 2	0.82 9	0.01 9	0.62 8	0.00 8	0.95 3	0.00 2	0.75 4	0.00 9	0.76 1	0.00 3	0.88 6	0.00 2	0.87 2	0.00 2	0.67 8	0.01 6	0.83 5	0.03 1	0.76 1	0.04 9	0.93 1	0.00 4
	45	hexanal dimer	260.575	1.5568 5	4.17 9	0.05 1	3.98 5	0.02 9	3.76 3	0.06 5	4.05 9	0.10 4	4.24 6	0.06 0	4.34 8	0.05 4	4.38 1	0.00 9	4.55 9	0.02 7	3.36 0	0.24 4	4.09 0	0.15 8	4.01 5	0.11 0	4.28 0	0.21 2
	46	hexanal	261.538	1.2685	1.51 7	0.01 3	1.45 2	0.00 9	1.43 0	0.02 4	1.52 8	0.03 3	1.49 9	0.03 5	1.54 7	0.01 9	1.54 6	0.00 8	1.68 0	0.02 1	1.30 4	0.06 8	1.49 5	0.04 4	1.44 1	0.03 0	1.53 7	0.05 5
	47	n-nonanal dimer	792.12	1.9406 6	1.11 6	0.00 1	1.46 0	0.00 9	1.02 6	0.00 8	1.35 4	0.02 8	0.90 2	0.04 1	0.94 4	0.01 0	0.95 1	0.00 9	1.05 5	0.00 2	1.05 2	0.06 8	1.32 8	0.09 2	0.99 2	0.01 1	1.11 9	0.04 0
	48	n-nonanal	792.12	1.4823 4	1.54 8	0.01 2	1.55 5	0.00 5	1.51 0	0.00 2	1.58 2	0.00 4	1.54 5	0.00 6	1.56 3	0.00 1	1.56 1	0.00 3	1.61 4	0.00 3	1.47 9	0.02 5	1.57 6	0.03 3	1.52 6	0.01 2	1.59 0	0.00 3
	49	octanal dimer	579.763	1.8143 2	0.14 4	0.00 0	0.15 7	0.00 2	0.10 1	0.00 3	0.22 5	0.01 0	0.18 9	0.00 4	0.20 3	0.00 0	0.29 1	0.00 4	0.19 1	0.00 1	0.16 2	0.00 9	0.24 5	0.00 3	0.25 1	0.00 3	0.26 4	0.00 4
	50	octanal	582.166	1.4156 2	0.62 4	0.02 5	0.71 1	0.00 1	0.58 2	0.00 1	0.85 6	0.00 6	0.79 5	0.01 3	0.81 9	0.03 4	0.97 0	0.01 1	0.80 4	0.02 4	0.71 1	0.00 8	0.89 6	0.01 0	0.90 3	0.02 0	0.92 2	0.01 3
Alcohols	1	1-pentanol dimer	242.269	1.5148 7	0.34 6	0.00 3	0.17 7	0.00 9	0.23 1	0.02 4	0.14 9	0.01 9	0.54 8	0.02 0	0.55 5	0.01 7	0.49 9	0.00 3	0.30 3	0.00 9	0.15 0	0.03 8	0.25 8	0.05 2	0.37 1	0.03 3	0.27 0	0.08 8
	2	1-pentanol	243.553	1.2519 3	1.06 1	0.00 5	0.75 6	0.02 8	0.84 5	0.05 5	0.80 8	0.06 6	1.23 3	0.01 0	1.27 5	0.02 8	1.22 0	0.00 3	1.06 5	0.00 9	0.58 9	0.08 4	0.88 8	0.11 1	1.02 2	0.07 2	0.94 4	0.19 1
	9	n-hexanol dimer	358.005	1.6446 4	0.44 1	0.02 2	0.25 0	0.00 7	0.38 6	0.01 2	0.18 3	0.00 4	0.76 4	0.00 3	0.70 3	0.02 8	0.55 9	0.01 5	0.38 8	0.02 0	0.32 1	0.03 6	0.38 3	0.02 2	0.64 8	0.01 2	0.35 4	0.05 5
