

تشخيص طيف الأشعة تحت الحمراء (IR)

الملاحظات	موقع الامتصاص	الحزمة

الاستنتاج النهائي

اسم المركب :

درجة انصهاره او غليانه :

تركيبه :

الملاحظات :

APPENDICES

جداول درجات الغليان والانصهار لبعض المركبات العضوية ومشتقاتها

ALDEHYDES

Compound	B.P	M.P	Semi-carbazone	2,4-dinitrophenyl-hydrazone
Ethanal (acetaldehyde)	21	--	162	168
Propanal (propionaldehyde)	48	--	89	148
Propenal (acrolein)	52	--	171	165
2-Methylpropanal (isobutyraldehyde)	64	--	125	187
Butanal (butyraldehyde)	75	--	95	123
3-Methylbutanal (isovaleraldehyde)	92	--	107	123
Pentanal (valeraldehyde)	102	--	--	106
2-Butenal (crotonaldehyde)	104	--	199	190
2-Ethylbutanal (diethylacetaldehyde)	117	--	99	95
Hexanal (caproaldehyde)	130	--	106	104
Heptanal (heptaldehydye)	153	--	109	108
2-Furaldehyde (furfural)	162	--	202	212
2-Ethylhexanal	163	--	254	114
Octanal (caprylaldehyde)	171	--	101	106
Benzaldehyde	179	--	222	237
Nonanal (nonyl aldehyde)	185	--	100	100
Phenylethanal (phenylacetaldehyde)	195	33	153	121
2-Hydroxybenzaldehyde(salicyladehyde)	197	--	231	248
4-Methylbenzaldehyde(p-tolualdehyde)	204	--	234	234
3,7-Dimethyl-6-octenal (citronellal)	207	--	82	77
Decanal (decyl aldehyde)	207	--	102	104
2-chlorobenzaldehyde	213	11	229	213
3-chlorobenzaldehyde	214	18	228	248
3-Methoxybenzaldehyde (m-anisaldehyde)	230	--	233	--
3-Bromobenzaldehyde	235	--	205	--
4-Methoxybenzaldehyde (p-anisaldehyde)	248	2.5	210	253
Trans-Cinnamaldehyde	250	--	215	255
3,4-Methylenedioxybenzaldehyde(piperonal)	263	37	230	266
2-Methoxybenzaldehyde(o-anisaldehyde)	245	38	215	254
3,4-Dimethoxybenzaldehyde	--	44	177	261
2-Nitrobenzaldehyde	--	44	256	265
4-Chlorobenzaldehyde	--	48	230	254
4-Bromobenzaldehyde	--	57	228	257
3-Nitrobenzaldehyde	--	58	246	293
2,4-Dimethoxybenzaldehyde	--	71	--	--
2,4-Dichlorobenzaldehyde	--	72	--	--
4-Dimethylaminobenzaldehyde	--	74	222	325
4-Hydroxy-3-methoxybenzaldehyde	--	82	230	271
3-Hydroxybenzaldehyde	--	104	198	259
5-Bromo-2-hydroxybenzaldehyde	--	106	297	--
4-Nitrobenzaldehyde	--	106	221	320
4-Hydroxybenzaldehyde	--	116	224	280
Glyceraldehyde	--	142	160	167

KETONES

Compound	B.P	M.P	Semi-carbazone	2,4-dinitrophenyl-hydrazone
2-propanone (acetone)	56	--	187	126
2-Butanone (methyl ethyl ketone)	80	--	146	117
3-Buten-2-one (methyl vinyl ketone)	81	--	140	--
3-Methyl-2-butanone (isopropyl methyl ketone)	94	--	112	120
2-Pentanone (methyl propyl ketone)	102	--	112	143
3-Pentanone (diethyl ketone)	102	--	138	156
3,3-Dimethyl-2-butanone (pinacolone)	106	--	157	125
4-Methyl-2-pentanone (isobutyl methyl ketone)	117	--	132	95
2,4-Dimethyl-3-pentanone (diisopropyl ketone)	124	--	160	86
3-Hexanone	125	--	113	130
2-Hexanone (methyl butyl ketone)	128	--	121	106
4-Methyl-3-penten-2-one (mesityl oxide)	130	--	164	200
Cyclopentanone	131	--	210	146
5-Hexen-2-one	131	--	102	108
2,3-Pentanedione	134	--	122	209
5-Methyl-3-hexanone	136	--	--	--
2,4-Pentaedione (acetylacetone)	139	--	122	209
4-Heptanone (dipropyl ketone)	144	--	132	75
5-Methyl-2-hexanone	145	--	--	--
1-Hydroxy-2-propanone	146	--	196	129
3-Heptanone	148	--	101	--
2-Heptanone (methyl amyl ketone)	151	--	123	89
Cyclohexanone	156	--	166	162
2-Methylcyclohexanone	165	--	191	136
3-Octanone	167	--	--	--
2,6-Dimethyl-4-heptanone (diisobutyl ketone)	168	--	122	66
2-Octanone	173	--	122	92
Cycloheptanone	181	--	163	148
Ethyl acetoacetate	181	--	129	93
5-Noanone	186	--	90	--
3-Nonanone	187	--	112	--
2,5-Hexanedione (acetonylacetone)	191	9	185	257
2-Nonanone	195	8	224	--
Acetophenone (methyl phenyl ketone)	202	20	118	238
2-Hydroxyacetophenone	215	28	210	212
1-Phenyl-2-propanone (phenylacetone)	216	27	198	156
Propiophenone (1-phenyl-1-propanone)	218	21	173	191
Isobutyrophenone	222	--	181	163
1-phenyl-2-butanone	226	--	135	--
4-Methylacetophenone	226	28	205	258
3-Chloroacetophenone	228	--	232	--
2-Chloroacetophenone	229	--	160	--
Butyrophenone (1-phenyl-1-propanone)	230	12	187	190

KETONES

Compound	B.P	M.P	Semi-carbazone	2,4-dinitrophenyl-hydrazone
2-Undecanone	231	12	122	63
4-Chloroacetophenone	232	12	204	231
4-Phenyl-2-butanone (benzylacetone)	235	--	142	127
2-Methoxyacetophenone	239	--	183	--
3-Methoxyacetophenone	240	--	196	--
Valerophenone (1-phenyl-1-pentanone)	248	--	160	166
4-Chloropropiophenone	--	36	176	--
4-Phenyl-3-buten-2-one (benzalacetone)	--	37	187	227
4-Methoxyacetophenone	--	38	198	220
3-Bromopropiophenone	--	40	183	--
1-Indanone	--	41	233	258
Benzophenone	--	48	164	238
4-Bromoacetophenone	---	51	208	230
3,4-Dimethoxyacetophenone	--	51	218	207
2-Acetoaphthone (methyl 2-naphthyl ketone)	--	53	234	262
Desoxybenzoin (benzyl phenyl ketone)	--	60	148	204
1,1-Diphenylacetone	--	61	170	--
4-Chlorobenzophenone	--	76	--	185
3-Nitroacetophenone	--	80	257	228
4-Nitroacetophenone	--	80	--	--
4-Bromobenzophenone	--	82	350	230
Fluorenone	--	83	--	283
4-Hydroxyacetophenone	--	109	199	210
Benzoin	--	136	206	245
4-Hydroxypropiofenone	--	148	--	229
Camphor	--	179	237	164