

Electronic Supplementary Information

pK_a Prediction from an *ab initio* Bond Length: Part 2 – Phenols

pK_a Prediction from an *ab initio* Bond Length: Part 3 – Benzoic Acids and Anilines

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Table S1.

Identification numbers, experimental pK_a values, SMILES, chemical names and literature references for all compounds.

ID	SMILES	Chemical Name	Exp. pK _a	Ref.
1	NCCC1ccc(O)cc1	4-(2-aminoethyl)phenol	9.77	1
2	Cc1c(Cl)ccc(O)c1	3-methyl-4-chlorophenol	9.20	1
3	CC(Cc1ccc(O)cc1)(C)C	4-tert-amylphenol	10.43	1
4	c1(cc(O)ccc1[N+](=O)[O-])C(F)(F)F	3-trifluoromethyl-4-nitrophenol	6.07	1
5	c1(Cl)c(C)cc(cc1C)O	4-chloro-3,5-dimethylphenol	9.70	1
6	c1(ccc(cc1O)c2cccc2	4-phenylphenol	9.55	1
7	C(=O)CCCC(=O)c1ccc(cc1)O	4-hydroxy n-butyl benzoate	8.47	1
8	c1(Cl)c(Cl)ccc(O)c1	3,4-dichlorophenol	8.63	1
9	c1(C)cc(O)ccc1C	3,4-dimethylphenol	10.36	1
10	C(C)(C)c1ccc(cc1)O	4-t-butylphenol	10.39	1

11	C(F)(F)c1ccccc(O)c1	8.95	1
12	C(C)(=O)c1ccc(cc1)O	8.05	1
13	c1(C(C)C)ccc(cc1)O	10.24	1
14	O=Cc1cccc(O)c1	8.98	1
15	[N+](=O)[O-]c1ccc(cc1)O	7.15	1
16	C(C)(=O)Nc1ccc(cc1)O	9.38	1
17	c1(ccc(cc1)O)Cl	9.41	1
18	c1(O)ccc(cc1)C	10.26	1
19	c1(ccc(cc1)O)Br	9.17	1
20	c1(cccc1)O	9.99	1
21	c1(O)cc(C)cc(C)c1	10.19	1
22	c1c(cccc1C)O	9.12	1
23	c1c(C)cccc1O	10.09	1
24	C(OCC)(=O)c1ccc(cc1)O	8.34	1
25	c1(ccc(O)c1)C(C)=O	9.25	1
26	c1(ccc(cc1)O)N	10.45	1
27	O=CC1CCC(CC1)O	7.61	1
28	c1(O)ccc(cc1)CC	10.00	1
29	c1(O)ccc(cc1)OC	10.10	1
30	c1c(cccc1O)OC	9.65	1
31	c1(ccc(cc1)O)F	9.91	1
32	c1c(cccc1F)O	9.21	1
33	C(F)(F)c1ccc(cc1)O	8.68	1
34	c1(O)cc(O)cc(O)C(c1)	9.34	1
35	c1(ccc(cc1)O)I	9.21	1
36	[N+](=O)[O-]c1cccc(O)c1	8.36	1
37	c1(cc(O)ccc1[N+](=O)[O-])[N+](=O)[O-]	5.42	1
38	c1(cccc(O)c1)c2cccccc2	9.64	1
39	c1(ccc(O)c1)C(C)(C)C	10.12	1
40	[N+](=O)[O-]c1cc(O)cc(c1)[N+](=O)[O-]	6.69	1

