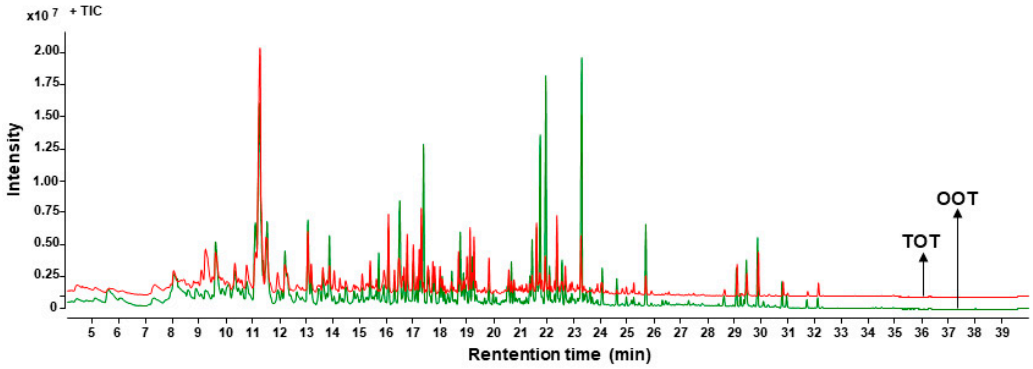
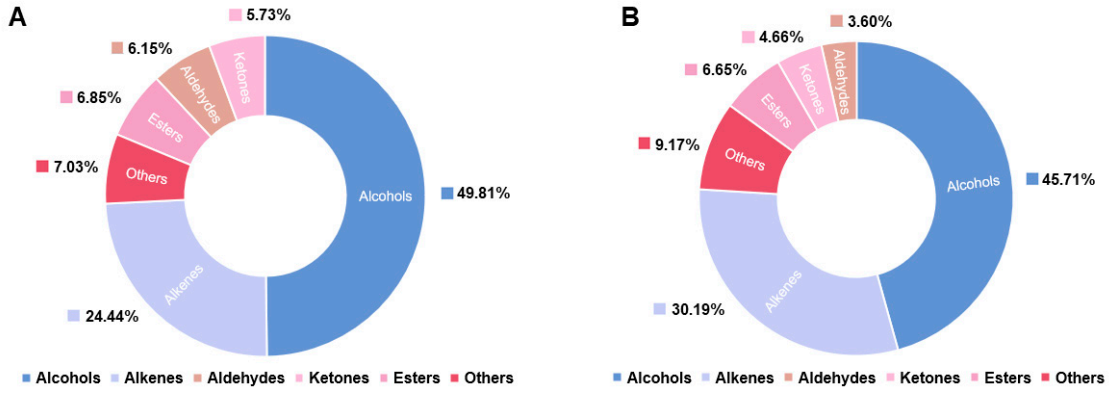


Supplemental Figure S1. Total ion chromatograms of volatile components of TOT and OOT.



Supplemental Figure S2. The six volatile categories of TOT (A) and OOT (B).

Supplemental Table S1. The substance groupings for calculating the Wickremasinghe-Yamanishi ratio.

