

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration
			T, C	Value @ T	State	Debye	
1	CBrClF2	BROMOCHLORODIFLUOROMETHANE	—	—	—	—	3.105
2	CBrCl3	BROMOTRICHLOROMETHANE	25.0	1.5060	in benzene	0.59	3.577
3	CBrF3	BROMOTRIFLUOROMETHANE	25.0	1.2380	gas	0.65	2.810
4	CBrF2F2	DIBROMODIFLUOROMETHANE	25.0	1.4016	gas	0.66	3.243
5	CClF3	CHLOROTRIFLUOROMETHANE	14.9	1.4016	gas	0.51	2.894
6	CClN	CYANOGEN CHLORIDE	25.0	1.1990	gas	2.82	1.250
7	CCl2F2	DICHLORODIFLUOROMETHANE	—	—	gas	0.51	3.052
8	CCl2O	PHOSGENE	26.6	1.2850	gas	1.17	2.877
9	CCl3F	TRICHLOROFUOROMETHANE	25.0	1.3561	gas	0.45	3.289
10	CCl4	CARBON TETRACHLORIDE	25.0	1.3740	gas	0.00	3.482
11	CF2O	CARBONYL FLUORIDE	25.0	1.4573	gas	0.95	2.269
12	CF4	CARBON TETRAFLUORIDE	—	—	gas	0.00	2.668
13	CHBr3	TRIBROMOMETHANE	-73.2	1.1510	gas	1.43	2.327
14	CHClF2	CHLORODIFLUOROMETHANE	25.0	1.5956	gas	1.82	—
15	CHCl2F	DICHLOROFUOROMETHANE	25.0	1.2560	gas	1.42	2.689
16	CHCl3	CHLOROFORM	25.0	1.3540	gas	1.29	3.015
17	CHF3	TRIFLUOROMETHANE	25.0	1.4431	gas	1.01	3.249
18	CHI3	TRIIODOMETHANE	-73.2	1.2150	gas	1.65	2.454
19	CHN	HYDROGEN CYANIDE	—	—	in benzene	0.90	—
20	CHNS	ISOTHOICYANIC ACID	25.0	1.2594	gas	2.98	0.654
21	CH2BrCl	BROMOCHLOROMETHANE	—	—	gas	1.72	—
22	CH2Br2	DIBROMOMETHANE	25.0	1.4808	in benzene	1.66	2.247
23	CH2ClF	CHLOROFUOROMETHANE	25.0	1.5389	gas	1.43	—
24	CH2Cl2	DICHLOROMETHANE	—	—	gas	1.82	—
25	CH2F2	DIFLUOROMETHANE	25.0	1.4212	gas	1.60	2.322
26	CH2I2	DIODOMETHANE	25.0	1.1960	gas	1.96	1.950
27	CH2O	FORMALDEHYDE	25.0	1.7380	in benzene	1.22	2.438
28	CH2O2	FORMIC ACID	—	—	gas	2.33	1.215
29	CH3Br	METHYL BROMIDE	25.0	1.3693	gas	1.42	1.847
30	CH3Cl	METHYL CHLORIDE	25.0	1.4187	gas	1.81	1.173
31	CH3Cl3Si	METHYL TRICHLOROSILANE	25.0	1.3362	gas	1.87	1.265
32	CH3F	METHYL FLUORIDE	25.0	1.4085	gas	1.91	—
33	CH3I	METHYL IODIDE	25.0	1.1740	gas	1.85	1.410
34	CH3NO	FORMAMIDE	25.0	1.5270	gas	1.62	1.035
35	CH3NO2	NITROMETHANE	25.0	1.4468	gas	3.73	1.894
36	CH3NO2	METHYL-NITRITE	—	—	gas	3.46	2.354
37	CH3NO3	METHYL-NITRATE	—	—	in benzene	2.88	—
38	CH4	METHANE	25.0	1.0004	gas	0.00	1.118
39	CH4Cl2Si	METHYL DICHLOROSILANE	19.9	1.3992	in benzene	1.91	3.256
40	CH4O	METHANOL	25.0	1.3265	gas	1.70	1.552
41	CH4O3S	METHANESULFONIC ACID	17.9	1.4317	—	—	2.817
42	CH4S	METHYL MERCAPTAN	—	—	gas	1.52	1.606
43	CH5ClSi	METHYL CHLOROSILANE	—	—	in cyclohexane	1.93	—
44	CH5N	METHYLAMINE	25.0	1.3491	gas	1.31	1.722
45	CH6Si	METHYL SILANE	—	—	gas	0.73	—
46	CN4O8	TETRANITROMETHANE	25.0	1.4358	gas	0.00	4.147
47	CO	CARBON MONOXIDE	25.0	1.0003	gas	0.11	0.558
48	COS	CARBONYL SULFIDE	—	—	gas	0.71	1.270
49	CO2	CARBON DIOXIDE	25.0	1.0004	gas	0.00	1.040
50	CS2	CARBON DISULFIDE	25.0	1.6241	gas	0.00	1.569
51	C2BrF3	BROMOTRIFLUOROETHYLENE	—	—	gas	0.76	3.366
52	C2Br2F4	1,2-DIBROMOTETRAFLUOROETHANE	25.0	1.3670	—	—	3.779
53	C2ClF3	CHLOROTRIFLUOROETHYLENE	19.9	1.0010	gas	0.40	3.293
54	C2ClF5	CHLOROPENTAFLUOROETHANE	25.0	1.2140	gas	0.52	3.587
55	C2Cl2F4	1,2-DICHLOROTETRAFLUOROETHANE	25.0	1.2880	gas	0.56	3.602
56	C2Cl3F3	1,1,2-TRICHLOROTRIFLUOROETHANE	25.0	1.3540	—	—	3.791
57	C2Cl4	TETRACHLOROETHYLENE	25.0	1.5055	in benzene	0.00	4.059
58	C2Cl4F2	1,1,2,2-TETRACHLORODIFLUOROETHANE	25.0	1.4130	—	—	3.628
59	C2Cl4O	TRICHLOROACETYL CHLORIDE	—	—	in benzene	1.20	4.037
60	C2Cl6	HEXAChLOROETHANE	—	—	gas	0.00	4.143
61	C2F4	TETRAFLUOROETHYLENE	—	—	—	—	3.232
62	C2F6	HEXAFLUOROETHANE	-73.2	1.2060	gas	0.00	3.419
63	C2HBrClF3	HALOTHANE	25.0	1.3961	—	—	3.735
64	C2HClF2	2-CHLORO-1,1-DIFLUOROETHYLENE	—	—	—	—	2.994
65	C2HCl3	TRICHLOROETHYLENE	25.0	1.4750	liquid	0.77	3.742
66	C2HCl3O	DICHLOROACETYL CHLORIDE	15.9	1.4638	in CCl4	1.58	3.988
67	C2HCl3O	TRICHLOROACETALDEHYDE	19.9	1.4559	gas	1.96	3.649
68	C2HCl5	PENTACHLOROETHANE	25.0	1.5005	gas	0.92	4.172
69	C2HF3	TRIFLUOROETHENE	—	—	—	—	—
70	C2HF3O2	TRIFLUOROACETIC ACID	19.9	1.2850	gas	2.28	3.294
71	C2HF5	PENTAFLUOROETHANE	18.9	1.5012	gas	1.54	3.282
72	C2H2	ACETYLENE	—	—	gas	0.00	0.744
73	C2H2Br4	1,1,2,2-TETRABROMOETHANE	25.0	1.6323	in hexane	1.30	4.540
74	C2H2Cl2	1,1-DICHLOROETHYLENE	19.9	1.4247	gas	1.34	3.011
75	C2H2Cl2	cis-1,2-DICHLOROETHYLENE	19.9	1.4490	gas	1.90	2.991
76	C2H2Cl2	trans-1,2-DICHLOROETHYLENE	19.9	1.4462	in CCl4	0.00	2.634
77	C2H2Cl2O	CHLOROACETYL CHLORIDE	—	—	gas	2.23	3.394
78	C2H2Cl2O	DICHLOROACETALDEHYDE	—	—	in benzene	2.36	3.419

ORGANIC COMPOUNDS (continued)

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration Angstrom
			T, C	Value @ T	State	Debye	
79	C2H2Cl2O2	DICHLOROACETIC ACID	19.9	1.4658	—	—	3.780
80	C2H2Cl3F	1,1,1-TRICHLOROFLUOROETHANE	—	—	gas	1.29	3.476
81	C2H2Cl4	1,1,1,2-TETRACHLOROETHANE	25.0	1.4794	gas	1.29	4.044
82	C2H2Cl4	1,1,2,2-TETRACHLOROETHANE	25.0	1.4914	gas	1.38	2.528
83	C2H2F2	1,1-DIFLUOROETHYLENE	—	—	gas	2.42	—
84	C2H2F2	cis-1,2-DIFLUOROETHENE	—	—	in benzene	0.55	—
85	C2H2F2	trans-1,2-DIFLUOROETHENE	—	—	—	—	2.944
86	C2H2F4	1,1,1,2-TETRAFLUOROETHANE	25.0	1.0007	—	—	1.605
87	C2H2O	KETENE	—	—	in dioxane	2.63	3.220
88	C2H2O4	OXALIC ACID	—	—	gas	1.42	1.763
89	C2H3Br	VINYL BROMIDE	25.0	1.3660	gas	1.45	2.049
90	C2H3Cl	VINYL CHLORIDE	25.0	1.3660	gas	2.14	2.896
91	C2H3ClF2	1-CHLORO-1,1-DIFLUOROETHANE	—	—	gas	2.72	2.712
92	C2H3ClO	ACETYL CHLORIDE	19.9	1.3871	in benzene	1.99	2.668
93	C2H3ClO	CHLOROACETALDEHYDE	—	—	—	—	—
94	C2H3ClO2	CHLOROACETIC ACID	64.9	1.4300	in benzene	2.31	3.157
95	C2H3ClO2	METHYL CHLOROFORMATE	19.9	1.3865	in benzene	2.22	2.962
96	C2H3Cl3	1,1,1-TRICHLOROETHANE	25.0	1.4313	gas	1.78	3.373
97	C2H3Cl3	1,1,2-TRICHLOROETHANE	25.0	1.4689	gas	1.25	3.717
98	C2H3F	VINYL FLUORIDE	25.0	1.3400	gas	1.43	1.934
99	C2H3F3	1,1,1-TRIFLUOROETHANE	25.0	1.2060	gas	2.32	2.767
100	C2H3N	ACETONITRILE	25.0	1.3416	gas	3.92	1.841
101	C2H3NO	METHYL ISOCYANATE	26.9	1.3630	gas	2.80	2.236
102	C2H4	ETHYLENE	25.0	1.0007	gas	0.00	1.548
103	C2H4Br2	1,1-DIBROMOETHANE	25.0	1.5101	in benzene	2.14	3.099
104	C2H4Br2	1,2-DIBROMOETHANE	25.0	1.5360	gas	1.01	2.833
105	C2H4Cl2	1,1-DICHLOROETHANE	25.0	1.4138	gas	2.06	3.095
106	C2H4Cl2	1,2-DICHLOROETHANE	25.0	1.4421	liquid	2.94	2.827
107	C2H4Cl2O	BIS(CHLOROMETHYL)ETHER	20.9	1.4350	gas	0.99	3.373
108	C2H4F2	1,1-DIFLUOROETHANE	25.0	1.2434	gas	2.27	2.514
109	C2H4F2	1,2-DIFLUOROETHANE	25.0	1.2800	gas	2.67	2.508
110	C2H4I2	1,2-DIOODOETHANE	—	—	in benzene	1.30	—
111	C2H4O	ACETALDEHYDE	25.0	1.3283	gas	2.69	2.083
112	C2H4O	ETHYLENE OXIDE	6.9	1.3596	gas	1.89	1.937
113	C2H4OS	THIOACETIC ACID	—	—	—	—	—
114	C2H4O2	ACETIC ACID	25.0	1.3698	gas	1.74	2.610
115	C2H4O2	METHYL FORMATE	25.0	1.3415	gas	1.77	2.387
116	C2H4S	THIACYCLOPROPANE	25.0	1.4870	—	—	—
117	C2H5Br	BROMOETHANE	25.0	1.4212	gas	2.03	1.987
118	C2H5Cl	ETHYL CHLORIDE	25.0	1.3652	gas	2.05	2.267
119	C2H5ClO	2-CHLOROETHANOL	19.9	1.4421	gas	1.78	—
120	C2H5F	ETHYL FLUORIDE	25.0	1.2621	gas	1.94	2.779
121	C2H5I	ETHYL IODIDE	25.0	1.5101	gas	1.91	2.832
122	C2H5N	ETHYLENEIMINE	25.0	1.4123	gas	1.90	1.799
123	C2H5NO	ACETAMIDE	77.9	1.4274	gas	3.76	2.621
124	C2H5NO	N-METHYLFORMAMIDE	25.0	1.4300	gas	3.83	2.428
125	C2H5NO2	NITROETHANE	25.0	1.3897	gas	3.65	2.795
126	C2H5NO3	ETHYL-NITRATE	—	—	in benzene	2.93	—
127	C2H6	ETHANE	19.9	1.0047	gas	0.00	1.826
128	C2H6AlCl	DIMETHYLALUMINUM CHLORIDE	—	—	gas	1.63	—
129	C2H6O	DIMETHYL ETHER	25.0	1.2984	gas	1.30	2.154
130	C2H6O	ETHANOL	25.0	1.3594	gas	1.69	2.259
131	C2H6OS	DIMETHYL SULFOXIDE	25.0	1.4773	gas	3.96	2.840
132	C2H6O2	ETHYLENE GLYCOL	25.0	1.4306	in dioxane	2.31	2.564
133	C2H6O4S	DIMETHYL SULFATE	25.0	1.3855	—	—	3.314
134	C2H6S	DIMETHYL SULFIDE	25.0	1.4323	gas	1.50	2.374
135	C2H6S	ETHYL MERCAPTAN	25.0	1.4278	gas	1.58	2.363
136	C2H6S2	DIMETHYL DISULFIDE	25.0	1.5230	in benzene	1.97	2.942
137	C2H7N	DIMETHYLAMINE	25.0	1.3566	gas	1.03	2.271
138	C2H7N	ETHYLAMINE	25.0	1.3627	gas	1.22	2.336
139	C2H7NO	MONOETHANOLAMINE	25.0	1.4521	in dioxane	0.78	1.826
140	C2H8N2	ETHYLENEDIAMINE	19.9	1.4568	in benzene	1.90	2.761
141	C2H8Si	DIMETHYL SILANE	—	—	gas	0.75	1.881
142	C2N2	CYANOGEN	—	—	gas	0.00	2.190
143	C3F6	HEXAFLUOROPROPYLENE	—	—	gas	0.00	3.796
144	C3F6O	HEXAFLUOROACETONE	—	—	gas	—	3.933
145	C3F8	OCTAFLUOROPROPANE	—	—	—	—	3.736
146	C3H2N2	MALONONITRILE	—	—	gas	0.65	—
147	C3H3Cl	PROPARGYL CHLORIDE	33.9	1.4146	—	—	—
148	C3H3N	ACRYLONITRILE	25.0	1.4317	gas	3.72	3.058
149	C3H3NO	OXAZOLE	25.0	1.3884	gas	1.68	2.730
150	C3H4	METHYLACETYLENE	17.5	1.4285	gas	3.87	2.464
151	C3H4	PROPADIENE	-40.2	1.3863	gas	1.50	2.467
152	C3H4Cl2	2,3-DICHLOROPROPENE	-34.5	1.4169	gas	0.78	1.908
153	C3H4O	ACROLEIN	25.0	1.4568	gas	0.00	1.911
154	C3H4O	PROPARGYL ALCOHOL	19.9	1.4017	gas	1.74	3.470
155	C3H4O2	ACRYLIC ACID	25.0	1.4300	in benzene	3.12	2.443
156	C3H4O2	beta-PROPIOLACTONE	25.0	1.4185	gas	1.78	2.543
					—	1.46	2.978
					—	4.18	2.481

