**Table 18 Dipole Moment – Inorganic Compounds** 

		Dipole M	oment						Dipole Mon	nent		,	
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
1	AgBr	silver bromide	7785-23-1	gas	5.620	1	81	GeCl4	germanium chloride	10038-98-9	gas	0.000	1
3	AgCI AgF	silver (i) chloride silver (i) fluoride	7783-90-6 7775-41-9	gas	6.080 6.220	1	82 83	GeF2 GeH3Cl	germanium (ii) fluoride germane, chloro	13940-63-1 13637-65-5	gas	2.610	1
4	AgI	silver (i) iodide	7783-96-2	gas gas	4.550	1	84	GeH3F	germane, fluoro	13537-03-3	gas gas	2.330	1
5	AlBr3	aluminum bromide	7727-15-3	in benzene	5.220	1	85	GeH3N3	germylazide		gas	2.579	1
6	AIC2H6CI	aluminum, dimethyl chloride	1184-58-3	gas	1.631	1	86	GeO	germanium (ii) oxide	20619-16-3	gas	3.282	1
7	AICCHAE	aluminum, trimethyl	75-24-1	gas	1.430	1	87 88	GeS	germanium (ii) sulfide	12025-32-0	gas	2.000	1
9	AIC6H15 AICI3	aluminum, triethyl aluminum chloride	97-93-8 7446-70-0	in benzene gas	0.600 2.030	1	89	GeSe GeTe	germanium (ii) selenide germanium (ii) telluride	12065-10-0 12025-39-7	gas gas	1.650 1.060	1
10	All3	aluminum iodide	7784-23-8	in benzene	2.280	1	90	HBr	hydrogen bromide	10035-10-6	gas	0.827	1
11	Ar	argon	7440-37-1	gas	0.000	1	91	HCN	hydrogen cyanide	74-90-8	gas	2.980	1
12	AsBr3	arsenic (iii) bromide	7784-33-0	gas	1.610	1	92	HCNO	hydrogen isocyanate	75-13-8	gas	1.600	1
13 14	AsCl3 AsF3	arsenic trichloride arsenic trifluoride	7784-34-1 7784-35-2	gas gas	1.590 2.590	1	93 94	HCNS HCI	hydrogen isothiocyanate hydrogen chloride	3129-90-6 7647-01-0	gas gas	1.700 1.079	1
15	AsH3	arsine	7784-42-1	gas	0.201	1	95	HF	hydrogen fluoride	7664-39-3	gas	1.820	1
16	Asl3	arsenic triiodide	7784-45-4	in dioxane	1.840	1	96	HFO	hypofluorous acid	14034-79-8	gas	2.230	1
17	As2O3	arsenic trioxide	1327-53-3	gas	0.130	1	97	HI	hydrogen iodide	10034-85-2	gas	0.448	1
18	BBr3	boron tribromide	10294-33-4	liquid	0.000	1	98	HNO2	nitrous acid (cis)	7782-77-6	gas	1.423	1
19 20	BCI3 BF3	boron trichloride boron trifluoride	10294-34-5 7637-07-2	gas gas	0.000	1	99	HNO3 HN3	nitric acid hydrazoic acid	7697-37-2 7782-79-8	gas gas	2.170 1.700	1
21	B2H6	diborane	19287-45-7	gas	0.000	1	101	HO	hydroxyl		gas	1.655	1
22	B3N3H6	borazine	6569-51-3	gas	0.000	1	102	HOCI	hypochlorous acid	7790-92-3	gas	1.300	1
23	B4H10	tetraborane	18283-93-7	gas	0.486	1	103	HOF	hypofluorous acid		gas	2.230	1
24	B5H9	pentaborane	19624-22-7	gas	2.130	1	104	HS	mercapto	1222.74.0	gas	0.758	1
25 26	B6H10 B10H14	hexaborane decaborane	23777-80-2	gas in benzene	2.500 3.520	1	105 106	H2O	hydrogen water	1333-74-0 7732-18-5	gas gas	0.000 1.850	1
27	BaO BaO	barium oxide	1304-28-5	gas	7.594	1	106	H2O2	hydrogen peroxide	7722-84-1	gas	1.573	1
28	BaS	barium sulfide	21109-95-5	gas	10.860	1	108	H2S	hydrogen sulfide	7783-06-4	gas	0.968	1
29	BrCl	bromine chloride	13863-41-7	gas	0.519	1	109	H2SO4	sulfuric acid	7664-93-9	gas	2.725	1
30	BrF	bromine fluoride	13863-59-7	gas	1.422	1	110	H2S2	hydrogen disulfide	13465-07-1	in dioxane	1.180	1
31	BrF3	bromine trifluoride	7787-71-5	gas	1.100	1	111	H2Se	hydrogen selenide	7783-07-5	gas	0.240	1
32	BrF5 BrNO	nitrosyl bromide	7789-30-2 13444-87-6	gas gas	1.510 1.800	1	112	H2Te H3NO	hydrogen telluride hydroxylamine	7783-09-7 7803-49-8	solid gas	0.400 0.590	1
34	BrO2	bromine dioxide	21255-83-4	gas	2.800	1	114	He	helium-3	14762-55-1	gas	0.000	1
35	Br2	bromine	7726-95-6	gas	0.000	1	115	He	helium-4	7440-59-7	gas	0.000	1
36	CCI2O	carbonyl chloride	75-44-5	gas	1.170	1	116	Hg	mercury	7439-97-6	gas	0.000	1
37	CF2O	carbonyl fluoride	353-50-4	gas	0.950	1	117	HgBr2	mercuric bromide	7789-47-1	in dioxane	1.540	1
38	CH4N2O CH4N2S	urea thiourea	57-13-6 62-56-6	in dioxane in benzene	4.557 5.067	1	118 119	HgCl2 Hgl2	mercuric chloride mercuric iodide	7487-94-7 7774-29-0	in dioxane in dioxane	1.440 1.680	1
40	CNCI	cyanogen chloride	506-77-4	gas	2.820	1	120	IBr	iodine bromide	7789-33-5	gas	0.726	1
41	CN4O8	tetranitromethane	509-14-8	gas	0.000	1	121	ICI	iodine chloride	7790-99-0	gas	1.240	1
42	CO	carbon monoxide	630-08-0	gas	0.112	1	122	IF	iodine fluoride	13873-84-2	gas	1.948	1
43	COS	carbonyl sulfide	463-58-1	gas	0.711	1	123	IF5	iodine pentafluoride	7783-66-6	gas	2.180	1
44 45	COSe CO2	carbon oxyselenide carbon dioxide	1603-84-5 124-38-9	gas	0.730	1	124 125	IO I2	iodine oxide	7553-56-2	gas	2.450 0.000	1
46	CS	carbon monosulfide	124-30-9	gas gas	1.980	1	126	InCl	indium (i) chloride	13465-10-6	gas gas	3.790	1
47	CS2	carbon disulfide	75-15-0	gas	0.000	1	127	InF	indium (i) fluoride	74508-07-9	gas	3.400	1
48	C2N2	cyanogen	460-19-5	gas	0.000	1	128	Ir	iridium	7439-88-5			1
49	CIF	chlorine monofluoride	7790-89-8	gas	0.888	1	129	K	potassium	7440-09-7	gas	0.000	1
50	CIFO3	perchloryl fluoride	7616-94-6	gas	0.023	1	130	KBr	potassium chlorida	7758-02-3 7447-40-7	gas	10.629 10.271	1
	CIF3 CINO2	nitryl chloride	13444-90-1	gas gas	0.600	1	131	KF	potassium chloride potassium fluoride	7789-23-3	gas	8.585	1
	CINS	thionitrosyl chloride		gas	1.870	1	133	KI	potassium iodide	7681-11-0	gas	10.800	1
	CIO	chlorine oxide		gas	1.297	1	134	KOH	potassium hydroxide	1310-58-3	gas	7.415	1
	CIO2	chlorine dioxide	10049-04-4	gas	1.784	1	135	Kr	krypton	7439-90-9	gas	0.000	1
	Cl2 Cl2O7	chlorine chlorine heptoxide	7782-50-5 10294-48-1	gas in CCl4	0.000	1	136 137	LaO LiBr	lanthanum monooxide lithium bromide	7550-35-8	gas gas	3.207 7.268	1
	CrO	chromium (I) oxide	10294-40-1	gas	3.880	1	138	LiCI	lithium chloride	7447-41-8	gas	7.129	1
	CrO2Cl2	chromium oxychloride	14977-61-8	in CCl4	0.470	1	139	LiF	lithium fluoride	7789-24-4	gas	6.327	1
	CsCl	cesium chloride	7647-17-8	gas	10.387	1	140	LiH	lithium hydride	7580-67-8	gas	5.884	1
	CsF	cesium fluoride	13400-13-0	gas	7.884	1	141	Lil	lithium iodide	10377-51-2	gas	7.428	1
	CsI CsNa	cesium iodide cesium sodium	7789-17-5	gas	10.200 4.750	1	142 143	LiK LiO	lithium potassium lithium monoxide		gas	3.450 6.840	1
	CuCl	cuprous chloride	7758-89-6	gas gas	1.820	2	143	LiOH	lithium monoxide	1310-65-2	gas gas	4.754	1
	CuF	copper (i) fluoride	13478-41-6	gas	5.770	1	145	LiRb	lithium rubidium		gas	4.000	1
66	CuO	copper (ii) oxide	1317-38-0	gas	4.500	1	146	MgO	magnesium oxide	1309-48-4	gas	6.200	1
	D2O	deuterium oxide	7789-20-0	gas	1.870	1	147	NCIO	nitrosyl chloride	2696-92-6	gas	1.901	1
	FH2N FNO	fluoroamide nitrosyl fluoride	7789-25-5	gas	2.370 1.730	1	148 149	NCI3 ND3	nitrogen trichloride heavy ammonia	10025-85-1	in benzene	0.600 1.500	1
	FNO2	nitrosyi fluoride	10022-50-1	gas gas	0.466	1	150	NF3	nitrogen trifluoride	7783-54-2	gas gas	0.235	1
	FNS	thionitrosyl fluoride		gas	1.902	1	151	NH	imidogen		gas	1.390	1
72	FN3	fluorine azide		gas	1.300	1	152	NHF2	difluoramine	10405-27-3	gas	1.920	1
	FO	fluorine oxide		gas	0.004	1	153	NHO	nitrosyl hydride		gas	1.620	1
	FS	fluorine sulfide	7702 44 4	gas	0.794	1	154	NH3	ammonia	7664-41-7	gas	1.472	1
_	F2 F2O	fluorine fluorine oxide	7782-41-4 7783-41-7	gas	0.000	1	155 156	NH4Br NH6PO4	ammonium bromide ammonium dihydrogen phosphate	12124-97-9 7722-76-1	in dioxane	6.750 2.770	1
	F2O2	difluorine dioxide	7783-44-0	gas gas	1.440	1	157	NO	nitric oxide	10102-43-9	gas gas	0.153	1
	FeCl3	ferric chloride	7705-08-0	in dioxane	1.280	1	158	NOF3	trifluoramine oxide	13847-65-9	gas	0.039	1
79	GaCl3	gallium trichloride	13450-90-3	gas	0.850	1	159	NO2	nitrogen dioxide	10102-44-0	gas	0.315	1
80	GaF	gallium (i) fluoride		gas	2.450	1	160	NP	nitrogen phosphorous		gas	2.747	1

Table 18 Dipole Moment – Inorganic Compounds

		Dipole Mon	nent						Dipole Mo	ment			
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
161	NS	nitrogen sulfide		gas	1.810	1	224	SbCl5	antimony pentachloride	7647-18-9	gas	0.000	1
162	N2	nitrogen	7727-37-9	gas	0.000	1	225	SbH3	stibine	7803-52-3	gas	0.120	1
163	N2F2	cis-difluorodiazine	13812-43-6	gas	0.160	1	226	Sbl3	antimony triiodide	7790-44-5	in benzene	0.400	1
164	N2F4	tetrafluorohydrazine	10036-47-2	gas	0.257	1	227	SeF4	selenium tetrafluoride	13465-66-2	gas	1.780	1
165	N2H4	hydrazine	302-01-2	gas	1.751	1	228	SeF6	selenium hexafluoride	7783-79-1	gas	0.000	1
166	N2O	nitrous oxide	10024-97-2	gas	0.161 2.122	1	229	SeOCl2 SeO2	selenium oxychloride	7791-23-3	in benzene	2.640	1
167 168	N2O3 N2O4	nitrogen trioxide nitrogen tetraoxide	10544-73-7 10544-72-6	gas	0.000	1	230	SiBrF3	selenium dioxide silane, bromotrifluoro	7446-08-4	gas	2.620 0.830	1
169	N2O5	nitrogen tetraoxide	10102-03-1	gas in CCl4	1.400	1	232	SiCH3Cl3	silane, methyltrichloro	75-79-6	gas gas	1.910	1
170	Na	sodium	7440-23-5	gas	0.000	1	233	SiCH4Cl2	silane, methyldichloro	75-54-7	in benzene	1.910	1
171	NaBr	sodium bromide	7647-15-6	in benzene	9.118	1	234	SiC2H5Cl3	silane, ethyltrichloro	115-21-9	gas	2.030	2
172	NaCl	sodium chloride	7647-14-5	gas	9.001	1	235	SiC2H6Cl2	silane, dimethyldichloro	75-78-5	in benzene	1.889	1
173	NaF	sodium fluoride	7681-49-4	gas	8.156	1	236	SiC3H10	silane, trimethyl	933-07-7	gas	0.525	1
174	Nal	sodium iodide	7681-82-5	gas	4.887	1	237	SiC7H8Cl2	silane, methylphenyldichloro	149-74-6	in benzene	2.401	1
175	NaK	sodium potassium		gas	2.693	1	238	SiC8H20	silane, tetraethyl	631-36-7	in benzene	0.390	1
176	NaLi	sodium lithium		gas	0.463	1	239	SiCIC3H9	chlorotrimethylsilane	75-77-4	in benzene	2.081	1
177	NaRb	sodium rubidium		gas	3.100	1	240	SiCIF3	silane, chlorotrifluoro	14049-36-6	gas	0.636	1
178	Ne	neon	7440-01-9	gas	0.000	1	241	SiCl3F	silane, trichlorofluoro	14965-52-7	gas	0.490	1
179	NiC4O4	nickel carbonyl	13463-39-3	in CCl4	0.000	1	242	SiCl4	silicon tetrachloride	10026-04-7	gas	0.000	1
180	02	oxygen	7782-44-7	gas	0.000	1	243	SiF2	difluorosilylene	7702.04.4	gas	1.230	1
181	03	ozone	10028-15-6	gas	0.540	1	244	SiF4	silicon tetrafluoride	7783-61-1	gas	0.000	1
182 183	OsO4	osmium tetroxide phosphorus (white)	20816-12-0 7723-14-0	gas	0.000	1	245 246	SiHBr3 SiHCl3	silane, tribromo silane, trichloro	7789-57-3 10025-78-2	in heptane	0.790 0.860	1
184	P	phosphorus (red)	7723-14-0	gas gas	0.000	1	240	SiHF3	silane, trifluoro	13465-71-9	gas gas	1.270	1
185	PBr3	phosphorus tribromide	7789-60-8	gas	0.560	1	248	SiH2Cl2	silane, dichloro	4109-96-0	gas	1.170	1
186	PC3H9O4	phosphate, trimethyl	512-56-1	in benzene	3.088	1	249	SiH2F2	silane, difluoro	13824-36-7	gas	1.550	1
187	PC6H15O4	phosphate, triethyl	78-40-0	in benzene	3.088	1	250	SiH3Br	silane, monobromo	13465-73-1	gas	1.320	1
188	PCI3	phosphorus (iii) chloride	7719-12-2	gas	0.779	1	251	SiH3Cl	silane, monochloro	13465-78-6	gas	1.310	1
189	PCI5	phosphorus pentachloride	10026-13-8	gas	0.900	1	252	SiH3F	silane, monofluoro	13537-33-2	gas	1.298	1
190	PF3	phosphorus (iii) fluoride	7783-55-3	gas	1.030	1	253	SiH4	silane	7803-62-5	gas	0.000	1
191	PF3O	phosphorus oxyfluoride	13478-20-1	gas	1.869	1	254	SiF3I	silane, trifluoroiodo		gas	1.110	1
192	PH3	phosphine	7803-51-2	gas	0.570	1	255	SiO	silicon monoxide	10097-28-6	gas	3.908	1
193	PI3	phosphorus (iii) iodide	13455-01-1	gas	0.000	1	256	SiO2	silicon dioxide (alpha quartz)	14808-60-7	quartz	0.579	1
194	PO	phosphorous monoxide		gas	1.880	1	257	SiS	silicon monosulfide	12504-41-5	gas	1.730	1
195	POCI3	phosphorus oxychloride	10025-87-3	gas	2.540	1	258	Si2C6H18O	disiloxane, hexamethyl	107-46-0	gas	0.660	1
196	PSCI3	phosphorus thiochloride	3982-91-0	gas	1.420	1	259	Si2C6H19N	disilazane, hexamethyl	999-97-3	in benzene	0.420	1
197	PSF3	phosphorus (v) sulfide trifluoride	2404-52-6	gas	0.640	1	260	Si2H3F3	1,1,1,-trifluorodisilane		gas	2.030	1
198	PbC8H20	tetraethyl lead	78-00-2	gas	0.300	1	261	Si2H6	disilane	1590-87-0	gas	0.000	1
199	PbO	lead oxide	1317-36-8	gas	4.640	1	262	Si2H6O	disiloxane	13597-73-4	gas	0.240	1
200	PbS	lead sulfide	1314-87-0	gas	3.590	1	263	SnBr4	stannic bromide	7789-67-5	gas	0.000	1
201	RbBr RbCl	rubidium bromide rubidium chloride	7789-39-1 7791-11-9	gas	10.900 10.510	1	264 265	SnCl4 Snl4	stannic chloride stannic iodide	7646-78-8 7790-47-8	gas	0.000	1
203	RbF	rubidium fluoride	13446-74-7	gas gas	8.546	1	266	SnO	tin (ii) oxide	21651-19-4	gas gas	4.320	1
204	Rbl	rubidium iodide	7790-29-6	gas	11.500	1	267	SnS	tin (ii) sulfide	1314-95-0	gas	3.180	1
205	S	sulfur	7704-34-9	gas	0.000	1	268	SrO	strontium oxide	1314-11-0	gas	8.900	1
206	SCI2	sulfur dichloride	10545-99-0	gas	0.360	1	269	TeCl4	tellurium tetrachloride	10026-07-0	gas	0.000	1
207	SCI2O	thionyl chloride	7719-09-7	gas	1.451	1	270	TeF6	tellurium hexafluoride	7783-80-4	gas	0.000	1
208	SF2	sulfur (ii) fluoride	13814-25-0	gas	1.050	1	271	TiCl4	titanium tetrachloride	7550-45-0	liquid	0.000	1
209	SF4	sulfur tetrafluoride	7783-60-0	gas	0.632	1	272	TiO	titanium (ii) oxide	12137-20-1	gas	2.960	1
210	SF6	sulfur hexafluoride	2551-62-4	gas	0.000	1	273	TIBr	thallous bromide	7789-40-4	gas	4.490	1
211	SO	sulfur monoxide		gas	1.550	1	274	TICI	thallium chloride	7791-12-0	gas	4.543	1
212	SOBr2	thionyl bromide	507-16-4	gas	9.110	1		TIF	thallium (i) fluoride	7789-27-7	gas	4.228	1
213	SOCI2	thionyl chloride	7719-09-7	gas	1.450	1		TII	thallium iodide	7790-30-9	gas	4.610	1
214	SOF2	thionyl fluoride	7783-42-8	gas	1.630	1		UF6	uranium fluoride	7783-81-5	gas	0.000	1
215	SO2	sulfur dioxide	7446-09-5	gas	1.631	1	278	VCI4	vanadium tetrachloride	7632-51-1	gas	0.000	1
216	SO2CI2	sulfuryl chloride	7791-25-5	gas	1.811	1	279	VOCI3	vanadium oxytrichloride	7727-18-6	in CCI4	0.300	1
217	SO2F2	sulfuryl fluoride	2699-79-8	gas	1.120	1	280	Xe	xenon	7440-63-3	gas	0.000	1
218	SO3	sulfur trioxide	7446-11-9	gas	0.000	1	281	YO 7-D-4	yttrium monoxide	40777.05.0	gas	4.524	1
	S2CI2 S2F10	sulfur monochloride	10025-67-9	gas	1.000	1	282	ZrBr4	zirconium bromide	13777-25-8	in dioxane	4.680	1
219	157FTH	sulfur decafluoride	5714-22-7	gas	0.000	1	283	ZrCl4	zirconium chloride	10026-11-6	in dioxane	5.940	1
220		ata de la actua	20004 24 7	I									
220 221	S2O	disulfur oxide	20901-21-7	gas	1.470	1	284	Zrl4	zirconium iodide	13986-26-0	in dioxane	5.360	1
220 221 222	S2O SbBr3	antimony tribromide	7789-61-9	in dioxane	3.300	1	285	ZrO	zirconium (ii) oxide		gas	2.550	1
220 221 222 223	S2O	antimony tribromide antimony trichloride					285			1			