Rentention time (min)	Compounds	Relative Content[a]	
		TOT	OOT
4.425	Furfural	0.43±0.00	0.27±0.06
4.464	3-Furaldehyde	0.29±0.02	0.10±0.01
5.123	*p*-Xylene	0.36±0.02	0.52±0.03
5.652	1,3,5,7-Cyclooctatetraene	0.28±0.08	1.48±0.17
6.047	Styrene	0.31±0.06	0.65±0.11
7.326	Benzaldehyde	1.00±0.06	0.77±0.13
8.054	β-Myrcene	1.24±0.25	2.28±0.34
8.969	*o*-Cymene	0.36±0.06	0.00
9.073	D-Limonene	0.78±0.16	0.45±0.03
9.255	Benzyl alcohol	2.6±0.1	1.04±0.13
9.506	Benzeneacetaldehyde	0.52±0.02	0.3±0.05
9.628	β-Ocimene	1.74±0.18	2.64±0.39
10.057	Ethanone, 1-(1H-pyrrol-2-yl)-	0.74±0.02	1.17±0.20
10.343	Linalool oxide I	1.19±0.12	1.52±0.23
10.785	Linalool oxide II	1.38±0.15	1.46±0.30
Total content of substance before linalool		**13.22**	**14.65**
11.115	Linalool	1.27±0.12	2.51±0.36
11.266	Hotrienol	9.22±0.79	7.26±1.07
11.96	1,3,8-*p*-Menthatriene	0.77±0.03	0.66±0.09
12.099	2,5-Pyrrolidinedione, 1-ethyl-	0.12±0.06	0.38±0.04
12.225	Benzyl nitrile	1.42±0.02	1.31±0.25
13.087	Linalool Oxide III	1.26±0.14	1.82±0.24
13.794	Methyl salicylate	0.34±0.04	0.27±0.03
13.885	Dodecane	0.68±0.03	1.41±0.19
14.058	Decanal	0.43±0.11	0.29±0.02
14.271	Undecane, 2,6-dimethyl-	0.41±0.05	0.4±0.04
14.371	Benzaldehyde, 3,5-dimethyl-	0.17±0.03	0.16±0.01
15.311	Dodecane, 4,6-dimethyl-	0.23±0.02	0.16±0.01
15.411	Geraniol	0.75±0.05	0.69±0.09
15.732	1-Butanamine, N-butyl-N-nitroso-	0.09±0.00	0.82±0.11
16.092	Heptadecane, 8-methyl-	1.37±0.04	1.2±0.15
16.517	Indole	1.26±0.17	2.18±0.41
16.62	Tridecane	0.29±0.05	0.00
17.566	Dodecane	0.70±0.00	1.23±0.42
18.19	Naphthalene, 1,2,3,4-tetrahydro-1,1,6-trimethyl-	0.18±0.02	0.22±0.02
18.463	Tridecane, 3-methyl-	0.32±0.03	0.51±0.11
18.71	α-Copaene	0.68±0.05	0.33±0.03
18.78	Hexanoic acid, 3-hexenyl ester, (*Z*)-	0.29±0.07	1.01±0.15
18.897	Hexanoic acid, hexyl ester	0.33±0.05	0.62±0.08

18.983	Hexanoic acid, 2-hexenyl ester, (*E*)-	0.23±0.11	0.37±0.12
19.022	1-Tetradecene	0.59±0.28	0.08±0.11
19.23	Tetradecane	0.34±0.10	0.60±0.08
19.287	2-Cyclopenten-1-one, 3-methyl-2-(2-pentenyl)	1.00±0.18	0.48±0.06
19.603	(E)-2-Tetradecene,	0.13±0.03	0.08±0.01
19.686	1H-3a,7-Methanoazulene, 2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-, [3R-(3α,3aβ,7β,8aα)]-	0.19±0.02	0.00
19.69	Cyclohexene, 3-(1,5-dimethyl-4-hexenyl)-6-methylene-, [S-(R*,S*)]-	0.00	0.14±0.01
19.85	Caryophyllene	0.79±0.09	0.44±0.03
20.006	α-Ionone	0.08±0.02	0.20±0.01
20.535	trans-Isoeugenol	0.00	0.28±0.05
20.592	5,9-Undecadien-2-one, 6,10-dimethyl-, (*E*)-	0.59±0.14	0.41±0.04
20.687	(*E*)- β-Famesene	0.28±0.08	0.56±0.07
20.782	2,6,10-Trimethyltridecane	0.34±0.08	0.37±0.03
20.882	Alloaromadendrene	0.15±0.06	0.16±0.01
21.082	Acetic acid, trifluoro-, dodecyl ester	0.23±0.06	0.11±0.01
21.173	1-Isopropyl-4,7-dimethyl-1,2,3,4,5,6-hexahydronaphthalene	0.15±0.03	0.10±0.01
21.246	γ-Muurolene	0.27±0.06	0.19±0.01
21.376	Jasmine Lactone	0.3±0.06	0.00
21.463	(*E*)-β-Ionone	0.55±0.14	1.02±0.13
21.632	2H-Pyran-2-one, tetrahydro-6-(2-pentenyl)-, (*Z*)-	1.41±0.28	1.24±0.16
21.706	Pentadecane	0.19±0.06	0.00
21.832	α-Muurolene	0.37±0.09	0.20±0.01
21.975	α-Farnesene	0.86±0.25	3.36±0.49
22.113	Butylated Hydroxytoluene	0.38±0.09	0.56±0.06
22.17	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-methylene-1-(1-methylethyl)	0.2±0.05	0.12±0.00
22.387	Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-*Z*)-	1.12±0.74	1.08±0.12
22.443	Epizonarene	0.12±0.00	0.00
22.577	2(4H)-Benzofuranone, 5,6,7,7a-tetrahydro-4,4,7a-trimethyl-, (R)-	0.57±0.15	0.88±0.07
22.798	Cyclohexene, 4-[(1E)-1,5-dimethyl-1,4-hexadien-1-yl]-1-methyl-	0.00	0.09±0.00
22.863	α-Calacorene	0.25±0.06	0.14±0.00
23.15	Heneicosane	0.25±0.19	0.20±0.01
23.306	Nerolidol	1.09±0.33	3.92±0.47
23.379	Hexadecane, 2-methyl-	0.00	0.19±0.01
23.882	Cetene	0.32±0.12	0.16±0.04
24.06	Hexadecane	0.30±0.09	0.59±0.05
24.272	Cedrol	0.15±0.08	0.09±0.02