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration Angstrom
			T, C	Value @ T	State	Dobye	
157	C3H4O2	VINYL FORMATE	—	—	in benzene	1.66	2.680
158	C3H4O3	ETHYLENE CARBONATE	39.9	1.4199	gas	4.51	2.869
159	C3H4O3	PYRUVIC ACID	19.9	1.4280	—	—	3.235
160	C3H5Br	3-BROMO-1-PROPENE	25.0	1.4603	in benzene	1.81	—
161	C3H5Cl	2-CHLOROPROPENE	25.0	1.3920	gas	1.66	2.786
162	C3H5Cl	3-CHLOROPROPENE	25.0	1.4116	gas	1.94	2.668
163	C3H5ClO	alpha-EPICHLOROHYDRIN	25.0	1.4358	in CCl4	1.80	3.043
164	C3H5ClO2	METHYL CHLOROACETATE	25.0	1.4197	—	—	3.539
165	C3H5ClO2	ETHYL CHLOROFORMATE	19.9	1.3952	gas	2.55	3.595
166	C3H5Cl3	1,2,3-TRICHLOROPROPANE	25.0	1.4812	—	—	4.263
167	C3H6I	3-IODO-1-PROPENE	25.0	1.5500	in benzene	1.62	—
168	C3H5N	PROPIONITRILE	25.0	1.3636	gas	4.02	2.652
169	C3H5NO	ACRYLAMIDE	84.5	1.5660	—	—	2.950
170	C3H5NO	HYDRACRYLONITRILE	19.9	1.4256	—	—	3.098
171	C3H5NO	LACTONITRILE	19.9	1.4035	—	—	3.078
172	C3H5N3O9	NITROGLYCERINE	15.9	1.4786	in benzene	3.15	4.650
173	C3H6	CYCLOPROPANE	—	—	gas	0.00	2.120
174	C3H6	PROPYLENE	25.0	1.0009	gas	0.37	2.254
175	C3H6Br2	1,2-DIBROMOPROPANE	—	—	gas	1.24	—
176	C3H6Cl2	1,1-DICHLOROPROPANE	25.0	1.4266	in benzene	2.08	3.495
177	C3H6Cl2	1,2-DICHLOROPROPANE	25.0	1.4368	gas	1.17	3.496
178	C3H6Cl2	1,3-DICHLOROPROPANE	25.0	1.4460	gas	2.08	3.501
179	C3H6Cl2	2,2-DICHLOROPROPANE	25.0	1.4123	gas	2.09	—
180	C3H6I2	1,2-DIIODOPROPANE	25.0	1.6200	—	—	—
181	C3H6O	ACETONE	25.0	1.3560	gas	2.88	2.746
182	C3H6O	ALLYL ALCOHOL	19.9	1.4135	gas	1.60	2.577
183	C3H6O	METHYL VINYL ETHER	25.0	1.3947	—	—	2.570
184	C3H6O	n-PROPIONALDEHYDE	25.0	1.3593	gas	2.52	2.643
185	C3H6O	1,2-PROPYLENE OXIDE	25.0	1.3632	gas	2.01	2.660
186	C3H6O	1,3-PROPYLENE OXIDE	25.0	1.3897	gas	1.93	2.234
187	C3H6O2	ETHYL FORMATE	25.0	1.3575	gas	1.93	2.963
188	C3H6O2	METHYL ACETATE	25.0	1.3589	gas	1.68	2.996
189	C3H6O2	PROPIONIC ACID	25.0	1.3843	gas	1.75	3.107
190	C3H6O2S	3-MERCAPTOPROPIONIC ACID	19.9	1.4940	in dioxane	2.25	3.705
191	C3H6O3	LACTIC ACID	25.0	1.4392	—	—	3.298
192	C3H6O3	METHOXYACETIC ACID	19.9	1.4168	gas	2.56	3.293
193	C3H6O3	TRIOXANE	—	—	gas	2.08	2.823
194	C3H6S	THIACYCLOBUTANE	25.0	1.5074	—	—	—
195	C3H7Br	1-BROMOPROPANE	25.0	1.4317	gas	2.18	2.629
196	C3H7Br	2-BROMOPROPANE	25.0	1.4221	gas	2.21	2.615
197	C3H7Cl	ISOPROPYL CHLORIDE	25.0	1.3752	gas	2.17	2.905
198	C3H7Cl	n-PROPYL CHLORIDE	25.0	1.3858	gas	2.05	2.774
199	C3H7F	1-FLUOROPROPANE	25.0	1.3091	—	—	—
200	C3H7F	2-FLUOROPROPANE	25.0	1.2992	—	—	—
201	C3H7I	ISOPROPYL IODIDE	25.0	1.4961	in benzene	1.95	2.427
202	C3H7I	n-PROPYL IODIDE	25.0	1.5028	gas	2.04	2.311
203	C3H7N	ALLYLAMINE	19.9	1.4205	in benzene	1.31	2.704
204	C3H7N	PROPYLENEIMINE	25.0	1.4095	—	—	2.543
205	C3H7NO	N,N-DIMETHYLFORMAMIDE	25.0	1.4269	gas	3.82	3.027
206	C3H7NO	N-METHYLACETAMIDE	19.9	1.4301	gas	3.72	3.051
207	C3H7NO2	1-NITROPROPANE	25.0	1.3996	gas	3.66	3.359
208	C3H7NO2	2-NITROPROPANE	25.0	1.3924	gas	3.73	3.273
209	C3H7NO3	PROPYL-NITRATE	—	—	in benzene	3.01	—
210	C3H7NO3	ISOPROPYL-NITRATE	—	—	—	—	—
211	C3H8	PROPANE	25.0	1.2861	gas	0.00	2.431
212	C3H8O	ISOPROPANOL	25.0	1.3752	gas	1.66	2.807
213	C3H8O	METHYL ETHYL ETHER	-42.2	1.3441	gas	1.23	2.594
214	C3H8O	n-PROPANOL	25.0	1.3837	gas	1.68	2.825
215	C3H8O2	2-METHOXYETHANOL	25.0	1.4002	in benzene	2.04	2.985
216	C3H8O2	METHYLAL	25.0	1.3504	gas	0.74	2.891
217	C3H8O2	1,2-PROPYLENE GLYCOL	25.0	1.4314	liquid	3.63	3.154
218	C3H8O2	1,3-PROPYLENE GLYCOL	25.0	1.4386	in dioxane	2.52	3.169
219	C3H8O3	GLYCEROL	25.0	1.4730	liquid	4.21	3.520
220	C3H8S	n-PROPYLMERCAPTAN	25.0	1.4353	liquid	1.55	2.883
221	C3H8S	ISOPROPYL MERCAPTAN	25.0	1.4225	liquid	1.64	2.993
222	C3H8S	ETHYL-METHYL-SULFIDE	25.0	1.4374	—	—	—
223	C3H9N	n-PROPYLAMINE	25.0	1.3851	gas	1.17	2.806
224	C3H9N	ISOPROPYLAMINE	25.0	1.3711	liquid	1.50	2.802
225	C3H9N	TRIMETHYLAMINE	25.0	1.3443	gas	0.61	2.766
226	C3H9NO	1-AMINO-2-PROPANOL	25.0	1.4460	—	—	3.108
227	C3H9NO	3-AMINO-1-PROPANOL	19.9	1.4610	ns	2.69	3.126
228	C3H9NO	METHYLETHANOLAMINE	19.9	1.4385	in benzene	2.16	3.035
229	C3H10O4P	TRIMETHYL PHOSPHATE	25.0	1.3939	in CCl4	3.03	3.640
230	C3H10N2	1,2-PROPANEDIAMINE	19.9	1.4460	—	—	3.170
231	C3H10Si	TRIMETHYL SILANE	—	—	gas	0.52	—
232	C4Cl4S	TETRACHLOROTHIOPHENE	19.9	1.5915	in benzene	0.93	5.091
233	C4Cl6	HEXAChLORO-1,3-BUTADIENE	—	—	in benzene	0.20	5.299
234	C4F8	OCTAFLUORO-2-BUTENE	—	—	—	—	2.940

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration Angstrom
			T, C	Value @ T	State	Debye	
235	C4F8	OCTAFLUOROCYCLOBUTANE	25.0	1.2170	gas	0.00	3.889
236	C4F10	DECAFLUOROBUTANE	—	—	—	—	4.368
237	C4H2	BUTADIENE(BIACETYLENE)	—	—	—	—	—
238	C4H2O3	MALEIC ANHYDRIDE	64.4	1.4688	In dioxane	3.93	3.312
239	C4H4	VINYLCETYLENE	25.0	1.4161	gas	0.40	2.552
240	C4H4N2	SUCCINONITRILE	59.9	1.4173	In dioxane	3.83	3.361
241	C4H4O	FURAN	25.0	1.4187	gas	0.66	2.559
242	C4H4O2	DIKETENE	19.9	1.4379	gas	3.54	2.998
243	C4H4O3	SUCCINIC ANHYDRIDE	—	—	In benzene	3.83	3.281
244	C4H4O4	FUMARIC ACID	—	—	In dioxane	2.45	4.139
245	C4H4O4	MALEIC ACID	25.0	1.5257	gas	0.55	2.781
246	C4H4S	THIOPHENE	19.9	1.4583	gas	1.43	3.274
247	C4H5Cl	CHLOROPRENE	19.9	1.4225	gas	4.53	2.893
248	C4H5N	trans-CROTONITRILE	29.9	1.4134	gas	4.08	2.924
249	C4H5N	cis-CROTONITRILE	25.0	1.3989	gas	3.69	3.172
250	C4H5N	METHACRYLONITRILE	25.0	1.5078	gas	1.84	2.567
251	C4H5N	PYRROLE	25.0	1.4050	—	—	2.979
252	C4H5N	VINYLCETONITRILE	25.0	1.4166	—	—	3.733
253	C4H5NO2	METHYL CYANOACETATE	—	—	—	—	—
254	C4H6	CYCLOBUTENE	—	—	—	—	—
255	C4H6	1,2-BUTADIENE	1.4	1.4205	gas	0.40	2.724
256	C4H6	1,3-BUTADIENE	-25.2	1.4293	gas	0.00	2.602
257	C4H6	DIMETHYLACETYLENE	25.0	1.3893	—	—	2.519
258	C4H6	ETHYLACETYLENE	—	—	gas	0.81	2.770
259	C4H6Cl2	1,3-DICHLORO-trans-2-BUTENE	25.0	1.4695	In benzene	2.15	4.074
260	C4H6Cl2	1,4-DICHLORO-cis-2-BUTENE	25.0	1.4887	—	—	3.820
261	C4H6Cl2	1,4-DICHLORO-trans-2-BUTENE	25.0	1.4863	—	—	3.832
262	C4H6Cl2	3,4-DICHLORO-1-BUTENE	25.0	1.4615	—	—	3.934
263	C4H6O	trans-CROTONALDEHYDE	19.9	1.4373	gas	3.67	3.087
264	C4H6O	2,5-DIHYDROFURAN	25.0	1.4340	In benzene	1.54	2.580
265	C4H6O	DIVINYL ETHER	—	—	In benzene	1.07	2.951
266	C4H6O	METHACROLEIN	19.9	1.4169	gas	2.68	3.121
267	C4H6O2	2-BUTYNE-1,4-DIOL	25.0	1.4500	In benzene	2.63	3.715
268	C4H6O2	gamma-BUTYROLACTONE	25.0	1.4348	gas	3.82	2.642
269	C4H6O2	cis-CROTONIC ACID	19.9	1.4456	—	—	3.342
270	C4H6O2	trans-CROTONIC ACID	79.9	1.4228	In benzene	2.13	3.493
271	C4H6O2	METHACRYLIC ACID	25.0	1.4288	In benzene	1.65	3.412
272	C4H6O2	METHYL ACRYLATE	25.0	1.4003	—	—	3.280
273	C4H6O2	VINYL ACETATE	25.0	1.3934	In benzene	1.79	2.969
274	C4H6O3	ACETIC ANHYDRIDE	19.9	1.3892	gas	2.80	3.579
275	C4H6O4	SUCCINIC ACID	24.9	1.3373	gas	2.20	4.159
276	C4H6O5	DIGLYCOLIC ACID	—	—	—	—	4.475
277	C4H6O5	MALIC ACID	25.0	1.3516	gas	3.12	4.209
278	C4H6O6	TARTARIC ACID	—	—	In dioxane	3.24	4.289
279	C4H7N	n-BUTYRONITRILE	25.0	1.3820	gas	4.07	3.088
280	C4H7N	ISOBUTYRONITRILE	25.0	1.3712	gas	4.29	3.211
281	C4H7NO	ACETONE CYANOHYDRIN	—	—	In benzene	3.17	3.344
282	C4H7NO	2-METHACRYLAMIDE	—	—	—	—	3.380
283	C4H7NO	3-METHOXYPROPIONITRILE	19.9	1.4032	—	—	3.387
284	C4H7NO	2-PYRROLIDONE	25.0	1.4860	In benzene	3.10	3.074
285	C4H8	1-BUTENE	-125.2	1.3803	gas	0.34	2.762
286	C4H8	cis-2-BUTENE	-25.2	1.3842	gas	0.30	2.833
287	C4H8	trans-2-BUTENE	-25.2	1.3932	gas	0.00	2.734
288	C4H8	CYCLOBUTANE	25.0	1.3620	gas	0.00	2.450
289	C4H8	ISOBUTENE	-25.2	1.3926	gas	0.50	2.875
290	C4H8Br2	1,2-DIBROMOBUTANE	25.0	1.5125	—	—	—
291	C4H8Br2	2,3-DIBROMOBUTANE	25.0	1.5125	—	—	—
292	C4H8Cl2	1,4-DICHLOROBUTANE	25.0	1.4522	—	—	—
293	C4H8I2	1,2-DIIODOBUTANE	25.0	1.6000	—	—	3.760
294	C4H8O	n-BUTYRALDEHYDE	25.0	1.3766	gas	2.72	3.185
295	C4H8O	ISOBUTYRALDEHYDE	25.0	1.3698	gas	2.70	3.176
296	C4H8O	1,2-EPOXYBUTANE	25.0	1.3810	In benzene	2.01	2.960
297	C4H8O	METHYL ETHYL KETONE	25.0	1.3764	benzene/dioxane	2.78	3.135
298	C4H8O	ETHYL VINYL ETHER	25.0	1.3729	gas	1.27	2.940
299	C4H8O	TETRAHYDROFURAN	25.0	1.4050	gas	1.63	2.694
300	C4H8O2	cis-2-BUTENE-1,4-DIOL	25.0	1.4718	In benzene	2.50	3.516
301	C4H8O2	trans-2-BUTENE-1,4-DIOL	—	—	In benzene	2.47	3.530
302	C4H8O2	ISOBUTYRIC ACID	25.0	1.3908	liquid	1.09	3.444
303	C4H8O2	n-BUTYRIC ACID	25.0	1.3958	liquid	1.23	3.610
304	C4H8O2	1,4-DIOXANE	25.0	1.4202	gas	0.00	3.017
305	C4H8O2	ETHYL ACETATE	25.0	1.3704	gas	1.78	3.468
306	C4H8O2	METHYL PROPIONATE	25.0	1.3742	In benzene	1.70	3.490
307	C4H8O2	n-PROPYL FORMATE	25.0	1.3750	In benzene	1.91	3.364
308	C4H8O2S	SULFOLANE	25.0	1.4578	In benzene	4.69	3.309
309	C4H8S	TETRAHYDROTHIOPHENE	19.9	1.4378	In benzene	1.90	2.898
310	C4H9Br	1-BROMOBUTANE	25.0	1.4342	gas	2.23	3.132
311	C4H9Br	2-BROMOBUTANE	25.0	1.4001	gas	2.05	3.338
312	C4H9Cl	n-BUTYL CHLORIDE	—	—	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Dobye	Angstrom	
313	C4H9Cl	sec-BUTYL CHLORIDE	25.0	1.3941	gas	2.04	3.324	
314	C4H9Cl	tert-BUTYL CHLORIDE	25.0	1.3828	gas	2.13	3.152	
315	C4H9I	2-iodo-2-METHYLPROPANE	25.0	1.4890	in benzene	2.15	—	
316	C4H9N	PYRROLIDINE	25.0	1.4402	in benzene	1.58	2.700	
317	C4H9NO	N,N-DIMETHYLACETAMIDE	25.0	1.4356	gas	3.81	3.368	
318	C4H9NO	MORPHOLINE	25.0	1.4521	in benzene	1.54	3.042	
319	C4H9NO ₂	1-NITROBUTANE	25.0	1.4080	in benzene	3.40	—	
320	C4H9NO ₂	2-NITROBUTANE	25.0	1.4019	—	—	—	
321	C4H10	n-BUTANE	25.0	1.3292	gas	0.00	2.886	
322	C4H10	ISOBUTANE	25.2	1.3514	gas	0.13	2.948	
323	C4H10N ₂	PIPERAZINE	112.9	1.4460	in benzene	1.47	3.035	
324	C4H10O	n-BUTANOL	25.0	1.3971	gas	1.66	3.251	
325	C4H10O	sec-BUTANOL	25.0	1.3949	in benzene	1.66	3.203	
326	C4H10O	tert-BUTANOL	25.0	1.3852	in benzene	1.67	3.067	
327	C4H10O	DIETHYL ETHER	25.0	1.3495	gas	1.15	3.177	
328	C4H10O	METHYL-PROPYL-ETHER	25.0	1.3544	in benzene	1.24	—	
329	C4H10O	METHYL ISOPROPYL ETHER	25.0	1.3576	—	—	3.125	
330	C4H10O	ISOBUTANOL	25.0	1.3938	gas	1.64	3.332	
331	C4H10O ₂	1,3-BUTANEDIOL	25.0	1.4390	—	—	3.455	
332	C4H10O ₂	1,4-BUTANEDIOL	25.0	1.4445	liquid	3.93	3.582	
333	C4H10O ₂	2,3-BUTANEDIOL	25.0	1.4310	in benzene	2.10	3.371	
334	C4H10O ₂	t-BUTYL HYDROPEROXIDE	25.0	1.3983	in benzene	1.81	3.295	
335	C4H10O ₂	1,2-DIMETHOXYETHANE	25.0	1.3781	in benzene	1.71	3.328	
336	C4H10O ₂	2-ETHOXYETHANOL	25.0	1.4057	in benzene	2.08	3.392	
337	C4H10O ₃	DIETHYLENE GLYCOL	25.0	1.4460	liquid	5.49	3.739	
338	C4H10O ₄ S	DIETHYL SULFATE	19.9	1.3989	—	—	4.239	
339	C4H10S	n-BUTYL MERCAPTAN	25.0	1.4403	in benzene	1.53	3.400	
340	C4H10S	ISOBUTYL MERCAPTAN	25.0	1.4360	in benzene	1.53	3.455	
341	C4H10S	sec-BUTYL MERCAPTAN	25.0	1.4339	in benzene	1.55	3.362	
342	C4H10S	tert-BUTYL MERCAPTAN	25.0	1.4200	in benzene	1.59	3.185	
343	C4H10S	DIETHYL SULFIDE	25.0	1.4402	gas	1.54	3.212	
344	C4H10S	ISOPROPYL-METHYL-SULFIDE	25.0	1.4363	—	—	—	
345	C4H10S	METHYL-PROPYL-SULFIDE	25.0	1.4416	—	—	—	
346	C4H10S ₂	DIETHYL DISULFIDE	25.0	1.5047	in benzene	1.96	—	
347	C4H11N	n-BUTYLAMINE	25.0	1.3987	in benzene	1.39	3.289	
348	C4H11N	ISOBUTYLAMINE	25.0	1.3945	in benzene	1.27	3.230	
349	C4H11N	sec-BUTYLAMINE	25.0	1.3907	in benzene	1.28	3.201	
350	C4H11N	tert-BUTYLAMINE	25.0	1.3761	in benzene	1.29	3.048	
351	C4H11N	DIETHYLAMINE	25.0	1.3825	gas	0.92	3.172	
352	C4H11NO	DIMETHYLETHANOLAMINE	25.0	1.4277	in benzene	2.21	3.463	
353	C4H11NO ₂	DIETHANOLAMINE	19.9	1.4747	in dioxane	0.85	3.907	
354	C4H11NO ₂	2-AMINOETHOXYETHANOL	19.9	1.4610	—	—	3.737	
355	C4H12N ₂ O	N-AMINOETHYL ETHANOLAMINE	19.9	1.4861	—	—	3.821	
356	C4H12Si	TETRAMETHYLSILANE	25.0	1.3582	liquid	0.00	—	
357	C4H13N ₃	DIETHYLENE TRIAMINE	25.0	1.4610	—	—	3.865	
358	C5C16	HEXACHLOROCYCLOPENTADIENE	25.0	1.5626	liquid	0.72	5.310	
359	C5H4O ₂	FURFURAL	25.0	1.5234	in benzene	3.60	3.350	
360	C5H5N	PYRIDINE	25.0	1.5075	gas	2.19	2.938	
361	C5H6	CYCLOPENTADIENE	19.9	1.4429	gas	0.42	2.752	
362	C5H6	2-METHYL-1-BUTENE-3-YNE	25.0	1.4151	in benzene	0.55	3.224	
363	C5H6	1-PENTENE-3-YNE	25.0	1.4490	gas	0.66	3.086	
364	C5H6	1-PENTENE-4-YNE	25.0	1.4125	—	—	3.025	
365	C5H6N ₂	GLUTARONITRILE	25.0	1.4332	—	—	3.972	
366	C5H6O ₂	FURFURLY ALCOHOL	25.0	1.4831	in benzene	1.92	3.422	
367	C5H6O ₃	GLUTARIC ANHYDRIDE	—	—	—	—	3.651	
368	C5H6O ₄	CITRACONIC ACID	—	—	—	—	3.744	
369	C5H6O ₄	ITA CONIC ACID	—	—	in dioxane	2.25	4.185	
370	C5H6S	2-METHYLTHIOPHENE	25.0	1.5174	in benzene	0.67	—	
371	C5H6S	3-METHYLTHIOPHENE	25.0	1.5176	in benzene	0.82	—	
372	C5H7N	N-METHYL PYRROLE	19.9	1.4875	gas	2.10	3.082	
373	C5H7NO ₂	ETHYL CYANOACETATE	20.5	1.4179	gas	2.17	4.180	
374	C5H8	CYCLOPENTENE	25.0	1.4194	gas	0.20	2.728	
375	C5H8	ISOPRENE	25.0	1.4185	gas	0.25	3.213	
376	C5H8	3-METHYL-1,2-BUTADIENE	25.0	1.4169	—	—	3.021	
377	C5H8	2-METHYL-1,3-BUTADIENE	25.0	1.4185	gas	0.15	—	
378	C5H8	1,2-PENTADIENE	25.0	1.4177	—	—	3.262	
379	C5H8	cis-1,3-PENTADIENE	25.0	1.4329	—	—	3.212	
380	C5H8	trans-1,3-PENTADIENE	25.0	1.4267	gas	0.68	3.087	
381	C5H8	1,4-PENTADIENE	25.0	1.3854	in benzene	0.38	3.049	
382	C5H8	2,3-PENTADIENE	25.0	1.4251	—	—	3.301	
383	C5H8	1-PENTYNE	25.0	1.3822	gas	0.81	3.115	
384	C5H8	2-PENTYNE	25.0	1.4009	—	—	—	
385	C5H8	3-METHYL-1-BUTYNE	25.0	1.3695	—	—	3.327	
386	C5H8	SPIROPENTANE	—	—	in dioxane	2.48	6.929	
387	C5H8N ₄ O ₁₂	PENTAERYTHRITOL TETRANITRATE	19.9	1.4359	in benzene	2.93	3.165	
388	C5H8O	CYCLOPENTANONE	25.0	1.4212	in benzene	2.74	3.480	
389	C5H8O	METHYL ISOPROPENYL KETONE	25.0	1.4465	gas	2.81	4.017	
390	C5H8O ₂	ACETYLACETONE	25.0	—	—	—	—	