**Table 17 Dipole Moment – Organic Compounds** 

		Dipole Momen	t						Dipole Moment				
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
1		bromodichlorofluoromethane	353-58-2	gas	0.845	2	81	C2H2Br4	1,1,2,2-tetrabromoethane	79-27-6	in hexane	1.301	1
2		bromotrichloromethane	75-62-7	in benzene	0.590	1	82	C2H2CIF3	2-chloro-1,1,1-trifluoroethane	75-88-7	gas	1.649	1
3	CBrF3 CBr2F2	bromotrifluoromethane dibromodifluoromethane	75-63-8 75-61-6	gas	0.651	2	83 84	C2H2Cl2 C2H2Cl2	1,1-dichloroethylene cis-1,2-dichloroethylene	75-35-4 156-59-2	gas	1.340	1
5	CCIF3	chlorotrifluoromethane	75-72-9	gas gas	0.510	1	85	C2H2Cl2	trans-1,2-dichloroethylene	156-60-5	gas in benzene	0.000	1
6	CCIN	cyanogen chloride	506-77-4	gas	2.820	1	86	C2H2Cl2O	chloroacetyl chloride	79-04-9	gas	2.218	1
7	CCI2F2	dichlorodifluoromethane	75-71-8	gas	0.510	1	87	C2H2Cl2O	dichloroacetaldehyde	79-02-7	in benzene	2.359	1
8	CCI2O	phosgene	75-44-5	gas	1.170	1	88	C2H2Cl3F	1,1,1-trichloro-2-fluoroethane	2366-36-1	gas	1.874	2
9		trichlorofluoromethane	75-69-4	gas	0.450	1	89	C2H2Cl4	1,1,1,2-tetrachloroethane	630-20-6	gas	1.289	1
10	CCI4	carbon tetrachloride carbonyl fluoride	56-23-5 353-50-4	gas	0.000	1	90	C2H2Cl4 C2H2F2	1,1,2,2-tetrachloroethane	79-34-5 75-38-7	gas	1.289	1
11 12	CF2O CF4	carbonyi liuoride	75-73-0	gas gas	0.000	1	91 92	C2H2F2	1,1-difluoroethylene cis-1,2-difluoroethene	1630-77-9	gas	1.379 2.420	1
13		bromodifluoromethane	1511-62-2	gas	1.499	1	93	C2H2F2	trans-1,2-difluoroethene	1630-78-0	in benzene	0.550	1
14		bromoform	75-25-2	gas	0.990	1	94	C2H2F4	1,1,1,2-tetrafluoroethane	811-97-2	gas	2.058	1
15	CHCIF2	chlorodifluoromethane	75-45-6	gas	1.458	1	95	C2H2F4	1,1,2,2-tetrafluoroethane	359-35-3	gas	0.992	1
16	CHCl2F	dichlorofluoromethane	75-43-4	gas	1.289	1	96	C2H2F4O	tetrafluorodimethyl ether	1691-17-4	gas	1.739	1
17	CHCI3	chloroform	67-66-3	gas	1.010	1	97	C2H2O	ketene	463-51-4	gas	1.420	1
18 19	CHF3 CHI3	fluoroform	75-46-7	gas	1.649 0.900	1	98	C2H2O4	oxalic acid	144-62-7 593-60-2	in dioxane	2.630	1
20		iodoform hydrogen cyanide	75-47-8 74-90-8	in benzene gas	2.980	1	99 100	C2H3Br C2H3Cl	vinyl bromide vinyl chloride	75-01-4	gas gas	1.421 1.451	1
21	CH2BrCl	bromochloromethane	74-97-5	in benzene	1.661	1	101	C2H3CIF2	1-chloro-1,1-difluoroethane	75-68-3	gas	2.141	1
22	CH2Br2	dibromomethane	74-95-3	gas	1.430	1	102	C2H3CIO	acetyl chloride	75-36-5	gas	2.719	1
23	CH2CIF	chlorofluoromethane	593-70-4	gas	1.820	1	103	C2H3CIO	chloroacetaldehyde	107-20-0	in benzene	1.991	1
24	CH2CINO	carbamic chloride	463-72-9	gas	4.017	2	104	C2H3ClO2	chloroacetic acid	79-11-8	in benzene	2.310	1
25	CH2Cl2	dichloromethane	75-09-2	gas	1.601	1	105	C2H3CIO2	methyl chloroformate	79-22-1	in benzene	2.221	1
26	CH2F2	difluoromethane	75-10-5	gas	1.979	1	106	C2H3Cl2F	1,1-dichloro-1-fluoroethane 1,1.1-trichloroethane	1717-00-6	gas	2.014	1
27 28	CH2I2 CH2O	diiodomethane formaldehyde	75-11-6 50-00-0	in benzene gas	1.220 2.330	1	107	C2H3Cl3 C2H3Cl3	1,1,1-trichloroethane 1,1,2-trichloroethane	71-55-6 79-00-5	gas gas	1.781 1.250	1
29		formic acid	64-18-6	gas	1.415	1	109	C2H3Cl3Si	trichlorovinylsilane	75-94-5	in benzene	2.039	1
30	CH3Br	methyl bromide	74-83-9	gas	1.811	1	110	C2H3F	vinyl fluoride	75-02-5	gas	1.430	1
31	CH3CI	methyl chloride	74-87-3	gas	1.871	1	111	C2H3F3	1,1,1-trifluoroethane	420-46-2	gas	2.320	1
32	CH3CIO2S	methanesulfonyl chloride	124-63-0	gas	3.148	1	112	C2H3F3	1,1,2-trifluoroethane	430-66-0	gas	1.679	1
33	CH3Cl3Si	methyl trichlorosilane	75-79-6	gas	1.910	1	113	C2H3N	acetonitrile	75-05-8	gas	3.920	1
34	CH3F	methyl fluoride	593-53-3	gas	1.851	1	114	C2H3NO	methyl isocyanate	624-83-9	gas	2.800	1
35 36	CH3IO	methyl iodide	74-88-4 75-12-7	gas	1.619 3.730	1	115 116	C2H4 C2H4Br2	ethylene	74-85-1	gas	0.000 2.141	1
37	CH3NO2	formamide nitromethane	75-12-7	gas gas	3.460	2	117	C2H4Br2	1,1-dibromoethane 1,2-dibromoethane	557-91-5 106-93-4	in benzene gas	1.010	1
38	CH3NO3	methyl nitrate	598-58-3	in benzene	2.880	1	118	C2H4Cl2	1,1-dichloroethane	75-34-3	gas	2.060	1
39	CH4	methane	74-82-8	gas	0.000	1	119	C2H4Cl2	1,2-dichloroethane	107-06-2	gas	1.439	1
40	CH4Cl2Si	methyl dichlorosilane	75-54-7	in benzene	1.910	1	120	C2H4Cl2O	bis(chloromethyl) ether	542-88-1	gas	0.989	1
41	CH4N2O	urea	57-13-6	in dioxane	4.557	1	121	C2H4F2	1,1-difluoroethane	75-37-6	gas	2.262	1
42	CH4N2S	ammonium thiocyanate	1762-95-4	in benzene	5.066	1	122	C2H4F2	1,2-difluoroethane	624-72-6	gas	2.671	1
43	CH4O	methyl alcohol	67-56-1	gas	1.700	1	123	C2H4I2	1,2-diiodoethane	624-73-7	in benzene	1.300	1
44 45	CH4S CH5ClSi	methyl mercaptan methyl chlorosilane	74-93-1 993-00-0	gas in cyclohexane	1.520 1.931	1	124 125	C2H4N2 C2H4N2O6	aminoacetonitrile ethylene glycol dinitrate	540-61-4 628-96-6	gas in benzene	2.641 3.568	1
46	CH5N	methylamine	74-89-5	gas	1.310	1	126	C2H4N4	cyanoguanidine	461-58-5	in dioxane	8.214	1
47	CH6Si	methyl silane	992-94-9	gas	0.735	1	127	C2H4O	acetaldehyde	75-07-0	gas	2.689	1
48	CN4O8	tetranitromethane	509-14-8	gas	0.000	1	128	C2H4O	ethylene oxide	75-21-8	gas	1.889	1
49	CO	carbon monoxide	630-08-0	gas	0.112	1	129	C2H4O2	acetic acid	64-19-7	gas	1.739	1
50	COS	carbonyl sulfide	463-58-1	gas	0.711	1	130	C2H4O2	methyl formate	107-31-3	gas	1.770	1
51 52	CO2 CS2	carbon dioxide carbon disulfide	124-38-9 75-15-0	gas	0.000	1	131	C2H4O2S C2H4O3	thioglycolic acid	68-11-1 79-14-1	in dioxane	2.281	1
53		bromotrifluoroethylene	598-73-2	gas gas	0.760	1	133	C2H4O3	glycolic acid peroxyacetic acid	79-14-1	gas gas	2.383	1
54		1,2-dibromotetrafluoroethane	124-73-2	gas	0.030	2	134	C2H4S	ethylene sulfide	420-12-2	in benzene	1.769	1
55		chlorotrifluoroethylene	79-38-9	gas	0.399	1	135	C2H5Br	bromoethane	74-96-4	gas	2.030	1
56	C2CIF5	chloropentafluoroethane	76-15-3	gas	0.519	1	136	C2H5CI	ethyl chloride	75-00-3	gas	2.051	1
57	C2Cl2F4	1,2-dichloro-1,1,2,2-tetrafluoroethane	76-14-2	gas	0.669	1	137	C2H5CIO	2-chloroethanol	107-07-3	gas	1.780	1
58	C2Cl2F4	1,1-dichloro-1,2,2,2-tetrafluoroethane 1,1,1-trichloro-2,2,2-trifluoroethane	374-07-2	gas	0.555	2	138	C2H5CIO2S	chloromethyl methyl ether ethanesulfonyl chloride	107-30-2	gas	1.760	1
59 60		1,1,1-trichloro-2,2,2-trifluoroethane tetrachloroethylene	354-58-5 127-18-4	gas in benzene	0.740	1	139 140	C2H5ClO2S C2H5Cl3Si	ethanesulfonyl chloride trichloroethylsilane	594-44-5 115-21-9	gas gas	3.897 2.030	2
61	C2Cl4F2	1,1,2,2-tetrachloro-1,2-difluoroethane	76-12-0	gas	1.259	2	141	C2H5Cl3SI C2H5F	ethyl fluoride	353-36-6	gas	1.940	1
62		1,1,1,2-tetrachloro-2,2-difluoroethane	76-11-9	gas	1.391	2	142	C2H5I	ethyl iodide	75-03-6	gas	1.910	1
63		trichloroacetyl chloride	76-02-8	in benzene	1.199	1	143	C2H5N	ethyleneimine	151-56-4	gas	1.900	1
64	C2Cl5F	pentachlorofluoroethane	354-56-3	gas	0.513	2	144	C2H5NO	acetaldoxime	107-29-9	gas	0.827	1
65	C2Cl6	hexachloroethane	67-72-1	gas	0.000	1	145	C2H5NO	acetamide	60-35-5	gas	3.747	1
66		hexafluoroethane	76-16-4	gas	0.000	1	146	C2H5NO	N-methylformamide	123-39-7	gas	3.830	1
67 68		halothane 2-chloro-1,1-difluoroethylene	151-67-7 359-10-4	gas gas	2.066 1.289	2	147	C2H5NO2 C2H5NO2	nitroethane glycine	79-24-3 56-40-6	gas in water	3.657 12.801	1
69		2-chloro-1,1,1,2-tetrafluoroethane	2837-89-0	gas	1.469	1	149	C2H5NO3	ethyl nitrate	625-58-1	in benzene	2.930	1
70		1,1-dichloro-1,2,2-trifluoroethane	812-04-4	gas	1.394	2	150	C2H6	ethane	74-84-0	gas	0.000	1
71		1,2-dichloro-1,1,2-trifluoroethane	354-23-4	gas	1.302	1	151	C2H6AICI	dimethylaluminum chloride	1184-58-3	gas	1.631	1
72		2,2-dichloro-1,1,1-trifluoroethane	306-83-2	gas	1.356	1	152	C2H6Cl2Si	dichlorodimethylsilane	75-78-5	in benzene	1.889	1
73		trichloroethylene	79-01-6	liquid	0.770	1	153	C2H6O	ethyl alcohol	64-17-5	gas	1.691	1
74		dichloroacetyl chloride	79-36-7	in CCI4	1.580	1	154	C2H6O	dimethyl ether	115-10-6	gas	1.301	1
75 76		trichloroacetaldehyde	75-87-6	gas	1.961	1	155	C2H6OS	dimethyl sulfoxide	67-68-5	gas	3.957	1
76 77	C2HCl3O2 C2HCl5	trichloroacetic acid pentachloroethane	76-03-9 76-01-7	in benzene gas	1.109 0.920	1	156 157	C2H6O2 C2H6O4S	ethylene glycol dimethyl sulfate	107-21-1 77-78-1	gas in benzene	2.410 4.167	1
	C2HF3O2	trifluoroacetic acid	76-05-1	gas	2.280	1	158	C2H6O4S	ethyl sulfate	540-82-9	gas	4.257	2
78									-		<u> </u>		_
78 79	C2HF5	pentafluoroethane	354-33-6	gas	1.541	1	159	C2H6S	ethyl mercaptan	75-08-1	gas	1.580	1

