Table A.6. VOC-AC adsorption coefficients

Formula	Name	a	b	d
CBrCl3	Bromotrichloromethane	1.39842	0.23228	-0.02184
CBrF3	Bromotrifluoromethane	-1.46247	0.58361	-0.01044
CBr2F2	Dibromodifluoromethane	0.82076	0.30701	-0.01384
CBr3F	Tribromofluoromethane	-1.43748	0.55503	-0.00450
CCl2F2	Dichlorodifluoromethane	-0.07350	0.40145	-0.01404
CCl2O	Phosgene	-0.64469	0.60428	-0.02986
CCl3F	Trichlorofluoromethane	0.17307	0.40715	-0.01915
CCl3NO2	Chloropicrin	1.26745	0.20841	-0.01288
CCl4	Carbon Tetrachloride	1.07481	0.28186	-0.02273
CHBr3	Tribromomethane	1.73184	0.19948	-0.02246
CHCl3	Chloroform	0.67102	0.36148	-0.02288
CHN	Hydrogen Cyanide	-4.39245	1.08948	-0.00740
CH2BrCl	Bromochloromethane	0.61399	0.41353	-0.02531
CH2BrF	Bromofluoromethane	0.45483	0.36332	-0.01606
CH2Br2	Dibromomethane	1.08376	0.37211	-0.03238
CH2Cl2	Dichloromethane	-0.07043	0.49210	-0.02276
CH2I2	Diiodomethane	1.94756	0.14984	-0.01947
CH2O	Formaldehyde	-2.48524	0.69123	-0.00375
CH2O2	Formic Acid	-1.77731	1.09503	-0.06354
CH3Br	Methyl Bromide	-1.23835	0.78564	-0.05521
CH3Cl	Methyl Chloride	-1.91871	0.62053	-0.00549
CH3Cl3Si	Methyl Trichlorosilane	1.07198	0.24275	-0.01911
CH3I	Methyl Iodide	0.73997	0.32985	-0.01330
CH3NO	Formamide	1.30981	0.25274	-
CH3NO2	Nitromethane	-0.32847	0.70602	-0.05111
CH4	Methane	-4.31008	0.77883	-0.00628
CH4Cl2Si	Methyl Dichlorosilane	0.73271	0.29305	-0.01822
CH4O	Methanol	-1.96739	0.82107	-0.01393

CH4S	Methyl Mercaptan	-1.12288	0.60573	-0.02094
CH5N	Methylamine	-1.93548	0.64710	-0.01057
CN4O8	Tetranitromethane	1.49047	0.18181	-0.01894
CO	Carbon Monoxide	-5.18782	0.90121	-0.01358
COS	Carbonyl Sulfide	-1.42882	0.51061	0.00028
CO2	Carbon Dioxide	-3.65224	0.80180	-0.00328
CS2	Carbon Disulfide	-0.18899	0.47093	-0.01481
C2Br2F4	1,2-Dibromotetrafluoroethane	0.90388	0.25693	-0.00974
C2ClF5	Chloropentafluoroethane	0.08264	0.34756	-0.01343
C2Cl3F3	1,1,2-Trichlorotrifluoroethane	1.27368	0.18656	-0.01231
C2Cl4	Tetrachloroethylene	1.40596	0.20802	-0.02097
C2Cl4F2	1,1,2,2-Tetrachlorodifluoroethane	1.37307	0.17625	-0.01465
C2HBrClF3	Halothane	0.92405	0.31204	-0.02004
C2HCl3	Trichloroethylene	1.02411	0.29929	-0.02539
C2HCl3O	Dichloroacetyl Chloride	1.23647	0.26219	-0.02596
C2HCl3O	Trichloroacetaldehyde	1.17362	0.26971	-0.02513
C2HCl5	Pentachloroethane	1.64566	0.13515	-0.01572
C2HF3O2	Trifluoroacetic Acid	-0.12577	0.59373	-0.03445
C2H2	Acetylene	-2.24177	0.82454	-0.03390
C2H2Br4	1,1,2,2-Tetrabromoethane	-	-	-
C2H2Cl2	1,1-Dichloroethylene	0.48740	0.33282	-0.01622
C2H2Cl2	cis-1,2-Dichloroethylene	0.47567	0.39061	-0.02554
C2H2Cl2	trans-1,2-Dichloroethylene	0.47567	0.39061	-0.02554
C2H2Cl2O2	Dichloroacetic Acid	1.69237	0.09630	-
C2H2Cl4	1,1,1,2-Tetrachloroethane	1.44097	0.19166	-0.01995
C2H2Cl4	1,1,2,2-Tetrachloroethane	1.52322	0.17848	-0.02019
C2H3Cl	Vinyl Chloride	-0.98889	0.66564	-0.04320
C2H3ClO	Acetyl Chloride	0.03627	0.45526	-0.02093
C2H3ClO2	Methyl Chloroformate	0.41186	0.42776	-0.02776
C2H3Cl3	1,1,1-Trichloroethane	0.97331	0.28737	-0.02277
C2H3Cl3	1,1,2-Trichloroethane	1.17163	0.27791	-0.02746

