

Table 1 The compounds isolated from dark tea

No.	Name	Category	Reference
Ripe Pu-erh tea			
1	(-)-Epigallocatechin gallate, (EGCG)	Simple Catechins	[9]
2	(-)-Epigallocatechin, (EGC)	Simple Catechins	[9]
3	(-)-Epicatechin-3-gallate, (ECG)	Simple Catechins	[9]
4	(-)-Epicatechin, (EC)	Simple Catechins	[9]
5	(-)-Gallocatechin-3-gallate, (GCG)	Simple Catechins	[9]
6	(+)-Gallocatechin, (GC)	Simple Catechins	[16]
7	(-)-Catechin-3-gallate,(CG)	Simple Catechins	[16]
8	(+)-Catechin,(C)	Simple Catechins	[16]
9-10	Puerins A-B	Characteristic Catechins	[16]
11-14	Puerins C-F	Characteristic Catechins	[17]
15-22	Puerins I -VIII	Characteristic Catechins	[18]
23	8-Carboxymethyl-(+)-catechin	Characteristic Catechins	[18]
24	8-Carboxymethyl-(+)-catechin methyl ester	Characteristic Catechins	[18]
25	6-Carboxymethyl-(+)-catechin	Characteristic Catechins	[18]
26	6-Carboxyl(-)-gallocatechin	Characteristic Catechins	[18]
27	8-Carboxyl-(+)-catechin	Characteristic Catechins	[18]
28	(+)-Catechin-8-C- β -D-glucopyranoside	Characteristic Catechins	[18]
29	(-)-Epicatechin-8-C- β -D-glucopyranoside	Characteristic Catechins	[18]
30	Epicatechin-4 R -(4-hydroxyphenyl)-dihydro-2(3H)-pyranone	Characteristic Catechins	[18]
31	Cinchonain Ib	Characteristic Catechins	[18]
47	Kaempferol	Flavonols, flavones, and their glycosides	[23]
48	Quercetin	Flavonols, flavones, and their glycosides	[23]

No.	Name	Category	Reference
49	Myricetin	Flavonols, flavones, and their glycosides	[23]
50	Luteolin	Flavonols, flavones, and their glycosides	[24]
51	3',4',5-Trihydroxy-7-methoxyflavone	Flavonols, flavones, and their glycosides	[24]
52	3',4',7-Trihydroxy-5-methoxyflavone	Flavonols, flavones, and their glycosides	[24]
53	Vicenin-2	Flavonols, flavones, and their glycosides	[18]
54	Isoschaftoside	Flavonols, flavones, and their glycosides	[18]
55	Vitexin-2''- α -L-rhamnopyranoside	Flavonols, flavones, and their glycosides	[18]
56	Isoorientin	Flavonols, flavones, and their glycosides	[18]
57	2''-O- β -D-Glucopyranosylvitexin	Flavonols, flavones, and their glycosides	[18]
58	Isovitexin	Flavonols, flavones, and their glycosides	[25]
59	Vitexin	Flavonols, flavones, and their glycosides	[25]
60	Chafurosides A	Flavonols, flavones, and their glycosides	[26]
61	Chafurosides B	Flavonols, flavones, and their glycosides	[26]
62	Vitexin-2''-O-rhamnoside	Flavonols, flavones, and their glycosides	[26]