Table 17 Dipole Moment – Organic Compounds

		Dipole Mom	ent						Dipole Momen	t			
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	
161	C2H6S2	dimethyl disulfide	624-92-0	gas	1.985	1	241	C3H7NO2	2-nitropropane	79-46-9	gas	3.717	1
162	C2H6S2	1,2-ethanedithiol	540-63-6	in benzene	1.721	1	242	C3H7NO3	propyl nitrate	627-13-4	in benzene	3.010	1
163 164	C2H7CISi C2H7N	chlorodimethylsilane	1066-35-9 75-04-7	gas	1.280	1	243 244	C3H8 C3H8O	propane propyl alcohol	74-98-6 71-23-8	gas	1.679	1
165	C2H7N	ethylamine dimethylamine	124-40-3	gas gas	1.031	1	245	C3H8O	isopropyl alcohol	67-63-0	gas gas	1.660	1
166	C2H7NO	monoethanolamine	141-43-5	in dioxane	0.776	1	246	C3H8O	methyl ethyl ether	540-67-0	gas	1.229	1
167	C2H8N2	ethylenediamine	107-15-3	in benzene	1.901	1	247	C3H8O2	2-methoxyethanol	109-86-4	in benzene	2.129	1
168	C2H8Si	dimethyl silane	1111-74-6	gas	0.749	1	248	C3H8O2	methylal	109-87-5	gas	0.740	1
169	C2N2	cyanogen	460-19-5	gas	0.000	1	249	C3H8O2	1,2-propanediol (propylene glycol)	57-55-6	liquid	3.630	1
170	C3Cl2F6	1,2-dichlorohexafluoropropane	661-97-2	gas	0.690	2	250	C3H8O2	1,3-propanediol	504-63-2	in dioxane	2.521	1
171	C3F6O	hexafluoroacetone	684-16-2	gas	0.648	1	251	C3H8O3	glycerol	56-81-5	in dioxane	2.680	1
172	C3F6O	trifluoromethyl trifluorovinyl ether	1187-93-5	gas	0.402	1	252	C3H8S	propyl mercaptan	107-03-9	in benzene	1.541	1
173	C3F8	octafluoropropane	76-19-7	gas	0.000	1	253	C3H8S	isopropyl mercaptan	75-33-2	in benzene	1.550	1
174	C3HF7	heptafluoropropane	431-89-0	gas	1.940	2	254	C3H8S	methyl ethyl sulfide	624-89-5	gas	1.559	1
175	C3H2F6	1,1,1,2,3,3-hexafluoropropane	431-63-0	gas	0.201	2	255	C3H9AI	trimethyl aluminum	75-24-1	gas	1.430	1
176	C3H2N2	malononitrile	109-77-3	gas	3.717	1	256	C3H9CISi	trimethylchlorosilane	75-77-4	gas	2.081	1
177 178	C3H3CI C3H3F3	propargyl chloride 3,3,3-trifluoropropene	624-65-7 677-21-4	gas	1.679 2.449	1	257 258	C3H9N C3H9N	propylamine	107-10-8 75-31-0	gas in benzene	1.169	1
179	C3H3F5	1,1,1,2,2-pentafluoropropane	1814-88-6	gas gas	2.449	2	259	C3H9N	isopropylamine trimethylamine	75-51-0	gas	0.612	1
180	C3H3F5O	perfluoroethyl methyl ether		gas	1.631	1	260	C3H9NO	3-amino-1-propanol	156-87-6	ns	2.690	1
181	C3H3N	acrylonitrile	107-13-1	gas	3.870	1	261	C3H9NO	methylethanolamine	109-83-1	in benzene	2.159	1
182	C3H3NO	oxazole	288-42-6	gas	1.499	1	262	C3H9O4P	trimethyl phosphate	512-56-1	in benzene	3.088	1
183	C3H3NO	isoxazole	288-14-2	gas	2.899	1	263	C3H10N2	1,3-propanediamine	109-76-2	in benzene	1.841	1
184	C3H4	methylacetylene	74-99-7	gas	0.782	1	264	C3H10O3Si	trimethoxysilane	2487-90-3	gas	1.304	2
185	C3H4	allene	463-49-0	gas	0.000	1	265	C3H10Si	trimethyl silane	993-07-7	gas	0.525	1
186	C3H4Cl2	2,3-dichloropropene	78-88-6	gas	1.739	1	266	C4Cl2F6	1,2-dichloro-1,2,3,3,4,4-hexafluorocyclobuta*	356-18-3	gas	1.589	1
187	C3H4N2	1H-pyrazole	288-13-1	gas	2.215	1	267	C4Cl4S	tetrachlorothiophene	6012-97-1	in benzene	0.929	1
188	C3H4O	acrolein	107-02-8	gas	3.120	1	268	C4Cl6	hexachloro-1,3-butadiene	87-68-3	in benzene	0.200	1
189	C3H4O	propargyl alcohol	107-19-7	in benzene	1.780	1	269	C4F8	octafluorocyclobutane	115-25-3	gas	0.000	1
190	C3H4O2	acrylic acid	79-10-7	gas	1.460	1	270	C4F8O	pentafluoroethyl trifluorovinyl ether	10493-43-3	gas	0.462	2
191	C3H4O2	beta-propiolactone	57-57-8	gas	4.167	1	271	C4F10	decafluorobutane	355-25-9	gas	0.000	2
192 193	C3H4O2 C3H4O3	vinyl formate	692-45-5 96-49-1	in benzene	1.660 4.497	1	272 273	C4H2N2 C4H2N2	trans-2-butenedinitrile	764-42-1 928-53-0	gas	0.000 5.996	1 2
193	C3H4O3	ethylene carbonate pyruvic acid	127-17-3	gas gas	2.299	1	274	C4H2O3	maleonitrile maleic anhydride	108-31-6	gas in dioxane	3.927	1
195	C3H4O4	malonic acid	141-82-2	in dioxane	2.299	1	275	C4H2O3	vinylacetylene	689-97-4	gas	0.400	1
196	C3H5Br	3-bromo-1-propene	106-95-6	in benzene	1.810	1	276	C4H4N2	succinonitrile	110-61-2	in benzene	3.927	1
197	C3H5CI	2-chloro-1-propene	557-98-2	gas	1.661	1	277	C4H4N2	pyrazine	290-37-9	gas	0.240	1
198	C3H5CI	3-chloro-1-propene	107-05-1	gas	1.940	1	278	C4H4N2	pyridazine	289-80-5	gas	4.137	1
199	C3H5CIO	alpha-epichlorohydrin	106-89-8	in CCl4	1.799	1	279	C4H4N2	pyrimidine	289-95-2	gas	2.335	1
200	C3H5CIO2	ethyl chloroformate	541-41-3	gas	2.548	1	280	C4H4O	furan	110-00-9	gas	0.660	1
201	C3H5I	3-iodo-1-propene	556-56-9	in benzene	1.620	1	281	C4H4O2	diketene	674-82-8	gas	3.538	1
202	C3H5N	propionitrile	107-12-0	gas	4.020	1	282	C4H4O3	succinic anhydride	108-30-5	in benzene	3.830	1
203	C3H5N3O9	nitroglycerine	55-63-0	in benzene	3.148	1	283	C4H4O4	fumaric acid	110-17-8	in dioxane	2.450	1
204	C3H6	cyclopropane	75-19-4	gas	0.000	1	284	C4H4O4	maleic acid	110-16-7	in dioxane	3.178	1
205	C3H6	propylene	115-07-1	gas	0.366	1	285	C4H4S	thiophene	110-02-1	gas	0.540	1
206	C3H6Br2 C3H6Cl2	1,2-dibromopropane	78-75-1	gas	1.240 2.081	1	286 287	C4H5CI C4H5N	chloroprene trans-crotonitrile	126-99-8 627-26-9	gas	1.430 4.527	1
207	C3H6Cl2	1,1-dichloropropane 1,2-dichloropropane	78-99-9 78-87-5	in benzene gas	1.460	1	288	C4H5N	cis-crotonitrile	1190-76-7	gas gas	4.077	1
209	C3H6Cl2	1,3-dichloropropane	142-28-9	gas	2.081	1	289	C4H5N	methacrylonitrile	126-98-7	gas	3.687	1
210	C3H6Cl2	2,2-dichloropropane	594-20-7	gas	2.090	1	290	C4H5N	vinvlacetonitrile	109-75-1	in benzene	3.418	1
211	C3H6Cl2O	2,3-dichloro-1-propanol	616-23-9	gas	1.559	2	291	C4H5N	pyrrole	109-97-7	gas	1.840	1
212	C3H6Cl2O	1,3-dichloro-2-propanol	96-23-1	in benzene	2.111	1	292	C4H5NO	2-hydroxy-3-butenenitrile	5809-59-6	gas	2.860	2
213	C3H6Cl2Si	dichlorovinylmethylsilane	124-70-9	in benzene	2.290	1	293	C4H5NO2	methyl cyanoacetate	105-34-0	in benzene	3.747	1
214	C3H6O	allyl alcohol	107-18-6	gas	1.600	1	294	C4H5NO2	succinimide	123-56-8	gas	2.392	2
215	C3H6O	propionaldehyde	123-38-6	gas	2.521	1	295	C4H5N3	1,1'-imidodiacetonitrile	628-87-5	in dioxane	3.508	1
216	C3H6O	acetone	67-64-1	gas	2.880	1	296	C4H6	ethylacetylene	107-00-6	gas	0.809	1
217	C3H6O	1,2-propylene oxide	75-56-9	gas	2.009	1	297	C4H6	1,2-butadiene	590-19-2	gas	0.402	1
218	C3H6O	1,3-propylene oxide	503-30-0	gas	1.930	1	298	C4H6	butadiene (1,3 butadiene)	106-99-0	gas	0.000	1
219	C3H6O2	propanoic acid	79-09-4	gas	1.751	1	299	C4H6Cl2	1,4-dichloro-cis-2-butene	1476-11-5	gas	0.000	2
220	C3H6O2	ethyl formate	109-94-4	gas	1.930	1	300	C4H6Cl2	1,4-dichloro-trans-2-butene	110-57-6	gas	0.000	2
221	C3H6O2	methyl acetate	79-20-9	gas	1.679	1	301	C4H6Cl2	3,4-dichloro-1-butene	760-23-6	gas	4.047	1
222	C3H6O2	1-hydroxy-2-propanone	116-09-6	gas	4.287	2	302	C4H6O	cis-crotonaldehyde	15798-64-8	gas	4.047	2
223	C3H6O2S	(±)-glycidol	556-52-5	gas in dioxane	1.439	1	303 304	C4H6O	trans-crotonaldehyde	123-73-9	gas	3.657	1
224 225	C3H6O2S C3H6O3	3-mercaptopropionic acid	107-96-0 50-21-5		2.251 1.139	1 2	304	C4H6O C4H6O	methacrolein 2,5-dihydrofuran	78-85-3 1708-29-8	gas in benzene	2.680 1.541	1
225	C3H6O3	methoxyacetic acid	625-45-6	gas	2.560	1	305	C4H6O	2,3-dihydrofuran	1708-29-8		1.319	1
226	C3H6O3	trioxane	110-88-3	gas gas	2.560	1	306	C4H6O	divinyl ether	109-93-3	gas in benzene	1.070	1
228	C3H6O3	dimethyl carbonate	616-38-6	gas	0.899	1	308	C4H6O2	2-butyne-1,4-diol	110-65-6	in benzene	2.629	1
229	C3H6S	thiacyclobutane	287-27-4	gas	1.850	1	309	C4H6O2	gamma-butyrolactone	96-48-0	gas	3.820	1
230	C3H7Br	1-bromopropane	106-94-5	gas	2.180	1	310	C4H6O2	trans-2-butenoic acid	107-93-7	in benzene	2.129	1
231	C3H7Br	2-bromopropane	75-26-3	gas	2.210	1	311	C4H6O2	methacrylic acid	79-41-4	in benzene	1.649	1
		1-chloropropane	540-54-5	gas	2.051	1	312	C4H6O2	vinyl acetate	108-05-4	in benzene	1.790	1
232	C3H7CI			gas	2.170	1	313	C4H6O3	acetic anhydride	108-24-7	gas	2.788	1
232 233	C3H7CI C3H7CI	2-chloropropane	75-29-6	guo					-				1
		2-chloropropane 3-chloro-1,2-propanediol	75-29-6 96-24-2	gas	3.747	1	314	C4H6O3	propylene carbonate	108-32-7	in benzene	4.550	
233	C3H7CI				3.747 2.040	1	314 315	C4H6O3	succinic acid	108-32-7	in benzene gas	4.550 2.200	1
233 234	C3H7CI C3H7CIO2	3-chloro-1,2-propanediol	96-24-2	gas									
233 234 235	C3H7CI C3H7CIO2 C3H7I	3-chloro-1,2-propanediol 1-iodopropane	96-24-2 107-08-4	gas gas	2.040	1	315	C4H6O4	succinic acid	110-15-6	gas	2.200	1
233 234 235 236 237 238	C3H7CI C3H7CIO2 C3H7I C3H7I C3H7N C3H7NO	3-chloro-1,2-propanediol 1-iodopropane 2-iodopropane allylamine N,N-dimethylformamide	96-24-2 107-08-4 75-30-9 107-11-9 68-12-2	gas gas in benzene	2.040 1.950 1.310 3.807	1 1 1	315 316 317 318	C4H6O4 C4H6O4 C4H6O5 C4H6O5	succinic acid (acetyloxy)acetic acid diglycolic acid malic acid	110-15-6 13831-30-6 110-99-6 6915-15-7	gas gas gas gas	2.200 3.148 1.070 3.118	1 2 2 1
233 234 235 236 237	C3H7CI C3H7CIO2 C3H7I C3H7I C3H7N	3-chloro-1,2-propanediol 1-iodopropane 2-iodopropane allylamine	96-24-2 107-08-4 75-30-9 107-11-9	gas gas in benzene in benzene	2.040 1.950 1.310	1 1 1	315 316 317	C4H6O4 C4H6O4 C4H6O5	succinic acid (acetyloxy)acetic acid diglycolic acid	110-15-6 13831-30-6 110-99-6	gas gas gas	2.200 3.148 1.070	1 2 2