41	c1(C)cc(O)cc(C)c1	8.18	1
42	c1c(cccc1N)O	9.86	1
43	c1c(cccc1Br)O	9.03	1
44	c1(C)c(Cl)cc(cc1Cl)O	7.84	1
45	c1(ccc(O)c1)C(C)C	10.16	1
46	c1(CC)cccc1O	9.90	1
47	c1c(cccc1O)OCC	9.65	1
48	c1(O)ccc(cc1)OCC	10.13	1
49	c1(Br)cc(O)cc(Br)c1	8.06	1
50	c1c(cccc1)O	9.03	1
51	c1(O)ccc(cc1)CCC	10.34	1
52	c1(O)cc(CC)cc(C)c1	10.10	1
53	N#Cc1ccc(cc1)O	7.97	1
54	N#Cc1cccc(O)c1	8.61	1
55	c1(O)ccc(cc1)CS	9.53	1
56	c12CCCC1ccc(O)c2	10.32	1
57	[N+](=O)[(O-)]c1c(C)ccc(O)c1	8.62	1
58	C(C)(=O)c1ccc(cc1)O	8.05	1
	hydroxyacetophenone		
	Ortho- Phenols (Capable of forming internal hydrogen bonds)		
59	c1(ccccc1O)C(N)=O	8.89	1
60	C(=O)(Nc1cccc1)c2cccc2O	7.40	1
61	c1(cccc1O)C(OC)=O	9.87	1
62	c1(O)c(ccc1C=O)OC	7.91	1
63	c1(cc(c(Cl)c1O)c1)C(=O)Nc2ccc(cc2)Cl	4.70	1
64	C(=O)(Nc1cccc1Cl)c2cccc2O	7.31	1
65	c1(c(O)ccc(c1N(=O)=O)C(=O)Nc2cccc2O	3.03	1
66	C(=O)(Nc1ccc(cc1Br)c2cccc2O	7.31	1
67	c1(cc(c(Cl)c1O)Br)c1c(O)Nc2ccc(cc2)Cl	6.00	1
68	C(=O)(Nc1ccc(cc1Cl)c2cccc2O	7.30	1

69	c1(cc(cc(Cl)c1O)C)C(=O)Nc2cccc2	4.70	1
70	c1(cc(ccc1O)C)C(=O)Nc2ccccc2	6.17	1
71	c1(cc(ccc1O)C)C(=O)Nc2ccccc2C	6.60	1
72	C(=O)(Nc1ccc(Cl)cc1C)c2ccccc2O	7.14	1
73	N(=O)(=O)c1cccc1NC(=O)c2cccc2O	6.91	1
74	c1(cc(ccc1NC(=O)c2cccc2O)C)N(=O)=O	6.74	1
75	c1(ccc(Br)c(C)c1O)C(NC)=O	7.52	1
76	c1(cc(cc(Cl)c1O)C)C(=O)Nc2ccc(cc2)F	4.80	1
77	c1(cc(cc(Br)c1O)Br)C(=O)Nc2ccc(Cl)cc2N(=O)=O	4.11	1
78	C(=O)(Nc1ccc(Cl)cc1C)c2ccccc2O	7.43	1
79	c1(cc(ccc1O)F)C(=O)Nc2ccc(Br)cc2C	7.10	1
80	c1(cc(ccc1O)F)C(=O)Nc2ccc(Cl)cc2C	7.30	1
81	c1(cc(cc(Br)c1O)Br)C(=O)Nc2ccc(F)cc2F	4.77	1
82	c1(cc(cc(Cl)c1O)C)C(=O)Nc2ccc(F)cc2F	4.77	1
83	c1(cc(cc(Cl)c1O)C)C(=O)Nc2ccc(Cl)cc2N(=O)=O	4.11	1
84	c1(cc(cc(Cl)c1O)C)C(=O)Nc2ccc(cc2C)N(=O)=O	4.41	1
	3,5-dichloro salicylanilide		
	5-chlorosalicylanilide		
	5-chloro-2'-methyl salicylanilide		
	2',4'-dichloro salicylanilide		
	2'-nitro salicylanilide		
	2'-nitro-4'-chloro salicylanilide		
	5-bromo-2-hydroxy- <i>n</i> ,3-dimethyl-benzamide		
	3,5-dichloro-4'-fluoro salicylanilide		
	3,5-dibromo-2'-nitro-4'-chloro salicylanilide		
	2'-methyl-4'-chloro salicylanilide		
	5-fluoro-2'-methyl-4'-bromo salicylanilide		
	5-fluoro-2'-methyl-4'-chloro salicylanilide		
	3,5-dibromo-2',4'-difluoro salicylanilide		
	3,5-dichloro-2',4'-difluoro salicylanilide		
	3,5,-4'-trichloro-2'-nitro salicylanilide		
	3,5-dichloro-2'-methyl-4'-nitro salicylanilide		
85	c1(c(O)ccc(c1[N+](=O)[O-])[N+](=O)[O-])	4.09	1
86	c1(C)c(O)c(Cl)cc(Cl)c1Cl	5.22	1
87	c1(c(ccc1N(=O)=O)O)N(=O)=O	4.96	1
88	c1(C)c(Cl)c(O)c(c(Cl)c1Cl)Cl	4.70	1
89	c1(O)c(ccc1Cl)Cl	6.79	1
90	c1(O)c(C)cccc1Cl	8.69	1
91	c1(cc(cc([N+](=O)[O-])c1O)[N+](=O)[O-])[N+](=O)[O-]	0.38	1
92	c1(cc(Cl)cc([N+](=O)[O-])c1O)[N+](=O)[O-]	2.96	1
93	c1(cc(cc(C(C)CC)c1O)[N+](=O)[O-])[N+](=O)[O-]	4.62	1
94	[N+](=O)([O-])c1cccc1O	7.23	1
95	c1(cccc1O)c(Cl)c(Cl)c	10.47	1
96	c1(cccc1O)c(Cl)c(Cl)c	10.28	1