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration Angstrom
			T, C	Value @ T	State	Debye	
391	C5H8O2	ALLYL ACETATE	25.0	1.3985	—	—	3.730
392	C5H8O2	ETHYL ACRYLATE	25.0	1.4034	—	—	3.784
393	C5H8O2	METHYL METHACRYLATE	25.0	1.4120	in benzene	1.97	3.620
394	C5H8O2	VINYL PROPIONATE	22.9	1.4460	—	—	3.867
395	C5H8O3	2-HYDROXYETHYL ACRYLATE	19.9	1.4396	—	—	4.188
396	C5H8O3	LEVULINIC ACID	19.9	1.4186	—	—	3.675
397	C5H8O3	METHYL ACETOACETATE	106.9	1.4188	in dioxane	2.64	3.934
398	C5H8O4	GLUTARIC ACID	25.0	1.3951	in benzene	3.60	4.591
399	C5H9N	VALERONITRILE	25.0	1.4061	—	—	3.631
400	C5H9NO	n-BUTYL ISOCYANATE	25.0	1.4690	in benzene	4.09	3.851
401	C5H9NO	N-METHYL-2-PYRROLIDONE	—	—	—	—	3.482
402	C5H9NO4	L-GLUTAMIC ACID	25.0	1.4036	liquid	0.00	4.711
403	C5H10	CYCLOPENTANE	25.0	1.3746	gas	0.51	2.850
404	C5H10	2-METHYL-1-BUTENE	25.0	1.3842	—	—	3.287
405	C5H10	2-METHYL-2-BUTENE	25.0	1.3611	gas	0.32	3.272
406	C5H10	3-METHYL-1-BUTENE	25.0	1.3684	liquid	0.47	3.231
407	C5H10	1-PENTENE	25.0	1.3798	—	—	3.330
408	C5H10	cis-2-PENTENE	25.0	1.3798	—	—	3.280
409	C5H10	trans-2-PENTENE	25.0	1.3761	—	—	—
410	C5H10Br2	2,3-DIBROMO-2-METHYLBUTANE	25.0	1.5078	—	—	—
411	C5H10Cl2	1,5-DICHLOROPENTANE	25.0	1.4541	in benzene	2.36	4.423
412	C5H10O	METHYL ISOPROPYL KETONE	25.0	1.3857	in benzene	2.77	3.465
413	C5H10O	2-PENTANONE	25.0	1.3880	in benzene	2.72	3.618
414	C5H10O	DIETHYL KETONE	25.0	1.3900	in CCl4	2.82	3.583
415	C5H10O	VALERALDEHYDE	25.0	1.3917	in benzene	2.57	3.516
416	C5H10O2	n-BUTYL FORMATE	25.0	1.3874	gas	1.92	3.947
417	C5H10O2	ETHYL PROPIONATE	25.0	1.3814	in benzene	1.75	3.934
418	C5H10O2	ISOBUTYL FORMATE	25.0	1.3835	in benzene	1.89	4.294
419	C5H10O2	ISOPROPYL ACETATE	25.0	1.3750	gas	1.75	3.679
420	C5H10O2	n-PROPYL ACETATE	25.0	1.3828	in benzene	1.79	3.969
421	C5H10O2	METHYL n-BUTYRATE	25.0	1.3847	in benzene	1.72	3.972
422	C5H10O2	2-METHYLBUTYRIC ACID	—	—	—	—	3.762
423	C5H10O2	ISOVALERIC ACID	25.0	1.4022	in benzene	0.63	3.762
424	C5H10O2	VALERIC ACID	25.0	1.4060	—	—	3.965
425	C5H10O2	TETRAHYDROFURFURYL ALCOHOL	25.0	1.4499	in dioxane	2.12	3.481
426	C5H10O2S	3-METHYL SULFOLANE	25.0	1.4756	gas	4.80	3.499
427	C5H10O3	DIETHYL CARBONATE	25.0	1.3829	gas	1.10	3.986
428	C5H10O3	ETHYL LACTATE	19.9	1.4124	in benzene	2.40	3.622
429	C5H10S	THIACYCLOHEXANE	25.0	1.5043	—	—	—
430	C5H10S	CYCLOPENTANETHIOL	—	—	—	—	—
431	C5H11Br	1-BROMOPENTANE	25.0	1.4420	liquid	1.99	—
432	C5H11Cl	1-CHLOROPENTANE	25.0	1.4104	in benzene	1.94	3.995
433	C5H11Cl	1-CHLORO-3-METHYLBUTANE	25.0	1.4063	in benzene	1.94	—
434	C5H11Cl	2-CHLORO-2-METHYLBUTANE	25.0	1.4023	in benzene	2.16	—
435	C5H11N	N-METHYL PYRROLIDINE	19.9	1.4292	—	—	3.104
436	C5H11N	PIPERIDINE	19.9	1.4525	in benzene	1.19	3.122
437	C5H11NO	tert-BUTYLFORMAMIDE	25.0	1.4275	In dioxane	3.93	3.507
438	C5H12	ISOPENTANE	25.0	1.3509	gas	0.13	3.324
439	C5H12	NEOPENTANE	25.0	1.3390	gas	0.00	3.161
440	C5H12	n-PENTANE	25.0	1.3547	gas	0.00	3.337
441	C5H12O	2,2-DIMETHYL-1-PROPANOL	25.0	1.3915	—	—	3.399
442	C5H12O	tert-PENTYL-ALCOHOL	25.0	1.4024	—	—	—
443	C5H12O	2-METHYL-1-BUTANOL	25.0	1.4024	—	—	—
444	C5H12O	2-METHYL-2-BUTANOL	25.0	1.4024	—	—	3.612
445	C5H12O	3-METHYL-1-BUTANOL	25.0	1.4052	in benzene	1.70	3.359
446	C5H12O	3-METHYL-2-BUTANOL	25.0	1.4075	in benzene	1.80	3.684
447	C5H12O	1-PENTANOL	25.0	1.4080	—	—	3.480
448	C5H12O	2-PENTANOL	25.0	1.4080	in CCl4	1.70	3.679
449	C5H12O	3-PENTANOL	25.0	1.4044	—	—	3.619
450	C5H12O	METHYL sec-BUTYL ETHER	25.0	1.4079	—	—	3.503
451	C5H12O	METHYL tert-BUTYL ETHER	25.0	1.3702	—	—	3.463
452	C5H12O	METHYL ISOBUTYL ETHER	25.0	1.3663	in benzene	1.36	3.179
453	C5H12O	ETHYL PROPYL ETHER	25.0	1.3852	—	—	3.608
454	C5H12O2	ETHYLENE GLYCOL MONOPROPYL ETHER	25.0	1.3660	in benzene	1.16	3.470
455	C5H12O2	NEOPENTYL GLYCOL	19.9	1.4133	—	—	3.822
456	C5H12O2	1,5-PENTANEDIOL	—	—	—	—	3.660
457	C5H12O3	2-(2-METHOXYETHOXY)ETHANOL	25.0	1.4487	in dioxane	2.37	4.030
458	C5H12O4	PENTAERYTHRITOL	25.0	1.4245	—	—	4.098
459	C5H12S	n-PENTYL MERCAPTAN	—	—	gas	—	—
460	C5H12S	BUTYL-METHYL-SULFIDE	25.0	1.4444	in benzene	2.00	4.159
461	C5H12S	ETHYL-PROPYL-SULFIDE	25.0	1.4452	—	—	3.797
462	C5H12S	2-METHYL-2-BUTANETHIOL	25.0	1.4435	—	—	—
463	C5H13N	n-PENTYLAMINE	25.0	1.4354	—	—	—
464	C5H13NO2	METHYL DIETHANOLAMINE	25.0	1.4093	in benzene	1.55	3.641
465	C6C16	HEXA CHLOROBENZENE	19.9	1.4685	gas	2.86	4.366
466	C6F6	HEXAFLUOROBENZENE	23.6	1.5691	in benzene	0.54	5.701
467	C6H3ClN2O4	1-CHLORO-2,4-DINITROBENZENE	25.0	1.3761	in benzene	0.33	4.706
468	C6H3Cl2NO2	1,2-DICHLORO-4-NITROBENZENE	44.9	1.5924	in benzene	3.24	5.199
			24.9	1.5929	in benzene	2.17	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration
			T, C	Value @ T	State	Debye	
469	C6H3Cl3	1,2,4-TRICHLOROBENZENE	25.0	1.5693	in benzene	1.26	4.832
470	C6H3N3O6	1,3,5-TRINITROBENZENE	—	—	in benzene	0.41	5.769
471	C6H4Br2	m-DIBROMOBENZENE	16.9	—	in benzene	1.47	4.691
472	C6H4ClO2	m-CHLORONITROBENZENE	49.9	1.6083	gas	3.73	4.676
473	C6H4ClO2	o-CHLORONITROBENZENE	44.9	1.5545	gas	4.64	4.367
474	C6H4ClO2	p-CHLORONITROBENZENE	—	1.5520	gas	2.83	4.494
475	C6H4Cl2	m-DICHLOROBENZENE	—	—	gas	1.72	4.389
476	C6H4Cl2	o-DICHLOROBENZENE	25.0	1.5434	gas	2.50	4.186
477	C6H4Cl2	p-DICHLOROBENZENE	25.0	1.5491	gas	0.00	4.149
478	C6H4F2	o-DIFLUOROBENZENE	54.9	1.5285	gas	1.58	—
479	C6H4F2	p-DIFLUOROBENZENE	25.0	—	gas	—	—
480	C6H4F2	m-DINITROBENZENE	25.0	—	in benzene	2.40	—
481	C6H4N2O4	o-DINITROBENZENE	—	—	—	—	—
482	C6H4N2O4	p-DINITROBENZENE	—	—	in benzene	3.84	4.873
483	C6H4N2O4	BROMOBENZENE	—	—	in benzene	6.30	4.485
484	C6H5Br	MONOCHLOROBENZENE	25.0	1.5577	gas	0.00	4.769
485	C6H5Cl	m-CHLOROPHENOL	19.9	1.5248	gas	1.70	3.466
486	C6H5ClO	o-CHLOROPHENOL	19.9	1.5632	gas	1.69	3.603
487	C6H5ClO	p-CHLOROPHENOL	25.0	1.5568	in benzene	2.17	4.043
488	C6H5Cl2N	3,4-DICHLOROANILINE	54.9	1.5419	in benzene	1.33	3.837
489	C6H5F	FLUOROBENZENE	—	—	gas	2.11	3.913
491	C6H5I	IODOBENZENE	25.0	1.4629	gas	1.60	3.345
492	C6H5NO2	NITROBENZENE	19.9	1.6210	gas	1.70	3.359
493	C6H6	BENZENE	25.0	1.5499	gas	4.22	3.944
494	C6H6ClN	m-CHLOROANILINE	20.7	1.5942	in benzene	2.94	4.092
495	C6H6ClN	o-CHLOROANILINE	25.0	1.5859	in benzene	1.77	3.934
496	C6H6ClN	p-CHLOROANILINE	86.9	1.5546	in benzene	2.99	3.929
497	C6H6N2	cis-DICYANO-1-BUTENE	19.9	1.4665	—	—	4.548
498	C6H6N2	trans-DICYANO-1-BUTENE	19.9	1.4701	—	—	4.061
499	C6H6N2	1,4-DICYANO-2-BUTENE	—	—	—	—	4.155
500	C6H6N2O2	m-NITROANILINE	—	—	in benzene	4.90	4.350
501	C6H6N2O2	o-NITROANILINE	—	—	in benzene	4.06	4.198
502	C6H6N2O2	p-NITROANILINE	—	—	in benzene	6.29	4.263
503	C6H6O	PHENOL	24.9	1.5496	gas	1.45	3.415
504	C6H6O2	1,2-BENZENEDIOL	25.0	1.6044	in benzene	2.60	3.672
505	C6H6O2	1,3-BENZENEDIOL	25.0	1.5781	in benzene	2.09	3.795
506	C6H6O2	p-HYDROQUINONE	—	—	in benzene	1.40	3.708
507	C6H6O3	1,2,3-BENZENETRIOL	—	—	—	—	3.960
508	C6H6S	PHENYL MERCAPTAN	25.0	1.5872	in benzene	1.23	3.608
509	C6H7N	ANILINE	25.0	1.5836	gas	1.53	3.436
510	C6H7N	2-METHYLPYRIDINE	25.0	1.4984	in benzene	1.97	3.365
511	C6H7N	3-METHYLPYRIDINE	23.9	0.1504	in benzene	2.40	3.401
512	C6H7N	4-METHYLPYRIDINE	19.9	1.5058	gas	2.75	3.409
513	C6H8	1,3-CYCLOHEXADIENE	19.9	1.4755	gas	0.44	2.835
514	C6H8	METHYLCYCLOPENTADIENE	25.0	1.4572	—	—	3.192
515	C6H8N2	ADIPONITRILE	25.0	1.4360	gas	3.76	3.979
516	C6H8N2	METHYLGLUTARONITRILE	25.0	1.4312	—	—	4.448
517	C6H8N2	m-PHENYLENEDIAMINE	—	—	gas	1.81	3.836
518	C6H8N2	o-PHENYLENEDIAMINE	—	—	gas	1.53	3.740
519	C6H8N2	p-PHENYLENEDIAMINE	—	—	gas	1.53	3.733
520	C6H8N2	PHENYLHYDRAZINE	25.0	1.6055	in benzene	1.67	3.776
521	C6H8N2O	BIS(CYANOETHYL)ETHER	25.0	1.4392	—	—	4.715
522	C6H8O4	DIMETHYL MALEATE	25.0	1.4405	in CCl4	2.48	4.952
523	C6H8O6	ASCORBIC ACID	—	—	in dioxane	3.96	4.891
524	C6H8O7	CITRIC ACID	19.9	1.4960	—	—	4.705
525	C6H10	1-METHYLCYCLOPENTENE	25.0	1.4294	—	—	—
526	C6H10	3-METHYLCYCLOPENTENE	25.0	1.4184	—	—	—
527	C6H10	4-METHYLCYCLOPENTENE	25.0	1.4184	—	—	3.157
528	C6H10	CYCLOHEXENE	25.0	1.4438	gas	0.55	3.570
529	C6H10	2,3-DIMETHYL-1,3-BUTADIENE	25.0	1.4362	gas	0.51	3.464
530	C6H10	1,5-HEXADIENE	19.9	1.4560	in benzene	0.31	3.765
531	C6H10	cis,trans-2,4-HEXADIENE	19.9	1.4510	in benzene	0.31	3.525
532	C6H10	trans,trans-2,4-HEXADIENE	25.0	1.3957	gas	0.83	3.691
533	C6H10	1-HEXYNE	25.0	1.4109	—	—	3.718
534	C6H10	2-HEXYNE	25.0	1.4088	—	—	3.966
535	C6H10	3-HEXYNE	25.0	1.4507	gas	3.08	3.511
536	C6H10O	CYCLOHEXANONE	25.0	1.4414	in benzene	3.20	3.913
537	C6H10O	MESITYL OXIDE	23.9	1.4481	gas	4.45	3.462
538	C6H10O2	epsilon-CAPROLACTONE	25.0	1.4115	in benzene	2.15	4.197
539	C6H10O2	ETHYL METHACRYLATE	25.0	1.4130	—	—	4.336
540	C6H10O2	n-PROPYL ACRYLATE	—	—	gas	2.96	4.405
541	C6H10O3	ETHYLACETOACETATE	19.9	1.4045	—	—	4.295
542	C6H10O3	PROPIONIC ANHYDRIDE	25.0	1.4880	in dioxane	2.32	4.976
543	C6H10O4	ADIPIC ACID	19.9	1.4102	in benzene	2.49	4.668
544	C6H10O4	DIETHYL OXALATE	19.9	1.4159	in benzene	2.34	4.867
545	C6H10O4	ETHYLENE GLYCOL DIACETATE	25.0	1.3985	—	—	4.481
546	C6H10O4	ETHYLDENE DIACETATE	—	—	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debye	Angstrom	
547	C6H11N	HEXANENITRILE	25.0	1.4048	—	—	3.971	
548	C6H11NO	epsilon-CAPROLACTAM	—	—	in benzene	3.88	3.761	
549	C6H11NO	CYCLOHEXANONE OXIME	—	—	in benzene	0.83	3.286	
550	C6H12	CYCLOHEXANE	25.0	1.4235	gas	0.61	3.242	
551	C6H12	2,3-DIMETHYL-1-BUTENE	25.0	1.3873	—	—	3.628	
552	C6H12	2,3-DIMETHYL-2-BUTENE	25.0	1.4424	—	—	3.577	
553	C6H12	3,3-DIMETHYL-1-BUTENE	25.0	1.3731	—	—	3.341	
554	C6H12	2-ETHYL-1-BUTENE	25.0	1.3938	—	—	3.825	
555	C6H12	trans-3-METHYL-2-PENTENE	—	—	liquid	0.34	—	
556	C6H12	1-HEXENE	25.0	1.3850	—	—	3.860	
557	C6H12	cis-2-HEXENE	25.0	1.3947	—	—	3.760	
558	C6H12	trans-2-HEXENE	25.0	1.3907	—	—	3.818	
559	C6H12	cis-3-HEXENE	25.0	1.3919	in benzene	0.34	3.849	
560	C6H12	trans-3-HEXENE	25.0	1.3914	gas	0.00	3.849	
561	C6H12	METHYLCYCLOPENTANE	25.0	1.4070	liquid	0.00	3.299	
562	C6H12	2-METHYL-1-PENTENE	25.0	1.3891	—	—	3.704	
563	C6H12	2-METHYL-2-PENTENE	25.0	1.3974	—	—	3.738	
564	C6H12	3-METHYL-1-PENTENE	25.0	1.3813	—	—	3.557	
565	C6H12	3-METHYL-cis-2-PENTENE	25.0	1.3988	—	—	3.589	
566	C6H12	4-METHYL-1-PENTENE	25.0	1.3797	—	—	3.679	
567	C6H12	4-METHYL-cis-2-PENTENE	25.0	1.3850	—	—	3.621	
568	C6H12	4-METHYL-trans-2-PENTENE	25.0	1.3858	—	—	3.766	
569	C6H12N2	TRIETHYLENEDIAMINE	—	—	—	—	3.234	
570	C6H12O	BUTYL VINYL ETHER	25.0	1.3997	in benzene	1.25	3.806	
571	C6H12O	CYCLOHEXANOL	25.0	1.4645	in CCl4	1.86	3.801	
572	C6H12O	1-HEXANAL	25.0	1.4017	—	—	3.924	
573	C6H12O	ETHYL ISOPROPYL KETONE	25.0	1.3958	—	—	3.892	
574	C6H12O	2-HEXANONE	25.0	1.3987	in benzene	2.68	4.093	
575	C6H12O	3-HEXANONE	25.0	1.3980	—	—	4.009	
576	C6H12O	METHYL ISOBUTYL KETONE	25.0	1.3933	liquid	2.70	3.828	
577	C6H12O2	n-PENTYL FORMATE	25.0	1.3977	gas	1.90	4.159	
578	C6H12O2	n-BUTYL ACETATE	25.0	1.3918	liquid	1.84	4.261	
579	C6H12O2	sec-BUTYL ACETATE	25.0	1.3875	—	—	4.055	
580	C6H12O2	tert-BUTYL ACETATE	25.0	1.3840	in benzene	1.91	3.845	
581	C6H12O2	ETHYL n-BUTYRATE	25.0	1.3900	in benzene	1.76	4.298	
582	C6H12O2	ETHYL ISOBUTYRATE	25.0	1.3873	in benzene	2.07	4.211	
583	C6H12O2	ISOBUTYL ACETATE	25.0	1.3880	in benzene	1.87	4.276	
584	C6H12O2	n-PROPYL PROPIONATE	25.0	1.3920	in benzene	1.79	4.311	
585	C6H12O2	CYCLOHEXYL PEROXIDE	25.0	1.4638	—	—	3.861	
586	C6H12O2	DIACETONE ALCOHOL	25.0	1.4219	in benzene	3.24	3.905	
587	C6H12O2	2-ETHYL BUTYRIC ACID	25.0	1.4112	—	—	4.126	
588	C6H12O2	n-HEXANOIC ACID	25.0	1.4148	liquid	1.13	4.404	
589	C6H12O3	2-ETHOXYETHYL ACETATE	25.0	1.4023	in benzene	2.25	4.664	
590	C6H12O3	HYDROXYCAPROIC ACID	—	—	—	—	4.727	
591	C6H12O3	PARALDEHYDE	19.9	1.4050	gas	1.43	4.166	
592	C6H12O3	sec-BUTYL GLYCOLATE	—	—	—	—	—	
593	C6H12S	THIACYCLOHEPTANE	—	—	—	—	—	
594	C6H13N	CYCLOHEXYLAMINE	25.0	1.4565	in hexane	1.31	3.539	
595	C6H13N	HEXAMETHYLENEIMINE	23.9	1.4641	—	—	3.491	
596	C6H14	2,2-DIMETHYLBUTANE	25.0	1.3659	gas	0.00	3.476	
597	C6H14	2,3-DIMETHYLBUTANE	25.0	1.3728	gas	0.00	3.636	
598	C6H14	n-HEXANE	25.0	1.3723	gas	0.00	3.769	
599	C6H14	2-METHYL-PENTANE	25.0	1.3687	gas	0.00	3.784	
600	C6H14	3-METHYL-PENTANE	25.0	1.3739	gas	0.00	3.695	
601	C6H14N2O2	LYSINE	—	—	—	—	5.191	
602	C6H14O	2-ETHYL-1-BUTANOL	25.0	1.4205	—	—	3.906	
603	C6H14O	1-HEXANOL	25.0	1.4161	in benzene	1.65	4.144	
604	C6H14O	2-HEXANOL	25.0	1.4128	—	—	3.787	
605	C6H14O	2-METHYL-1-PENTANOL	25.0	1.4172	—	—	3.967	
606	C6H14O	4-METHYL-2-PENTANOL	25.0	1.4090	—	—	3.843	
607	C6H14O	n-BUTYL ETHYL ETHER	25.0	1.3793	in benzene	1.22	3.932	
608	C6H14O	DIISOPROPYL ETHER	25.0	1.3655	gas	1.13	3.906	
609	C6H14O	O-n-PROPYL ETHER	25.0	1.3780	gas	1.21	3.914	
610	C6H14O	METHYL tert-PENTYL ETHER	25.0	1.3859	—	—	3.465	
611	C6H14O2	ACETAL	25.0	1.3682	gas	1.08	4.329	
612	C6H14O2	2-BUTOXYETHANOL	25.0	1.4177	in benzene	2.08	4.192	
613	C6H14O2	1,8-HEXANEDIOL	25.0	1.4485	in dioxane	2.50	4.428	
614	C6H14O2	HEXYLENE GLYCOL	25.0	1.4260	in dioxane	2.90	3.918	
615	C6H14O2S	DI-n-PROPYL SULFONE	25.0	1.4456	in benzene	4.47	4.706	
616	C6H14O3	DIETHYLENE GLYCOL DIMETHYL ETHER	29.9	1.4043	in benzene	1.97	4.413	
617	C6H14O3	DIPROPYLENE GLYCOL	25.0	1.4407	—	—	4.621	
618	C6H14O3	2-(2-ETHOXYETHOXY)ETHANOL	19.9	1.4473	—	—	4.433	
619	C6H14O3	TRIMETHYLOLPROPANE	25.0	1.4254	—	—	4.181	
620	C6H14O4	TRIETHYLENE GLYCOL	—	—	—	—	4.181	
621	C6H14O6	SORBITOL	25.0	1.4550	liquid	5.58	4.710	
622	C6H14S	n-HEXYL MERCAPTAN	—	—	—	—	5.008	
623	C6H14S	BUTYL-ETHYL-SULFIDE	25.0	1.4473	liquid	1.55	4.252	
624	C6H14S	ISOPROPYL-SULFIDE	25.0	1.4463	—	—	—	