C2H3N	Acetonitrile	-0.79666	0.63512	-0.02598
C2H3NO	Methyl Isocyanate	-1.07579	0.85881	-0.06876
C2H4	Ethylene	-2.27102	0.61731	-0.01467
C2H4Br2	1,1-Dibromoethane	1.37260	0.25671	-0.02516
C2H4Br2	1,2-Dibromoethane	1.44231	0.25500	-0.02666
C2H4Cl2	1,1-Dichloroethane	0.54485	0.36091	-0.02192
C2H4Cl2	1,2-Dichloroethane	0.55343	0.37072	-0.02161
C2H4Cl2O	Bis(chloromethyl)ether	0.95599	0.33784	-0.03200
C2H4F2	1,2-Difluoroethane	-3.97902	2.51862	-0.31617
C2H4O	Acetaldehyde	-1.17047	0.62766	-0.02475
C2H4O	Ethylene Oxide	-2.42379	0.94878	-0.04062
C2H4O2	Acetic Acid	-0.05553	0.68410	-0.06071
C2H4O2	Methyl Formate	-0.99586	0.61693	-0.01847
C2H4S	Thiacyclopropane	0.02258	0.45520	-0.02154
C2H5Br	Bromoethane	0.31783	0.43549	-0.03072
C2H5Cl	Ethyl Chloride	-0.50828	0.50364	-0.02179
C2H5ClO	2-Chloroethanol	0.74164	0.46933	-0.05158
C2H5I	Ethyl Iodide	1.00356	0.32123	-0.02405
C2H5N	Ethyleneimine	-1.16912	0.91238	-0.07400
C2H5NO	N-Methylformamide	1.23333	0.21723	-
C2H5NO2	Nitroethane	0.44968	0.49708	-0.04612
C2H6	Ethane	-2.40393	0.68107	-0.01925
C2H6O	Ethanol	-0.51153	0.67525	-0.04473
C2H6OS	Dimethyl Sulfoxide	1.24042	0.31302	-0.04768
C2H6O2	Ethylene Glycol	1.40474	0.18738	-0.02663
C2H6O4S	Dimethyl Sulfate	1.34617	0.21539	-0.02336
C2H6S	Dimethyl Sulfide	0.48472	0.37358	-0.02770
C2H6S	Ethyl Mercaptan	0.00552	0.40506	-0.01802
C2H6S2	Dimethyl Disulfide	0.75878	0.35928	-0.02953
C2H7N	Dimethylamine	-1.22492	0.63962	-0.03266
C2H7NO	Monoethanolamine	1.21569	0.21994	-