Ortho- Phenols

	2,4-dinitrophenol		
	2,3,4,6-tetrachlorophenol		
	2,3-dinitrophenol		
	pentachlorophenol		
	2,6-dichlorophenol		
	2-methyl-6-chlorophenol		
	2,4,6-trinitrophenol		
	4-chloro-2,6-dinitrophenol		
	2-sec-butyl-4,6-dinitrophenol		
	2-nitrophenol		
	2-isopropylphenol		
	2-t-butylphenol		

97	c1(O)c(C)cc(cc1C)Cl	6.23	1
98	c1(O)cc(C)ccc1C(C)	10.62	1
99	c1(C(C)C)c(O)cc(c(C)c1)C	9.98	1
100	[N+](=O)[{O-}]c1c(O)ccc(C)c1	6.46	1
101	c1(ccccc1O)c2ccccc2	9.92	1
102	c1(cccc1O)cO	9.98	1
103	c1(ccccc1CC)O	10.20	1
104	c1(O)cc(C)ccc1O	10.28	1
105	c1(cccc1OCC)O	10.11	1
106	c1c(C)c(O)cc(C)c1Cl	7.40	1
107	c1(O)cc(C)ccc1C	10.41	1
108	c1(ccccc1O)Cl	8.56	1
109	c1(cccc1O)Br	8.45	1
110	c1(ccccc1O)N	9.75	1
111	c1(cccc1C)O	10.28	1
112	c1(c(O)ccc(C(C)(C)c1)C(C)(C)c1)C	11.72	1
113	c1(O)cc(ccc1O)C=CC	9.88	1
114	c1(O)cc(CC=C)cc1O	10.19	1
115	c1(ccc(C(Cl)c1)O)C(C)C(C)	8.58	1
116	c1(ccc(C(C)c1)O)C(C)C(C)	10.59	1
117	[N+](=O)[{O-}]c1ccc(c(N)c1)O	7.60	1
118	[N+](=O)[{O-}]c1cc(Br)c(c(Br)c1)O	3.39	1
119	c1(C)cc(C)ccc1O	10.60	1
120	c1(O)c(Br)cc(cc1Br)Br	6.10	1
121	N(=O)(=O)c1c(O)ccc(N)c1	7.81	1
122	[N+](=O)[{O-}]c1cc(C)ccc1O	7.40	1
123	c1(C)c(O)ccc(C)c1	7.89	1
124	c1(O)cc(ccc1O)C=O	7.40	1
125	c1(O)c(cccc1C(C)(C)c1)C(C)(C)c1	11.70	1
126	c1(O)c(cc(c1C(C)(C)c1)C(C)(C)c1)C	12.23	1