	10	n-hexanol	359.194	1.3274 7	1.13 4	0.02 2	0.85 3	0.00 9	1.03 9	0.01 6	0.72 1	0.01 4	1.43 4	0.01 6	1.39 7	0.00 6	1.24 5	0.01 9	1.08 6	0.01 5	0.97 1	0.04 1	1.06 6	0.01 9	1.34 5	0.01 7	1.03 3	0.06 9
	14	3-methylbutanol	216.711	1.2415 3	0.40 7	0.01 2	0.26 4	0.00 6	0.34 2	0.03 5	0.34 5	0.05 5	0.44 7	0.00 1	0.50 7	0.01 9	0.53 5	0.00 3	0.44 1	0.00 9	0.30 3	0.12 3	0.30 9	0.07 2	0.32 2	0.05 1	0.35 1	0.11 8
	22	2-methyl-1-propanol	151.608	1.1761 3	0.48 5	0.00 4	0.32 0	0.01 7	0.28 7	0.00 3	0.46 9	0.00 9	0.63 5	0.01 0	0.68 4	0.02 8	0.78 4	0.00 5	0.39 6	0.01 5	0.62 1	0.00 8	0.57 9	0.02 4	0.86 7	0.01 1	0.60 7	0.03 6
	26	1-octanol	756.176	1.4747 6	0.25 6	0.00 8	0.24 7	0.00 6	0.20 8	0.00 9	0.20 2	0.00 8	0.16 6	0.00 2	0.15 0	0.01 0	0.13 9	0.00 2	0.13 7	0.00 3	0.15 7	0.00 1	0.17 3	0.01 1	0.16 6	0.00 5	0.14 6	0.00 1



	35	2-ethyl-1-hexanol dimer	661.46	1.7915 4	0.42 5	0.00 1	0.46 5	0.02 6	0.37 2	0.01 9	0.43 3	0.00 1	0.35 5	0.00 3	0.45 7	0.02 9	0.44 4	0.00 4	0.38 3	0.02 0	0.40 5	0.06 4	0.44 1	0.01 6	0.37 6	0.01 9	0.36 2	0.01 3
	36	2-ethyl-1-hexanol	660.002	1.4152 3	1.01 2	0.00 5	1.11 5	0.05 1	1.00 5	0.01 6	1.08 6	0.06 7	0.99 5	0.00 2	1.08 3	0.00 3	1.08 3	0.00 9	1.02 8	0.01 2	1.07 8	0.08 8	1.11 6	0.01 6	1.04 7	0.00 9	1.01 0	0.01 6
	51	1-butanol	164.427	1.1808 7	1.25 3	0.05 4	0.83 2	0.00 4	0.75 6	0.00 5	1.10 8	0.01 4	1.16 4	0.02 7	1.33 9	0.02 9	1.25 7	0.00 3	1.04 6	0.04 5	1.09 2	0.02 7	1.08 8	0.00 5	1.21 5	0.01 9	1.36 0	0.00 3
	53	1-nonanol	1046.829	1.549 5	0.12 3	0.00 8	0.14 8	0.00 2	0.12 8	0.00 0	0.16 4	0.00 1	0.17 0	0.00 2	0.15 6	0.00 1	0.16 3	0.00 1	0.15 1	0.00 1	0.15 1	0.00 1	0.16 8	0.00 8	0.15 5	0.00 0	0.16 8	0.00 1
	54	1-octen-3-ol	549.006	1.1707 6	0.84 7	0.05 7	0.77 8	0.01 8	0.73 0	0.01 4	0.84 1	0.02 0	0.82 8	0.01 6	0.88 1	0.04 8	0.83 9	0.00 5	0.85 5	0.01 7	0.93 0	0.00 9	0.96 0	0.01 3	0.77 4	0.00 7	0.87 3	0.01 4
	57	(Z)-3-hexen-1-ol	342.757	1.2284 3	0.08 5	0.00 5	0.06 6	0.00 7	0.06 4	0.00 3	0.14 6	0.01 6	0.10 1	0.00 8	0.13 2	0.00 6	0.11 4	0.00 2	0.12 5	0.00 3	0.09 9	0.00 4	0.13 7	0.00 1	0.12 9	0.01 1	0.14 2	0.00 8