C2H8N2	Ethylenediamine	0.56504	0.46307	-0.04789
C3H3Cl	Propargyl Chloride	0.27135	0.40480	-0.02135
C3H3N	Acrylonitrile	0.07669	0.49986	-0.03500
C3H3NO	Oxazole	0.63350	0.30620	-0.02350
C3H4	Methylacetylene	-2.52865	1.74715	-0.21635
C3H4Cl2	2,3-Dichloropropene	0.95417	0.30034	-0.02614
C3H4O	Acrolein	-0.29632	0.49437	-0.02471
C3H40	Propargyl Alcohol	0.22971	0.57711	-0.05441
C3H4O2	Acrylic Acid	0.75549	0.47108	-0.05615
C3H4O3	Pyuvic Acid	1.07410	0.41414	-0.05768
C3H5Br	3-Bromo-1-Propene	0.84815	0.32392	-0.02398
C3H5Cl	3-Chloropropene	0.32792	0.36553	-0.01853
C3H5ClO	alpha-Epichlorohydrin	0.83203	0.38983	-0.03932
C3H5ClO2	Methyl Chloroacetate	1.07657	0.32514	-0.03617
C3H5ClO2	Ethyl Chloroformate	0.94901	0.32529	-0.03201
C3H5ClO3	1,2,3-Trichloropropane	1.47241	0.18136	-0.02165
C3H5I	3-lodo-1-Propene	1.33634	0.24222	-0.02271
C3H5N	Propionitrile	0.05925	0.51747	-0.03781
C3H5NO	Hydracrylonitrile	1.50994	0.11037	-
C3H5NO	Lactonitrile	1.44156	0.12689	-
C3H6	Propylene	-0.93674	0.57775	-0.03853
C3H6Cl2	1,1-Dichloropropane	0.95379	0.28791	-0.02487
C3H6Cl2	1,2-Dichloropropane	0.98872	0.28700	-0.02571
C3H6Cl2	1,3-Dichloropropane	1.10340	0.27837	-0.02824
C3H6Cl2	2,2-Dichloropropane	0.85314	0.29432	-0.02255
C3H6O	Acetone	-0.14546	0.47497	-0.02286
C3H6O	Allyl Alochol	0.32390	0.49368	-0.04370
C3H6O	n-Propionaldehyde	0.05519	0.49738	-0.04331
C3H6O	1,2-Propylene Oxide	-0.42829	0.53858	-0.02757
C3H6O	1,3-Propylene Oxide	-0.50421	0.51872	-0.02296
C3H6O2	Ethyl Formate	0.12618	0.42260	-0.02090

C3H6O2	Methyl Acetate	0.13314	0.42849	-0.02188
C3H6O2	Propionic Acid	0.77846	0.44570	-0.05209
C3H6O2S	3-Mercaptopropionic Acid	1.68823	0.05916	-
C3H6O3	Lactic Acid	1.60722	0.09225	-
C3H6O3	Methoxyacetic Acid	1.61885	0.08873	-
C3H6S	Thiacyclobutane	0.67420	0.37225	-0.03151
C3H7Br	1-Bromopropane	0.83601	0.32406	-0.02407
C3H7Br	2-Bromopropane	0.81137	0.31043	-0.02155
C3H7Cl	Isopropyl Chloride	0.31428	0.34779	-0.01661
C3H7Cl	n-Propyl Chloride	0.40133	0.34678	-0.01931
C3H7I	Isopropyl Iodide	1.26456	0.24157	-0.02122
C3H7I	n-Propyl Iodide	1.30623	0.24227	-0.02250
C3H7N	Allylamine	0.16250	0.39815	-0.02105
C3H7N	Propyleneimine	0.06919	0.43529	-0.02293
C3H7NO	N,N-Dimethylformamide	0.90253	0.37875	-0.04523
C3H7NO2	1-Nitropropane	0.91328	0.34648	-0.03730
C3H7NO2	2-Nitropropane	0.83248	0.35732	-0.03608
C3H8	Propane	-0.79460	0.49029	-0.02398
C3H8O	Isopropanol	0.27183	0.46419	-0.03682
C3H8O	n-Propanol	0.38644	0.48033	-0.04505
C3H8O2	2-Methoxyethanol	0.74339	0.41792	-0.04536
C3H8O2	Methylal	0.19079	0.38167	-0.01775
C3H8O2	1,2-Propylene Glycol	1.48275	0.11594	-
C3H8O2	1,3-Propylene Glycol	1.58563	0.08395	-
C3H8S	n-Propylmercaptan	0.59031	0.31407	-0.02190
C3H8S	Isopropyl Mercaptan	0.55779	0.31539	-0.02051
C3H8S	Ethyl-Methyl-Sulfide	0.62830	0.31889	-0.02320
C3H9N	n-Propylamine	0.05768	0.34918	-0.01241
C3H9N	Isopropylamine	0.07464	0.37106	-0.01568
C3H9N	Trimethylamine	-0.09422	0.32583	-0.00337
C3H9NO	1-Amino-2-Propanol	1.25496	0.27456	-0.04254