127	c2(cc(cc(C1CCCCC1)c2O)[N+](=O)[O-])[N+](=O)[O-]	4.52	1
128	[N+](=O)([O-])c1ccc(cc1O)[N+](=O)[O-]	5.21	1
129	c1(ccccc1O)F	8.70	1
130	[N+](=O)([O-])c1ccc(cc1O)F	6.07	1
131	c1(O)c(C)cc(c(C)c1)C	10.57	1
132	c1(C)c(C)cccc1O	10.54	1
133	c1(O)c(C)cc(c1C)c	10.86	1
134	c1(ccccc1O)I	8.51	1
135	c1(c(O)c(C)cc(c1)[N+](=O)[O-])[N+](=O)[O-]	4.31	1
136	c1(O)c(O)ccc(CCNC)c1C	9.54	1
137	[N+](=O)([O-])c1cccc(c1O)[N+](=O)[O-]	3.97	1
138	c1(O)c(C)cccc1C	10.62	1
139	c1(C)c(cccc1C)O	7.70	1
140	c1(O)c(C)ccc(Cl)c1	7.51	1
141	[N+](=O)([O-])c1cccc(Cl)c1O	5.48	1
142	c1(Br)c(Br)c(O)c(c(Br)c1Br)Br	4.62	1
143	c1(O)c(cccc1Br)Br	6.67	1
144	c1(cc(C)cc([N+](=O)[O-])[O-])c1O)[N+](=O)[O-]	4.23	1
145	N#CC1CCCCC1O	6.86	1
146	[N+](=O)([O-])c1ccc(cc1O)Cl	6.05	1
147	c1(Br)c(O)ccc(Br)c1	7.79	1
148	[N+](=O)([O-])c1cc(Cl)c(c(Cl)c1)O	3.55	1
149	[N+](=O)([O-])c1cc(c(Cl)c1)O	5.45	1
150	c1(O)cc(ccc1OC)c=O	8.89	1
151	c1(ccccc1CCC)O	10.47	1
152	c1(O)cc(C)cc(C)c1C	10.67	1
153	c1(C)cc(c([N+](=O)[O-])=O)cc1O	7.41	1
154	c2(cc(cc(c1cccc1)c2O)[N+](=O)[O-])[N+](=O)[O-]	3.85	1
155	c1(C(C)C)c(C(C)C)cc(C(C)C)c1O	12.19	1
156	c1(F)c(O)c(c(F)c1F)F	5.53	1

157	[N+](=O)([O-])c2c(O)ccc(c1ccccc1)c2	
158	c1(C)c(Cl)ccc(Cl)c1O	6.73 1
159	c1(O)c(Cl)c(Cl)cc(Cl)c1Cl	5.80 1
160	c1(cc(Cl)c1O)[N+]([O-])[N+](=O)[O-]	5.14 1
161	[N+](=O)([O-])c1c(O)ccc(OC)c1	2.10 1
162	c1(C)cc(Cl)ccc1O	7.31 1
163	c1(O)c(Br)cc(cc1Br)C#N	9.71 1
164	c1(cc(C)cc(Cl)c1O)c(C)(C)C	3.86 1
165	c1(O)c(cccc1C(C)C)c(C)C	12.04 1
166	c1(cc(C)ccc1O)c(C)(C)C	11.10 1
167	[N+](=O)([O-])c1cc(C)c(c(C)c1)O	11.72 1
168	c1(O)c(Cl)cc(cc1Cl)C	7.07 1
169	c1(O)c(Cl)cc(cc1Cl)Br	7.19 1
170	[N+](=O)([O-])c1c(O)ccc(C(C)CC)c1	3.86 1
171	c(O)(=O)c1ccc(O)c(Cl)c1	6.21 1
172	c1(C)c(Cl)c(O)cc(Cl)c1Cl	7.59 1
173	N(=O)(=O)c1cc(c(O)c1)C	6.35 1
174	Cl-c(C(c1)C)c(Cl)c1O	8.59 1
175	c2(c(ON=CC1cc(Br)c(c(Br)c1)O)ccc(c2)N(=O)=O)N(=O)=O	8.74 1
	bromofenoim	5.46 1