Table 17 Dipole Moment – Organic Compounds

		Dipole Momer	nt						Dipole Mome	nt			
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
321	C4H7N	butyronitrile	109-74-0	gas	4.070	1	401	C4H10S	tert-butyl mercaptan	75-66-1	in benzene	1.589	1
322	C4H7N	isobutyronitrile	78-82-0	gas	4.290	1	402	C4H10S	diethyl sulfide	352-93-2	gas	1.541	1
323	C4H7NO	acetone cyanohydrin	75-86-5	in benzene	0.318	1	403	C4H10S	methyl propyl sulfide	3877-15-4	gas	1.520	2
324 325	C4H7NO C4H8	2-pyrrolidone	616-45-5 287-23-0	in benzene	0.309	2	404 405	C4H10S2 C4H11N	diethyl disulfide	110-81-6 109-73-9	in benzene	1.961	1
325	C4H8	cyclobutane 1-butene	106-98-9	gas gas	0.000	1	405	C4H11N	butylamine isobutylamine	78-81-9	in benzene in benzene	1.270	1
327	C4H8	cis-2-butene	590-18-1	gas	0.300	1	407	C4H11N	sec-butylamine	13952-84-6	in benzene	1.280	1
328	C4H8	trans-2-butene	624-64-6	gas	0.000	2	408	C4H11N	tert-butylamine	75-64-9	in benzene	1.290	1
329	C4H8	isobutene	115-11-7	gas	0.500	1	409	C4H11N	diethylamine	109-89-7	gas	0.920	1
330	C4H8Cl2	1,2-dichlorobutane	616-21-7	gas	2.911	2	410	C4H11NO	dimethylethanolamine	108-01-0	in benzene	2.209	1
331	C4H8Cl2	1,4-dichlorobutane	110-56-5	gas	2.221	1	411	C4H11NO	2-amino-1-methoxypropane	37143-54-7	gas	1.382	2
332 333	C4H8Cl2 C4H8Cl2O	2,3-dichlorobutane, dl and meso bis(2-chloroethyl) ether	7581-97-7 111-44-4	gas in benzene	0.000 2.581	2	412 413	C4H11NO2 C4H12O2Si	diethanolamine dimethoxydimethylsilane	111-42-2 1112-39-6	in dioxane in benzene	0.851 1.310	1
334	C4H8O	1,2-epoxybutane	106-88-7	in benzene	2.009	1	414	C4H12Si	tetramethylsilane	75-76-3	liquid	0.000	1
335	C4H8O	ethyl vinyl ether	109-92-2	gas	0.980	1	415	C5Cl6	hexachlorocyclopentadiene	77-47-4	in benzene	1.049	1
336	C4H8O	butyraldehyde	123-72-8	gas	2.719	1	416	C5H4O2	furfural	98-01-1	in benzene	0.360	1
337	C4H8O	isobutyraldehyde	78-84-2	gas	2.698	2	417	C5H4O3	3-methyl-2,5-furandione	616-02-4	in benzene	4.047	1
338	C4H8O	methyl ethyl ketone	78-93-3	benzene/dioxane	2.760	1	418	C5H5N	pyridine	110-86-1	gas	2.191	1
339	C4H8O	tetrahydrofuran	109-99-9	gas	1.630	1	419	C5H6	cyclopentadiene	542-92-7	gas	0.419	1
340 341	C4H8OS	2,2-dimethyloxirane s-ethyl thioacetate	558-30-5 625-60-5	gas gas	2.248 4.617	2	420 421	C5H6 C5H6	2-methyl-1-butene-3-yne 1-pentene-3-yne	78-80-8 646-05-9	in benzene gas	0.549	1
342	C4H8OS	3-(methylthio)propanal	3268-49-3	gas	2.968	1	421	C5H6N2	glutaronitrile	544-13-8	in benzene	3.897	1
343	C4H8O2	butyric acid	107-92-6	in benzene	1.649	1	423	C5H6O2	furfuryl alcohol	98-00-0	in benzene	1.919	1
344	C4H8O2	isobutyric acid	79-31-2	in benzene	1.091	1	424	C5H6O4	itaconic acid	97-65-4	in dioxane	2.251	1
345	C4H8O2	propyl formate	110-74-7	in benzene	1.910	1	425	C5H6S	2-methylthiophene	554-14-3	gas	0.675	1
346	C4H8O2	ethyl acetate	141-78-6	gas	1.781	1	426	C5H6S	3-methylthiophene	616-44-4	gas	0.956	1
347 348	C4H8O2 C4H8O2	methyl propanoate 1,4-dioxane	554-12-1 123-91-1	in benzene gas	1.703 0.000	2	427 428	C5H7N C5H7NO2	N-methylpyrrole ethyl cyanoacetate	96-54-8 105-56-6	gas	2.099	1
349	C4H8O2	cis-2-butene-1,4-diol	6117-80-2	in benzene	2.500	1	428	C5H7NO2	cyclopentene	142-29-0	gas gas	0.200	1
350	C4H8O2	trans-2-butene-1,4-diol	821-11-4	in benzene	2.470	1	430	C5H8	isoprene	78-79-5	gas	0.250	1
351	C4H8O2	1,3-dioxane	505-22-6	in benzene	2.060	1	431	C5H8	trans-1,3-pentadiene	2004-70-8	gas	0.680	1
352	C4H8O2	3-hydroxybutanal	107-89-1	gas	2.782	2	432	C5H8	1,4-pentadiene	591-93-5	in benzene	0.380	1
353	C4H8O2	4-hydroxybutraldehyde	25714-71-0	gas	3.028	2	433	C5H8	1-pentyne	627-19-0	gas	0.809	1
354	C4H8O2	3-hydroxy-2-methyl propionaldehyde	38433-80-6	gas	4.077	2	434	C5H8	2-pentyne	627-21-4	gas	0.116	2
355 356	C4H8O2S C4H8O3	sulfolane 2-hydroxy-2-methylpropanoic acid	126-33-0 594-61-6	in benzene gas	0.468 2.431	2	435 436	C5H8O	pentaerythritol tetranitrate cyclopentanone	78-11-5 120-92-3	in dioxane gas	2.479 3.238	1
357	C4H8O3	methyl lactate	547-64-8	gas	1.799	2	437	C5H8O	methyl isopropenyl ketone	814-78-8	in benzene	2.740	1
358	C4H8S	tetrahydrothiophene	110-01-0	in benzene	1.901	1	438	C5H8O2	acetylacetone	123-54-6	gas	2.810	1
359	C4H9Br	1-bromobutane	109-65-9	gas	2.080	1	439	C5H8O2	methyl methacrylate	80-62-6	in benzene	1.970	1
360	C4H9Br	2-bromobutane	78-76-2	gas	2.230	1	440	C5H8O2	4-methyl-gamma-butyrolactone	108-29-2	in benzene	4.300	1
361	C4H9CI	1-chlorobutane	109-69-3	gas	2.051	1	441	C5H8O2	pentanedial	111-30-8	gas	3.328	2
362 363	C4H9CI C4H9CI	1-chloro-2-methylpropane	513-36-0	gas	2.000	1	442 443	C5H8O3 C5H8O4	levulinic acid	123-76-2 110-94-1	gas in dioxane	3.148 2.640	2
364	C4H9CI	2-chlorobutane 2-chloro-2-methylpropane	78-86-4 507-20-0	gas gas	2.039	1	443	C5H9NO	glutaric acid butyl isocyanate	111-36-4	liquid	2.524	1
365	C4H9I	1-iodobutane	542-69-8	gas	2.120	1	445	C5H9NO	N-methyl-2-pyrrolidone	872-50-4	in benzene	4.077	1
366	C4H9I	2-iodo-2-methylpropane	558-17-8	in benzene	2.150	1	446	C5H9NO2	4-morpholinecarboxaldehyde	4394-85-8	in benzene	2.950	1
367	C4H9N	pyrrolidine	123-75-1	in benzene	1.580	1	447	C5H9NO4	L-glutamic acid	56-86-0	gas	1.211	2
368	C4H9NO	N,N-dimethylacetamide	127-19-5	gas	3.810	1	448	C5H10	cyclopentane	287-92-3	liquid	0.000	1
369	C4H9NO	morpholine	110-91-8	in benzene	1.541	1	449	C5H10	1-pentene	109-67-1	liquid	0.340	1
370 371	C4H9NO2	1-nitrobutane	627-05-4	in benzene	3.388	2	450 451	C5H10	2-methyl-1-butene	563-46-2 563-45-1	gas	0.510	1
372	C4H10 C4H10	butane isobutane	106-97-8 75-28-5	gas gas	0.000	1	452	C5H10 C5H10	3-methyl-1-butene 2-methyl-2-butene	513-35-9	gas in benzene	0.321	1
373	C4H10N2	piperazine	110-85-0	in benzene	1.470	1	453	C5H10Cl2	1,5-dichloropentane	628-76-2	in benzene	2.359	1
374	C4H10O	butanol	71-36-3	gas	1.661	1	454	C5H10O	pentanal	110-62-3	in benzene	2.569	1
375	C4H10O	isobutanol	78-83-1	gas	1.640	1	455	C5H10O	methyl propyl ketone	107-87-9	in benzene	2.770	1
376	C4H10O	sec-butanol	78-92-2	in benzene	1.661	1	456	C5H10O	diethyl ketone	96-22-0	in CCl4	2.821	1
377	C4H10O	tert-butanol	75-65-0	in benzene	1.670	1	457	C5H10O	methyl isopropyl ketone	563-80-4	in benzene	2.761	1
378 379	C4H10O C4H10O	diethyl ether methyl propyl ether	60-29-7 557-17-5	gas in benzene	1.151 1.241	1	458 459	C5H10O2 C5H10O2	pentanoic acid  3-methylbutanoic acid	109-52-4 503-74-2	in dioxane in benzene	1.610 0.630	1
380	C4H10O	methyl isopropyl ether	598-53-8	gas	1.247	1	460	C5H10O2	2,2-dimethylpropanoic acid	75-98-9	in benzene	1.700	1
381	C4H10O2	t-butyl hydroperoxide	75-91-2	in benzene	1.810	1	461	C5H10O2	butyl formate	592-84-7	in benzene	2.030	1
382	C4H10O2	1,2-dimethoxyethane	110-71-4	in benzene	1.710	1	462	C5H10O2	isobutyl formate	542-55-2	in benzene	1.890	1
383	C4H10O2	2-ethoxyethanol	110-80-5	in benzene	2.081	1	463	C5H10O2	sec-butyl formate	589-40-2	gas	1.940	2
384	C4H10O2	1,2-butanediol	584-03-2	in dioxane	2.179	1	464	C5H10O2	tert-butyl formate	762-75-4	in benzene	2.099	1
385	C4H10O2	1,3-butanediol	107-88-0	in dioxane	2.521	1	465	C5H10O2	propyl acetate	109-60-4	in benzene	1.790	1
386 387	C4H10O2 C4H10O2	1,4-butanediol DL-2,3-butanediol	110-63-4 6982-25-8	liquid in benzene	3.930 2.099	1	466 467	C5H10O2 C5H10O2	ethyl propanoate	108-21-4 105-37-3	gas in benzene	1.751	1
388	C4H10O2	meso-2,3-butanediol	5341-95-7	in benzene	2.099	1	468	C5H10O2	methyl butanoate	623-42-7	in benzene	1.721	1
389	C4H10O2	n-butylhydroperoxide	4813-50-7	gas	0.275	2	469	C5H10O2	methyl isobutanoate	547-63-7	gas	1.799	1
390	C4H10O2	2-methoxy-1-propanol	1589-47-5	gas	1.859	2	470	C5H10O2	tetrahydrofurfuryl alcohol	97-99-4	in benzene	2.200	1
391	C4H10O2	propylene glycol monomethyl ether	107-98-2	in benzene	2.401	1	471	C5H10O2S	3-methyl sulfolane	872-93-5	gas	4.797	1
392	C4H10O2	2-methyl-1,3-propanediol	2163-42-0	gas	0.312	2	472	C5H10O3	diethyl carbonate	105-58-8	gas	1.100	1
393 394	C4H10O3 C4H10O3	diethylene glycol 1,2,3-butanetriol	111-46-6 4435-50-1	in benzene gas	2.521 3.418	2	473 474	C5H10O3 C5H11Br	ethyl lactate 1-bromopentane	97-64-3 110-53-2	in benzene liquid	2.400 1.990	1
395	C4H10O3	1,2,4-butanetriol	3068-00-6	gas	3.747	2	474	C5H11CI	1-chloropentane	543-59-9	gas	2.159	1
396	C4H10O3S	diethyl sulfite	623-81-4	in benzene	0.300	1	476	C5H11Cl	1-chloro-3-methylbutane	107-84-6	in benzene	1.940	1
397	C4H10O4S	diethyl sulfate	64-67-5	in benzene	4.407	1	477	C5H11CI	2-chloro-2-methylbutane	594-36-5	in benzene	2.160	1
398	C4H10S	butyl mercaptan	109-79-5	in benzene	1.529	1	478	C5H11N	N-methylpyrrolidine	120-94-5	in benzene	0.830	1
399	C4H10S	isobutyl mercaptan	513-44-0	in benzene	1.529	1	479	C5H11N	piperidine	110-89-4	in benzene	1.190	1
400	C4H10S	sec-butyl mercaptan	513-53-1	in benzene	1.601	1	480	C5H11N	cyclopentylamine	1003-03-8	gas	0.797	2

Table 17 Dipole Moment – Organic Compounds

		Dipole Moment							Dipole Moment				
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
481	C5H11NO	tert-butylformamide	2425-74-3	in dioxane	3.927	1	561	C6H7N	3-methylpyridine	108-99-6	in benzene	2.401	1
482	C5H12	pentane	109-66-0	gas	0.000	1	562	C6H7N	4-methylpyridine	108-89-4	in benzene	2.581	1
483	C5H12	isopentane	78-78-4	gas	0.130	1	563	C6H8	1,3-cyclohexadiene	592-57-4	gas	0.441	1
484	C5H12	neopentane	463-82-1	gas	0.000	1	564	C6H8	1,4-cyclohexadiene	628-41-1	in heptane	0.130	1
485 486	C5H12O C5H12O	1-pentanol 2-pentanol	71-41-0 6032-29-7	in CCl4	1.700 1.616	1	565 566	C6H8N2 C6H8N2	adiponitrile m-phenylenediamine	111-69-3 108-45-2	gas	3.747 1.811	1
487	C5H12O	3-pentanol	584-02-1	gas	1.640	1	567	C6H8N2	o-phenylenediamine	95-54-5	gas gas	1.529	1
488	C5H12O	2-methyl-1-butanol	137-32-6	gas	1.880	1	568	C6H8N2	p-phenylenediamine	106-50-3	gas	1.529	1
489	C5H12O	3-methyl-1-butanol	123-51-3	in benzene	1.799	1	569	C6H8N2	phenylhydrazine	100-63-0	in benzene	1.670	1
490	C5H12O	tert-pentyl-alcohol	75-85-4	in benzene	1.700	1	570	C6H8O4	dimethyl maleate	624-48-6	in CCI4	2.479	1
491	C5H12O	3-methyl-2-butanol	598-75-4	gas	1.817	1	571	C6H8O6	ascorbic acid	50-81-7	in dioxane	3.957	1
492	C5H12O	methyl butyl ether	628-28-4	in benzene	1.250	1	572	C6H8O7	citric acid	77-92-9	gas	3.478	2
493	C5H12O	methyl tert-butyl ether	1634-04-4	in benzene	1.361	1	573	C6H10	1-methylcyclopentene	693-89-0	gas	0.000	2
494	C5H12O	ethyl propyl ether	628-32-0	in benzene	1.160	1	574	C6H10	3-methylcyclopentene	1120-62-3	gas	0.000	2
495	C5H12O	ethyl isopropyl ether	625-54-7	in benzene	1.250	1	575	C6H10	4-methylcyclopentene	1759-81-5	gas	0.306	2
496	C5H12O2	ethylene glycol monopropyl ether	2807-30-9	in benzene	2.159	1	576	C6H10	cyclohexene	110-83-8	gas	0.330	1
497	C5H12O2	neopentyl glycol	126-30-7	in benzene	2.698	1	577	C6H10	1,4-hexadiene	592-45-0	gas	0.000	2
498	C5H12O2	1,5-pentanediol	111-29-5	in dioxane	2.371	1	578	C6H10	cis-2,trans-4-hexadiene	5194-50-3	in benzene	0.309	1
499 500	C5H12O2 C5H12O2	2,4-pentanediol diethoxymethane	625-69-4 462-95-3	in dioxane	2.629 1.220	1	579 580	C6H10 C6H10	trans-2,trans-4-hexadiene 3-methyl-1,4-pentadiene	5194-51-4 1115-08-8	in benzene	0.309	2
501	C5H12O2	2-(2-methoxyethoxy)ethanol	111-77-3	gas in benzene	2.749	1	581	C6H10	2,3-dimethyl-1,3-butadiene	513-81-5	gas	0.279	1
502	C5H12O3	pentaerythritol	115-77-5	gas	2.749	1	582	C6H10	1-hexyne	693-02-7	gas gas	0.830	1
503	C5H12S	pentyl mercaptan	110-66-7	in benzene	1.511	1	583	C6H10O	cyclohexanone	108-94-1	gas	3.088	1
504	C5H12S	methyl butyl sulfide	628-29-5	gas	1.490	2	584	C6H10O	mesityl oxide	141-79-7	in benzene	3.200	1
505	C5H12S	3,3-dimethyl-2-thiabutane	6163-64-0	in benzene	1.559	1	585	C6H10O	2-methyl-2-pentenal	623-36-9	gas	3.627	2
506	C5H13N	pentylamine	110-58-7	in benzene	1.550	1	586	C6H10O2	epsilon-caprolactone	502-44-3	gas	4.450	1
507	C5H13N	1,1-dimethylpropylamine	594-39-8	gas	1.409	2	587	C6H10O2	ethyl methacrylate	97-63-2	in benzene	2.150	1
508	C5H13NO2	methyl diethanolamine	105-59-9	gas	2.860	1	588	C6H10O2	allyl glycidyl ether	106-92-3	gas	1.862	2
509	C6Cl6	hexachlorobenzene	118-74-1	in benzene	0.540	1	589	C6H10O2	isopropyl acrylate	689-12-3	gas	2.281	2
510	C6F6	hexafluorobenzene	392-56-3	in benzene	0.330	1	590	C6H10O2	3,4-dihydro-2-methoxy-2H-pyran	4454-05-1	in benzene	1.979	1
511	C6H3CIN2O4	1-chloro-2,4-dinitrobenzene	97-00-7	in benzene	3.238	1	591	C6H10O3	ethylacetoacetate	141-97-9	gas	2.960	1
512	C6H3Cl2NO2	-	99-54-7	in benzene	2.171	1	592	C6H10O3	propionic anhydride	123-62-6	in benzene	3.298	1
513 514	C6H3Cl3	1,2,4-trichlorobenzene	120-82-1 87-61-6	in benzene	1.260 2.440	1	593 594	C6H10O3	ethylene glycol monomethacrylate	868-77-9 124-04-9	in benzene in dioxane	2.350	1
515	C6H3Cl3	1,3,5-trichlorobenzene	108-70-3	in benzene	0.309	1	595	C6H10O4	adipic acid diethyl oxalate	95-92-1	in benzene	2.320	1
516	C6H3N3O6	1,3,5-trinitrobenzene	99-35-4	in benzene	0.303	1	596	C6H10O4	ethylene glycol diacetate	111-55-7	in benzene	2.340	1
517	C6H4Br2	m-dibromobenzene	108-36-1	in benzene	1.469	1	597	C6H10O4	dimethyl succinate	106-65-0	in benzene	2.159	1
518	C6H4CINO2	m-chloronitrobenzene	121-73-3	gas	3.730	1	598	C6H10O5	dilactic acid	19201-34-4	gas	2.290	2
519	C6H4CINO2	o-chloronitrobenzene	88-73-3	gas	4.640	1	599	C6H11N	N-allyl-2-propen-1-amine	124-02-7	in benzene	1.199	1
520	C6H4CINO2	p-chloronitrobenzene	100-00-5	gas	2.830	1	600	C6H11NO	epsilon-caprolactam	105-60-2	in benzene	0.387	1
521	C6H4Cl2	o-dichlorobenzene	95-50-1	gas	2.500	1	601	C6H11NO	cyclohexanone oxime	100-64-1	in benzene	0.830	1
522	C6H4Cl2	m-dichlorobenzene	541-73-1	gas	1.721	1	602	C6H12	methylcyclopentane	96-37-7	liquid	0.000	1
523	C6H4Cl2	p-dichlorobenzene	106-46-7	gas	0.000	2	603	C6H12	cyclohexane	110-82-7	gas	0.609	1
524	C6H4F2	m-difluorobenzene	372-18-9	gas	1.580	1	604	C6H12	1-hexene	592-41-6	liquid	0.339	1
525	C6H4F2	o-difluorobenzene	367-11-3	in benzene	2.400	1	605	C6H12	trans-2-hexene	4050-45-7	gas	0.000	2
526	C6H4N2	3-pyridinecarbonitrile	100-54-9	in benzene	0.345	1	606	C6H12	cis-3-hexene	7642-09-3	in benzene	0.339	1
527 528	C6H4N2O4	m-dinitrobenzene	99-65-0 528-29-0	in benzene	3.837	1	607	C6H12	trans-3-hexene	13269-52-8 616-12-6	gas	0.000	2
529	C6H4N2O4	o-dinitrobenzene p-dinitrobenzene	100-25-4	in benzene gas	6.296 0.000	1	609	C6H12	3-methyl-trans-2-pentene 2,3-dimethyl-1-butene	563-78-0	gas gas	0.000	2
530	C6H4O2	p-benzoquinone	106-23-4	gas	0.000	1	610	C6H12	2,3-dimethyl-1-butene	563-79-1	gas	0.000	2
531	C6H5Br	bromobenzene	108-86-1	gas	1.700	1	611	C6H12	3,3-dimethyl-1-butene	558-37-2	in benzene	0.000	1
532	C6H5CI	chlorobenzene	108-90-7	gas	1.691	1	612	C6H12	2-ethyl-1-butene	760-21-4	gas	0.000	2
533	C6H5CIO	m-chlorophenol	108-43-0	in benzene	2.171	1	613	C6H12N2	6-aminohexanenitrile	2432-74-8	gas	3.358	2
534	C6H5CIO	o-chlorophenol	95-57-8	in benzene	1.331	1	614	C6H12N4	methenamine	100-97-0	in benzene	0.860	1
535	C6H5CIO	p-chlorophenol	106-48-9	gas	2.111	1	615	C6H12O	butyl vinyl ether	111-34-2	in benzene	1.250	1
536	C6H5CIO3S	4-chlorobenzenesulfonic acid	98-66-8	gas	5.246	2	616	C6H12O	cyclohexanol	108-93-0	in CCI4	1.859	1
537	C6H5Cl3Si	trichlorophenylsilane	98-13-5	in benzene	2.410	1	617	C6H12O	hexanal	66-25-1	gas	2.578	2
538	C6H5F	fluorobenzene	462-06-6	gas	1.600	1	618	C6H12O	2-hexanone	591-78-6	in benzene	2.680	1
539	C6H5I	iodobenzene	591-50-4	gas	1.700	1	619	C6H12O	3-hexanone	589-38-8	gas	2.869	2
540	C6H5NO2	nitrobenzene	98-95-3	gas	0.423	1	620	C6H12O	3-methyl-2-pentanone	565-61-7	gas	2.773	2
541	C6H5NO2	3-pyridinecarboxylic acid	59-67-6	in benzene	2.530	1	621	C6H12O	4-methyl-2-pentanone	108-10-1	in benzene	2.689	1
542 543	C6H6CIN	benzene m-chloroaniline	71-43-2 108-42-9	gas in benzene	0.000 2.940	1	622 623	C6H12O C6H12O	ethyl isopropyl ketone	565-69-5 75-97-8	gas in henzene	3.118 2.749	2
543	C6H6CIN	o-chloroaniline	95-51-2	in benzene	1.770	1	624	C6H12O2	3,3-dimethyl-2-butanone hexanoic acid	142-62-1	in benzene in dioxane	1.571	1
545	C6H6CIN	p-chloroaniline	106-47-8	in benzene	2.989	1	625	C6H12O2	2,2-dimethylbutanoic acid	595-37-9	gas	1.871	2
546	C6H6N2	cis-dicyano-1-butene	2141-58-4	gas	6.386	2	626	C6H12O2	pentyl formate	638-49-3	gas	1.901	1
547	C6H6N2	trans-dicyano-1-butene	2141-59-5	gas	0.977	2	627	C6H12O2	butyl acetate	123-86-4	liquid	1.841	1
548	C6H6N2O2	m-nitroaniline	99-09-2	in benzene	4.900	1	628	C6H12O2	isobutyl acetate	110-19-0	in benzene	1.871	1
	C6H6N2O2	o-nitroaniline	88-74-4	in benzene	4.060	1	629	C6H12O2	sec-butyl acetate	105-46-4	in benzene	1.859	1
549		p-nitroaniline	100-01-6	in benzene	6.290	1	630	C6H12O2	tert-butyl acetate	540-88-5	in benzene	1.919	1
549 550	C6H6N2O2			gas	2.671	2	631	C6H12O2	propyl propanoate	106-36-5	in benzene	1.790	1
550 551	C6H6N4	nitrilotrisacetonitrile	7327-60-8	3			632	C6H12O2	ethyl butanoate	105-54-4	in benzene	4 044	1
550 551 552	C6H6N4 C6H6O	nitrilotrisacetonitrile phenol	108-95-2	gas	1.450	1						1.811	_
550 551 552 553	C6H6N4 C6H6O C6H6O2	nitrilotrisacetonitrile phenol pyrocatechol	108-95-2 120-80-9	gas in benzene	2.599	1	633	C6H12O2	ethyl isobutanoate	97-62-1	in benzene	2.070	1
550 551 552 553 554	C6H6N4 C6H6O C6H6O2 C6H6O2	nitrilotrisacetonitrile phenol pyrocatechol resorcinol	108-95-2 120-80-9 108-46-3	gas in benzene in benzene	2.599 2.090	1	633 634	C6H12O2 C6H12O2	diacetone alcohol	97-62-1 123-42-2	in benzene in benzene	2.070 3.238	1
550 551 552 553 554 555	C6H6N4 C6H6O C6H6O2 C6H6O2 C6H6O2	nitrilotrisacetonitrile phenol pyrocatechol resorcinol p-hydroquinone	108-95-2 120-80-9 108-46-3 123-31-9	gas in benzene in benzene in benzene	2.599 2.090 1.781	1 1 1	633 634 635	C6H12O2 C6H12O2 C6H12O3	diacetone alcohol 2-ethoxyethyl acetate	97-62-1 123-42-2 111-15-9	in benzene in benzene in benzene	2.070 3.238 2.250	1 1 1
550 551 552 553 554 555 556	C6H6N4 C6H6O C6H6O2 C6H6O2 C6H6O2 C6H6O3	nitrilotrisacetonitrile phenol pyrocatechol resorcinol p-hydroquinone 1,2,3-benzenetriol	108-95-2 120-80-9 108-46-3 123-31-9 87-66-1	gas in benzene in benzene in benzene in benzene	2.599 2.090 1.781 3.178	1 1 1	633 634 635 636	C6H12O2 C6H12O2 C6H12O3 C6H12O3	diacetone alcohol 2-ethoxyethyl acetate hydroxycaproic acid	97-62-1 123-42-2 111-15-9 1191-25-9	in benzene in benzene in benzene gas	2.070 3.238 2.250 2.689	1 1 1 2
550 551 552 553 554 555 556 557	C6H6N4 C6H6O C6H6O2 C6H6O2 C6H6O2 C6H6O3 C6H6O3S	nitrilotrisacetonitrile phenol pyrocatechol resorcinol p-hydroquinone 1,2,3-benzenetriol benzenesulfonic acid	108-95-2 120-80-9 108-46-3 123-31-9 87-66-1 98-11-3	gas in benzene in benzene in benzene in benzene in benzene	2.599 2.090 1.781 3.178 3.807	1 1 1 1	633 634 635 636 637	C6H12O2 C6H12O2 C6H12O3 C6H12O3 C6H12O3	diacetone alcohol 2-ethoxyethyl acetate hydroxycaproic acid paraldehyde	97-62-1 123-42-2 111-15-9 1191-25-9 123-63-7	in benzene in benzene in benzene gas gas	2.070 3.238 2.250 2.689 1.430	1 1 1 2 1
550 551 552 553 554 555 556	C6H6N4 C6H6O C6H6O2 C6H6O2 C6H6O2 C6H6O3	nitrilotrisacetonitrile phenol pyrocatechol resorcinol p-hydroquinone 1,2,3-benzenetriol	108-95-2 120-80-9 108-46-3 123-31-9 87-66-1	gas in benzene in benzene in benzene in benzene	2.599 2.090 1.781 3.178	1 1 1	633 634 635 636	C6H12O2 C6H12O2 C6H12O3 C6H12O3	diacetone alcohol 2-ethoxyethyl acetate hydroxycaproic acid	97-62-1 123-42-2 111-15-9 1191-25-9	in benzene in benzene in benzene gas	2.070 3.238 2.250 2.689	1 1 1 2