C3H9NO	3-Amino-1-Propanol	1.53733	0.08156	-
C3H9NO	Methylethanolamine	1.14745	0.30208	-0.04243
C3H9O3P	Trimethyl-Phosphite	1.00568	0.21001	-0.01402
C3H9O4P	Trimethyl Phosphate	1.48463	0.16933	-0.02290
C3H10N2	1,2-Propanediamine	0.90237	0.31904	-0.03400
C4H4O	Furan	0.04084	0.40613	-0.01620
C4H4O2	Diketene	0.87430	0.37094	-0.03962
C4H4S	Thiophene	0.80753	0.32166	-0.02654
C4H5Cl	Chloroprene	0.72957	0.29786	-0.02111
C4H5N	trans-Crotonitrile	0.70791	0.37284	-0.03756
C4H5N	cis-Crotonitrile	0.58131	0.39427	-0.03590
C4H5N	Methacrylonitrile	0.46655	0.38890	-0.03042
C4H5N	Pyrrole	0.83128	0.38413	-0.04217
C4H5N	Vinylacetonitrile	0.61844	0.40844	-0.04032
C4H5NO2	Methyl Cyanoacetate	1.56587	0.09143	-
C4H6	1,3-Butadiene	-0.03359	0.34764	-0.01297
C4H6	Dimethylacetylene	-0.06673	0.39387	-0.01524
C4H6	Ethylacetylene	-0.02918	0.33636	-0.01056
C4H6Cl2	1,3-Dichloro-trans-2-Butene	1.30208	0.19939	-0.02091
C4H6Cl2	1,4-Dichloro-cis-2-Butene	1.40119	0.17876	-0.02041
C4H6Cl2	1,4-Dichloro-trans-2-Butene	1.40904	0.18120	-0.02179
C4H6Cl2	3,4-Dichloro-1-Butene	1.23394	0.21476	-0.02135
C4H6O	trans-Crotonaldehyde	0.68353	0.36560	-0.03400
C4H6O	2,5-Dihydrofuran	0.33990	0.40041	-0.02451
C4H6O	Methacrolein	0.43461	0.37019	-0.02474
C4H6O2	gamma-Butyrolactone	1.29434	0.29719	-0.04658
C4H6O2	cis-Crotonic Acid	1.30871	0.25008	-0.03752
C4H6O2	Methacrylic Acid	1.23099	0.27648	-0.03903
C4H6O2	Methyl Acrylate	0.45869	0.32104	-0.02001
C4H6O2	Vinyl Acetate	0.61067	0.34797	-0.02595
C4H6O3	Acetic Anhydride	1.07388	0.31083	-0.03575