Meta-/Para-Benzoic Acids

176	C(O)(=O)c1ccc(c(Cl)c1)Cl	3.64 1
177	c1(cc(Cl)cc(Cl)c1)C(O)=O	3.54 1
178	S(=O)(=O)(N(CC)CC)c1ccc(cc1)C(O)=O	3.40 1
179	[N+](=O)([O-])c1ccc(cc1)C(O)=O	3.44 1
180	C(O)(c1cccc1)=O	4.19 1
181	C(O)(=O)c1ccc(cc1)Cl	3.98 1
182	C(O)(=O)c2cccc1c(cccc1)c2	4.17 1
183	C(O)(=O)c1ccc(c(Oc)c1)OC	4.36 1
184	C(O)(=O)c1ccc(cc1)C(C)C	4.40 1

185	C(O)(=O)c1ccc(cc1)O	4.54	1
186	C(O)(=O)c1ccc(cc1)C	4.37	1
187	C(O)(=O)c1ccc(c(O)c1)O	4.48	1
188	[N+](=O)[{O-}])c1cc(cc1)[N+](=O)[O-])C(O)=O	2.82	1
189	c1(cc(O)cc(O)c1)C(O)=O	4.04	1
190	C(O)(=O)c1cccc(N)c1	4.74	1
191	C(O)(=O)c1cccc(C)c1	4.27	1
192	C(O)(=O)c1ccc(cc1)OC	4.47	1
193	[N+](=O)[{O-}])c1cccc(c1)C(O)=O	3.46	1
194	C(O)(=O)c1ccc(c(OC)c1)O	4.51	1
195	c1(O)c(O)cc(cc1O)C(O)=O	4.21	1
196	C(O)(=O)c1cccc(cc1)N	4.85	1
197	C(O)(=O)c1cccc(F)c1	3.86	1
198	C(O)(=O)c1ccc(cc1)F	4.14	1
199	c1(cc(cc1[N+](=O)[O-])C(O)=O)[N+](=O)[O-]	2.82	1
200	c1(O)c(O)cc(cc1O)C(O)=O	4.34	1
201	C(O)(=O)c1cccc(C)c1	3.81	1
202	C(O)(=O)c1cccc(cc1)C(C)C	4.35	1
203	C(O)(=O)c1cccc(Br)c1	3.81	1
204	C(O)(=O)c1ccc(cc1)C(C)=O	3.70	1
205	C(O)(=O)c1ccc(cc1)Br	4.00	1
206	C(O)(=O)c1cccc(OC)c1	4.09	1
207	C(O)(=O)c1cccc(l)c1	3.85	1
208	C(O)(=O)c1cccc(cc1)OC	4.45	1
209	c(cc(c1)C(=O)O)c(c1)C=O	3.77	1
210	N#CC1CCC(CC1)C(O)=O	3.55	1
211	C(O)(=O)c1cccc(cc1)CC	4.35	1
212	C(O)(=O)c1cccc(cc1)I	4.00	1
213	C(O)(=O)c1cccc(c1)C=O	3.84	1
214	Nc1ccc(cc1N)C(O)=O	3.49	1