Table 17 Dipole Moment – Organic Compounds

		Dipole Momen	t						Dipole Momen	t			
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
641	C6H12S	cyclohexanethiol	1569-69-3	liquid	1.640	1	721	C7H7NO2	m-nitrotoluene	99-08-1	in benzene	4.227	1
642	C6H13I	1-iodohexane	638-45-9	in CCl4	1.841	1	722	C7H7NO2	o-nitrotoluene	88-72-2	in benzene	3.750	1
643 644	C6H13N C6H13N	cyclohexylamine	108-91-8 18328-90-0	in hexane	1.310 0.731	2	723 724	C7H7NO2 C7H7NO3	p-nitrotoluene o-nitroanisole	99-99-0	in benzene	4.437	1
645	C6H14	N-ethyl-2-methylallylamine hexane	110-54-3	gas gas	0.000	2	725	C7H7NO3	toluene	91-23-6 108-88-3	gas gas	4.830 0.360	1
646	C6H14	2,2-dimethylbutane	75-83-2	gas	0.000	2	726	C7H8Cl2Si	dichloromethylphenylsilane	149-74-6	gas	2.401	1
647	C6H14	2,3-dimethylbutane	79-29-8	gas	0.000	2	727	C7H8O	anisole	100-66-3	gas	1.361	1
648	C6H14	2-methylpentane	107-83-5	gas	0.000	2	728	C7H8O	benzyl alcohol	100-51-6	gas	1.709	1
649	C6H14	3-methylpentane	96-14-0	gas	0.000	2	729	C7H8O	m-cresol	108-39-4	gas	1.589	1
650	C6H14N2O	1-piperazineethanol	103-76-4	gas	1.280	2	730	C7H8O	p-cresol	95-48-7 106-44-5	gas	1.451	1
651 652	C6H14N2O2 C6H14O	lysine 1-hexanol	56-87-1 111-27-3	gas in benzene	1.979	1	731 732	C7H8O C7H8O2	guaiacol	90-05-1	gas in benzene	1.559 2.458	1
653	C6H14O	2-hexanol	626-93-7	gas	1.541	2	733	C7H8O2	p-methoxyphenol	150-76-5	in benzene	1.919	1
654	C6H14O	2-methyl-1-pentanol	105-30-6	gas	1.481	2	734	C7H8O3S	2-methylbenzenesulfonic acid	88-20-0	gas	4.137	2
655	C6H14O	3-methyl-1-pentanol	589-35-5	gas	1.487	2	735	C7H8O3S	p-toluenesulfonic acid	104-15-4	gas	4.707	2
656	C6H14O	4-methyl-2-pentanol	108-11-2	gas	1.700	1	736	C7H8S	benzenemethanethiol	100-53-8	in benzene	1.439	1
657	C6H14O	3-methyl-3-pentanol	77-74-7	gas	1.748	2	737	C7H9N	benzylamine	100-46-9	in benzene	1.379	1
658	C6H14O	dipropyl ether	111-43-3	gas	1.211	1	738	C7H9N	N-methylaniline	100-61-8	in benzene	1.691	1
659 660	C6H14O	diisopropyl ether methyl pentyl ether	108-20-3 628-80-8	gas gas	1.130	1	739 740	C7H9N C7H9N	m-toluidine o-toluidine	108-44-1 95-53-4	in benzene in benzene	1.601	1
661	C6H14O	ethyl butyl ether	628-81-9	in benzene	1.220	1	741	C7H9N	p-toluidine	106-49-0	in benzene	1.310	1
662	C6H14O2	acetal	105-57-7	gas	1.079	1	742	C7H9N	2,6-dimethylpyridine	108-48-5	in benzene	1.679	1
663	C6H14O2	2-butoxyethanol	111-76-2	in benzene	2.081	1	743	C7H10	2-norbornene	498-66-8	in heptane	0.399	1
664	C6H14O2	hexylene glycol	107-41-5	in dioxane	2.860	1	744	C7H10N2	m-toluenediamine	95-80-7	gas	1.799	2
665	C6H14O2	1,6-hexanediol	629-11-8	in dioxane	2.500	1	745	C7H10N2	2-methyl-1,3-benzenediamine	823-40-5	gas	1.907	2
666 667	C6H14O2	1-(1-methylethoxy)-2-propanol 1-propoxy-2-propanol	3944-36-3 1569-01-3	gas gas	2.111 1.970	2	746 747	C7H10O C7H12	3-cyclohexene-1-carboxaldehyde 1-heptyne	100-50-5 628-71-7	gas gas	2.404 0.848	1
668	C6H14O2	ethylene glycol diethyl ether	629-14-1	in benzene	1.649	1	747	C7H12	cycloheptene	628-71-7	gas	0.848	1
669	C6H14O2S	dipropyl sulfone	598-03-8	in benzene	4.467	1	749	C7H12O2	butyl acrylate	141-32-2	in benzene	1.931	1
670	C6H14O3	diethylene glycol dimethyl ether	111-96-6	in benzene	1.970	1	750	C7H12O2	sec-butyl acrylate	8/5/2998	gas	1.718	2
671	C6H14O3	2-(2-ethoxyethoxy)ethanol	111-90-0	in benzene	2.779	1	751	C7H12O2	propyl methacrylate	2210-28-8	in benzene	2.120	1
672	C6H14O4	triethylene glycol	112-27-6	liquid	5.580	1	752	C7H12O2	cyclohexyl formate	4351-54-6	gas	4.047	2
673 674	C6H14S	hexyl mercaptan	111-31-9 111-47-7	in benzene	1.529	1	753 754	C7H12O2 C7H12O2	cyclopentaneacetic acid	1123-00-8 3377-92-2	gas	1.841	2
675	C6H14S	dipropyl sulfide 3,3-dimethyl-2-thiapentane	13286-92-5	in benzene gas	1.490	2	755	C7H12O2	vinyl pivalate 1,2-propanediol 1-methacrylate	923-26-2	gas gas	2.320	1
676	C6H14S	2,2-dimetryl-3-thiapentane	14290-92-7	in octane	1.640	1	756	C7H12O4	diethyl malonate	105-53-3	in benzene	2.540	1
677	C6H14S2	dipropyl disulfide	629-19-6	in benzene	1.979	1	757	C7H12O4	heptanedioic acid	111-16-0	in dioxane	2.389	1
678	C6H15AI	triethyl aluminum	97-93-8	in benzene	0.600	1	758	C7H14	ethylcyclopentane	1640-89-7	gas	0.000	2
679	C6H15N	hexylamine	111-26-2	in benzene	1.589	1	759	C7H14	1,1-dimethylcyclopentane	1638-26-2	gas	0.000	2
680	C6H15N	di-propylamine	142-84-7	in benzene	1.070	1	760	C7H14	cis-1,2-dimethylcyclopentane	1192-18-3	gas	0.000	2
681 682	C6H15N C6H15N	dimethylbutylamine triethylamine	927-62-8 121-44-8	gas gas	0.815	1	761 762	C7H14	trans-1,2-dimethylcyclopentane cis-1,3-dimethylcyclopentane	822-50-4 2532-58-3	gas	0.000	2
683	C6H15NO	2-diethylaminoethanol	100-37-8	in benzene	2.431	1	763	C7H14	trans-1,3-dimethylcyclopentane	1759-58-6	gas gas	0.000	2
684	C6H15NO3	triethanolamine	102-71-6	in dioxane	1.079	1	764	C7H14	methylcyclohexane	108-87-2	gas	0.000	2
685	C6H15O4P	triethyl phosphate	78-40-0	in benzene	3.088	1	765	C7H14	cycloheptane	291-64-5	gas	0.000	2
686	C6H16N2	hexamethylenediamine	124-09-4	in benzene	1.910	1	766	C7H14	1-heptene	592-76-7	liquid	0.339	1
687	C6H16N2	N,N,N',N'-tetramethyl-1,2-ethanediamine	110-18-9	gas	0.000	2	767	C7H14	5-methyl-1-hexene	3524-73-0	gas	0.000	2
688	C6H18N3OP C6H18OSi2	hexamethyl phosphoramide	680-31-9	in benzene	5.540	1	768	C7H14	2-ethyl-1-pentene	3404-71-5	gas	0.000	2
689 690	C6H18OSI2	hexamethyldisiloxane hexamethylcyclotrisiloxane	107-46-0 541-05-9	gas in benzene	0.660	1	769 770	C7H14	3-ethyl-1-pentene 2,3,3-trimethyl-1-butene	4038-04-4 594-56-9	gas gas	0.000	2
691	C6H19NSi2	hexamethyldisilazane	999-97-3	in benzene	0.420	1	771	C7H14O	1-heptanal	111-71-7	in benzene	2.578	1
692	C7H4CIF3	p-chlorobenzotrifluoride	98-56-6	gas	1.580	1	772	C7H14O	2-heptanone	110-43-0	in benzene	2.611	1
693	C7H5CIO	benzoyl chloride	98-88-4	in benzene	3.328	1	773	C7H14O	3-heptanone	106-35-4	in benzene	2.809	1
694	C7H5ClO2	o-chlorobenzoic acid	118-91-2	in dioxane	2.450	1	774	C7H14O	4-heptanone	123-19-3	in benzene	2.500	1
695	C7H5Cl3	benzotrichloride	98-07-7	in benzene	2.040	1	775	C7H14O	2,4-dimethyl-3-pentanone	565-80-0	in benzene	2.731	1
696 697	C7H5F3 C7H5N	benzotrifluoride benzonitrile	98-08-8	gas	2.860 4.167	1	776 777	C7H14O C7H14O	1-methylcyclohexanol	590-67-0 7443-70-1	in dioxane	1.649	1
698	C7H5N C7H5NO	benzonitrile phenyl isocyanate	100-47-0 103-71-9	gas in CCl4	2.419	1	778	C7H14O	cis-2-methylcyclohexanol trans-2-methylcyclohexanol	7443-70-1	in benzene in benzene	1.646	1
699	C7H5NS2	2(3H)-benzothiazolethione	149-30-4	in benzene	4.017	1	779	C7H14O	cis-3-methylcyclohexanol	5454-79-5	in benzene	1.772	1
700	C7H5N3O6	2,4,6-trinitrotoluene	118-96-7	in benzene	1.160	1	780	C7H14O	trans-3-methylcyclohexanol	7443-55-2	in benzene	1.637	1
701	C7H5N5O8	N-methyl-N,2,4,6-tetranitroaniline	479-45-8	gas	2.359	2	781	C7H14O	cis-4-methylcyclohexanol	7731-28-4	in benzene	1.730	1
702	C7H6Cl2	benzyl dichloride	98-87-3	in benzene	2.030	1	782	C7H14O	trans-4-methylcyclohexanol	7731-29-5	in benzene	1.730	1
703	C7H6Cl2	2,4-dichlorotoluene	95-73-8	in benzene	1.950	1	783	C7H14O2	heptanoic acid	111-14-8	gas	1.679	2
704 705	C7H6N2O4 C7H6N2O4	2,4-dinitrotoluene 2,5-dinitrotoluene	121-14-2 619-15-8	in benzene	4.317 0.579	1	784 785	C7H14O2 C7H14O2	hexyl formate pentyl acetate	629-33-4 628-63-7	gas gas	1.874	2
705	C7H6N2O4	2,6-dinitrotoluene	606-20-2	in benzene	2.809	1	786	C7H14O2	isopentyl acetate	123-92-2	in benzene	1.721	1
707	C7H6N2O4	3,4-dinitrotoluene	610-39-9	in benzene	6.386	1	787	C7H14O2	butyl propanoate	590-01-2	in benzene	1.800	1
708	C7H6N2O4	3,5-dinitrotoluene	618-85-9	in benzene	4.317	1	788	C7H14O2	propyl butanoate	105-66-8	liquid	1.750	1
709	C7H6O	benzaldehyde	100-52-7	gas	3.208	1	789	C7H14O2	propyl isobutanoate	644-49-5	gas	1.889	1
710	C7H6O2	benzoic acid	65-85-0	in benzene	1.001	1	790	C7H14O2	ethyl isovalerate	108-64-5	in benzene	1.970	1
711	C7H6O2	p-hydroxybenzaldehyde	123-08-0	in benzene	3.957	1	791	C7H14O2	2-methylhexanoic acid	4536-23-6	gas	1.892	2
712 713	C7H6O2 C7H6O3	salicylaldehyde salicylic acid	90-02-8 69-72-7	in benzene in dioxane	3.088 2.650	1	792 793	C7H14O2 C7H14O2	allyl-tert-butylperoxide neoheptanoic acid	39972-78-6 1185-39-3	gas	0.510 1.901	2
713	C7H6O3 C7H7Br	p-bromotoluene	106-38-7	liquid	1.900	1	793	C7H14O2	ethyl-3-ethoxypropionate	763-69-9	gas gas	0.857	2
715	C7H7CI	benzyl chloride	100-44-7	in benzene	1.890	1	795	C7H14O3	propylene glycol ethyl ether acetate	54839-24-6	gas	2.911	2
716	C7H7CI	o-chlorotoluene	95-49-8	gas	1.559	1	796	C7H15Br	1-bromoheptane	629-04-9	gas	2.159	1
717	C7H7CI	p-chlorotoluene	106-43-4	gas	2.209	1	797	C7H16	heptane	142-82-5	gas	0.000	2
718	C7H7F	p-fluorotoluene	352-32-9	in benzene	1.680	2	798	C7H16	2-methylhexane	591-76-4	liquid	0.000	1
719	C7H7NO	formanilide	103-70-8	in CCI4	3.370	1	799	C7H16	3-methylhexane	589-34-4	liquid	0.000	1
720	C7H7NO	benzamide	55-21-0	in benzene	3.777	1	800	C7H16	3-ethylpentane	617-78-7	liquid	0.000	1