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debye	Angstrom	
625	C6H14S	METHYL-PENTYL-SULFIDE	25.0	1.4482	—	—	—	—
626	C6H14S	PROPYL-SULFIDE	25.0	1.4462	in benzene	1.56	—	—
627	C6H14S2	PROPYL-DISULFIDE	25.0	1.4956	in benzene	1.98	—	—
628	C6H15Al	TRIETHYL ALUMINUM	25.0	1.4800	in benzene	0.60	—	—
629	C6H15Al2Cl3	ETHYL ALUMINUM SESQUICHLORIDE	—	—	—	—	—	—
630	C6H15N	DIISOPROPYLAMINE	25.0	1.3924	—	—	3.806	—
631	C6H15N	Di-n-PROPYLAMINE	25.0	1.4018	in benzene	1.07	3.978	—
632	C6H15N	n-HEXYLAMINE	25.0	1.4167	in benzene	1.59	4.073	—
633	C6H15N	TRIETHYLAMINE	25.0	1.3980	gas	0.66	3.730	—
634	C6H15NO	6-AMINOHEXANOL	—	—	—	—	4.348	—
635	C6H15NO2	DIISOPROPANOLAMINE	29.9	1.4595	—	—	4.694	—
636	C6H15NO3	TRIETHANOLAMINE	25.0	1.4835	in dioxane	1.08	5.219	—
637	C6H15N3	N-AMINOETHYL PIPERAZINE	25.0	1.4983	—	—	4.225	—
638	C6H15O4P	TRIETHYL PHOSPHATE	25.0	1.4036	in benzene	3.09	4.949	—
639	C6H16N2	HEXAMETHYLENEDIAMINE	41.9	1.4485	—	—	4.483	—
640	C6H18N3OP	HEXAMETHYL PHOSPHORAMIDE	25.0	1.4564	in benzene	5.54	4.515	—
641	C6H18N4	TRIETHYLENE TETRAMINE	19.9	1.4971	—	—	4.861	—
642	C6H18OSi2	HEXAMETHYLDISILOXANE	19.9	1.3777	gas	0.66	—	—
643	C6H18O3Si3	HEXAMETHYLCYCLOTRISSILOXANE	—	—	in benzene	0.00	—	—
644	C6H19NSi2	HEXAMETHYLDISILAZANE	19.9	1.4080	in benzene	0.42	—	—
645	C7H3ClF3NO2	4-CHLORO-3-NITROBENZOTRIFLUORIDE	19.9	1.4893	—	—	5.466	—
646	C7H3Cl2F3	2,4-DICHLOROBENZOTRIFLUORIDE	—	—	—	—	5.233	—
647	C7H3Cl2NO	3,4-DICHLOROPHENYL ISOCYANATE	—	—	—	—	5.290	—
648	C7H4ClF3	p-CHLOROBENZOTRIFLUORIDE	25.0	1.4440	gas	1.58	4.799	—
649	C7H4Cl2O	m-CHLOROBENZOYL CHLORIDE	—	—	—	—	5.002	—
650	C7H4F3NO2	3-NITROBENZOTRIFLUORIDE	19.9	1.4715	—	—	5.078	—
651	C7H5ClO	BENZOYL CHLORIDE	19.9	1.5537	in benzene	3.16	4.267	—
652	C7H5ClO2	o-CHLOROBENZOIC ACID	—	—	in dioxane	2.45	4.537	—
653	C7H5Cl3	BENZOTRICHLORIDE	—	—	in benzene	2.04	4.579	—
654	C7H5F3	BENZOTRIFLUORIDE	25.0	1.4114	gas	2.86	4.161	—
655	C7H5N	BENZONITRILE	19.9	1.5282	gas	4.18	3.800	—
656	C7H5NO	PHENYL ISOCYANATE	19.9	1.5368	in CCl4	2.25	4.073	—
657	C7H5N3O6	2,4,6-TRINITROTOLUENE	—	—	in benzene	1.16	5.766	—
658	C7H6Cl2	BENZYL DICHLORIDE	25.0	1.5037	in benzene	2.03	4.580	—
659	C7H6Cl2	2,4-DICHLOROTOLUENE	21.9	1.5480	in benzene	1.95	4.668	—
660	C7H6N2O4	2,4-DINITROTOLUENE	25.0	1.4420	in benzene	4.32	5.070	—
661	C7H6N2O4	2,5-DINITROTOLUENE	—	—	in benzene	0.58	4.997	—
662	C7H6N2O4	2,6-DINITROTOLUENE	25.0	1.4790	in benzene	2.81	4.887	—
663	C7H6N2O4	3,4-DINITROTOLUENE	—	—	in benzene	6.39	4.859	—
664	C7H6N2O4	3,5-DINITROTOLUENE	—	—	in benzene	4.32	5.314	—
665	C7H6O	BENZALDEHYDE	25.0	1.5428	gas	2.80	3.751	—
666	C7H6O2	BENZOIC ACID	131.9	1.5040	in benzene	1.00	4.059	—
667	C7H6O2	p-HYDROXYBENZALDEHYDE	129.9	1.5105	in benzene	3.96	4.040	—
668	C7H6O2	SALICYLALDEHYDE	19.9	1.5718	in benzene	2.88	4.184	—
669	C7H6O3	SALICYLIC ACID	—	—	in dioxane	2.65	4.251	—
670	C7H7Br	p-BROMOTOLUENE	25.0	1.5486	liquid	1.90	3.891	—
671	C7H7Cl	BENZYL CHLORIDE	19.9	1.5391	in benzene	1.89	4.027	—
672	C7H7Cl	o-CHLOROTOLUENE	25.0	1.5233	gas	1.56	3.981	—
673	C7H7Cl	p-CHLOROTOLUENE	25.0	1.5187	gas	2.21	3.972	—
674	C7H7F	p-FLUOROTOLUENE	—	—	in benzene	1.68	—	—
675	C7H7NO	FORMANILIDE	—	—	in CCl4	3.37	4.113	—
676	C7H7NO2	m-NITROTOLUENE	19.9	1.5468	in benzene	4.23	4.468	—
677	C7H7NO2	o-NITROTOLUENE	25.0	1.5474	in benzene	3.75	4.309	—
678	C7H7NO2	p-NITROTOLUENE	54.9	1.5312	in benzene	4.44	4.371	—
679	C7H7NO3	o-NITROANISOLE	25.0	1.5597	gas	4.83	4.502	—
680	C7H8	TOLUENE	25.0	1.4941	gas	0.36	3.472	—
681	C7H8	1,3,5-CYCLOHEPTATRIENE	—	—	—	—	—	—
682	C7H8O	ANISOLE	25.0	1.5143	gas	1.36	3.719	—
683	C7H8O	BENZYL ALCOHOL	25.0	1.5384	gas	1.71	3.813	—
684	C7H8O	m-CRESOL	25.0	1.5396	gas	1.59	3.870	—
685	C7H8O	o-CRESOL	25.0	1.5442	gas	1.45	3.787	—
686	C7H8O	p-CRESOL	25.0	1.5391	gas	1.56	3.762	—
687	C7H8O2	GUAIACOL	25.0	1.5411	in benzene	2.46	4.020	—
688	C7H8O2	p-METHOXYPHENOL	—	—	—	—	4.040	—
689	C7H9N	BENZYLAMINE	19.9	1.5424	in benzene	1.38	3.837	—
690	C7H9N	2,6-DIMETHYL PYRIDINE	19.9	1.4976	in benzene	1.64	3.861	—
691	C7H9N	N-METHYLANILINE	19.9	1.5700	in benzene	1.68	3.782	—
692	C7H9N	m-TOLIDINE	25.0	1.5657	in benzene	1.49	3.876	—
693	C7H9N	o-TOLIDINE	25.0	1.5699	in benzene	1.60	3.774	—
694	C7H9N	p-TOLIDINE	24.9	1.5540	in benzene	1.31	3.783	—
695	C7H10	2-NORBORNENE	—	—	in heptane	0.40	2.957	—
696	C7H10N2	TOLUENEDIAMINE	25.9	1.5341	—	—	4.165	—
697	C7H11NO	CYCLOHEXYL ISOCYANATE	25.0	1.4060	gas	0.87	—	4.765
698	C7H12	1-HEPTYNE	25.0	1.4156	—	—	4.585	—
699	C7H12O2	n-BUTYL ACRYLATE	—	—	—	—	—	—
700	C7H12O2	ISOBUTYL ACRYLATE	15.9	1.4200	in benzene	2.12	4.631	—
701	C7H12O2	n-PROPYL METHACRYLATE	19.9	1.4136	in benzene	2.54	4.710	—
702	C7H12O4	DIETHYL MALONATE	—	—	—	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debye	Angstrom	
703	C7H14	CYCLOHEPTANE	25.0	1.4424	gas	0.00	3.555	
704	C7H14	1,1-DIMETHYLCYCLOPENTANE	25.0	1.4109	gas	0.00	3.430	
705	C7H14	cis-1,2-DIMETHYLCYCLOPENTANE	25.0	1.4196	gas	0.00	3.617	
706	C7H14	trans-1,2-DIMETHYLCYCLOPENTANE	25.0	1.4094	gas	0.00	3.607	
707	C7H14	cis-1,3-DIMETHYLCYCLOPENTANE	25.0	1.4063	gas	0.00	3.633	
708	C7H14	trans-1,3-DIMETHYLCYCLOPENTANE	25.0	1.4081	gas	0.00	3.644	
709	C7H14	ETHYLCYCLOPENTANE	25.0	1.4173	gas	0.00	3.734	
710	C7H14	2-ETHYL-1-PENTENE	25.0	1.4020	—	—	4.181	
711	C7H14	3-ETHYL-1-PENTENE	25.0	1.3955	—	—	3.950	
712	C7H14	1-HEPTENE	25.0	1.3971	liquid	0.34	4.083	
713	C7H14	cis-2-HEPTENE	25.0	1.4042	—	—	4.138	
714	C7H14	trans-2-HEPTENE	25.0	1.4020	—	—	4.138	
715	C7H14	cis-3-HEPTENE	25.0	1.4033	—	—	4.024	
716	C7H14	trans-3-HEPTENE	25.0	1.4017	—	—	4.031	
717	C7H14	METHYLCYCLOHEXANE	25.0	1.4206	gas	0.00	3.843	
718	C7H14	2-METHYL-1-HEXENE	25.0	1.4008	—	—	4.199	
719	C7H14	3-METHYL-1-HEXENE	25.0	1.3938	—	—	4.201	
720	C7H14	4-METHYL-1-HEXENE	25.0	1.3973	—	—	3.972	
721	C7H14	2,3,3-TRIMETHYL-1-BUTENE	25.0	1.4001	—	—	3.584	
722	C7H14O	DIISOPROPYL KETONE	25.0	1.3976	in benzene	2.73	3.904	
723	C7H14O	2-HEPTANONE	25.0	1.4066	in benzene	2.61	4.498	
724	C7H14O	1-HEPTANAL	25.0	1.4094	in benzene	2.58	4.314	
725	C7H14O	1-METHYLCYCLOHEXANOL	24.7	1.4587	—	—	3.670	
726	C7H14O	cis-2-METHYLCYCLOHEXANOL	23.9	1.4633	—	—	3.821	
727	C7H14O	trans-2-METHYLCYCLOHEXANOL	25.0	1.4597	—	—	3.824	
728	C7H14O	cis-3-METHYLCYCLOHEXANOL	—	—	gas	1.77	3.931	
729	C7H14O	trans-3-METHYLCYCLOHEXANOL	—	—	gas	1.93	3.937	
730	C7H14O	cis-4-METHYLCYCLOHEXANOL	25.0	1.4584	—	—	3.869	
731	C7H14O	trans-4-METHYLCYCLOHEXANOL	25.0	1.4544	—	—	3.854	
732	C7H14O	5-METHYL-2-HEXANONE	25.0	1.4047	—	—	4.329	
733	C7H14O2	n-BUTYL PROPIONATE	25.0	1.4000	in benzene	1.80	4.822	
734	C7H14O2	ETHYL ISOVALERATE	25.0	1.3975	in benzene	1.97	4.481	
735	C7H14O2	ISOPENTYL ACETATE	25.0	1.3981	in benzene	1.80	4.656	
736	C7H14O2	n-PENTYL ACETATE	19.9	1.4028	in benzene	1.90	4.772	
737	C7H14O2	n-PROPYL n-BUTYRATE	25.0	1.3976	liquid	1.75	4.832	
738	C7H14O2	n-HEPTANOIC ACID	25.0	1.4210	—	—	4.842	
739	C7H14O3	ETHYL-3-ETHOXYPROPIONATE	25.0	1.4041	—	—	5.086	
740	C7H15Br	1-BROMOHEPTANE	25.0	1.4481	gas	2.16	4.485	
741	C7H15N	N-METHYLCYCLOHEXYLAMINE	22.9	1.4530	—	—	3.888	
742	C7H16	2,2-DIMETHYL PENTANE	25.0	1.3795	liquid	0.00	3.922	
743	C7H16	2,3-DIMETHYL PENTANE	25.0	1.3895	liquid	0.00	3.917	
744	C7H16	2,4-DIMETHYL PENTANE	25.0	1.3788	liquid	0.00	3.931	
745	C7H16	3,3-DIMETHYL PENTANE	25.0	1.3884	liquid	0.00	3.768	
746	C7H16	3-ETHYL PENTANE	25.0	1.3908	liquid	0.00	3.943	
747	C7H16	n-HEPTANE	25.0	1.3851	gas	0.00	4.173	
748	C7H16	2-METHYLHEXANE	25.0	1.3823	liquid	0.00	4.167	
749	C7H16	3-METHYLHEXANE	25.0	1.3861	liquid	0.00	4.078	
750	C7H16	2,2,3-TRIMETHYL BUTANE	25.0	1.3869	liquid	0.00	4.380	
751	C7H16O	1-HEPTANOL	25.0	1.4223	in benzene	1.67	4.483	
752	C7H16O	2-HEPTANOL	25.0	1.4190	in benzene	1.73	4.563	
753	C7H16O	5-METHYL-1-HEXANOL	25.0	1.4220	—	—	—	
754	C7H16O	ISOPROPYL-TERT-BUTYL-ETHER	—	—	—	—	—	
755	C7H16S	n-HEPTYL MERCAPTAN	—	—	—	—	—	
756	C7H16S	BUTYL-PROPYL-SULFIDE	25.0	1.4498	liquid	1.55	4.642	
757	C7H16S	ETHYL-PENTYL-SULFIDE	—	—	—	—	—	
758	C7H16S	HEXYL-METHYL-SULFIDE	—	—	—	—	—	
759	C7H17N	1-AMINOHEPTANE	25.0	1.4505	—	—	—	
760	C8H4Cl2O2	ISOPHTHALYL CHLORIDE	25.0	1.4228	in benzene	1.80	4.423	
761	C8H4O3	PHthalic Anhydride	25.0	1.5700	in benzene	5.16	5.520	
762	C8H6	ETHYNYLBENZENE	—	—	in benzene	5.29	4.383	
763	C8H6O4	ISOPHTHALIC ACID	—	—	—	—	—	
764	C8H6O4	PHTHALIC ACID	—	—	—	—	—	
765	C8H6O4	TEREPHTHALIC ACID	—	—	in dioxane	2.27	5.080	
766	C8H6S	BENZOTHIOPHENE	—	—	in dioxane	2.60	4.763	
767	C8H7N	INDOLE	34.9	1.6332	in benzene	0.63	4.969	
768	C8H8	STYRENE	19.9	1.6300	in benzene	2.08	3.984	
769	C8H8	1,3,5,7-CYCLOCLOCTATETRAENE	25.0	1.5440	liquid	0.13	3.781	
770	C8H8O	ACETOPHENONE	—	—	—	—	3.810	
771	C8H8O	p-TOLUALDEHYDE	19.9	1.5342	gas	3.02	4.090	
772	C8H8O2	METHYL BENZOATE	—	—	in dioxane	3.30	4.133	
773	C8H8O2	o-TOLUIC ACID	25.0	1.5148	in benzene	2.53	4.362	
774	C8H8O2	p-TOLUIC ACID	114.9	1.5120	in benzene	1.70	4.387	
775	C8H8O3	METHYL SALICYLATE	—	—	—	—	4.350	
776	C8H8O3	VANILLIN	19.9	1.5239	in benzene	2.47	4.468	
777	C8H8NO	ACETANILIDE	—	—	in benzene	2.87	4.704	
778	C8H10	ETHYLBENZENE	—	—	in benzene	4.04	4.345	
779	C8H10	m-XYLENE	25.0	1.4932	gas	0.59	3.897	
780	C8H10	o-XYLENE	25.0	1.4948	liquid	0.30	3.937	
			25.0	1.5029	gas	0.62	3.836	

