

ตารางที่ 19 ชนิด ลักษณะกลิ่น และค่า Log₃ FD factor ของสารระเหยในข้าวหุงสุกชนิดต่างๆ ที่แยกโดยคอลัมน์ FFAP

Compounds	Odor description ^a	RI ^b	Average Log ₃ FD factor ^c			
			SH ^d	JM ^e	SHCC ^f	JMCC ^g
unknown A	sweet, floral	1118	-	1	-	1
unknown B	flour	1126	0	-	-	-
unknown C	rice wine-like	1165	1	1	1	1
unknown D	flour	1221	-	2	-	-
ethyl hexanoate ^{i, J}	floral, sweet	1235	1	-	-	-
3-hydroxy-2-butanone ^h	coconut meat-like, sweet	1257	-	-	1	1
hexyl acetate ^{i, C}	sweet, floral	1287	1	5	1	4
dimethyl pyrazine ^{i, C}	cooked rice	1304	2	4	-	-
2-acetyl-1-pyrroline ^{i, I}	pandan-like, cooked rice-like	1326	-	6	-	5
unknown E	hay	1344	-	-	-	0
(<i>E,E</i>)-2,4-heptadienal ^{i, C}	rancid raw rice-like	1369	-	3	-	3
methyl octanoate ^h	coconut meat, sweet	1379	-	-	-	1
unknown F	oily, cooked rice	1398	1	4	-	-

ตารางที่ 19 (ต่อ)

Compounds	Odor description ^a	RI ^b	Average Log ₃ FD factor ^c			
			SH ^d	JM ^e	SHCC ^f	JMCC ^g
nonanal ^E	fruity, sweat	1409	1	-	2	-
acetic acid ^h	sour	1431	-	0	-	0
unknown G	winey	1439	1	-	-	1
2-methoxy-3,5-dimethylpyrazine ^{i, H}	mushroom, hay	1452	-	0	-	-
methionol ^{i, H}	weak green	1456	0	-	-	-
unknown H	coconut milk-like, creamy	1460	-	1	-	1
ethyl octanoate ^{h *}	fruity, coconut juice-like	1488	-	-	4	3
unknown I	bitter	1509	1	-	-	-
<i>Z</i> -2-nonenal ^{i, E}	mushroom	1517	0	-	-	0
<i>E</i> -2-nonenal ^{i, E}	raw rice	1552	1	0	1	-
2-acetylpyridine ^{i, A}	fruity, sweet	1579	1	3	2	4

ตารางที่ 19 (ต่อ)

Compounds	Odor description ^a	RI ^b	Average Log ₃ FD factor ^c			
			SH ^d	JM ^e	SHCC ^f	JMCC ^g
unknown J	medicine	1626	-	-	-	1
phenylacetaldehyde ^{i, J}	fruity, pineapple	1638	1	2	1	3
γ -hexalactone ^h	sweet, creamy, Thai dessert-like	1676	-	-	4	4
naphthalene ^{i, C}	medicine	1718	-	2	-	-
pentanoic acid ^{i, G}	coconut meat-like	1729	-	-	1	1
(<i>E,Z</i>)-2,4-decadienal ^{i, G}	fatty, creamy	1773	-	-	1	1
2-acetyl-2-thiazoline ^{i, C}	raw rice	1785	2	2	-	-
(<i>E,E</i>)-2,4-decadienal ^h	oily, raw rice	1809	3	3	3	3
ethyl dodecanoate ^h	floral	1838	-	-	-	0
γ -octalactone ^{i, C}	creamy	1860	-	-	0	-
unknown K	metal	1883	-	-	0	0
phenethyl alcohol ^h	sweet	1901	-	-	0	0

ตารางที่ 19 (ต่อ)

Compounds	Odor description ^a	RI ^b	Average Log ₃ FD factor ^c			
			SH ^d	JM ^e	SHCC ^f	JMCC ^g
unknown L	raw rice	2006	1	1	-	-
δ -octenolactone ^{i, B}	sweet, creamy	2012	-	-	2	2
unknown M	rubber	2018	-	-	1	-
δ -nonalactone ^{i, B}	cooked coconut milk, sweet	2075	-	-	3	2
<i>p</i> -cresol ^{i, G}	raw jasmine rice-like	2084	-	2	-	4
2-ethyl-4-hydroxy-5-methyl-3(2 <i>H</i>)-furanone ^{i, J}	cooked coconut milk, sweet	2094	-	-	2	3
nonanoic acid ^{i, I}	sweet, caramel	2130	1	-	1	-
γ -decalactone ^{i, E}	sweet, fatty	2140	-	-	1	1
δ -decalactone ^{h *}	sweet, creamy	2186	-	-	1	1
δ -decenolactone ^{i, B}	Thai dessert-like, sweet, creamy	2233	-	-	1	2
δ -undecalactone ^{h *}	fatty, sweet	2289	-	-	1	1
9-decenoic acid ^{i, F}	Thai dessert, sweet, creamy	2304	-	-	2	2
γ -dodecalactone ^h	fatty, sweet	2370	-	-	1	1

ตารางที่ 19 (ต่อ)

Compounds	Odor description ^a	RI ^b	Average Log ₃ FD factor ^c			
			SH ^d	JM ^e	SHCC ^f	JMCC ^g
δ-dodecalactone ^{i, F}	sweet, creamy	2431	-	-	1	1
indole ^h	cooked rice flour-like	2477	-	1	-	-

หมายเหตุ^a Odor description at the GC-sniffing port during GCO. and ^b retention indices (RI) were calculated from GCO results on FFAP

^c Average of Log₃ FD factor (n=2) on FFAP ; Log₃ FD factor = 0 mean detected odor before diluted aroma extract for AEDA and - mean no detected odor.

^{d-g} SH = cooked Sow Hai, JM = cooked Khao Dawk Mali 105, SHCC = Sow Hai cooked with coconut milk and JMCC = Khao Dawk Mali 105 cooked with coconut milk.

^h Compound positively identified by comparing with retention index (RI) on FFAP, mass spectra obtained by MS and odor quality at the sniffing port on the same column (* = reference compound injected)

ⁱ Compound tentatively identified with the reference compound on the basis of comparison retention index (RI) on FFAP and odor quality at the sniffing port from ^A Schieberle P. and W. A. Grosch. (1987) ^B Schnermann and Schieberle (1997) ^C Rychlik *et al.* (1998) ^D Buttery *et al.* (1999) ^E Derail *et al.* (1999) ^F Bendall (2001) ^G Czerny and Schieberle (2002) ^H Jezussek *et al.* (2002) ^I Karagul-Yuceer *et al.* (2003) and ^J Fritsch and Schieberle (2005).