	59	ethanol	95.915	1.0477 1	5.18 3	0.18 9	4.91 4	0.11 0	4.79 3	0.00 9	4.82 0	0.07 9	4.55 5	0.16 1	4.78 0	0.09 2	4.83 8	0.02 2	4.85 6	0.10 4	4.53 2	0.10 7	4.41 7	0.17 0	4.57 0	0.13 2	4.61 0	0.12 3
Ketones	3	2-heptanone dimer	368.106	1.6222 3	0.37 5	0.00 3	0.30 8	0.00 5	0.31 3	0.00 2	0.17 1	0.00 9	0.76 3	0.02 2	0.66 3	0.02 8	0.58 8	0.00 4	0.45 6	0.02 0	0.30 6	0.04 0	0.36 4	0.01 0	0.49 2	0.01 0	0.37 2	0.02 8
	4	2-heptanone	372.265	1.2585 2	0.51 0	0.00 1	0.52 4	0.00 5	0.45 8	0.00 7	0.53 6	0.01 2	0.66 7	0.01 3	0.62 9	0.01 5	0.65 0	0.00 3	0.67 6	0.00 3	0.44 7	0.02 2	0.53 8	0.00 1	0.50 8	0.00 9	0.58 4	0.01 7
	21	2-butanone	136.394	1.0713 9	0.24 4	0.00 9	0.09 2	0.00 2	0.08 2	0.01 4	0.15 6	0.03 8	0.19 5	0.00 9	0.24 3	0.01 9	0.31 4	0.01 0	0.24 5	0.00 1	0.13 3	0.00 2	0.29 4	0.00 2	0.53 3	0.03 1	0.50 2	0.09 6
	24	3-pentanone	176.59	1.1222 7	0.45 9	0.00 5	0.54 4	0.00 0	0.51 9	0.04 2	0.59 9	0.06 3	0.66 1	0.00 9	0.52 7	0.00 2	0.52 2	0.00 6	0.46 9	0.00 3	0.62 7	0.12 7	0.74 3	0.11 0	0.72 8	0.03 1	0.71 4	0.15 7
	29	acetophenone	733.866	1.1906 8	0.26 2	0.03 1	0.24 2	0.01 4	0.22 3	0.00 2	0.21 5	0.00 2	0.17 7	0.00 2	0.17 5	0.00 9	0.18 0	0.00 1	0.17 5	0.00 3	0.20 9	0.01 3	0.18 4	0.00 4	0.17 8	0.00 3	0.17 0	0.00 1
	52	1-hydroxy-2-propanone	158.128	1.0395 2	0.71 4	0.02 8	0.70 1	0.00 9	0.82 8	0.02 0	0.82 2	0.01 4	0.58 7	0.00 1	0.65 9	0.02 2	0.70 6	0.01 9	0.58 8	0.00 7	0.75 7	0.06 5	0.62 0	0.02 7	0.69 3	0.01 2	0.58 2	0.00 9
	55	2-hexanone	249.655	1.1878 5	0.27 1	0.01 0	0.27 5	0.00 2	0.29 2	0.00 6	0.36 1	0.00 0	0.30 2	0.00 4	0.30 2	0.01 6	0.27 2	0.00 3	0.30 5	0.00 6	0.20 9	0.01 2	0.28 7	0.00 2	0.22 8	0.00 5	0.23 7	0.00 3
	56	2-propanone	104.609	1.1196 6	3.89 4	0.08 4	3.40 8	0.04 7	3.05 9	0.02 2	2.86 4	0.08 1	3.79 0	0.08 5	4.12 0	0.05 4	4.25 2	0.03 1	4.01 0	0.02 5	3.74 3	0.04 3	4.09 6	0.10 7	4.09 4	0.06 0	4.51 1	0.06 9

	58	cyclohexanone	383.554	1.1533 8	0.12 1	0.00 5	0.14 4	0.00 2	0.12 5	0.00 7	0.15 3	0.00 9	0.10 9	0.00 9	0.10 3	0.00 4	0.12 0	0.00 7	0.17 3	0.00 1	0.16 2	0.00 5	0.14 3	0.00 8	0.11 6	0.00 5	0.15 9	0.01 3