No.	Name	Category	Reference
63	Rutin	Flavonols, flavones, and their glycosides	[18]
64	Kaempferol-3-O- β -D-glucoside	Flavonols, flavones, and their glycosides	[18]
65	Kaempferol-3-O- α -L-rhamnopyranosyl-(1-6)- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[18]
66	Apigenin-6-C- α -L-arabinopyranosyl-8-C- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[18]
67	Vitexin-4''-O- β -D-glucoside	Flavonols, flavones, and their glycosides	[18]
68	Myricetin-3-O- β -D-glucoside	Flavonols, flavones, and their glycosides	[18]
69	Quercetin-3-O- α -L-rhamnoside	Flavonols, flavones, and their glycosides	[18]
70	Quercetin-3-O- α -L-rhamnopyranosyl-(1-6)- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[18]
71	Quercetin-3-O-glucoside	Flavonols, flavones, and their glycosides	[18]
72	Kaempferol-3-O-rutinoside	Flavonols, flavones, and their glycosides	[27]
73	3,4-Dihydroxy-5-methoxyflavone-7-O- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[27]
74	Astragalín	Flavonols, flavones, and their glycosides	[28]
75	Methylenebisnicotiflorin	Flavonols, flavones, and their glycosides	[29]
96	Gallic Acid	Phenolic Acids	[34]

97	Caffeic Acid	Phenolic Acids	[34]
No.	Name	Category	Reference
98	Ferulic Acid	Phenolic Acids	[34]
99	Salicylic Acid	Phenolic Acids	[34]
100	Protocatechuic acid	Phenolic Acids	[7]
101	Succinic acid	Phenolic Acids	[7]
102	Cryptochlorogenic acid	Phenolic Acids	[7]
103	2,5-Dihydroxybenzoic acid	Phenolic Acids	[7]
104	3-O-P-Coumaroyl quinic acid	Phenolic Acids	[7]
105	3-O-Galloylquinic acid	Phenolic Acids	[18]
106	2-O-Galloyl-D-glucose	Phenolic Acids	[18]
107	1-O-Galloyl- β -D-glucopyranose	Phenolic Acids	[18]
108	4-O-P-Trans-coumaroyl quinic acid	Phenolic Acids	[29]
109	2-Hydroxybenzoic Acid	Phenolic Acids	[29]
110	4-Hydroxybenzoic Acid	Phenolic Acids	[29]
111	3, 4-Dihydroxybenzoic acid	Phenolic Acids	[29]
112	1,3-Dihydroxybenzene	Phenolic Acids	[29]
113	4-Methyl-1,2-benzenediol	Phenolic Acids	[29]
114	1,2,4-Benzenetriol	Phenolic Acids	[29]
130	Caffeine	Alkaloids	[25]
131	Theobromine	Alkaloids	[25]
132	Theophylline	Alkaloids	[25]
133	7-Methylxanthine	Alkaloids	[18]
134	Deoxythymidine	Alkaloids	[28]
135	Thymine	Alkaloids	[28]
136	Uracil	Alkaloids	[28]
161	Theanine	Amino Acids	[40]
162	Serine	Amino Acids	[40]
163	Proline	Amino Acids	[40]

169	3-O-Polyacylquinic Acid	Organic Acids	[18]
No.	Name	Category	Reference
170	3-O-Caffeoylquinic Acid	Organic Acids	[18]
178	2,2',6,6'-Tetrahydroxybiphenyl	Other Compounds	[16]
179	N-(3,4-Dihydroxybenzoyl)-3,4-dihydrobenzamide	Other Compounds	[27]
180	Lovastatin	Other Compounds	[45]

Fuzhuan Brick-Tea

1	(-)-Epigallocatechin gallate, (EGCG)	Simple Catechins	[9]
2	(-)-Epigallocatechin, (EGC)	Simple Catechins	[9]
3	(-)-Epicatechin-3-gallate, (ECG)	Simple Catechins	[9]
4	(-)-Epicatechin, (EC)	Simple Catechins	[9]
5	(-)-Gallocatechin-3-gallate, (GCG)	Simple Catechins	[9]
6	(+)-Gallocatechin, (GC)	Simple Catechins	[34]
7	(-)-Catechin-3-gallate,(CG)	Simple Catechins	[34]
8	(+)-Catechin,(C)	Simple Catechins	[34]
32-37	Fuzhuanins A–F	Characteristic Catechins	[19]
38	Planchol A	Characteristic Catechins	[19]
39	Xanthocerin	Characteristic Catechins	[19]
40	(2S)-4-[(2R,3S)-3,4-Dihydro-3,5,7-trihydroxy-2H-1-benzopyran-2-yl]-3,6-dihydro-6-oxo-2H-pyran-2-carboxylic acid	B-ring fission lactone product of (+)-catechin transformed by microorganisms	[20]
41	(2S)-4-[(2R,3S)-3,4-Dihydro-3,5,7-trihydroxy-2H-1-benzopyran-2-yl]-3,6-dihydro-6-oxo-2H-pyran-2-carboxylic acid	B-ring fission lactone product of (+)-catechin transformed by microorganisms	[20]
47	Kaempferol	Flavonols, flavones, and their glycosides	[34]
48	Quercetin	Flavonols, flavones, and	[34]

