

Chemical structure of β -pinene

Chemical structure	Chemical structure	Chemical structure	Chemical structure	Chemical structure	Chemical structure	Chemical structure	Chemical structure	Chemical structure	Chemical structure
β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene
β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene
β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene
β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene	β -pinene

Chemical structure of α -pinene

Z ₄	Z ₃	Z ₂	Z ₁	J 1/2	Chemical structure	Retention time
-	0/6	-	0/1	938	ϵ -Thujene	1
0/8	2/9	0/7	2/8	954	ϵ -Pinene	2
-	0/4	-	0/4	970	Camphene	3
0/9	2/5	1/1	5/2	985	Sabinene	4
1/3	5/0	1/1	5/2	1005	α -Pinene	5
0/2	1/5	-	1/8	1041	Myrcene	6
-	4/6	0/3	2/7	1056	Limonene	7
6/3	2/9	7/1	2/7	1066	1,8-Cineole	8
-	0/6	-	0/3	1081	(E)- α -Ocimene	9
0/3	0/9	0/5	0/9	1090	γ -Terpinene	10
-	7/0	1/0	2/0	1186	P-menth-3-en-8-ol	11
1/8	5/3	0/4	2/2	1180	Isomenthone	12
1/8	3/4	0/9	8/9	1187	Neomenthol	13
1/8	1/8	0/3	1/6	1212	Terpinen-4-ol	14
-	-	0/4	-	1217	Neoisomenthol	15
8/7	1/5	0/5	2/7	1223	ϵ -Terpineol	16
2/5	2/3	6/4	2/3	1284	Pulegone	17
-	1/1	0/8	1/7	1300	Piperitone	18
4/6	0/3	0/2	1/6	1316	Bornyl acetate	19
7/3	0/9	0/1	0/1	1321	Menthyl acetate	20
1/8	2/3	8/0	4/4	1382	Piperitone	21
0/6	1/1	0/3	0/5	1445	α -Bourbonene	22
-	0/8	-	2/1	1436	E-Caryophyllene	23
0/2	0/9	-	2/3	1482	Germacrene D	24
0/1	0/2	-	-	1506	Bicyclogermacrene	25
0/2	0/2	0/3	3/5	1548	Spathulenole	26
9/8	9/8	9/7	9/7		β -pinene	