24.702	α-Corocalene	0.08±0.02	0.03±0.01
25.152	tau-Muurolol	0.23±0.08	0.21±0.00
25.23	Methyl jasmonate	0.25±0.07	0.14±0.03
25.43	α-Cadinol	0.14±0.05	0.16±0.01
25.881	Naphthalene, 1,6-dimethyl-4-(1-methylethyl)-	0.18±0.07	0.12±0.04
26.288	Heptadecane	0.48±0.44	0.40±0.27
26.414	Pentadecane, 2,6,10,14-tetramethyl-	0.09±0.01	0.13±0.02
27.402	6-Tetradecanesulfonic acid, butyl ester	0.00	0.04±0.02
27.459	Octacosane	0.04±0.02	0.06±0.02
28.152	2-Dodecen-1-yl(-)succinic anhydride	0.00	0.06±0.00
28.278	1-Octadecene	0.00	0.02±0.00
28.413	Octadecane	0.02±0.01	0.07±0.02
28.612	Hexadecane, 2,6,10,14-tetramethyl-	0.18±0.05	0.28±0.06
29.236	Neophytadiene	0.06±0.03	0.19±0.02
29.366	Fitone	0.04±0.01	0.18±0.11
29.466	Caffeine	0.34±0.11	0.82±0.07
29.887	Phthalic acid, isobutyl octyl ester	0.78±0.16	0.87±0.16
30.446	Nonadecane	0.01±0.00	0.02±0.00
30.806	Di-sec-butyl phthalate	0.25±0.05	0.31±0.06
30.91	7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	0.02±0.01	0.03±0.00
30.97	Hexadecanoic acid, methyl ester	0.06±0.02	0.17±0.03
31.725	1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl ester	0.06±0.01	0.11±0.02
32.293	Hexadecanoic acid, ethyl ester	0.01±0.00	0.02±0.01
34.166	9,12-Octadecadienoic acid (*Z,Z*)-, methyl ester	0.00	0.02±0.00
34.278	9,12,15-Octadecatrienoic acid, methyl ester	0.00	0.02±0.00
Total content of linalool and substance after it		**39.70**	**48.33**

[a] **relative content:** use the material peak area / internal standard peak area as this substance's relative content

Supplemental Table S2. Aroma components of Groups I and Group II of Owuor's flavor index.

Compounds	**Relative Content[a]**	
	TOT	**OOT**
Group II		
Linalool oxide I	1.19±0.12	1.52±0.23
Linalool	1.27±0.12	2.51±0.36
Geraniol	0.75±0.05	0.69±0.09
D-Limonene	0.78±0.16	0.45±0.03
β-Linalool	1.74±0.18	2.64±0.39

Decanal	0.43±0.11	0.29±0.02
(*Z*)-Jasmone	1±0.18	0.48±0.06
Methyl salicylate	0.34±0.04	0.27±0.03
Jasmine Lactone	1.41±0.28	1.24±0.16
o-Cymene	0.36±0.06	0
Indole	1.26±0.17	2.18±0.41
Benzyl alcohol	2.6±0.10	1.04±0.13
(*E*)-Isoeugenol	0	0.28±0.05
α-Ionone	0.08±0.02	0.2±0.01
Benzeneacetaldehyde	0.52±0.02	0.3±0.05
trans-β-Ionone	0.55±0.14	1.02±0.13
Total Group II	**14.28**	**15.11**
	Group I	
p-Xylene	0.36±0.02	0.52±0.03
Total Group I	**0.36**	**0.52**

[a] **relative content:** use the material peak area / internal standard peak area as this substance's relative content

Supplemental Table S3. The contents of taste components of TOT and OOT.

Taste compounds	**Tea samples**	
	TOT	**OOT**
Water extracts(%)	55.10±1.06	50.80±0.27
Caffeine(mg/g)	48.16±0.17	69.58±0.31
Total free amino acids(%)	4.20±0.10	3.30±0.03
Tea polyphenols(%)	38.60±0.46	30.00±0.09
EC(mg/g)	4.93±0.09	5.34±0.93
ECG(mg/g)	30.92±0.93	17.27±0.15
EGC(mg/g)	19.38±0.26	13.09±0.21
EGCG(mg/g)	101.81±0.17	79.21±1.15
C(mg/g)	4.72±0.36	1.80±0.37