Esters	15	ethyl propanoate	189.387	1.1533 1	0.15 1	0.00 4	0.16 1	0.00 9	0.17 0	0.02 4	0.19 5	0.02 8	0.21 6	0.00 5	0.23 8	0.01 2	0.22 0	0.00 2	0.30 5	0.00 1	0.15 7	0.04 6	0.16 8	0.03 3	0.15 3	0.01 5	0.16 7	0.02 9
	16	methyl hexanoate	423.261	1.2805 1	0.12 9	0.00 0	0.10 7	0.00 3	0.09 3	0.00 5	0.13 9	0.00 5	0.16 0	0.00 5	0.17 3	0.00 8	0.18 3	0.00 0	0.17 2	0.00 3	0.13 1	0.00 9	0.13 3	0.00 3	0.12 9	0.00 3	0.14 2	0.00 6
	25	ethyl acrylate	193.967	1.1214 9	0.83 7	0.00 7	1.15 5	0.06 0	1.03 2	0.15 7	1.12 5	0.26 5	1.35 1	0.02 0	1.05 3	0.03 9	0.96 1	0.04 2	0.72 3	0.00 3	1.19 8	0.18 4	1.29 2	0.33 1	1.47 4	0.13 6	1.28 1	0.27 5
	30	ethyl acetate	141.825	1.3359 2	5.74 5	0.10 5	6.43 8	0.00 3	6.47 7	0.01 1	5.80 9	0.00 4	4.91 4	0.00 8	4.08 7	0.13 2	2.91 6	0.21 8	4.09 1	0.10 0	5.58 5	0.02 4	3.18 3	0.12 7	1.05 0	0.01 3	0.10 8	0.00 6
	31	propyl hexanoate	809.473	1.3857 5	0.17 5	0.01 3	0.19 0	0.01 2	0.17 3	0.00 4	0.15 9	0.01 3	0.15 9	0.00 9	0.14 0	0.00 5	0.13 7	0.00 2	0.12 7	0.00 3	0.11 8	0.00 3	0.13 2	0.00 4	0.13 9	0.01 6	0.12 5	0.00 1
Alkenes	5	2-heptenal (E) dimer	481.726	1.6605 4	0.47 5	0.15 6	0.23 3	0.00 1	0.17 6	0.00 3	0.16 7	0.00 1	0.35 1	0.02 0	0.26 0	0.00 5	0.29 8	0.00 1	0.26 8	0.01 5	0.23 0	0.04 9	0.19 3	0.00 5	0.19 7	0.00 3	0.17 9	0.03 9
	6	2-heptenal (E)	487.012	1.2547 1	0.53 3	0.00 0	0.72 3	0.00 0	0.61 8	0.00 6	0.62 0	0.00 7	0.90 8	0.00 6	0.77 3	0.02 9	0.84 8	0.00 6	0.80 5	0.01 1	0.66 9	0.02 4	0.67 1	0.00 7	0.67 1	0.00 7	0.61 6	0.00 6
	7	2-octenal (E) dimer	700.494	1.8079 6	0.09 9	0.00 4	0.14 6	0.00 1	0.10 3	0.00 3	0.10 9	0.00 4	0.21 2	0.01 7	0.18 9	0.01 2	0.19 7	0.00 3	0.15 9	0.01 1	0.12 1	0.02 4	0.14 5	0.00 3	0.13 1	0.00 5	0.11 5	0.01 0
	8	2-octenal (E)	700.57	1.3308 8	0.32 8	0.00 6	0.40 1	0.00 4	0.35 0	0.00 1	0.30 8	0.00 2	0.62 0	0.01 5	0.49 9	0.01 4	0.50 4	0.00 8	0.47 9	0.00 2	0.31 6	0.02 2	0.36 4	0.01 6	0.39 2	0.02 0	0.37 2	0.01 9
Pyrroles	20	2-acetyl-1-pyrroline	429.229	1.1269 3	0.32 1	0.03 5	0.34 9	0.01 2	0.33 1	0.02 3	0.47 5	0.03 6	0.32 6	0.19 9	0.19 0	0.00 9	0.12 2	0.01 2	0.08 7	0.00 4	1.08 6	0.07 0	1.00 5	0.05 1	0.92 2	0.01 6	1.13 3	0.03 0