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration
			T, C	Value @ T	State	Debye	
781	C8H10	p-XYLENE	25.0	1.4932	gas	0.00	3.831
782	C8H10O	m-ETHYLPHENOL	—	—	—	—	—
783	C8H10O	p-ETHYLPHENOL	25.0	1.5240	—	—	4.130
784	C8H10O	PHENETOLE	25.0	1.5049	gas	1.41	4.174
785	C8H10O	2-PHENYLETHANOL	19.9	1.5323	In benzene	1.65	4.279
786	C8H10O	2,3-XYLENOL	25.0	1.5420	In benzene	1.25	4.069
787	C8H10O	2,4-XYLENOL	19.9	1.5320	In benzene	1.39	4.143
788	C8H10O	2,5-XYLENOL	74.9	1.5120	In benzene	1.43	4.128
789	C8H10O	2,6-XYLENOL	19.9	1.5371	In benzene	1.41	4.068
790	C8H10O	3,4-XYLENOL	19.9	1.5442	gas	1.77	4.156
791	C8H10O	3,5-XYLENOL	—	—	In benzene	1.76	4.318
792	C8H11N	N,N-DIMETHYLANILINE	19.9	1.5584	gas	1.68	4.076
793	C8H11N	o-ETHYLANILINE	19.9	1.5588	—	—	4.157
794	C8H11N	2,4,6-TRIMETHYL PYRIDINE	25.0	1.4959	liquid	2.00	4.306
795	C8H11NO	p-PHENETIDINE	25.0	1.5528	—	—	4.414
796	C8H12	1,5-CYCLOCHECTADIENE	25.0	1.4905	—	—	3.732
797	C8H12	VINYLCYCLOHEXENE	19.9	1.4641	—	—	3.869
798	C8H12O4	1,4-CYCLOHEXANEDICARBOXYLIC ACID	—	—	—	—	4.901
799	C8H12O4	DIETHYL MALEATE	25.0	1.4568	In benzene	2.56	5.242
800	C8H14O2	n-BUTYL METHACRYLATE	25.0	1.4215	In benzene	2.15	5.125
801	C8H14O3	BUTYRIC ANHYDRIDE	25.0	1.4105	—	—	4.936
802	C8H14O4	DIETHYL SUCCINATE	19.9	1.4200	In benzene	2.16	5.150
803	C8H16	CYCLOOCTANE	25.0	1.4563	—	—	—
804	C8H16	1,1-DIMETHYLCYCLOHEXANE	25.0	1.4266	gas	0.00	3.668
805	C8H16	cis-1,2-DIMETHYLCYCLOHEXANE	25.0	1.4336	—	—	3.759
806	C8H16	trans-1,2-DIMETHYLCYCLOHEXANE	25.0	1.4247	gas	0.00	3.883
807	C8H16	cis-1,3-DIMETHYLCYCLOHEXANE	25.0	1.4206	gas	0.00	3.972
808	C8H16	trans-1,3-DIMETHYLCYCLOHEXANE	25.0	1.4284	gas	0.00	3.982
809	C8H16	cis-1,4-DIMETHYLCYCLOHEXANE	25.0	1.4273	gas	0.00	3.905
810	C8H16	trans-1,4-DIMETHYLCYCLOHEXANE	25.0	1.4185	gas	0.00	3.907
811	C8H16	ETHYLCYCLOHEXANE	25.0	1.4307	gas	0.00	3.932
812	C8H16	2-ETHYL-1-HEXENE	25.0	1.4132	—	—	4.579
813	C8H16	1-METHYL-1-ETHYLCYCLOPENTANE	25.0	1.4248	gas	0.00	3.773
814	C8H16	1-OCTENE	25.0	1.4062	liquid	0.34	4.457
815	C8H16	trans-2-OCTENE	25.0	1.4107	—	—	4.375
816	C8H16	trans-3-OCTENE	25.0	1.4102	liquid	0.00	4.415
817	C8H16	trans-4-OCTENE	25.0	1.4093	liquid	0.00	4.419
818	C8H16	n-PROPYLCYCLOPENTANE	25.0	1.4239	gas	0.00	4.135
819	C8H16	2,4,4-TRIMETHYL-1-PENTENE	25.0	1.4060	—	—	3.994
820	C8H16	2,4,4-TRIMETHYL-2-PENTENE	25.0	1.4135	—	—	4.136
821	C8H16O	2-ETHYLHEXANAL	21.9	1.4152	In benzene	2.66	4.862
822	C8H16O	1-OCTANAL	25.0	1.4156	—	—	4.681
823	C8H16O	2-OCTANONE	25.0	1.4133	In benzene	2.72	4.892
824	C8H16O2	n-BUTYL n-BUTYRATE	25.0	1.4029	—	—	5.887
825	C8H16O2	n-HEXYL ACETATE	25.0	1.4073	liquid	1.80	5.160
826	C8H16O2	ISOBUTYL ISOBUTYRATE	19.9	1.3990	—	—	4.768
827	C8H16O2	n-OCTANOIC ACID	25.0	1.4261	liquid	1.15	5.211
828	C8H16O4	DIETHYLENE GLYCOL ETHYL ETHER ACETATE	19.9	1.4213	—	—	5.692
829	C8H18	2,2-DIMETHYLHEXANE	25.0	1.3910	gas	0.00	4.392
830	C8H18	2,3-DIMETHYLHEXANE	25.0	1.3988	gas	0.00	4.363
831	C8H18	2,4-DIMETHYLHEXANE	25.0	1.3929	gas	0.00	4.267
832	C8H18	2,5-DIMETHYLHEXANE	25.0	1.3900	gas	0.00	4.452
833	C8H18	3,3-DIMETHYLHEXANE	25.0	1.3978	gas	0.00	3.717
834	C8H18	3,4-DIMETHYLHEXANE	25.0	1.4018	gas	0.00	4.230
835	C8H18	3-ETHYLHEXANE	25.0	1.3992	gas	0.00	4.571
836	C8H18	3-ETHYL-2-METHYLPTANE	25.0	1.4055	—	—	3.928
837	C8H18	3-METHYL-3-ETHYLPTANE	25.0	1.3926	gas	0.00	4.570
838	C8H18	2-METHYLHEPTANE	25.0	1.3961	gas	0.00	4.490
839	C8H18	3-METHYLHEPTANE	25.0	1.3955	gas	0.00	4.520
840	C8H18	4-METHYLHEPTANE	25.0	1.3951	gas	0.00	4.546
841	C8H18	n-OCTANE	25.0	1.4007	gas	0.00	3.913
842	C8H18	2,2,3-TRIMETHYLPTANE	25.0	1.3890	gas	0.00	4.091
843	C8H18	2,2,4-TRIMETHYLPTANE	25.0	1.4052	gas	0.00	3.960
844	C8H18	2,3,3-TRIMETHYLPTANE	25.0	1.4020	gas	0.00	4.061
845	C8H18	2,3,4-TRIMETHYLPTANE	—	—	—	—	—
846	C8H18	2,2,3,3-TETRAMETHYLBTANE	25.0	1.3968	gas	1.17	4.797
847	C8H18O	DI-n-BUTYL ETHER	25.0	1.3930	—	—	4.373
848	C8H18O	DI-sec-BUTYL ETHER	19.9	1.3946	—	—	4.014
849	C8H18O	DI-tert-BUTYL ETHER	25.0	1.4290	In benzene	1.76	4.809
850	C8H18O	2-ETHYL-1-HEXANOL	25.0	1.4276	In benzene	1.65	4.787
851	C8H18O	1-OCTANOL	25.0	1.4241	liquid	1.61	4.898
852	C8H18O	2-OCTANOL	25.0	1.3867	In benzene	0.92	4.534
853	C8H18O2	DI-t-BUTYL PEROXIDE	49.9	1.4433	In benzene	4.47	5.482
854	C8H18O2S	DI-n-BUTYL SULFONE	25.0	1.4115	—	—	5.511
855	C8H18O3	DIETHYLENE GLYCOL DIETHYL ETHER	25.0	1.4306	—	—	5.106
856	C8H18O3	DIETHYLENE GLYCOL MONOBUTYL ETHER	19.9	1.4209	In benzene	2.24	5.414
857	C8H18O4	TRIETHYLENE GLYCOL DIMETHYL ETHER	25.0	1.4570	In dioxane	3.25	5.602
858	C8H18O5	TETRAETHYLENE GLYCOL	25.0	—	—	—	—

REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

Table 10-1

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration Angstrom
			T, C	Value @ T	State	Debye	
859	C8H18S	n-OCTYL MERCAPTAN	—	—	in benzene	1.61	5.014
860	C8H18S	tet-OCTYL MERCAPTAN	—	—	in benzene	1.57	4.284
861	C8H18S	BUTYL-SULFIDE	—	—	—	—	—
862	C8H18S	ETHYL-HEXYL-SULFIDE	25.0	1.4525	—	—	—
863	C8H18S	HEPTYL-METHYL-SULFIDE	—	—	—	—	—
864	C8H18S	PENTYL-PROPYL-SULFIDE	25.0	1.4903	in benzene	1.99	—
865	C8H18S2	BUTYL-DISULFIDE	25.0	1.4152	liquid	1.06	4.723
866	C8H19N	DI-n-BUTYLAMINE	25.0	1.4090	—	—	4.735
867	C8H19N	DIISOBUTYLAMINE	25.0	1.4277	in benzene	1.42	4.790
868	C8H19N	n-OCTYLAMINE	19.9	1.5055	—	—	6.374
869	C8H23N5	TETRAETHYLENEPENTAMINE	25.0	1.3935	in benzene	0.66	—
870	C8H24O4S4	OCTAMETHYLCYCLOTETRASILOXANE	—	—	—	—	5.362
871	C9H4O5	TRIMELLITIC ANHYDRIDE	25.0	1.5651	gas	0.76	5.894
872	C9H6N2O2	TOLUENE DIISOCYANATE	29.9	1.6208	in benzene	0.76	4.013
873	C9H7N	ISOQUINOLINE	25.0	1.6248	gas	2.29	4.008
874	C9H7N	QUINOLINE	—	—	in benzene	2.68	4.312
875	C9H7NO	8-HYDROXYQUINOLINE	25.0	1.5740	in benzene	0.67	3.839
876	C9H8	INDENE	25.0	1.5460	—	—	1.114
877	C9H8O	2-METHYLBENZOFURAN	25.0	1.5358	in benzene	0.54	3.850
878	C9H10	INDANE	—	—	—	—	—
879	C9H10	cis-PROPYLN BENZENE	—	—	—	—	—
880	C9H10	trans-PROPYLN BENZENE	—	—	—	—	—
881	C9H10	alpha-METHYLSTYRENE	25.0	1.5358	—	—	4.147
882	C9H10	m-METHYLSTYRENE	25.0	1.5385	in benzene	0.36	4.265
883	C9H10	o-METHYLSTYRENE	25.0	1.5413	in benzene	0.48	4.029
884	C9H10	p-METHYLSTYRENE	25.0	1.5395	in benzene	0.38	4.109
885	C9H10O2	BENZYL ACETATE	19.9	1.5232	in benzene	1.80	4.716
886	C9H10O2	ETHYL BENOATE	25.0	1.5035	gas	2.00	4.765
887	C9H10O3	ETHYL VANILLIN	—	—	—	—	5.180
888	C9H11NO	p-DIMETHYLAMINOBENZALDEHYDE	99.9	1.6082	in benzene	5.58	4.667
889	C9H12	CUMENE	25.0	1.4889	liquid	0.39	4.322
890	C9H12	m-ETHYLtolUENE	25.0	1.4941	liquid	0.33	4.265
891	C9H12	o-ETHYLtolUENE	25.0	1.5021	liquid	0.56	4.084
892	C9H12	p-ETHYLtolUENE	25.0	1.4924	liquid	0.00	4.189
893	C9H12	MESITYLENE	25.0	1.4968	liquid	0.00	4.375
894	C9H12	n-PROPYL BENZENE	25.0	1.4895	in benzene	0.37	4.344
895	C9H12	1,2,3-TRIMETHYL BENZENE	25.0	1.5115	liquid	0.56	4.127
896	C9H12	1,2,4-TRIMETHYL BENZENE	25.0	1.5024	liquid	0.30	4.199
897	C9H12O	BENZYL ETHYL ETHER	25.0	1.4934	—	—	4.581
898	C9H12O	2-PHENYL-2-PROPANOL	25.0	1.5325	—	—	4.285
899	C9H12O2	CUMENE HYDROPEROXIDE	19.9	1.5242	in benzene	1.79	4.532
900	C9H14O	ISOPHORONE	19.9	1.4780	in dioxane	3.99	4.276
901	C9H14O6	GLYCERYL TRIACETATE	25.0	1.4288	in benzene	2.58	6.778
902	C9H16	1-NONYNE	25.0	1.4195	—	—	—
903	C9H16O4	AZELAIC ACID	110.9	1.4303	in dioxane	2.35	6.283
904	C9H18	BUTYLCYCLOPENTANE	25.0	1.4293	—	—	—
905	C9H18	cis,cis-1,3,5-TRIMETHYL CYCLOHEXANE	—	—	—	—	—
906	C9H18	cis,trans-1,3,5-TRIMETHYL CYCLOHEXANE	—	—	—	—	—
907	C9H18	ISOPROPYL CYCLOHEXANE	25.0	1.4386	gas	0.00	4.237
908	C9H18	1-NONENE	25.0	1.4133	—	—	4.873
909	C9H18	n-PROPYL CYCLOHEXANE	25.0	1.4348	gas	0.00	4.367
910	C9H18O	DIISOBUTYL KETONE	19.9	1.4122	in CCl4	2.66	4.614
911	C9H18O	1-NONANAL	25.0	1.4208	—	—	5.038
912	C9H18O2	n-BUTYL VALERATE	19.9	1.4128	—	—	5.615
913	C9H18O2	n-NONANOIC ACID	25.0	1.4302	—	—	5.732
914	C9H18O2	n-OCTYL FORMATE	25.0	1.4141	—	—	5.279
915	C9H20	3,3-DIETHYL PENTANE	25.0	1.4184	in benzene	0.00	4.314
916	C9H20	2,2-DIMETHYL-3-ETHYL PENTANE	25.0	1.4010	gas	0.00	4.396
917	C9H20	3-Ethyl-2,3-dimethylpentane	25.0	1.4115	gas	0.00	4.371
918	C9H20	2,4-DIMETHYL-3-ETHYL PENTANE	25.0	1.3993	—	—	4.845
919	C9H20	2,2-DIMETHYLHEPTANE	25.0	1.3983	gas	0.00	4.540
920	C9H20	2,6-DIMETHYLHEPTANE	25.0	1.4070	gas	0.00	4.953
921	C9H20	3-Ethylheptane	25.0	1.4089	—	—	—
922	C9H20	4-Ethylheptane	25.0	1.4073	—	—	—
923	C9H20	2,3-DIMETHYLHEPTANE	25.0	1.4062	—	—	—
924	C9H20	2,4-DIMETHYLHEPTANE	25.0	1.4011	—	—	—
925	C9H20	2,5-DIMETHYLHEPTANE	25.0	1.4015	—	—	—
926	C9H20	3,4-DIMETHYLHEPTANE	25.0	1.4088	—	—	—
927	C9H20	3,5-DIMETHYLHEPTANE	25.0	1.4044	—	—	—
928	C9H20	4,4-DIMETHYLHEPTANE	25.0	1.4053	—	—	—
929	C9H20	3-Ethyl-2-methylhexane	25.0	1.4097	—	—	—
930	C9H20	4-Ethyl-2-methylhexane	25.0	1.4046	—	—	—
931	C9H20	3-Ethyl-3-methylhexane	25.0	1.4120	—	—	—
932	C9H20	3-Ethyl-4-methylhexane	25.0	1.4128	—	—	—
933	C9H20	2,2,3-TRIMETHYLHEXANE	25.0	1.4082	—	—	—
934	C9H20	2,2,4-TRIMETHYLHEXANE	25.0	1.4010	—	—	—
935	C9H20	2,3,3-TRIMETHYLHEXANE	25.0	1.4119	—	—	—
936	C9H20	2,3,4-TRIMETHYLHEXANE	25.0	1.4120	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debyes	Angstrom	
937	C9H20	2,3,5-TRIMETHYLHEXANE	25.0	1.4037	—	—	—	—
938	C9H20	2,4,4-TRIMETHYLHEXANE	25.0	1.4052	—	—	—	—
939	C9H20	3,3,4-TRIMETHYLHEXANE	25.0	1.4154	—	—	—	—
940	C9H20	2-METHYLOCTANE	25.0	1.4008	gas	0.00	4.973	
941	C9H20	3-METHYLOCTANE	25.0	1.4040	gas	0.00	5.020	
942	C9H20	4-METHYLOCTANE	25.0	1.4039	gas	0.00	4.772	
943	C9H20	n-NONANE	25.0	1.4031	gas	0.00	4.985	
944	C9H20	2,2,3,3-TETRAMETHYL PENTANE	25.0	1.4214	gas	0.00	4.100	
945	C9H20	2,2,4,4-TETRAMETHYL PENTANE	25.0	1.4125	gas	0.00	4.160	
946	C9H20	2,2,4,4-TETRAMETHYL PENTANE	25.0	1.4046	gas	0.00	4.860	
947	C9H20	2,3,3,4-TETRAMETHYL PENTANE	25.0	1.4200	—	—	—	—
948	C9H20	2,2,5-TRIMETHYLHEXANE	25.0	1.3973	gas	0.00	4.658	
949	C9H20O	2,6-DIMETHYL-4-HEPTANOL	25.0	1.4211	—	—	4.915	
950	C9H20O	1-NONANOL	25.0	1.4319	in benzene	1.61	5.108	
951	C9H20O	2-NONANOL	25.0	1.4290	—	—	5.302	
952	C9H20S	n-NONYL MERCAPTAN	25.0	1.4537	—	—	5.344	
953	C9H20S	BUTYL-PENTYL-SULFIDE	—	—	—	—	—	—
954	C9H20S	ETHYL-HEPTYL-SULFIDE	—	—	—	—	—	—
955	C9H20S	HEXYL-PROPYL-SULFIDE	—	—	—	—	—	—
956	C9H20S	METHYL-OCTYL-SULFIDE	—	—	—	—	—	—
957	C9H21N	n-NONYLAMINE	25.0	1.4541	—	—	—	—
958	C9H21N	TRIPROPYLAMINE	25.0	1.4318	—	—	5.143	
959	C10H6O8	PYROMELLITIC ACID	25.0	1.4151	in benzene	0.74	5.270	
960	C10H7Br	1-BROMONAPHTHALENE	—	—	—	—	5.983	
961	C10H7Cl	1-CHLORONAPHTHALENE	19.9	1.6580	liquid	1.29	4.661	
962	C10H8	NAPHTHALENE	19.9	1.6332	liquid	1.33	4.627	
963	C10H8	AZULENE	19.9	1.9320	in benzene	0.00	4.045	
964	C10H9N	QUINALDINE	—	—	in benzene	1.08	—	—
965	C10H10	m-DIVINYLBENZENE	25.0	1.6091	—	—	4.378	
966	C10H10	1-METHYLINDENE	25.0	1.5736	—	—	4.419	
967	C10H10	2-METHYLINDENE	25.0	1.5587	—	—	4.230	
968	C10H10O4	DIMETHYL PHTHALATE	25.0	1.5627	—	—	4.223	
969	C10H10O4	DIMETHYL TEREPHTHALATE	19.9	1.5138	in benzene	2.80	5.166	
970	C10H12	DICYCLOPENTADIENE	—	—	in benzene	2.19	5.394	
971	C10H12	1,2,3,4-TETRAHYDRONAPHTHALENE	34.9	1.5061	—	—	3.981	
972	C10H12O	ANETHOLE	25.0	1.5392	in benzene	0.22	4.162	
973	C10H12O4	DIALYL MALEATE	19.9	1.5615	in benzene	1.50	4.717	
974	C10H14	n-BUTYL BENZENE	19.9	1.4699	—	—	6.266	
975	C10H14	sec-BUTYL BENZENE	25.0	1.4874	in benzene	0.37	4.849	
976	C10H14	tert-BUTYL BENZENE	25.0	1.4902	gas	0.70	4.318	
977	C10H14	1,2,3,4-TETRAMETHYL BENZENE	25.0	1.5181	—	—	—	—
978	C10H14	m-CYMENE	25.0	1.4905	—	—	4.636	
979	C10H14	o-CYMENE	25.0	1.4983	—	—	4.439	
980	C10H14	p-CYMENE	25.0	1.4885	liquid	0.00	4.557	
981	C10H14	m-DIETHYL BENZENE	25.0	1.4931	liquid	0.36	4.742	
982	C10H14	o-DIETHYL BENZENE	25.0	1.5011	liquid	0.59	4.398	
983	C10H14	p-DIETHYL BENZENE	25.0	1.4924	liquid	0.00	4.580	
984	C10H14	2-ETHYL-m-XYLENE	25.0	1.5085	—	—	4.415	
985	C10H14	2-ETHYL-p-XYLENE	25.0	1.5020	—	—	4.579	
986	C10H14	3-ETHYL-o-XYLENE	25.0	1.5095	—	—	4.517	
987	C10H14	4-ETHYL-m-XYLENE	25.0	1.5015	—	—	4.543	
988	C10H14	4-ETHYL-o-XYLENE	25.0	1.5009	—	—	4.552	
989	C10H14	5-ETHYL-m-XYLENE	25.0	1.4958	gas	0.20	4.721	
990	C10H14	ISOBUTYL BENZENE	25.0	1.4840	liquid	0.31	4.555	
991	C10H14	1,2,3,5-TETRAMETHYL BENZENE	25.0	1.5107	—	—	4.516	
992	C10H14	1,2,4,5-TETRAMETHYL BENZENE	25.0	1.5093	—	—	4.502	
993	C10H14O	p-tert-BUTYL PHENOL	25.0	1.5040	in benzene	1.62	4.614	
994	C10H14O2	p-tert-BUTYL CATECHOL	—	—	—	—	4.941	
995	C10H15N	N,N-DIETHYLANILINE	25.0	1.5418	in benzene	1.81	4.639	
996	C10H15N	2,6-DIETHYLANILINE	19.9	1.5456	—	—	4.730	
997	C10H16	CAMPHENENE	54.9	1.4562	—	—	3.778	
998	C10H16	D-LIMONENE	25.0	1.4701	in benzene	1.57	4.508	
999	C10H16	alpha-PHELLANDRENE	25.0	1.4691	—	—	4.458	
1000	C10H16	beta-PHELLANDRENE	25.0	1.4851	—	—	4.441	
1001	C10H16	alpha-PINENE	25.0	1.4632	in benzene	0.36	3.418	
1002	C10H16	beta-PINENE	25.0	1.4768	—	—	3.817	
1003	C10H16	alpha-TERPINENE	25.0	1.4760	—	—	4.620	
1004	C10H16	gamma-TERPINENE	25.0	1.4712	—	—	4.615	
1005	C10H16	TERPINOLENE	19.9	1.4861	—	—	4.587	
1006	C10H16O	CAMPHOR	—	—	in benzene	3.10	4.097	
1007	C10H18	1-DECYNE	25.0	1.4249	—	—	—	—
1008	C10H18	cis-DECAHYDRONAPHTHALENE	25.0	1.4788	not specified	0.00	4.206	
1009	C10H18	trans-DECAHYDRONAPHTHALENE	25.0	1.4674	not specified	0.00	4.314	
1010	C10H18O4	SEBACIC ACID	113.2	1.4220	in dioxane	2.40	6.586	
1011	C10H20	n-BUTYL CYCLOHEXANE	25.0	1.4336	gas	0.00	4.831	
1012	C10H20	1-CYCLOPENTYL PENTANE	25.0	1.4191	—	—	5.227	
1013	C10H20	1-DECENE	25.0	1.4251	—	—	5.378	
1014	C10H20O	1-DECANAL	25.0	1.4251	—	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debye	Angstrom	
1015	C10H20O2	n-DECANOIC ACID	25.0	1.4343	—	—	5.932	
1016	C10H20O2	2-ETHYLHEXYL ACETATE	25.0	1.4173	—	—	5.895	
1017	C10H20O2	ISOPENTYL ISOVALERATE	25.0	1.4100	—	—	5.586	
1018	C10H22	n-DECANE	25.0	1.4097	gas	0.00	5.184	
1019	C10H22	2-METHYLNONANE	25.0	1.4075	—	—	5.429	
1020	C10H22	3-METHYLNONANE	25.0	1.4095	—	—	5.286	
1021	C10H22	4-METHYLNONANE	25.0	1.4100	—	—	5.448	
1022	C10H22	5-METHYLNONANE	25.0	1.4136	—	—	5.318	
1023	C10H22	3-ETHYLOCTANE	25.0	1.4131	—	—	—	
1024	C10H22	4-ETHYLOCTANE	25.0	1.4060	—	—	5.223	
1025	C10H22	2,2-DIMETHYLOCTANE	25.0	1.4127	—	—	—	
1026	C10H22	2,3-DIMETHYLOCTANE	25.0	1.4069	—	—	—	
1027	C10H22	2,4-DIMETHYLOCTANE	25.0	1.4089	—	—	—	
1028	C10H22	2,5-DIMETHYLOCTANE	25.0	1.4084	—	—	—	
1029	C10H22	2,6-DIMETHYLOCTANE	25.0	1.4062	—	—	—	
1030	C10H22	2,7-DIMETHYLOCTANE	25.0	1.4142	—	—	—	
1031	C10H22	3,3-DIMETHYLOCTANE	25.0	1.4159	—	—	—	
1032	C10H22	3,4-DIMETHYLOCTANE	25.0	1.4115	—	—	—	
1033	C10H22	3,5-DIMETHYLOCTANE	25.0	1.4115	—	—	—	
1034	C10H22	3,6-DIMETHYLOCTANE	25.0	1.4122	—	—	—	
1035	C10H22	4,4-DIMETHYLOCTANE	25.0	1.4167	—	—	—	
1036	C10H22	4,5-DIMETHYLOCTANE	25.0	1.4113	—	—	—	
1037	C10H22	4-PROPYLHEPTANE	25.0	1.4132	—	—	—	
1038	C10H22	4-ISOPROPYLHEPTANE	25.0	1.4151	—	—	—	
1039	C10H22	3-ETHYL-2-METHYLHEPTANE	25.0	1.4114	—	—	—	
1040	C10H22	4-ETHYL-2-METHYLHEPTANE	25.0	1.4111	—	—	—	
1041	C10H22	5-ETHYL-2-METHYLHEPTANE	25.0	1.4111	—	—	—	
1042	C10H22	3-ETHYL-3-METHYLHEPTANE	25.0	1.4185	—	—	—	
1043	C10H22	4-ETHYL-3-METHYLHEPTANE	25.0	1.4183	—	—	—	
1044	C10H22	3-ETHYL-5-METHYLHEPTANE	25.0	1.4141	—	—	—	
1045	C10H22	3-ETHYL-4-METHYLHEPTANE	25.0	1.4184	—	—	—	
1046	C10H22	4-ETHYL-4-METHYLHEPTANE	25.0	1.4187	—	—	—	
1047	C10H22	2,2,3-TRIMETHYLHEPTANE	25.0	1.4145	—	—	—	
1048	C10H22	2,2,4-TRIMETHYLHEPTANE	25.0	1.4069	—	—	—	
1049	C10H22	2,2,5-TRIMETHYLHEPTANE	25.0	1.4078	—	—	—	
1050	C10H22	2,2,6-TRIMETHYLHEPTANE	25.0	1.4055	—	—	—	
1051	C10H22	2,3,3-TRIMETHYLHEPTANE	25.0	1.4179	—	—	—	
1052	C10H22	2,3,4-TRIMETHYLHEPTANE	25.0	1.4172	—	—	—	
1053	C10H22	2,3,5-TRIMETHYLHEPTANE	25.0	1.4146	—	—	—	
1054	C10H22	2,3,6-TRIMETHYLHEPTANE	25.0	1.4108	—	—	—	
1055	C10H22	2,4,4-TRIMETHYLHEPTANE	25.0	1.4120	—	—	—	
1056	C10H22	2,4,5-TRIMETHYLHEPTANE	25.0	1.4137	—	—	—	
1057	C10H22	2,4,6-TRIMETHYLHEPTANE	25.0	1.4048	—	—	—	
1058	C10H22	2,5,5-TRIMETHYLHEPTANE	25.0	1.4126	—	—	—	
1059	C10H22	3,3,4-TRIMETHYLHEPTANE	25.0	1.4213	—	—	—	
1060	C10H22	3,3,5-TRIMETHYLHEPTANE	25.0	1.4147	—	—	—	
1061	C10H22	3,4,4-TRIMETHYLHEPTANE	25.0	1.4212	—	—	—	
1062	C10H22	3,4,5-TRIMETHYLHEPTANE	25.0	1.4206	—	—	—	
1063	C10H22	3-ISOPROPYL-2-METHYLHEXANE	25.0	1.4172	—	—	—	
1064	C10H22	3,3-DIETHYLHEXANE	25.0	1.4235	—	—	—	
1065	C10H22	3,4-DIETHYLHEXANE	25.0	1.4167	—	—	—	
1066	C10H22	3-ETHYL-2,2-DIMETHYLHEXANE	25.0	1.4174	—	—	—	
1067	C10H22	4-ETHYL-2,2-DIMETHYLHEXANE	25.0	1.4107	—	—	—	
1068	C10H22	3-ETHYL-2,3-DIMETHYLHEXANE	25.0	1.4247	—	—	—	
1069	C10H22	4-ETHYL-2,3-DIMETHYLHEXANE	25.0	1.4203	—	—	—	
1070	C10H22	3-ETHYL-2,4-DIMETHYLHEXANE	25.0	1.4202	—	—	—	
1071	C10H22	4-ETHYL-2,4-DIMETHYLHEXANE	25.0	1.4212	—	—	—	
1072	C10H22	3-ETHYL-2,5-DIMETHYLHEXANE	25.0	1.4212	—	—	—	
1073	C10H22	4-ETHYL-3,3-DIMETHYLHEXANE	25.0	1.4134	—	—	—	
1074	C10H22	3-ETHYL-3,4-DIMETHYLHEXANE	25.0	1.4246	—	—	—	
1075	C10H22	2,2,3,3-TETRAMETHYLHEXANE	25.0	1.4244	—	—	—	
1076	C10H22	2,2,3,4-TETRAMETHYLHEXANE	25.0	1.4260	—	—	—	
1077	C10H22	2,2,3,5-TETRAMETHYLHEXANE	25.0	1.4193	—	—	—	
1078	C10H22	2,2,4,4-TETRAMETHYLHEXANE	25.0	1.4119	—	—	—	
1079	C10H22	2,2,4,5-TETRAMETHYLHEXANE	25.0	1.4185	—	—	—	
1080	C10H22	2,2,5,5-TETRAMETHYLHEXANE	25.0	1.4110	—	—	—	
1081	C10H22	2,3,3,4-TETRAMETHYLHEXANE	25.0	1.4032	—	—	—	
1082	C10H22	2,3,3,5-TETRAMETHYLHEXANE	25.0	1.4275	—	—	—	
1083	C10H22	2,3,4,4-TETRAMETHYLHEXANE	25.0	1.4173	—	—	—	
1084	C10H22	2,3,4,5-TETRAMETHYLHEXANE	25.0	1.4244	—	—	—	
1085	C10H22	3,3,4,4-TETRAMETHYLHEXANE	25.0	1.4181	—	—	—	
1086	C10H22	2,4-DIMETHYL-3-ISOPROPYL PENTANE	25.0	1.4346	—	—	—	
1087	C10H22	3,3-DIETHYL-2-METHYL PENTANE	25.0	1.4225	—	—	—	
1088	C10H22	3-ETHYL-2,2,3-TRIMETHYL PENTANE	25.0	1.4320	—	—	—	
1089	C10H22	3-ETHYL-2,2,4-TRIMETHYL PENTANE	25.0	1.4397	—	—	—	
1090	C10H22	3-ETHYL-2,3,4-TRIMETHYL PENTANE	25.0	1.4199	—	—	—	
1091	C10H22	2,2,3,3,4-PENTAMETHYL PENTANE	25.0	1.4310	—	—	—	
1092	C10H22	2,2,3,4,4-PENTAMETHYL PENTANE	25.0	1.4341	—	—	—	
			25.0	1.4287	—	—	—	