C4H7N	n-Butyronitrile	0.64311	0.38787	-0.03822
C4H7N	Isobutyronitrile	0.56697	0.38807	-0.03531
C4H7NO	3-Methoxypropionitrile	1.13283	0.28534	-0.03732
C4H8	1-Butene	0.07313	0.32701	-0.01452
C4H8Br	1,2-Dibromobutane	1.69234	0.12766	-0.01497
C4H8Br	2,3-Dibromobutane	1.68176	0.12916	-0.01492
C4H8Cl2	1,4-Dichlorobutane	1.38278	0.17796	-0.02030
C4H8O	n-Butyraldehyde	0.45056	0.37372	-0.02689
C4H8O	Isobutyraldehyde	0.39315	0.36715	-0.02379
C4H8O	1,2-Epoxybutane	0.36719	0.37654	-0.02360
C4H8O	Methyl Ethyl Ketone	0.46525	0.37688	-0.02801
C4H8O	Ethyl Vinyl Ether	0.33311	0.33471	-0.01711
C4H8O	Tetrahydrofuran	0.29856	0.35648	-0.01550
C4H8O2	Isobutyric Acid	1.14021	0.29004	-0.03833
C4H8O2	n-Butyric Acid	1.22589	0.26481	-0.03737
C4H8O2	1,4-Dioxane	0.66781	0.36208	-0.03034
C4H8O2	Ethyl Acetate	0.63612	0.34441	-0.02691
C4H8O2	Methyl Propionate	0.64273	0.34862	-0.02767
C4H8O2	n-Propyl Formate	0.65855	0.34340	-0.02750
C4H8O2S	Sulfolane	1.77762	0.00118	0.00005
C4H8S	Tetrahydrothiophene	0.93777	0.33197	-0.03877
C4H9Br	1-Bromobutane	1.16698	0.24380	-0.02270
C4H9Br	2-Bromobutane	1.13872	0.24481	-0.02203
C4H9C	n-Butyl Chloride	0.80024	0.29114	-0.02370
C4H9Cl	sec-Butyl Chloride	0.75046	0.29132	-0.02212
C4H9Cl	tert-Butyl Chloride	0.68673	0.28529	-0.01944
C4H9N	Pyrrolidine	0.60693	0.36363	-0.03004
C4H9NO	N,N-Dimethylacetamide	1.20026	0.25124	-0.03263
C4H9NO	Morpholine	1.00673	0.30572	-0.03294
C4H10	n-Butane	0.03071	0.34304	-0.01596
C4H10	Isobutane	-0.01676	0.33495	-0.01274

C4H10O	n-Butanol	0.89881	0.32534	-0.03648
C4H10O	sec-Butanol	0.76814	0.34611	-0.03478
C4H10O	Diethyl Ether	0.23477	0.36044	-0.02236
C4H10O	Methyl-Propyl-Ether	0.36764	0.32893	-0.01787
C4H10O	Methyl Isopropyl Ether	0.36373	0.31940	-0.01647
C4H10O	Isobutanol	0.84818	0.33155	-0.03559
C4H10O2	1,3-Butanediol	-	-	-
C4H10O2	1,4-Butanediol	-	-	-
C4H10O2	2,3-Butanediol	1.50642	0.09239	-
C4H10O2	t-Butyl Hydroperoxide	1.08563	0.26496	-0.03035
C4H10O2	1,2-Dimethoxyethane	0.74981	0.31330	-0.02616
C4H10O2	2-Ethoxyethanol	1.07911	0.27792	-0.03199
C4H10O4S	Diethyl Sulfate	1.64797	0.05805	-
C4H10S	n-Butyl Mercaptan	0.98086	0.24388	-0.02251
C4H10S	Isobutyl Mercaptan	0.93709	0.24802	-0.02179
C4H10S	sec-Butyl Mercaptan	0.92287	0.24856	-0.02146
C4H10S	tert-Butyl Mercaptan	0.84380	0.24937	-0.01939
C4H10S	Diethyl Sulfide	0.95993	0.24465	-0.02195
C4H10S	Isopropyl-Methyl-Sulfide	0.92769	0.24689	-0.02132
C4H10S	Methyl-Propyl-Sulfide	0.97217	0.24453	-0.02229
C4H10S2	Diethyl Disulfide	1.42594	0.12564	-0.01373
C4H11N	n-Butylamine	0.64570	0.31857	-0.02570
C4H11N	Isobutylamine	0.60137	0.31538	0.02369
C4H11N	sec-Butylamine	0.57706	0.31254	-0.02250
C4H11N	tert-Butylamine	0.50036	0.30334	-0.01897
C4H11N	Diethylamine	0.54770	0.30799	-0.02107
C4H11NO	Dimethylethanolamine	1.18381	0.23249	-0.02857
C4H12Si	Tetramethylsilane	0.70867	0.23089	-0.01505
C4H13N3	Diethylene Triamine	1.54270	0.06479	-

Source: Yaws et al. 1995