Furans	13	2-pentylfuran	550.972	1.2498 2	0.49 4	0.01 7	0.46 3	0.00 4	0.44 3	0.00 0	0.30 9	0.00 3	0.73 6	0.02 1	0.59 5	0.00 9	0.62 5	0.00 7	0.46 3	0.01 7	0.28 6	0.01 6	0.40 4	0.00 7	0.53 0	0.00 6	0.37 8	0.02 0
Undefined	18	ID_1	540.356	1.4369 8	0.11 0	0.00 3	0.08 5	0.00 1	0.05 2	0.00 0	0.11 0	0.00 4	0.16 1	0.00 9	0.12 3	0.00 9	0.17 3	0.00 2	0.11 8	0.00 1	0.08 7	0.00 4	0.11 5	0.00 3	0.12 1	0.00 3	0.12 3	0.00 7
	19	ID_2	550.561	1.6768 8	0.06 7	0.00 1	0.06 8	0.00 3	0.06 8	0.00 1	0.05 1	0.00 4	0.12 1	0.00 3	0.11 9	0.03 5	0.14 2	0.00 4	0.13 2	0.00 4	0.04 9	0.00 3	0.06 9	0.00 3	0.07 0	0.00 4	0.06 3	0.00 3
	32	ID_3	134.386	1.1954 1	0.34 3	0.00 7	0.35 5	0.04 3	0.32 8	0.02 4	0.35 0	0.02 5	0.26 4	0.00 3	0.23 6	0.00 3	0.20 7	0.00 4	0.25 9	0.00 2	0.29 8	0.01 8	0.20 9	0.00 2	0.14 2	0.01 5	0.14 6	0.01 6

	33	ID_4	116.584	1.1946	0.15 7	0.00 8	0.30 9	0.02 3	0.51 3	0.01 2	0.13 4	0.00 1	0.14 9	0.01 9	0.14 3	0.01 4	0.18 8	0.00 2	0.08 8	0.01 9	0.14 0	0.00 8	0.17 2	0.01 4	0.16 6	0.04 0	0.16 4	0.02 1
	34	ID_5	112.333	1.1568 6	0.34 5	0.00 7	0.66 9	0.01 9	0.87 2	0.00 3	0.47 9	0.09 5	0.17 6	0.00 8	0.18 1	0.00 9	0.24 2	0.01 8	0.11 1	0.00 0	0.45 1	0.08 2	0.22 5	0.00 3	0.24 2	0.14 8	0.12 3	0.00 5

<sup>a</sup> HZY261-L and HZY261-H, Huazheyou261 with the lowest and highest flavor of cooked rice in sensory evaluation values, respectively; ZZY8-L and ZZY8-H, Zhongzheyoun8 with the lowest and highest flavor of cooked rice in sensory evaluation values, respectively; JFY2-L and JFY2-H, Jiafengyou2 with the lowest and highest flavor of cooked rice in sensory evaluation values, respectively; YY15-L and YY15-H, Yongyou15 with the lowest and highest flavor of cooked rice in sensory evaluation values, respectively; JHX1-L and JHX1-H, Jiahexiang1 with the lowest and highest flavor of cooked rice in sensory evaluation values, respectively; NJ46-L and NJ46-H, Nanjing46 with the lowest and highest flavor of cooked rice in sensory evaluation values, respectively.