Table 17 Dipole Moment – Organic Compounds

		Dipole Moment							Dipole Moment				
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
801	C7H16	2,2-dimethylpentane	590-35-2	liquid	0.000	1	881	C8H14O2	cyclohexyl acetate	622-45-7	in benzene	1.919	1
802	C7H16	2,3-dimethylpentane	565-59-3	liquid	0.000	1	882	C8H14O2	2-oxolan-2-yloxolane	106538-38-9	gas	2.188	2
803 804	C7H16 C7H16	2,4-dimethylpentane 3,3-dimethylpentane	108-08-7 562-49-2	liquid liquid	0.000	1	883 884	C8H14O4 C8H14O4	diethyl succinate octanedioic acid	123-25-1 505-48-6	in benzene in dioxane	2.159 2.359	1
805	C7H16	2,2,3-trimethylbutane	464-06-2	liquid	0.000	1	885	C8H14O4	2,6-dimethyl-1,3-dioxan-4-ol acetate, cis an*	828-00-2	gas	3.328	2
806	C7H16	3-methylhexane, (S)-	6131-24-4	gas	0.000	2	886	C8H16	propylcyclopentane	2040-96-2	gas	0.000	2
807	C7H16O	1-heptanol	111-70-6	in benzene	1.739	1	887	C8H16	isopropylcyclopentane	3875-51-2	gas	0.000	1
808	C7H16O	2-heptanol	543-49-7	in benzene	1.730	1	888	C8H16	1-methyl-1-ethylcyclopentane	16747-50-5	gas	0.000	1
809	C7H16O	2-methyl-1-hexanol	624-22-6	gas	1.478	1	889	C8H16	ethylcyclohexane	1678-91-7	gas	0.000	2
810 811	C7H16O C7H16O	isopropyl isobutyl ether 2-ethoxy-2-methylbutane	78448-33-6 919-94-8	gas gas	1.280 1.541	2	890 891	C8H16	1,1-dimethylcyclohexane trans-1,2-dimethylcyclohexane	590-66-9 6876-23-9	gas	0.000	2
812	C7H16O	1-(1-methylethoxy)butane	1860-27-1	gas	1.271	2	892	C8H16	cis-1,3-dimethylcyclohexane	638-04-0	gas gas	0.000	2
813	C7H16O2	1-tert-butoxy-2-propanol	57018-52-7	gas	2.188	2	893	C8H16	trans-1,3-dimethylcyclohexane	2207-03-6	gas	0.000	2
814	C7H16O2	propylene glycol 2-tert-butyl ether	94023-15-1	gas	1.970	2	894	C8H16	cis-1,4-dimethylcyclohexane	624-29-3	gas	0.000	2
815	C7H16O2	diethylene glycol monopropyl ether	6881-94-3	gas	1.490	2	895	C8H16	trans-1,4-dimethylcyclohexane	2207-04-7	gas	0.000	2
816	C7H16O3	dipropylene glycol monomethyl ether	34590-94-8	gas	2.470	2	896	C8H16	cyclooctane	292-64-8	gas	0.000	1
817 818	C7H16O4 C7H16S	triethylene glycol monomethyl ether	112-35-6	gas	0.000 1.550	2	897 898	C8H16	1-octene	111-66-0 7642-04-8	liquid	0.339	1
819	C7H16S	heptyl mercaptan heptylamine	1639-09-4 111-68-2	liquid in benzene	1.600	1	899	C8H16	cis-2-octene cis-3-octene	14850-22-7	gas gas	0.309	1
820	C8H4Cl2O2	isophthaloyl chloride	99-63-8	in benzene	5.156	1	900	C8H16	trans-3-octene	14919-01-8	liquid	0.000	1
821	C8H4O3	phthalic anhydride	85-44-9	in benzene	5.290	1	901	C8H16	cis-4-octene	7642-15-1	liquid	2.599	1
822	C8H6	ethynylbenzene	536-74-3	gas	0.657	1	902	C8H16	trans-4-octene	14850-23-8	liquid	0.000	1
823	C8H6O2	1,4-benzenedicarboxaldehyde	623-27-8	in benzene	2.350	1	903	C8H16	2-methyl-1-heptene	15870-10-7	gas	0.000	2
824	C8H6O3	2-formylbenzoic acid	119-67-5	gas	4.407	1	904	C8H16	6-methyl-1-heptene	5026-76-6	gas	0.000	2
825	C8H6O3	4-formylbenzoic acid	619-66-9	gas	3.298	1	905	C8H16	2-ethyl-1-hexene	1632-16-2	gas	0.000	2
826 827	C8H6O4 C8H6O4	isophthalic acid phthalic acid	121-91-5 88-99-3	in dioxane in dioxane	2.269	1	906	C8H16	2,3-dimethyl-1-hexene 2,4,4-trimethyl-1-pentene	16746-86-4 107-39-1	gas	0.000	2
828	C8H6S	benzothiophene	95-15-8	in dioxane	0.630	1	908	C8H16	2,4,4-trimethyl-2-pentene	107-39-1	gas gas	0.000	2
829	C8H7N	indole	120-72-9	in benzene	2.081	1	909	C8H16O	2-ethylhexanal	123-05-7	in benzene	2.660	1
830	C8H7N	benzeneacetonitrile	140-29-4	in benzene	3.508	1	910	C8H16O	1-octanal	124-13-0	in heptane	2.320	1
831	C8H8	styrene	100-42-5	liquid	0.130	1	911	C8H16O	2-octanone	111-13-7	in benzene	2.461	1
832	C8H8O	acetophenone	98-86-2	gas	3.028	1	912	C8H16O2	octanoic acid	124-07-2	in dioxane	1.700	1
833	C8H8O	p-tolualdehyde	104-87-0	in dioxane	3.300	1	913	C8H16O2	2-ethylhexanoic acid	149-57-5	in CCl4	0.809	1
834	C8H8O	2-methylbenzaldehyde	529-20-4	in benzene	2.839	1	914	C8H16O2	heptyl formate	112-23-2	gas	1.871	2
835 836	C8H8O C8H8O	3-methylbenzaldehyde phthalan	620-23-5 496-14-0	in benzene gas	2.929 1.787	2	915 916	C8H16O2	hexyl acetate butyl butanoate	142-92-7 109-21-7	gas in benzene	1.799 2.051	1
837	C8H8O	4-vinylphenol	2628-17-3	gas	1.340	2	917	C8H16O2	1,4-cyclohexanedimethanol	105-21-7	gas	2.239	2
838	C8H8O2	methyl benzoate	93-58-3	in benzene	2.530	1	918	C8H16O3	2-butoxyethyl acetate	112-07-2	gas	3.148	2
839	C8H8O2	o-toluic acid	118-90-1	in benzene	1.700	1	919	C8H18	octane	111-65-9	gas	0.000	2
840	C8H8O2	benzyl formate	104-57-4	in benzene	1.841	1	920	C8H18	2-methylheptane	592-27-8	gas	0.000	2
841	C8H8O2	1-(2-hydroxyphenyl)ethanone	118-93-4	in benzene	3.238	1	921	C8H18	3-methylheptane	589-81-1	gas	0.000	2
842	C8H8O2	1-(4-hydroxyphenyl)ethanone	99-93-4	inb	3.777	1	922	C8H18	4-methylheptane	589-53-7	gas	0.000	2
843 844	C8H8O3 C8H8O3	methyl salicylate vanillin	119-36-8 121-33-5	in benzene	2.470 2.869	1	923 924	C8H18	3-methyl-3-ethylpentane 3-ethylhexane	1067-08-9 619-99-8	gas	0.000	2
845	C8H9NO	acetanilide	103-84-4	in benzene	4.047	1	925	C8H18	3-ethyl-2-methylpentane	609-26-7	gas gas	0.000	2
846	C8H9NO2	N-(4-hydroxyphenyl)acetamide	103-90-2	in dioxane	3.957	1	926	C8H18	2,2-dimethylhexane	590-73-8	gas	0.000	2
847	C8H10	ethylbenzene	100-41-4	gas	0.600	1	927	C8H18	2,3-dimethylhexane	584-94-1	gas	0.000	2
848	C8H10	o-xylene	95-47-6	gas	0.630	1	928	C8H18	2,4-dimethylhexane	589-43-5	gas	0.000	2
849	C8H10	m-xylene	108-38-3	liquid	0.300	1	929	C8H18	2,5-dimethylhexane	592-13-2	gas	0.000	2
850	C8H10	p-xylene	106-42-3	gas	0.000	2	930	C8H18	3,3-dimethylhexane	563-16-6	gas	0.000	2
851 852	C8H10O	phenetole	103-73-1	gas in honzono	1.409	1	931	C8H18	3,4-dimethylhexane 2,2,3-trimethylpentane	583-48-2 564-02-3	gas	0.000	2
852	C8H10O C8H10O	2-phenylethanol 2-methylbenzenemethanol	60-12-8 89-95-2	in benzene gas	1.649 1.472	2	932	C8H18	2,2,4-trimethylpentane	540-84-1	gas liquid	0.000	1
854	C8H10O	3-methylbenzenemethanol	587-03-1	gas	1.532	2	934	C8H18	2,3,3-trimethylpentane	560-21-4	gas	0.000	2
855	C8H10O	4-methylbenzenemethanol	589-18-4	gas	1.820	1	935	C8H18	2,3,4-trimethylpentane	565-75-3	gas	0.000	2
856	C8H10O	1-phenylethanol	98-85-1	in benzene	1.511	1	936	C8H18	2,2,3,3-tetramethylbutane	594-82-1	gas	0.000	2
857	C8H10O	o-ethylphenol	90-00-6	in benzene	1.571	1	937	C8H18	octane, mixture		gas	0.000	2
858	C8H10O	m-ethylphenol	620-17-7	in benzene	1.691	1	938	C8H18O	1-octanol	111-87-5	in benzene	1.649	1
859 860	C8H10O C8H10O	p-ethylphenol 2,3-xylenol	123-07-9 526-75-0	in benzene in benzene	1.781 1.250	1	939	C8H18O C8H18O	2-octanol 2-ethyl-1-hexanol	123-96-6 104-76-7	in benzene in benzene	1.649 1.760	1
861	C8H10O	2,4-xylenol	105-67-9	in benzene	1.391	1	941	C8H18O	dibutyl ether	142-96-1	gas	1.169	1
862	C8H10O	2,5-xylenol	95-87-4	in benzene	1.430	1	942	C8H18O	ethyl hexyl ether	5756-43-4	gas	1.211	2
863	C8H10O	2,6-xylenol	576-26-1	in benzene	1.409	1	943	C8H18O	isobutyl ether	628-55-7	gas	1.250	2
864	C8H10O	3,4-xylenol	95-65-8	gas	1.769	1	944	C8H18O2	2,2,4-trimethyl-1,3-pentanediol	144-19-4	gas	2.770	2
865	C8H10O	3,5-xylenol	108-68-9	in benzene	1.760	1	945	C8H18O2	di-t-butyl peroxide	110-05-4	in benzene	0.920	1
866	C8H11N	N,N-dimethylaniline	121-69-7	gas	1.679	1	946	C8H18O2	ethylene glycol monohexyl ether	112-25-4	gas	2.260	1
867 868	C8H11N C8H11N	o-ethylaniline N-ethylaniline	578-54-1 103-69-5	gas in benzene	1.055 1.700	2	947	C8H18O2S C8H18O3	dibutyl sulfone diethylene glycol monobutyl ether	598-04-9 112-34-5	in benzene in benzene	4.467 2.350	1
869	C8H11N	2,4,6-trimethylpyridine	103-69-5	in benzene	2.039	1	948	C8H18O3	dipropylene glycol monoethyl ether	30025-38-8	gas	1.178	2
870	C8H12	methylnorbornene	694-92-8	gas	1.508	2	950	C8H18O4	triethylene glycol dimethyl ether	112-49-2	in benzene	2.239	1
871	C8H12N2O2	hexamethylene diisocyanate	822-06-0	gas	3.238	2	951	C8H18O4	triethylene glycol monoethyl ether	112-50-5	gas	0.295	2
872	C8H12O4	diethyl maleate	141-05-9	in benzene	2.560	1	952	C8H18O4S	dibutyl sulfate	625-22-9	gas	4.137	2
873	C8H12S	3-ethyl-2,5-dimethylthiophene	55735-23-4	gas	0.222	2	953	C8H18O5	tetraethylene glycol	112-60-7	in dioxane	3.238	1
874	C8H14	1-octyne	629-05-0	in benzene	0.959	1	954	C8H18S	octyl mercaptan	111-88-6	in benzene	1.610	1
875	C8H14	2,5-dimethyl-1,5-hexadiene	627-58-7	gas	0.000	2	955	C8H18S	tert-octyl mercaptan	141-59-3	gas	1.670	2
876 877	C8H14 C8H14	2,5-dimethyl-2,4-hexadiene cyclooctene	764-13-6 931-88-4	gas in hentane	0.000	2	956 957	C8H18S C8H18S2	dibutyl sulfide dibutyl disulfide	544-40-1 629-45-8	in benzene in benzene	1.570 1.990	2
878	C8H14O	2-ethyl-2-hexenal	931-88-4 645-62-5	in heptane gas	1.478	2	957	C8H18S2	octylamine	111-86-4	in benzene	1.421	1
U1 U		butyl methacrylate	97-88-1	in benzene	2.150	1	959	C8H19N	dibutylamine	111-92-2	in benzene	0.980	1
879	C8H14O2	butyi memaci yiate	31-00-1										