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Dobys	Angstrom	
1093	C10H22O	1-DECANOL	25.0	1.4350	in benzene	1.82	5.499	
1094	C10H22O	DI-n-PENTYL ETHER	19.9	1.4119	in CCl ₄	1.20	5.374	
1095	C10H22O	ISODECANOL	19.9	1.4352	—	—	5.684	
1096	C10H22O5	TETRAETHYLENE GLYCOL DIMETHYL ETHER	19.9	1.4325	in benzene	2.47	6.277	
1097	C10H22S	n-DECYL MERCAPTAN	25.0	1.4549	in benzene	1.59	5.712	
1098	C10H22S	BUTYL-HEXYL-SULFIDE	—	—	—	—	—	
1099	C10H22S	ETHYL-OCTYL-SULFIDE	—	—	—	—	—	
1100	C10H22S	HEPTYL-PROPYL-SULFIDE	—	—	—	—	—	
1101	C10H22S	METHYL-NONYL-SULFIDE	25.0	1.4556	—	—	—	
1102	C10H22S	PENTYL-SULFIDE	—	—	—	—	—	
1103	C10H22S2	PENTYL-DISULFIDE	25.0	1.4867	—	—	—	
1104	C10H23N	n-DECYLAMINE	25.0	1.4352	in benzene	1.41	5.477	
1105	C11H10	1-METHYLNAPHTHALENE	25.0	1.6151	liquid	0.51	4.435	
1106	C11H10	2-METHYLNAPHTHALENE	41.9	1.6019	liquid	0.42	4.426	
1107	C11H14O2	n-BUTYL BENZOATE	25.0	1.4940	—	—	5.505	
1108	C11H16	n-PENTYLBENZENE	25.0	1.4856	—	—	5.158	
1109	C11H16O	p-tert-AMYLPHENOL	—	—	—	—	4.810	
1110	C11H20	1-UNDECYNE	25.0	1.4292	—	—	—	
1111	C11H20O2	2-ETHYLHEXYL ACRYLATE	19.9	1.4365	—	—	6.265	
1112	C11H22	1-UNDECENE	25.0	1.4238	—	—	5.429	
1113	C11H22	1-CYCLOPENTYLHEXANE	—	—	—	—	—	
1114	C11H22	PENTYLCYCLOHEXANE	25.0	1.4416	—	—	—	
1115	C11H22O	1-UNDECANAL	25.0	1.4288	—	—	5.711	
1116	C11H24	n-UNDECANE	25.0	1.4151	—	0.00	5.496	
1117	C11H24O	1-UNDECANOL	25.0	1.4386	in benzene	1.67	5.808	
1118	C11H24S	UNDECYL MERCAPTAN	25.0	1.4564	—	—	6.069	
1119	C11H24S	BUTYL-HEPTYL-SULFIDE	—	—	—	—	—	
1120	C11H24S	DECYL-METHYL-SULFIDE	25.0	1.4569	—	—	—	
1121	C11H24S	ETHYL-NONYL-SULFIDE	—	—	—	—	—	
1122	C11H24S	OCTYL-PROPYL-SULFIDE	—	—	—	—	—	
1123	C12H8O	DIBENZOFURAN	99.0	1.6480	in benzene	0.88	4.710	
1124	C12H9N	DIBENZOPYRROLE	—	—	in benzene	2.11	4.692	
1125	C12H10	ACENAPHTHENE	19.9	1.6420	in benzene	0.25	4.468	
1126	C12H10	BIPHENYL	25.0	1.5873	gas	0.00	4.834	
1127	C12H10O	DIPHENYL ETHER	25.0	1.5781	in benzene	1.16	4.986	
1128	C12H11N	p-AMINODIPHENYL	—	—	in benzene	1.76	5.027	
1129	C12H11N	DIPHENYLAMINE	—	—	in benzene	1.08	5.082	
1130	C12H11N3	p-AMINOAZOBENZENE	—	—	in benzene	2.48	5.663	
1131	C12H11N3	1,3-DIPHENYLTRIAZENE	—	—	—	—	6.005	
1132	C12H12	1,2-DIMETHYLNAPHTHALENE	25.0	1.6143	not specified	0.68	—	
1133	C12H12	1,3-DIMETHYLNAPHTHALENE	25.0	1.6080	not specified	0.36	—	
1134	C12H12	1,4-DIMETHYLNAPHTHALENE	25.0	1.6114	not specified	—	—	
1135	C12H12	1,5-DIMETHYLNAPHTHALENE	—	—	not specified	0.07	—	
1136	C12H12	1,6-DIMETHYLNAPHTHALENE	25.0	1.6050	not specified	0.32	—	
1137	C12H12	1,7-DIMETHYLNAPHTHALENE	25.0	1.6054	not specified	0.54	—	
1138	C12H12	2,3-DIMETHYLNAPHTHALENE	—	—	not specified	0.69	—	
1139	C12H12	2,6-DIMETHYLNAPHTHALENE	—	—	in benzene	0.14	4.729	
1140	C12H12	2,7-DIMETHYLNAPHTHALENE	—	—	in benzene	0.41	4.804	
1141	C12H12	1-ETHYLNAPHTHALENE	25.0	1.6040	—	—	4.754	
1142	C12H12	2-ETHYLNAPHTHALENE	25.0	1.5977	—	—	—	
1143	C12H12N2	p-AMINODIPHENYLAMINE	—	—	—	—	5.327	
1144	C12H12N2	HYDRAZOBASENZE	—	—	—	—	5.544	
1145	C12H14	1,2,3-TRIMETHYLLINDENE	14.9	1.5541	—	—	4.780	
1146	C12H14O4	DIETHYL PHTHALATE	20.9	1.5000	in benzene	2.90	5.832	
1147	C12H16	CYCLOHEXYLBENZENE	25.0	1.5239	—	—	4.892	
1148	C12H18	m-DIISOPROPYLBENZENE	25.0	1.4875	—	—	5.281	
1149	C12H18	p-DIISOPROPYLBENZENE	25.0	1.4876	—	—	5.178	
1150	C12H18	n-HEXYLBENZENE	25.0	1.4842	—	—	5.642	
1151	C12H18	1,2,3-TRIETHYLBENZENE	—	—	—	—	—	
1152	C12H18	1,2,4-TRIETHYLBENZENE	—	—	in benzene	0.10	—	
1153	C12H18	1,3,5-TRIETHYLBENZENE	—	—	in benzene	0.10	—	
1154	C12H18	HEXAMETHYLBENZENE	25.0	1.4842	—	—	6.463	
1155	C12H20O4	DIBUTYL MALEATE	25.0	1.4435	—	—	4.917	
1156	C12H22	BICYCLOHEXYL	25.0	1.4777	—	—	—	
1157	C12H22	1-DODECYNE	25.0	1.4328	—	—	—	
1158	C12H23N	DICYCLOHEXYLAMINE	25.0	1.4823	In heptane	1.06	5.317	
1159	C12H24	1-DODECENE	25.0	1.4278	—	—	5.747	
1160	C12H24	1-CYCLOPENTYLHEPTANE	—	—	—	—	—	
1161	C12H24	1-CYCLOHEXYLHEXANE	25.0	1.4441	—	—	—	
1162	C12H24O	1-DODECANAL	25.0	1.4320	—	—	6.052	
1163	C12H24O2	n-DODECANOIC ACID	25.0	1.4401	in benzene	0.76	6.601	
1164	C12H26	n-DODECANE	25.0	1.4151	gas	0.00	5.914	
1165	C12H26O	Di-n-HEXYL ETHER	25.0	1.4187	—	—	5.693	
1166	C12H26O	1-DODECANOL	25.0	1.4413	In dioxane	1.70	6.119	
1167	C12H26O3	DIETHYLENE GLYCOL Di-n-BUTYL ETHER	19.9	1.4235	—	—	6.449	
1168	C12H26S	n-DODECYL MERCAPTAN	25.0	1.4576	gas	1.59	6.374	
1169	C12H26S	BUTYL-OCTYL-SULFIDE	—	—	—	—	—	
1170	C12H26S	DECYL-ETHYL-SULFIDE	—	—	—	—	—	