No.	Name	Category	Reference
49	Myricetin	Flavonols, flavones, and their glycosides	[34]
58	Isovitexin	Flavonols, flavones, and their glycosides	[26]
59	Vitexin	Flavonols, flavones, and their glycosides	[26]
63	Rutin	Flavonols, flavones, and their glycosides	[26]
76	Vitamin H	Flavonols, flavones, and their glycosides	[19]
77	Quercetin 3-O-robinobioside	Flavonols, flavones, and their glycosides	[19]
78	Kaempferol-3-O- β -D-glucopyranosyl-(1-3)- α -L-rhamnopyranosyl-(1-6)- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[19]
79	Quercetin-3-O- β -D-glucopyranosyl-(1-3)-L-rhamnopyranosyl-(1-6)- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[19]
80	Nicotiflorin	Flavonols, flavones, and their glycosides	[26]
81	Myricetin-3-O-rutinoside	Flavonols, flavones, and their glycosides	[26]
82	Apigenin 6,8-di-C- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[26]
83	Apigenin-6-C- α -L-arabinopyranosyl-8-C- β -D-glucoside	Flavonols, flavones, and their glycosides	[26]

84 Apigenin-7-O- β -D-galactopyranosyl-8-C- β -D-glucoside Flavonols, flavones, and their glycosides [26]

No.	Name	Category	Refence
85	Apigenin-7-O- α -L-rhamnopyranosyl-8-C- β -D-galactopyranoside	Flavonols, flavones, and their glycosides	[26]
86	Myricetin-3-O- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[26]
87	Quercetin-3-O- β -D-glucopyranoside	Flavonols, flavones, and their glycosides	[26]
88	Kaempferol-3-O- β -D-galactoside	Flavonols, flavones, and their glycosides	[26]
89-92	Camellikaempferside A、 B、 D、 E	Flavonols, flavones, and their glycosides	[31-33]
93-95	Camelliquercetiside C、 E、 F	Flavonols, flavones, and their glycosides	[31-33]
96	Gallic Acid	Phenolic Acids	[29]
100	Protocatechuic acid	Phenolic Acids	[7]
101	Succinic acid	Phenolic Acids	[7]
102	Cryptochlorogenic acid	Phenolic Acids	[7]
103	2,5-Dihydroxybenzoic acid	Phenolic Acids	[7]
115	Phloroglucinol	Phenolic acids	[26]
116	5,7-Dihydroxycoumarin	Phenolic acids	[26]
117	(7R,8S)-Dihydrodehydrodiconiferyl alcohol-9-O- β -D-glucopyranoside	Phenolic acids	[26]
118	P-Coumaric acid	Phenolic acids	[26]
119	2,3-Dihydroxy-1-(4-hydroxy-3-methoxyphenyl)-propen-1-one	Phenolic acids	[26]
120	Benzyl-2-neohesperidoside-6-hydroxybenzoic acid	Phenolic acids	[26]