Table 17 Dipole Moment – Organic Compounds

		Dipole Moment							Dipole Moment				
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
961		octamethyltrisiloxane	107-51-7	in octane	1.079	1	1041	C9H20	2,2,3,3-tetramethylpentane	7154-79-2	gas	0.000	2
962	C8H24O4Si4	octamethylcyclotetrasiloxane	556-67-2	in benzene	0.660	1	1042	C9H20	2,2,3,4-tetramethylpentane	1186-53-4	gas	0.000	2
963 964	C9H6N2O2 C9H6O6	toluene diisocyanate 1,2,4-benzenetricarboxylic acid	584-84-9 528-44-9	in benzene in dioxane	2.521 3.268	1	1043 1044	C9H20 C9H20	2,2,4,4-tetramethylpentane 2,3,3,4-tetramethylpentane	1070-87-7 16747-38-9	gas gas	0.000	1
965	C9H7N	isoguinoline	119-65-3	in benzene	2.488	1	1044	C9H20O	1-nonanol	143-08-8	in benzene	1.610	1
966	C9H7N	quinoline	91-22-5	gas	2.290	1	1046	C9H20O	2-nonanol	628-99-9	gas	1.550	2
967	C9H7NO	8-hydroxyquinoline	148-24-3	in benzene	2.680	1	1047	C9H20O3	di(propylene glycol) propyl ether, isomers	29911-27-1	gas	1.679	2
968	C9H8	indene	95-13-6	in benzene	0.670	1	1048	C9H20O4	tripropylene glycol	24800-44-0	gas	0.411	2
969	C9H8O C9H8O2	2-methylbenzofuran trans-cinnamic acid	4265-25-2 140-10-3	gas	1.622 1.310	2	1049 1050	C9H20S C9H21N	tert-nonyl mercaptan, isomers	25360-10-5 112-20-9	gas	1.649 0.899	2
970 971		2-(acetyloxy)benzoic acid	50-78-2	gas in dioxane	2.090	1	1050	C9H21N	nonylamine tripropylamine	102-69-2	gas in benzene	0.740	1
972	C9H8S	2-methyl benzothiophene	1195-14-8	gas	1.124	2	1052	C10H7Br	1-bromonaphthalene	90-11-9	liquid	1.290	1
973	C9H10	indane	496-11-7	in benzene	0.540	1	1053	C10H7CI	1-chloronaphthalene	90-13-1	liquid	1.330	1
974	C9H10	cis-1-propenylbenzene	766-90-5	in benzene	0.720	1	1054	C10H8	naphthalene	91-20-3	gas	0.000	2
975		trans-1-propenylbenzene	873-66-5	in benzene	0.720	1	1055	C10H8	azulene	275-51-4	in benzene	1.080	2
976 977	C9H10 C9H10	alpha-methylstyrene m-methylstyrene	98-83-9 100-80-1	in benzene	0.737 0.360	1	1056 1057	C10H9N C10H10	2-methylquinoline 1-methylindene	91-63-4 767-59-9	in benzene gas	1.940 0.000	2
978	C9H10	o-methylstyrene	611-15-4	in benzene	0.480	1	1057	C10H10	2-methylindene	2177-47-1	gas	0.000	2
979	C9H10O	alpha-methylbenzeneacetaldehyde	93-53-8	in benzene	2.809	1	1059	C10H10O4	dimethyl phthalate	131-11-3	in benzene	2.779	1
980	C9H10O2	ethyl benzoate	93-89-0	gas	2.000	1	1060	C10H10O4	dimethyl terephthalate	120-61-6	in benzene	2.189	1
981	C9H10O2	benzyl acetate	140-11-4	in benzene	1.799	1	1061	C10H10O4	dimethyl isophthalate	1459-93-4	in benzene	2.230	1
982 983	C9H10O2 C9H10O2	phenyl glycidyl ether	122-60-1 7775-38-4	gas	2.042 3.957	2	1062 1063	C10H11NO2 C10H12	acetoacetanilide	102-01-2 119-64-2	gas in benzene	3.897 0.219	1
983	C9H10O2 C9H10O3	phenyl ethyl formate ethyl vanillin	121-32-4	gas gas	4.197	2	1063	C10H12	1,2,3,4-tetrahydronaphthalene (1-methylenepropyl)benzene	2039-93-2	gas	0.219	2
985	C9H10O3	4-methoxybenzeneacetic acid	104-01-8	gas	1.340	2	1065	C10H12O	anethole	104-46-1	in benzene	1.499	1
986	C9H11NO	p-dimethylaminobenzaldehyde	100-10-7	in benzene	5.576	1	1066	C10H12O2	propyl benzoate	2315-68-6	in toluene	1.829	1
987	C9H11NO2	L-phenylalanine	63-91-2	gas	1.790	2	1067	C10H14	butylbenzene	104-51-8	in benzene	0.369	1
988	C9H12	cumene	98-82-8	liquid	0.390	1	1068	C10H14	isobutylbenzene	538-93-2	liquid	0.312	1
989	C9H12 C9H12	m-ethyltoluene	620-14-4 611-14-3	liquid	0.330 0.561	1	1069 1070	C10H14 C10H14	sec-butylbenzene	135-98-8 98-06-6	in benzene	0.390	1
990	C9H12	o-ethyltoluene p-ethyltoluene	622-96-8	liquid in benzene	0.000	1	1070	C10H14	tert-butylbenzene m-cymene	535-77-3	gas gas	0.899	2
992	C9H12	1,2,3-trimethylbenzene	526-73-8	liquid	0.561	1	1072	C10H14	o-cymene	527-84-4	gas	0.600	2
993	C9H12	1,2,4-trimethylbenzene	95-63-6	liquid	0.300	1	1073	C10H14	p-cymene	99-87-6	liquid	0.000	1
994	C9H12	mesitylene	108-67-8	liquid	0.000	1	1074	C10H14	1-methyl-2-propylbenzene	1074-17-5	gas	0.129	2
995	C9H12	propylbenzene	103-65-1	in benzene	0.369	1	1075	C10H14	1-methyl-3-propylbenzene	1074-43-7	gas	0.122	2
996 997	C9H12 C9H12	ethylidene norbornene 5-vinyl-2-norbornene, endo and exo	16219-75-3 3048-64-4	gas gas	0.205 0.112	1	1076 1077	C10H14 C10H14	1-methyl-4-propylbenzene o-diethylbenzene	1074-55-1 135-01-3	gas liquid	0.000	2
998	C9H12O	benzenepropanol	122-97-4	in benzene	1.640	1	1077	C10H14	m-diethylbenzene	141-93-5	liquid	0.360	1
999		alpha-ethylbenzenemethanol	93-54-9	gas	1.589	2	1079	C10H14	p-diethylbenzene	105-05-5	liquid	0.000	1
1000	C9H12O	2-phenyl-1-propanol	1123-85-9	gas	1.391	2	1080	C10H14	5-ethyl-m-xylene	934-74-7	gas	0.201	2
1001	C9H12O	1-phenyl-2-propanol	698-87-3	gas	1.571	2	1081	C10H14	1,2,3,4-tetramethylbenzene	488-23-3	gas	0.000	2
1002	C9H12O2 C9H14	cumene hydroperoxide	80-15-9	in benzene	1.785 0.384	2	1082 1083	C10H14 C10H14O	1,2,4,5-tetramethylbenzene	95-93-2 98-54-4	in CCI4	0.000 1.619	1
1003	C9H14	ethylnorbene 1-methyl-4-vinylcyclohexene	15403-89-1 17699-86-4	gas gas	0.000	2	1083	C10H14O	4-tert-butylphenol 1-methyl-3-(1-methylethoxy)benzene	19177-04-9	in benzene gas	0.165	2
1005	C9H14	propenyl cyclohexene	13511-13-2	gas	0.000	2	1085	C10H14O2	p-tert-butylcatechol	98-29-3	in dioxane	2.830	1
1006	C9H14O	isophorone	78-59-1	in dioxane	3.990	2	1086	C10H14O5	2-(methacryloyloxy)ethyl acetoacetate	21282-97-3	gas	0.059	2
1007	C9H14O6	glyceryl triacetate	102-76-1	in benzene	2.580	1	1087	C10H15N	N,N-dietyhlaniline	91-66-7	in benzene	1.811	1
1008		trilatic acid	78024-33-6	gas	3.897	2	1088	C10H15N	2,6-diethylaniline	579-66-8	gas	1.286	2
1009	C9H15N C9H16	N,N-diallyl-2-propen-1-amine 1-nonyne	102-70-5 3452-09-3	gas gas	0.654 0.115	2	1089	C10H16 C10H16	D-limonene alpha-pinene	5989-27-5 80-56-8	in benzene	1.570 0.360	1
		azelaic acid	123-99-9	in dioxane	2.350	1	1090	C10H16	beta-pinene	127-91-3	gas	0.390	2
		butylcyclopentane	2040-95-1	gas	0.000	1	1092	C10H16	alpha-terpinene	99-86-5	gas	0.000	2
	C9H18	propylcyclohexane	1678-92-8	gas	0.000	2	1093	C10H16	gamma-terpinene	99-85-4	gas	0.195	2
	C9H18	isopropylcyclohexane	696-29-7	gas	0.000	1	1094	C10H16	terpinolene	586-62-9	gas	0.000	2
	C9H18	cis,trans-1,3,5-trimethylcyclohexane 1-nonene	1795-26-2	gas	0.000	2	1095 1096	C10H16 C10H16N2O8	tricyclo[3.3.1.13,7]decane	281-23-2	in benzene	0.000	2
	C9H18 C9H18	2-methyl-1-octene	124-11-8 4588-18-5	gas gas	0.360	2	1096	C10H16N2O8	ethylenediaminetetraacetic acid camphor	60-00-4 76-22-2	gas in benzene	0.690 3.100	1
	C9H18	7-methyl-1-octene	13151-06-9	gas	0.000	2	1098	C10H16O4	dimethyl cyclohexane-1,4-dicarboxylate; (cis*	94-60-0	in benzene	2.090	1
1019	C9H18O	1-nonanal	124-19-6	gas	0.000	2	1099	C10H18	1-decyne	764-93-2	gas	0.119	2
	C9H18O	diisobutyl ketone	108-83-8	in CCl4	2.659	1	1100	C10H18	cis-decahydronaphthalene	493-01-6	gas	0.000	1
	C9H18O	2-nonanone	821-55-6	in benzene	2.740	1	1101	C10H18	trans-decahydronaphthalene	493-02-7	gas	0.000	1
	C9H18O C9H18O2	5-nonanone nonanoic acid	502-56-7 112-05-0	in benzene gas	2.740 1.679	2	1102 1103	C10H18O C10H18O4	a-terpineol sebacic acid	98-55-5 111-20-6	gas in dioxane	1.472 2.400	1
		2-methyloctanoic acid	3004-93-1	gas	0.714	1	1103	C10H18O4	butylcyclohexane	1678-93-9	gas	0.000	2
	C9H18O2	heptyl acetate	112-06-1	gas	1.820	2	1105	C10H20	1-decene	872-05-9	in benzene	0.420	1
		butyl valerate	591-68-4	gas	2.069	2	1106	C10H20	2-methyl-1-nonene	2980-71-4	gas	0.000	2
	C9H18O3	triacetone alcohol	3682-91-5	gas	3.298	2	1107	C10H20	cis-2-decene	20348-51-0	gas	0.300	2
	C9H20 C9H20	nonane 2-methyloctane	111-84-2 3221-61-2	gas	0.000	2	1108 1109	C10H20 C10H20	trans-2-decene 8-methyl-1-nonene	20063-97-2 26741-24-2	gas	0.000	2
	C9H20	2-methyloctane 3-methyloctane	2216-33-3	gas gas	0.000	2	11109	C10H20	1,1-diethylcyclohexane	78-01-3	gas gas	0.000	2
	C9H20	4-methyloctane	2216-34-4	gas	0.000	2	1111	C10H20	1,2,3,4-tetramethylcyclohexane	3726-45-2	gas	0.000	2
1032	C9H20	3-ethylheptane	15869-80-4	gas	0.000	2	1112	C10H20O	decanal	112-31-2	gas	2.578	2
		4-ethylheptane	2216-32-2	gas	0.000	2	1113	C10H20O	(1R,2S,5R)-(-)-menthol	2216-51-5	gas	1.751	1
		2,2-dimethylheptane	1071-26-7	gas	0.000	2	1114	C10H20O2	decanoic acid	334-48-5	in dioxane	1.679	1
	C9H20 C9H20	2,6-dimethylheptane 2,2,5-trimethylhexane	1072-05-5 3522-94-9	gas gas	0.000	2	1115	C10H20O2 C10H20O2	nonyl formate  2-ethylhexyl acetate	5451-92-3 103-09-3	gas	1.880	2
		2,4,4-trimethylhexane	16747-30-1	gas	0.000	1	1117	C10H20O2	octyl acetate	112-14-1	gas in benzene	1.841	1
	C9H20	3,3-diethylpentane	1067-20-5	in benzene	0.000	1	1118	C10H20O2	isopentyl isovalerate	659-70-1	gas	2.179	2
		2,2-dimethyl-3-ethylpentane	16747-32-3	gas	0.000	2	1119	C10H20O4	diethylene glycol monobutyl ether acetate	124-17-4	gas	2.141	2
1040	C9H20	2,4-dimethyl-3-ethylpentane	1068-87-7	gas	0.000	2	1120	C10H22	decane	124-18-5	gas	0.000	2

Table 17 Dipole Moment – Organic Compounds

		Dipole Moment							Dipole Moment				
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
1121	C10H22	2-methylnonane	871-83-0	gas	0.000	2	1201	C12H16	methylcyclopentadiene dimer	26472-00-4	gas	0.248	2
1122	C10H22	3-methylnonane	5911-04-6	gas	0.000	2	1202	C12H18	hexylbenzene	1077-16-3	gas	0.000	2
1123	C10H22	4-methylnonane	17301-94-9	gas	0.000	2	1203	C12H18	1,2,4-triethylbenzene	877-44-1	gas	0.000	2
1124		5-methylnonane	15869-85-9	gas	0.000	2	1204	C12H18	1,3,5-triethylbenzene	102-25-0	in benzene	0.100	1
		2,2-dimethyloctane	15869-87-1	gas	0.000	2	1205	C12H18	hexamethylbenzene	87-85-4	in benzene	0.070	1
1126		2,3-dimethyloctane	7146-60-3	gas	0.000	2	1206	C12H18	p-tert-butyl ethylbenzene	7364-19-4	gas	0.100	2
		2,4-dimethyloctane	4032-94-4	gas	0.000	2	1207	C12H18	1,5,9-cyclododecatriene	706-31-0	gas	0.000	2
		2,5-dimethyloctane	15869-89-3	gas	0.000	2	1208	C12H18	1,2,3-triethylebenzene	42205-08-3	gas	0.115	2
1129		2,6-dimethyloctane	2051-30-1	gas	0.000	2	1209		isophorone diisocyanate	4098-71-9	gas	1.235	2
1130 1131		2,7-dimethyloctane	1072-16-8	gas	0.000	2	1210 1211	C12H18O2 C12H20	m-diisopropylbenzene hydroperoxide 1,3-dimethyladamantane	26762-93-6	gas	0.579	2
		3,3,5-trimethylheptane 2,2,3,3-tetramethylhexane	7154-80-5 13475-81-5	gas	0.000	2	1211	C12H20 C12H20O		702-79-4 90-42-6	gas in benzene	2.920	1
		2,2,5,5-tetramethylhexane	1071-81-4	gas gas	0.000	2	1213	C12H22O11	[1,1'-bicyclohexyl]-2-one sucrose	57-50-1	in pyridine	2.800	1
	C10H22O	1-decanol	112-30-1	in benzene	1.619	1	1214	C12H22S	dicyclohexyl sulfide	7133-46-2	gas	1.598	2
		di-pentyl ether	693-65-2	in CCl4	1.199	1	1215	C12H23N	dicyclohexylamine	101-83-7	in heptane	1.061	1
	C10H22O2	1,10-decanediol	112-47-0	gas	2.144	2	1216	C12H24	1-dodecene	112-41-4	in benzene	0.519	1
1137		2-(2-ethylhexyloxy)ethanol	1559-35-9	gas	0.321	2	1217	C12H24	cis-2-dodecene	7206-26-0	gas	0.000	2
		di(ethylene glycol) hexyl ether	112-59-4	gas	1.529	2	1218	C12H24	trans-2-dodecene	7206-13-5	gas	0.000	2
1139		di(propylene glycol) tert-butyl ether, isome*	132739-31-2	gas	3.088	2	1219	C12H24O	dodecanal	112-54-9	gas	2.578	2
1140		2-[2-(2-butoxyethoxy)ethoxy]ethanol	143-22-6	gas	0.229	2	1220	C12H24O	isobutyl heptyl ketone	123-18-2	gas	2.470	2
	C10H22O4	(2-(2-methoxy methyl ethoxy)methyl ethoxy)pr*	25498-49-1	gas	3.568	2	1221	C12H24O2	dodecanoic acid	143-07-7	in dioxane	1.640	1
		tetraethylene glycol dimethyl ether	143-24-8	in benzene	2.470	1	1222	C12H24O2	decyl acetate	112-17-4	gas	1.841	2
		decyl mercaptan	143-10-2	gas	1.649	2	1223	C12H24O3	2,2,4-trimethyl-1,3-pentanediol monoisobutyr*	77-68-9	gas	2.953	2
1144		ethyl octyl sulfide	3698-94-0	gas	1.382	2	1224	C12H26	dodecane	112-40-3	gas	0.000	2
		decylamine	2016-57-1	in benzene	1.409	1	1225	C12H26	3-methylundecane	1002-43-3	gas	0.000	2
1146	C10H23N	dipentylamine	2050-92-2	gas	1.199	1	1226	C12H26O	1-dodecanol	112-53-8	in benzene	1.691	1
		N,N'-di-tert-butylethylenediamine	4062-60-6	gas	0.986	2	1227	C12H26S	1-dodecanol	112-55-0	gas	1.670	2
		pentaethylenehexamine	4067-16-7	gas	1.421	2	1228	C12H26S	tert-dodecylmercaptan	25103-58-6	gas	1.471	2
1149		decamethyltetrasiloxane	141-62-8	liquid	1.220	1	1229	C12H27BO3	tributyl borate	688-74-4	in benzene	0.779	1
		decamethylcyclopentasiloxane	541-02-6	gas	1.349	1	1230	C12H27N	dodecylamine	124-22-1	gas	0.881	2
	C11H10	1-methylnaphthalene	90-12-0	in benzene	0.510	1	1231	C12H27N	tributylamine	102-82-9	in benzene	0.780	1
		2-methylnaphthalene	91-57-6	in benzene	0.420	1	1232		dodecamethylpentasiloxane	141-63-9	liquid	0.950	1
1153	C11H12	p-isopropylenylstyrene	16262-48-9	gas	0.000	2	1233	C12H36O4Si5	tetrakis(trimethylsilyloxy)silane	3555-47-3	gas	1.559	1
		butyl benzoate	136-60-7	in toluene	1.811	1	1234	C13H9N	acridine	260-94-6	in benzene	2.150	1
	C11H16	pentylbenzene	538-68-1	gas	0.000	2	1235	C13H10	fluorene	86-73-7	in benzene	0.249	1
	C11H16	1-ethyl-2-isopropylbenzene	18970-44-0	gas	0.119	2	1236	C13H10O	benzophenone	119-61-9	in benzene	2.980	1
	C11H16	pentamethylbenzene	700-12-9	in benzene	0.069	1	1237	C13H12	diphenylmethane	101-81-5	in benzene	0.770	1
		p-tert-amylphenol	80-46-6	gas	1.382	2	1238	C13H14	1-propylnaphthalene	2765-18-6	gas	0.000	2
		2-ethylhexyl acrylate	103-11-7	gas	2.839	2	1239	C13H18O2	ibuprofen	15687-27-1	gas	2.779	2
	C11H22	1-undecene	821-95-4	in benzene	0.531	1	1240	C13H26	1-tridecene	2437-56-1	gas	0.000	2
	C11H22O	undecanal	112-44-7	gas	2.578	2	1241	C13H26O	1-tridecanal	10486-19-8	gas	2.578	2
	C11H22O2	undecanoic acid	112-37-8	gas	1.700	1	1242	C13H26O2	tridecanoic acid	638-53-9	gas	1.649	2
		decyl formate	5451-52-5	gas	1.880	2	1243	C13H26O2	butyl nonanoate	50623-57-9	gas	2.179	2
1164	C11H22O2	nonyl acetate	143-13-5	gas	1.841	2	1244	C13H26O2	methyl dodecanoate	111-82-0	in dioxane	1.700	1
1165	C11H22O2	methyl decanoate	110-42-9	gas	2.081	1	1245	C13H28	tridecane	629-50-5	gas	0.000	2
1166	C11H24	undecane	1120-21-4	gas	0.000	2	1246	C13H28O	1-tridecanol	112-70-9	gas	1.649	2
1167	C11H24O	1-undecanol	112-42-5	in benzene	1.670	1	1247	C14H8O2	anthraquinone	84-65-1	gas	0.000	2
1168	C11H24O4	tripropylene glycol monoethyl ether	75899-69-3	gas	1.586	2	1248	C14H10	anthracene	120-12-7	gas	0.000	1
1169	C11H24S	1-undecanethiol	5332-52-5	gas	1.670	2	1249	C14H10	diphenylacetylene	501-65-5	in benzene	0.300	1
1170	C12H6N2O2	1,5-diisocyanatonaphthalene	3173-72-6	gas	0.000	2	1250	C14H10	phenanthrene	85-01-8	in benzene	0.000	1
1171	C12H8	acenaphthylene	208-96-8	in hexane	0.300	1	1251	C14H10O4	benzoyl peroxide	94-36-0	in benzene	1.601	1
	C12H8O	dibenzofuran	132-64-9	in benzene	0.881	1	1252	C14H12	cis-stilbene	645-49-8	gas	0.000	1
1173	C12H8O4	2,6-naphthalenedicarboxylic acid	1141-38-4	gas	0.287	2	1253	C14H12	trans-stilbene	103-30-0	gas	0.000	1
1174	C12H8S	dibenzothiophene	132-65-0	in benzene	0.791	1	1254	C14H12O2	benzyl benzoate	120-51-4	in benzene	2.440	1
1175	C12H9N	dibenzopyrrole	86-74-8	in benzene	2.110	1	1255	C14H12O4	dimethyl-2,6-naphthalenedicarboxylate	840-65-3	gas	2.932	2
1176	C12H9N3O4	4,4'-dinitrodiphenylamine	1821-27-8	in dioxane	5.126	1	1256	C14H14	1,1-diphenylethane	612-00-0	gas	0.000	2
		acenaphthene	83-32-9	in benzene	0.255	1	1257	C14H14	1,2-diphenylethane	103-29-7	gas	0.455	1
1178	C12H10	phenylbenzene (biphenyl)	92-52-4	gas	0.000	2	1258	C14H14O	dibenzyl ether	103-50-4	in benzene	1.390	1
		dichlorodiphenylsilane	80-10-4	in benzene		1	1259	C14H16	1-butylnaphthalene	1634-09-9	gas	0.690	1
1180		4-nitro-N-phenylaniline	836-30-6	in benzene	5.996	1	1260	C14H16	2-butylnaphthalene	1134-62-9	not specified	0.750	2
1181	C12H10N2O2	2-nitro-N-phenylaniline	119-75-5	in benzene	4.130	1	1261	C14H16	2,6-diethylnaphthalene	59919-41-4	gas	0.145	2
	C12H10O	diphenyl ether	101-84-8	in benzene	1.160	1	1262	C14H18O4	dipropyl phthalate	131-16-8	in benzene	2.839	1
		p-aminodiphenyl	92-67-1	in benzene	1.760	1	1263	C14H18O8	di-1-glyceryl terephthalate	66032-51-76	gas	3.478	2
	C12H11N	diphenylamine	122-39-4	in benzene	1.079	1	1264	C14H20	diamantane	2292-79-7	gas	0.399	2
1185	C12H11N3	p-aminoazobenzene	60-09-3	in benzene	2.479	1	1265	C14H22	1,2,3,5-tetraethylbenzene	38842-05-6	gas	0.196	2
	C12H12	1,2-dimethylnaphthalene	573-98-8	gas	0.680	2	1266	C14H22	1,4-di-tert-butylbenzene	1012-72-2	in benzene	0.579	1
	C12H12	1,3-dimethylnaphthalene	575-41-7	gas	0.360	2	1267	C14H22O	p-tert-octylphenol	140-66-9	gas	1.223	2
	C12H12	1,5-dimethylnaphthalene	571-61-9	gas	0.070	2	1268	C14H28	1-tetradecene	1120-36-1	liquid	0.381	1
	C12H12	1,6-dimethylnaphthalene	575-43-9	gas	0.320	2	1269	C14H28O2	tetradecanoic acid	544-63-8	gas	1.679	2
	C12H12	1,7-dimethylnaphthalene	575-37-1	gas	0.540	2	1270	C14H30	tetradecane	629-59-4	gas	0.000	2
1191	C12H12	2,3-dimethylnaphthalene	581-40-8	gas	0.690	2	1271	C14H30O	1-tetradecanol	112-72-1	in benzene	1.550	1
		2,6-dimethylnaphthalene	581-42-0	gas	0.140	1	1272	C14H31N	tetradecylamine	2016-42-4	gas	0.881	2
1193	C12H12	2,7-dimethylnaphthalene	582-16-1	gas	0.411	1	1273	C14H42O5Si6	tetradecamethylhexasiloxane	107-52-8	liquid	1.580	1
1194		2-ethylnaphthalene	939-27-5	gas	0.000	2	1274	C15H12	1-phenylindene	1961-96-2	gas	0.000	2
	C12H12N2	p-aminodiphenylamine	101-54-2	in benzene	2.069	1	1275	C15H16O	p-cumylphenol	599-64-4	gas	4.437	2
1195					1.850	1	1276	C15H18	1-pentylnaphthalene	86-89-5	200	0.000	2
	C12H12N2	hydrazobenzene	122-66-7	in benzene	1.000		12/0	0 101110	· portymaprimatorio	00-03-3	gas	0.000	
1196		p-benzidine	122-66-7 92-87-5	in benzene	1.541	1	1277	C15H24O	2,6-di-tert-butyl-p-cresol	128-37-0	gas	1.319	2
1196 1197	C12H12N2	-											2
1196 1197 1198 1199	C12H12N2 C12H14O4	p-benzidine	92-87-5	in benzene	1.541	1	1277	C15H24O	2,6-di-tert-butyl-p-cresol	128-37-0	gas	1.319	2