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration Angstrom
			T, C	Value @ T	State	Debye	
1171	C12H26S	HEXYL-SULFIDE	25.0	1.4580	—	—	—
1172	C12H26S	METHYL-UNDECYL-SULFIDE	—	—	—	—	—
1173	C12H26S	NONYL-PROPYL-SULFIDE	25.0	1.4850	—	—	—
1174	C12H26S2	HEXYL-DISULFIDE	25.0	1.4071	In benzene	0.78	—
1175	C12H27BO3	TRI-n-BUTYL BORATE	25.0	1.4406	—	—	6.073
1176	C12H27N	DODECYLAMINE	25.0	1.4286	In benzene	0.78	6.690
1177	C12H27N	TRI-n-BUTYLAMINE	19.9	1.6470	In benzene	0.25	4.806
1178	C13H10	FLUORENE	44.9	1.5975	In benzene	2.98	5.302
1179	C13H10O	BENZOPHENONE	25.0	1.5752	Liquid	0.26	5.141
1180	C13H12	DIPHENYL METHANE	25.0	1.5901	—	—	—
1181	C13H14	1-PROPYLNAPHTHALENE	25.0	1.5850	—	—	—
1182	C13H14	2-PROPYLNAPHTHALENE	—	—	—	—	—
1183	C13H14	2ETHYL-3-METHYLNAPHTHALENE	—	—	—	—	—
1184	C13H14	2ETHYL-6-METHYLNAPHTHALENE	—	—	—	—	—
1185	C13H14	2ETHYL-7-METHYLNAPHTHALENE	—	—	—	—	—
1186	C13H20	n-HEPTYLBENZENE	25.0	1.4832	—	—	6.040
1187	C13H24	1-TRIDECYNE	25.0	1.4359	—	—	—
1188	C13H26	1-TRIDECENE	25.0	1.4312	—	—	6.073
1189	C13H26	1-CYCLOPENTYL OCTANE	—	—	—	—	—
1190	C13H26	1-CYCLOHEXYLHEPTANE	—	—	—	—	—
1191	C13H26O	1-TRIDECANAL	25.0	1.4348	—	—	6.345
1192	C13H26O2	n-BUTYL NONANOATE	25.0	1.4262	—	—	7.273
1193	C13H26O2	METHYL DODECANOATE	19.9	1.4292	—	—	6.857
1194	C13H28	n-TRIDECANE	25.0	1.4235	gas	0.00	6.198
1195	C13H28O	1-TRIDECANOL	25.0	1.4433	—	—	6.417
1196	C13H28S	BUTYL-NONYL-SULFIDE	—	—	—	—	—
1197	C13H28S	DECYL-PROPYL-SULFIDE	—	—	—	—	—
1198	C13H28S	DODECYL-METHYL-SULFIDE	25.0	1.4590	—	—	—
1199	C13H28S	ETHYL-UNDECYL-SULFIDE	—	—	—	—	—
1200	C13H28S	1-TRIDECANETHIOL	25.0	1.4586	—	—	—
1201	C14H8O2	ANTHRAQUINONE	—	—	In benzene	0.00	5.332
1202	C14H10	ANTHRACENE	19.9	1.7290	In benzene	0.00	4.980
1203	C14H10	DIPHENYLACETYLENE	—	—	In benzene	0.30	5.832
1204	C14H10	PHENANTHRENE	25.0	1.5480	In benzene	0.00	4.961
1205	C14H12	cis-STILBENE	—	—	In benzene	0.00	4.744
1206	C14H12	trans-STILBENE	—	—	In benzene	0.00	5.627
1207	C14H12O2	BENZYL BENZOATE	20.9	1.5681	—	—	6.184
1208	C14H14	1,1-DIPHENYLETHANE	25.0	1.5702	Liquid	0.00	5.437
1209	C14H14	1,2-DIPHENYLETHANE	51.2	1.5704	liquid	0.00	5.610
1210	C14H14O	DIBENZYL ETHER	25.0	1.5385	In benzene	1.39	6.078
1211	C14H16	1-n-BUTYNAPHTHALENE	25.0	1.5797	not specified	0.69	5.680
1212	C14H16	2-BUTYNAPHTHALENE	25.0	1.5747	not specified	0.75	—
1213	C14H22	n-OCTYLBENZENE	25.0	1.4824	—	—	6.498
1214	C14H22	1,2,3,4-TETRAETHYLBENZENE	—	—	—	—	—
1215	C14H22	1,2,3,5-TETRAETHYLBENZENE	—	—	—	—	—
1216	C14H22	1,2,4,5-TETRAETHYLBENZENE	—	—	—	—	—
1217	C14H22O	p-tert-OCTYLPHENOL	—	—	—	—	—
1218	C14H28	1-TETRADECENE	25.0	1.4341	—	—	5.601
1219	C14H28	1-CYCLOPENTYLNONANE	—	—	—	—	6.398
1220	C14H28	1-CYCLOHEXYLLOCTANE	—	—	—	—	—
1221	C14H28O2	n-TETRADECANOIC ACID	—	—	—	—	—
1222	C14H30	n-TETRADECANE	25.0	1.4445	In benzene	0.77	7.265
1223	C14H30O	1-TETRADECANOL	25.0	1.4269	gas	0.00	6.427
1224	C14H30S	BUTYL-DECYL-SULFIDE	—	—	In CCl4	1.60	6.730
1225	C14H30S	DODECYL-ETHYL-SULFIDE	—	—	—	—	—
1226	C14H30S	HEPTYL-SULFIDE	—	—	—	—	—
1227	C14H30S	METHYL-TRIDECYL-SULFIDE	—	—	—	—	—
1228	C14H30S	PROPYL-UNDECYL-SULFIDE	25.0	1.4599	—	—	—
1229	C14H30S	1-TETRADECANETHIOL	—	—	—	—	—
1230	C14H30S2	HEPTYL-DISULFIDE	25.0	1.4595	—	—	—
1231	C14H31N	TETRADECYLAMINE	25.0	1.4840	—	—	—
1232	C16H10N2O2	DIPHENYL METHANE-4,4'-DIISOCYANATE	25.0	1.4447	—	—	6.704
1233	C16H16O	p-CUMYLPHENOL	49.9	1.5906	—	—	7.119
1234	C16H16O2	BISPHENOL A	—	—	—	—	5.562
1235	C15H18	1-PENTYNAPHTHALENE	—	—	—	—	6.815
1236	C15H18	2-PENTYNAPHTHALENE	25.0	1.5704	—	—	—
1237	C15H24	n-NONYLBENZENE	25.0	1.5675	—	—	—
1238	C15H24O	2,6-Di-tert-BUTYL-p-CRESOL	25.0	1.4817	—	—	6.763
1239	C15H24O	NONYLPHENOL	—	—	In benzene	1.68	5.598
1240	C15H28	1-PENTADECYNE	19.9	1.5116	—	—	7.058
1241	C15H30	1-PENTADECENE	25.0	1.4410	—	—	—
1242	C15H30	1-CYCLOPENTYLDECANE	25.0	1.4367	—	—	6.637
1243	C15H30	1-CYCLOHEXYLNONANE	—	—	—	—	—
1244	C15H30O2	PENTADECANOIC ACID	—	—	—	—	—
1245	C15H32	n-PENTADECANE	80.0	1.4463	—	—	7.567
1246	C15H32O	1-PENTADECANOL	25.0	1.4298	gas	0.00	6.729
1247	C15H32S	BUTYL-UNDECYL-SULFIDE	—	—	—	—	—
1248	C15H32S	DODECYL-PROPYL-SULFIDE	—	—	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debye	Angstrom	
1248	C15H32S	ETHYL-TRIDECYL-SULFIDE	—	—	—	—	—	—
1250	C15H32S	METHYL-TETRADECYL-SULFIDE	25.0	1.4607	—	—	—	—
1251	C15H32S	1-PENTADECANETHIOL	25.0	1.4604	—	—	—	—
1252	C16H10	FLUORANTHENE	—	—	In benzene	0.00	5.357	—
1253	C16H10	PYRENE	—	—	In benzene	0.00	5.152	—
1254	C16H12	1-PHENYLNAPHTHALENE	—	—	In benzene	0.00	5.641	—
1255	C16H20	1-n-HEXYLNAPHTHALENE	25.0	1.5628	—	—	6.518	—
1256	C16H22O4	DIBUTYL PHTHALATE	25.0	1.4901	In benzene	2.75	7.475	—
1257	C16H26	n-DECYLBENZENE	25.0	1.4811	—	—	7.108	—
1258	C16H26	PENTAETHYLBENZENE	—	—	—	—	—	—
1259	C16H30	1-HEXADECYNE	25.0	1.4430	—	—	—	—
1260	C16H32	n-DECYLCYCLOHEXANE	25.0	1.4514	—	—	7.225	—
1261	C16H32	1-CYCLOPENTYLUNDECANE	—	—	—	—	—	—
1262	C16H32	1-HEXADECENE	25.0	1.4391	—	—	6.985	—
1263	C16H32O2	n-HEXADECANOIC ACID	60.0	—	In benzene	0.72	7.725	—
1264	C16H34	n-HEXADECANE	25.0	1.4325	gas	0.00	7.063	—
1265	C16H34O	Di-n-OCTYL ETHER	25.0	1.4305	—	—	7.360	—
1266	C16H34O	1-HEXADECANOL	49.9	—	In benzene	1.67	7.307	—
1267	C16H34S	BUTYL-DODECYL-SULFIDE	—	—	—	—	—	—
1268	C16H34S	ETHYL-TETRADECYL-SULFIDE	—	—	—	—	—	—
1269	C16H34S	METHYL-PENTADECYL-SULFIDE	25.0	1.4615	—	—	—	—
1270	C16H34S	OCTYL-SULFIDE	—	—	—	—	—	—
1271	C16H34S	PROPYL-TRIDECYL-SULFIDE	—	—	—	—	—	—
1272	C16H34S	1-HEXADECANETHIOL	25.0	1.4611	—	—	—	—
1273	C16H34S2	OCTYL-DISULFIDE	25.0	1.4820	In benzene	1.99	—	7.474
1274	C17H28	n-UNDECYLBENZENE	25.0	1.4807	—	—	—	7.325
1275	C17H32	1-HEPTADECYNE	25.0	1.4410	—	—	—	—
1276	C17H34	1-CYCLOPENTYLDODECANE	—	—	—	—	—	—
1277	C17H34	1-CYCLOHEXYLUNDECANE	—	—	—	—	—	—
1278	C17H34	1-HEPTADECENE	25.0	1.4410	—	—	7.355	—
1279	C17H36	n-HEPTADECANE	25.0	1.4348	gas	0.00	—	7.590
1280	C17H36O	1-HEPTADECANOL	—	—	—	—	—	—
1281	C17H36S	BUTYL-TRIDECYL-SULFIDE	—	—	—	—	—	—
1282	C17H36S	ETHYL-PENTADECYL-SULFIDE	—	—	—	—	—	—
1283	C17H36S	HEXADECYL-METHYL-SULFIDE	25.0	1.4621	—	—	—	—
1284	C17H36S	PROPYL-TETRADECYL-SULFIDE	—	—	—	—	—	—
1285	C17H36S	1-HEPTADECANETHIOL	—	—	—	—	—	—
1286	C18H12	CHRYSENE	19.9	—	In benzene	0.70	5.740	—
1287	C18H14	m-TERPHENYL	—	—	—	—	6.506	—
1288	C18H14	o-TERPHENYL	—	—	—	—	5.899	—
1289	C18H14	p-TERPHENYL	—	—	In benzene	0.60	6.371	—
1290	C18H15P	TRIPHENYLPHOSPHINE	19.9	—	In benzene	1.39	5.601	—
1291	C18H15O4P	TRIPHENYL PHOSPHATE	59.9	—	In benzene	2.81	7.103	—
1292	C18H16N2	N,N'-DIPHENYL-p-PHENYLENEDIAMINE	—	—	In benzene	1.60	6.755	—
1293	C18H22	2,3-DIMETHYL-2,3-DIPHENYLBUTANE	—	—	In benzene	0.00	5.361	—
1294	C18H22O2	DICUMYL PEROXIDE	25.0	—	—	—	—	6.536
1295	C18H30	n-DODECYLBENZENE	25.0	1.4803	—	—	—	7.796
1296	C18H30	HEXAETHYLBENZENE	—	—	—	—	—	—
1297	C18H32O2	LINOLEIC ACID	19.9	1.4699	In benzene	1.22	—	10.520
1298	C18H34	1-OCTADECYNE	—	—	—	—	—	—
1299	C18H34O2	OLEIC ACID	19.9	1.4582	liquid	1.44	—	10.430
1300	C18H34O4	DIBUTYL SEBACATE	25.0	1.4397	not specified	2.48	—	10.290
1301	C18H34O4	DIHEXYL ADIPATE	25.0	1.4397	—	—	—	9.488
1302	C18H36	1-CYCOPENTYLTRIDECANE	—	—	—	—	—	—
1303	C18H36	1-CYCLOHEXYLDODECANE	25.0	1.4428	—	—	7.589	—
1304	C18H36	1-OCTADECENE	25.0	—	In dioxane	1.76	8.560	—
1305	C18H36O2	STEARIC ACID	20.0	—	gas	0.00	—	7.655
1306	C18H38	n-OCTADECANE	19.9	1.4356	—	—	—	7.266
1307	C18H38O	DINONYL ETHER	25.0	—	In CCl4	1.70	—	7.930
1308	C18H38O	1-OCTADECANOL	—	—	—	—	—	—
1309	C18H38S	BUTYL-TETRADECYL-SULFIDE	—	—	—	—	—	—
1310	C18H38S	ETHYL-HEXADECYL-SULFIDE	—	—	—	—	—	—
1311	C18H38S	HEPTADECYL-METHYL-SULFIDE	—	—	—	—	—	—
1312	C18H38S	NONYL-SULFIDE	—	—	—	—	—	—
1313	C18H38S	PENTADECYL-PROPYL-SULFIDE	—	—	—	—	—	—
1314	C18H38S	1-OCTADECANETHIOL	25.0	1.4810	—	—	—	—
1315	C18H38S2	NONYL-DISULFIDE	25.0	1.5455	gas	0.00	—	7.732
1316	C19H26	1-n-NONYLNAPHTHALENE	25.0	1.4800	—	—	—	8.189
1317	C19H32	n-TRIDECYLBENZENE	—	—	—	—	—	10.450
1318	C19H36	1-NONADECYNE	19.9	1.4521	—	—	—	—
1319	C19H36O2	METHYL OLEATE	—	—	—	—	—	—
1320	C19H38	1-CYCLOPENTYLTRIDECANE	—	—	—	—	—	7.850
1321	C19H38	1-CYCLOHEXYLTRIDECANE	25.0	1.4450	—	—	—	8.686
1322	C19H38	1-NONADECENE	25.0	—	gas	0.00	—	7.983
1323	C19H38O2	NONADECANOIC ACID	20.0	—	—	—	—	—
1324	C19H40	n-NONADECANE	—	—	—	—	—	—
1325	C19H40O	1-NONADECANOL	—	—	—	—	—	—
1326	C19H40S	BUTYL-PENTADECYL-SULFIDE	—	—	—	—	—	—

Table 10-1 REFRACTIVE INDEX, DIPOLE MOMENT, AND RADIUS OF GYRATION - ORGANIC COMPOUNDS (continued)

NO	FORMULA	NAME	Refractive Index		Dipole Moment		Radius of Gyration	
			T, C	Value @ T	State	Debye	Angstrom	
1327	C19H40S	ETHYL-HEPTADECYL-SULFIDE	—	—	—	—	—	
1328	C19H40S	HEXADECYL-PROPYL-SULFIDE	—	—	—	—	—	
1329	C19H40S	METHYL-OCTADECYL-SULFIDE	—	—	—	—	—	
1330	C19H40S	1-NONADECANETHIOL	—	—	In benzene	0.60	—	
1331	C20H16	TRIPHENYLETHYLENE	25.0	1.5412	gas	0.00	8.512	
1332	C20H28	1-n-DECYNAPHTHALENE	—	—	—	—	8.139	
1333	C20H30O2	ABIETIC ACID	25.0	—	—	—	8.822	
1334	C20H31N	DEHYDROABIETYLAMINE	25.0	—	—	—	8.103	
1335	C20H34	1-PHENYLtetradecane	25.0	1.4797	—	—	—	
1336	C20H38	1-EICOSYNE	—	—	—	—	8.106	
1337	C20H40	1-CYCLOPENTYLpentaDecane	—	—	—	—	—	
1338	C20H40	1-CYCLOHEXYLTETRADECANE	—	—	—	—	—	
1339	C20H40	1-EICOSENE	30.0	—	—	—	—	
1340	C20H42	n-EICOSANE	20.0	—	gas	0.00	8.364	
1341	C20H42O	1-EICOSANOL	20.0	—	—	—	8.414	
1342	C20H42S	BUTYL-HEXADECYL-SULFIDE	—	—	—	—	—	
1343	C20H42S	DECYL-SULFIDE	—	—	—	—	—	
1344	C20H42S	ETHYL-OCTADECYL-SULFIDE	—	—	—	—	—	
1345	C20H42S	HEPTADECYL-PROPYL-SULFIDE	—	—	—	—	—	
1346	C20H42S	METHYL-NONADECYL-SULFIDE	—	—	—	—	—	
1347	C20H42S	1-EICOSANETHIOL	—	—	—	—	—	
1348	C20H42S2	DECYL-DISULFIDE	25.0	1.4800	—	—	—	
1349	C21H21O4P	TRI-o-CRESYL PHOSPHATE	25.0	1.5587	In CCl4	2.84	6.760	
1350	C21H36	1-PHENYLPENTADECANE	—	—	—	—	—	
1351	C21H42	1-CYCLOPENTYLHEXADECANE	—	—	—	—	—	
1352	C21H42	1-CYCLOHEXYLPENTADECANE	—	—	—	—	—	
1353	C22H38	1-PHENYLHEXADECANE	—	—	—	—	—	
1354	C22H44	1-CYCLOHEXYLHEXADECANE	—	—	—	—	—	
1355	C22H44O2	n-BUTYL STEARATE	25.0	—	In benzene	1.88	9.746	
1356	C24H38O4	DIISOCTYL PHTHALATE	25.0	1.4860	In CCl4	3.06	10.910	
1357	C24H38O4	DIOCTYL PHTHALATE	25.0	1.4845	In benzene	2.84	11.000	
1358	C24H42O	DINONYLPHENOL	—	—	—	—	11.660	
1359	C26H20	TETRAPHENYLETHYLENE	—	—	In benzene	0.33	7.145	
1360	C28H46O4	DIISODECYL PHTHALATE	25.0	1.4840	—	—	9.114	

Refractive index applies at T.

T, C - temperature in Centigrade.

Dipole moment is given in Debye units.

The conversion factor for Debye units is 1 Debye = 3.33564E-30 C M

Radius of gyration is given in Angstrom units.

The conversion factor for Angstrom units is 1 Angstrom = 1.0E-10 meters