121	3-Methoxy-4,5-dihydroxybenzoic acid	Phenolic acids	[35]
122	3,4-Dihydroxybenzoic acid	Phenolic acids	[35]
130	Caffeine	Alkaloids	[21]
131	Theobromine	Alkaloids	[21]
No.	Name	Category	Reference
137	N-(2-Hydroxyphenyl)-2-pyrrolidinone	Alkaloids	[36]
138	3 β ,6 α ,13 β -Trihydroxyolean-7-one	Terpenoids	[38]
139	3 β -Acetoxy-6 α ,13 β -dihydroxyolean-7-one	Terpenoids	[38]
140	3 β -O-(8-Hydroxyoctanoyl)-12-oleanene	Terpenoids	[38]
141	Friedelin	Terpenoids	[38]
142	β -Amyrone	Terpenoids	[38]
143	β -Sitosterol	Terpenoids	[38]
144	α -Spinasterone	Terpenoids	[38]
145	α -Spinasterol	Terpenoids	[38]
146	22,23-Dihydro- α -spinasterone	Terpenoids	[38]
147	22,23-Dihydro- α -spinasterol	Terpenoids	[38]
148	R-Phytol	Terpenoids	[38]
149	α -Tocopherol	Terpenoids	[38]
150	2-Hydroxydiplopterol	Terpenoids	[34]
151	Canophyllol	Terpenoids	[34]
152	Roseoside	Terpenoids	[26,41]
153	Icariside B5	Terpenoids	[26,41]
154	3R,9R-oxido-5-megastigmene	Terpenoids	[26,41]
155	Dihydrophaseic acid	Terpenoids	[20]
156	5-(3,8-dihydroxy-1,5-dimethyl-6-oxabicyclo[3.2.1]oct-8-yl)-3-methyl-2(E),4(E)-penta-dienoic acid	Terpenoids	[20]

164	Alanine	Amino Acids	[41]
165	Gamma-Aminobutyric Acid	Amino Acids	[41]
166	Asparagine	Amino Acids	[41]
167	Aspartic Acid	Amino Acids	[41]
168	Threonine	Amino Acids	[41]
171	Pyruvic Acid	Organic Acids	[42]
172	D-Malic Acid	Organic Acids	[42]
No.	Name	Category	Reference
173	Acetic Acid	Organic Acids	[42]
174	Citric Acid	Organic Acids	[42]
175	α -Linolenic Acid	Organic Acids	[43]
176	Linoleamide	Organic Acids	[43]
177	Dodecanamide	Organic Acids	[43]
Yamabukinadeshikotea Kippuku-cha			
42	Teadenol A	Characteristic Catechins	[20]
43	Teadenol B	Characteristic Catechins	[20]
44	Teasperin	Characteristic Catechins	[20]
Hunan brick tea			
45	((R)-6-oxo-4-((2R,3R)-3,5,7-trihydroxychroman-2-yl)-3,6-dihydro-2H-pyran-2-carboxylic acid)	Characteristic Catechins	[21]
Liu-pao tea			
46	Teasperol	Characteristic Catechins	[22]
Qianliang tea			
123	P-Hydroxyacetophenone	Phenolic acids	[20]
124	P-Hydroxy ethyl cinnamate	Phenolic acids	[20]
125	Ethyl 4-(sulfoxy)benzoate	Phenolic acids	[20]
126	Salicifoliol	Phenolic acids	[20]
127	(-)-Pinoresinol	Phenolic acids	[20]
128	(+)-Lirioresinol-A	Phenolic acids	[20]

129	(+)-Matairesinol	Phenolic acids	[20]
137	N-(2-Hydroxyphenyl)-2-pyrrolidinone	Alkaloids	[36]
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Awa-bancha tea			
157	13,26-Epoxy-3 β ,11 α -dihydroxyolean-12-one	Terpenoids	[39]
158	3 β ,11 α ,13 β -Trihydroxyolean-12-one	Terpenoids	[42]
159	Taraxastane-3 β ,20 β -diol	Terpenoids	[42]
160	taraxastane-3 β ,20 α -diol	Terpenoids	[42]
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