Table 17 Dipole Moment – Organic Compounds

		Dipole Moment							Dipole Momen	nt			
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
1281	C15H32	pentadecane	629-62-9	gas	0.000	2	1361	C23H40	heptadecylbenzene	14752-75-1	gas	0.000	2
1282	C15H32O	1-pentadecanol	629-76-5	gas	1.649	2	1362	C23H48	tricosane	638-67-5	gas	0.000	2
1283	C15H33N	tripentylamine	621-77-2	in benzene	1.031	1	1363	C24H38O4	dioctyl phthalate	117-84-0	in benzene	2.839	2
1284 1285	C16H10 C16H10	fluoranthene	206-44-0 129-00-0	gas in benzene	0.228	1	1364 1365	C24H38O4 C24H38O4	bis(2-ethylhexyl) phthalate bis(2-ethylhexyl) terephthalate	117-81-7 4654-26-6	in benzene	2.839	1
1286	C16H12	1-phenylnaphthalene	605-02-7	gas	0.000	2	1366	C24H38O4	heptyl nonyl phthalate	19295-81-9	gas	3.358	2
	C16H16O2	trans-3,5-dimethoxystilbene	21956-56-9	gas	1.253	2	1367	C24H42	octadecylbenzene	4445-07-2	gas	0.000	2
1288	C16H18	4-ethyl-bibenzyl	7439-15-8	gas	0.000	2	1368	C24H42O	dinonylphenol	1323-65-5	gas	1.490	2
	C16H22O4	dibutyl phthalate	84-74-2	in benzene	2.821	1	1369	C24H50	tetracosane	646-31-1	gas	0.000	2
1290	C16H26	decylbenzene	104-72-3	gas	0.000	2	1370	C24H51N	trioctylamine	1116-76-3	gas	0.800	1
1291	C16H26 C16H32	pentaethylbenzene	605-01-6	gas	0.000	2	1371 1372	C25H20	tetraphenylmethane	630-76-2	in benzene	0.000	2
1292 1293	C16H32O2	1-hexadecene hexadecanoic acid	629-73-2 57-10-3	in benzene in dioxane	1.739	1	1372	C25H52 C26H20	pentacosane tetraphenylethylene	629-99-2 632-51-9	gas gas	0.000	1
	C16H34	hexadecane	544-76-3	gas	0.000	2	1374	C26H22	1,1,2,2-tetraphenylethane	632-50-8	in benzene	0.000	1
1295	C16H34	2,2,4,4,6,8,8-heptamethylnonane	4390-04-9	gas	0.000	2	1375	C26H42O4	diisononyl phthalate	28553-12-0	gas	3.717	2
1296	C16H34O	1-hexadecanol	36653-82-4	in benzene	1.670	1	1376	C26H42O4	dinonyl phthalate	84-76-4	in benzene	2.920	1
1297	C16H34S	dioctyl sulfide	2690-08-6	in benzene	1.550	1	1377	C26H42O4	heptyl undecyl phthalate	65185-88-8	gas	3.358	2
1298	C16H34S2	dioctyl disulfide	822-27-5	in benzene	1.990	2	1378	C26H54	hexacosane	630-01-3	gas	0.000	2
1299 1300	C16H35N C16H35N	dioctylamine	1120-48-5 106-20-7	gas	1.166 0.914	2	1379 1380	C27H46O C27H56	cholesterol	57-88-5 593-49-7	in benzene	1.721 0.000	2
1300	C16H35N	bis(2-ethylhexyl)amine hexadecamethylheptasiloxane	541-01-5	gas liquid	1.211	1	1381	C28H46O4	heptacosane didecyl phthalate	84-77-5	gas gas	3.687	2
	C17H34O2	heptadecanoic acid	506-12-7	in dioxane	1.691	1	1382	C28H58	octacosane	630-02-4	gas	0.000	2
1303	C17H34O2	isopropyl tetradecanoate	110-27-0	gas	2.099	2	1383	C29H50O	stigmast-5-en-3-ol, (3beta)	83-46-5	in CCI4	1.931	1
1304	C17H36	heptadecane	629-78-7	gas	0.000	2	1384	C29H60	nonacosane	630-03-5	gas	0.000	2
	C17H36O	1-heptadecanol	1454-85-9	gas	1.649	2	1385	C30H48O6	tri-n-heptyl trimellitate	1528-48-9	gas	3.148	2
	C18H12	chrysene han-falanthrasana	218-01-9	in benzene	0.699	1	1386	C30H50O4	diundecyl phthalate	3648-20-2	gas	3.448	2
	C18H12 C18H12	benz[a]anthracene naphthacene	56-55-3 92-24-0	gas gas	0.000	1	1387 1388	C30H60 C30H62	1-triacontene triacontane	18435-53-5 638-68-6	gas gas	0.237	2
_	C18H14	m-terphenyl	92-24-0	liquid	2.000	1	1389	C30H62	2,6,10,15,19,23-hexamethyltetracosane	111-01-3	gas	0.000	2
	C18H14	o-terphenyl	84-15-1	gas	0.103	2	1390	C31H64	hentriacontane	630-04-6	gas	0.000	2
1311	C18H14	p-terphenyl	92-94-4	in benzene	0.600	1	1391	C32H66	dotriacontane	544-85-4	gas	0.000	2
	C18H15OP	triphenylphosphine oxide	791-28-6	inb	4.287	1	1392	C33H68	tritriacontane	630-05-7	gas	0.000	2
-	C18H15O4P	triphenyl phosphate	115-86-6	in benzene	2.809	1	1393	C34H70	tetratriacontane	14167-59-0	gas	0.000	2
	C18H15P C18H16N2	triphenylphosphine	603-35-0 74-31-7	in benzene	1.448	1	1394 1395	C35H72 C36H74	pentatriacontane	630-07-9 630-06-8	gas	0.000	2
	C18H22	N,N'-diphenyl-p-phenylenediamine 2,3-dimethyl-2,3-diphenylbutane	1889-67-4	in benzene	0.000	1	1395	C37H76	hexatriacontane heptatriacontane	7194-84-5	gas gas	0.000	2
	C18H30	dodecylbenzene	123-01-3	gas	0.000	2	1397	C38H78	octatriacontane	7194-85-6	gas	0.000	2
_	C18H30	hexaethylbenzene	604-88-6	gas	0.000	2	1398	C39H80	nonatriacontane	7194-86-7	gas	0.000	2
1319	C18H30O2	linolenic acid	463-40-1	in benzene	1.559	1	1399	C40H82	tetracontane	4181-95-7	gas	0.000	2
	C18H32O2	linoleic acid	60-33-3	in benzene	1.217	1	1400	C41H84	n-hentetracontane	7194-87-8	gas	0.000	2
	C18H34O2	oleic acid	112-80-1	liquid	1.439	1	1401	C42H86	n-dotetracontane	7098-20-6	gas	0.000	2
	C18H34O4 C18H34O4	dibutyl sebacate dihexyl adipate	109-43-3 110-33-8	gas gas	2.479 0.465	1 2	1402 1403	C43H88 C44H90	tritetracontane n-tetratetracontane	7098-21-7 7098-22-8	gas gas	0.000	2
	C18H36	1-octadecene	112-88-9	liquid	0.465	1	1403	C441190 C45H92	n-pentatetracontane	7090-22-0	gas	0.000	2
_	C18H36O2	octadecanoic acid	57-11-4	in dioxane	1.670	1	1405	C46H94	n-hexatetracontane	7098-24-0	gas	0.000	2
1326	C18H38	octadecane	593-45-3	gas	0.000	2	1406	C47H96	n-heptatetracontane		gas	0.000	2
	C18H38O	1-octadecanol	112-92-5	in benzene	1.661	1	1407	C48H98	n-octatetracontane	7098-26-2	gas	0.000	2
	C18H54O7Si8	octadecamethyloctasiloxane	556-69-4	gas	0.000	2	1408	C49H100	n-nonatetracontane		gas	0.000	2
_	C19H16 C19H26	triphenylmethane	519-73-3	in benzene	0.210	1 2	1409	C50H102	n-pentacontane	6596-40-3	gas	0.000	2
		1-nonylnaphthalene tridecylbenzene	26438-26-6 123-02-4	gas gas	0.000	2	1410	C51H104 C52H106	n-henpentacontane n-dopentacontane	 7719-79-1	gas	0.000	2
	C19H38O2	nonadecanoic acid	646-30-0	gas	1.649	2		C53H108	n-tripentacontane		gas gas	0.000	2
	C19H40	nonadecane	629-92-5	gas	0.000	2		C54H110	n-tetrapentacontane	5856-66-6	gas	0.000	2
	C19H40O	1-nonadecanol	1454-84-8	gas	1.649	2		C55H112	n-pentapentacontane	5846-40-2	gas	0.000	2
	C20H18	1,1',1"-(1-ethanyl-2-ylidene)trisbenzene	1520-42-9	gas	0.137	2		C56H114	n-hexapentacontane	7719-82-6	gas	0.000	2
	C20H28	1-decylnaphthalene	26438-27-7	gas	0.000	2		C57H104O6	glycerol trioleate	122-32-7	in benzene	3.148	1
	C20H30O2 C20H30O2	palustric acid	1945-53-5	gas	2.266	2	1417 1418	C57H116 C58H118	n-heptapentacontane	5856-67-7 7667-78-9	gas	0.000	2
	C20H30O2 C20H30O2	pimaric acid neoabietic acid	127-27-5 471-77-2	gas gas	1.142	2	1418	C58H118 C59H120	n-octapentacontane n-nonapentacontane	7667-78-9	gas gas	0.000	2
	C20H30O2	isopimaric acid	5835-26-7	gas	5.396	2	1420	C60H122	n-hexacontane	7667-80-3	gas	0.000	2
	C20H30O4	dihexyl phthalate	84-75-3	in benzene	2.899	1	1421	C61H124	n-henhexacontane	7667-81-4	gas	0.000	2
	C20H32O2	isoagatholal	17990-11-3	gas	3.568	2	1422	C62H126	n-dohexacontane	7719-83-7	gas	0.000	2
	C20H34	1-phenyltetradecane	1459-10-5	gas	0.000	2	1423	C63H128	n-trihexacontane	7719-84-8	gas	0.000	2
	C20H34O2	agathadiol	1857-24-5	gas	1.337	2		C64H130	n-tetrahexacontane	7719-87-1	gas	0.000	2
	C20H38O2 C20H40	cetyl methacrylate 1-eicosene	2495-27-4 3452-07-1	in toluene	1.811 0.000	1 2	1425 1426	C65H132 C66H134	n-pentahexacontane n-hexahexacontane	7719-88-2 7719-89-3	gas	0.000	2
_	C20H40 C20H40	trans-2-eicosene	42448-85-1	gas gas	0.000	2	1426	C67H136	n-heptahexacontane	7719-89-3	gas gas	0.000	2
	C20H40O2	eicosanoic acid	506-30-9	gas	1.670	2	1428	C68H138	n-octahexacontane	7719-91-7	gas	0.000	2
	C20H42	eicosane	112-95-8	gas	0.000	2		C69H140	n-nonahexacontane	7719-92-8	gas	0.000	2
	C20H42O	1-eicosanol	629-96-9	liquid	1.829	1		C70H142	n-heptacontane	7719-93-9	gas	0.000	2
_	C21H21O4P	tri-o-cresyl phosphate	78-30-8	in benzene	2.869	1		C71H144	n-henheptacontane	7667-82-5	gas	0.000	2
	C21H30O2	dehydroabietic acid	1740-19-8	gas	1.919	2		C72H146	n-doheptacontane	7667-83-6	gas	0.000	2
	C21H36 C21H40O4	pentadecylbenzene	2131-18-2	gas	0.000	2	1433 1434	C74H150	n-triheptacontane	7667-84-7	gas	0.000	2
-	C21H40O4 C21H44	glycerol 1-monooleate heneicosane	111-03-5 629-94-7	gas gas	1.316 0.000	2		C74H150 C75H152	n-tetraheptacontane n-pentaheptacontane	7667-85-8 7667-86-9	gas gas	0.000	2
	C211144 C22H34O4	diheptyl phthalate	3648-21-3	in benzene	2.680	1		C75H154	n-hexaheptacontane	7667-87-0	gas	0.000	2
	C22H38	1-phenylhexadecane	1459-09-2	gas	0.000	2		C77H156	n-heptaheptacontane	7719-94-0	gas	0.000	2
	C22H42O4	di-n-octyl adipate	123-79-5	gas	0.758	2	1438	C78H158	n-octaheptacontane	7719-85-9	gas	0.000	2
-		butyl stearate	123-95-5	in benzene	1.880	1		C79H160	n-nonaheptacontane	7719-86-0	gas	0.000	2
1360	C22H46	docosane	629-97-0	gas	0.000	2	1440	C80H162	n-octacontane	7667-88-1	gas	0.000	2

Table 17 Dipole Moment – Organic Compounds

		Dipole M	oment						Dipole Mom	ent			-
ID	FORMULA	NAME	CAS No	state	Debye	code	ID	FORMULA	NAME	CAS No	state	Debye	code
1441	C81H164	n-henoctacontane	7667-89-2	gas	0.000	2	1451	C91H184	n-hennonacontane	7719-97-3	gas	0.000	2
1442	C82H166	n-dooctacontane	7719-95-1	gas	0.000	2	1452	C92H186	n-dononacontane	7667-95-0	gas	0.000	2
1443	C83H168	n-trioctacontane	7667-90-5	gas	0.000	2	1453	C93H188	n-trinonacontane	7667-96-1	gas	0.000	2
1444	C84H170	n-tetraoctacontane	7667-91-6	gas	0.000	2	1454	C94H190	n-tetranonacontane	1574-32-9	gas	0.000	2
1445	C85H172	n-pentaoctacontane	7719-96-2	gas	0.000	2	1455	C95H192	n-pentanonacontane	7667-97-2	gas	0.000	2
1446	C86H174	n-hexaoctacontane	7667-92-7	gas	0.000	2	1456	C96H194	n-hexanonacontane	7763-13-5	gas	0.000	2
1447	C87H176	n-heptaoctacontane	7667-93-8	gas	0.000	2	1457	C97H196	n-heptanonacontane	7670-25-9	gas	0.000	2
1448	C88H178	n-octaoctacontane	7667-94-9	gas	0.000	2	1458	C98H198	n-octanonacontane	7670-26-0	gas	0.000	2
1449	C89H180	n-nonaoctacontane	7719-76-8	gas	0.000	2	1459	C99H200	n-nonanonacontane	7670-27-1	gas	0.000	2
1450	C90H182	n-nonacontane	7667-51-8	gas	0.000	2	1460	C100H202	n-hectane	6703-98-6	gas	0.000	2
Code: 1 -	data, 2 - estimat	te											

\*Use ID or CAS No for complete name (See Chapter 1 of this book).