215	c1(cc(O)cc(O)c1)C(O)=O	3.97	1
216	C(O)(=O)c1cccc(c1)C#N	3.60	1
217	C(O)(=O)c1cccc(cc1)Oc2cccc2	4.52	1
218	C(O)(=O)c2cccc(Oc1cccc1)c2	3.92	1
219	S(C)(=O)(=O)c1ccc(cc1)C(O)=O	3.64	1
220	C(O)(=O)c1ccc(cc1)OCCC	4.46	1
221	O=C(O)c(cccc1O)c1	4.20	1
222	c1(ccc(cc1O)C)C(O)=O	3.40	1
223	c1(ccc(cc1Cl)C)C(O)=O	2.68	1
224	c1(cc(Cl)ccc1Cl)C(O)=O	2.47	1
225	c1(cccc1OCC(C)=O)C(O)=O	3.49	1
226	c1(c(Cl)ccc(Cl)c1Cl)C(O)=O	1.50	1
227	c1(c(cccc1Cl)C)C(O)=O	1.59	1
228	c1(cc(cc1OCC(N)C)C)C(O)=O	5.09	1
229	c1(cccc1Nc2cccc(C)c2C)C(O)=O	4.20	1
230	c1(cc(cc1O)N)C(O)=O	3.66	1
231	c1(ccccc1O)C(O)=O	2.97	1
232	c1(ccc(C)c1O)C(O)=O	2.95	1
233	c1(ccccc1)C(O)=O	2.93	1
234	c1(cccc1Br)C(O)=O	2.88	1
235	c1(cc(cc1O)O)C(O)=O	2.4-dihydroxybenzoic acid	1
236	c1(cc(C)c1O)C(O)=O	5-methylsalicylic acid	1
237	O=C(O)c(c(O)ccc1Br)c1	5-bromosalicylic acid	1
238	c1(ccccc1NC(C)=O)C(O)=O	n-acetyl-o-aminobenzoic acid	1
239	c1(ccc(cc1O)C)C(O)=O	2,4-dimethoxybenzoic acid	1
240	c1(cccc1Nc2cccc2)C(O)=O	n-phenyl-o-aminobenzoic acid	1
241	c2(C(O)=O)c(O)cc1cccc1c2	2-naphthalene carboxylic acid, 3-hydroxy-	1
242	[N+](=O)[O-])c1ccc(c(C(O)=O)c1)O	5-nitrosalicylic acid	1

243	[N+](=O)([O-])c1ccc(c(Cl)c1)C(O)=O	2.14	1
244	c1(cccc1N)C(O)=O	4.95	1
245	c1(cccc1Cl)C(O)=O	2.89	1
246	C(O)(=O)c1cccc1C	3.98	1
247	c1(cc(I)ccc1O)C(O)=O	2.62	1
248	c1(C(O)=O)c(cc(cc1[N+](=O)[O-])[N+](=O)[O-])[O-]	0.65	1
249	c1(cc(I)cc(I)c1O)C(O)=O	2.30	1
250	c1(cc(Cl)cc(N)c1Cl)C(O)=O	3.40	1
251	c1(ccc(O)c1O)C(O)=O	2.91	1
252	c1(c(ccc1O)O)C(O)=O	1.05	1
253	c1(cc(Cl)ccc1O)C(O)=O	2.65	1
254	c1(cccc1F)C(O)=O	3.27	1
255	c1(cc(O)ccc1O)C(O)=O	2.95	1
256	[N+](=O)([O-])c1cccc1C(O)=O	2.17	1
257	c1(cccc1C(C)=O)C(O)=O	4.13	1
258	c1(cccc1OC)C(O)=O	3.90	1
259	c1(cc(cc(C(O)=O)c1O)N(=O)=O)N(=O)=O	0.70	1
260	c1(cc(ccc1C(O)=O)[N+](=O)[O-])[N+](=O)[O-]	1.42	1
261	C(O)(=O)c1c(C)cccc1C	3.35	1
262	c1(C(O)=O)c(F)c(c(F)c1F)C	2.00	1
263	c1(cccc1c2cccc2)C(O)=O	3.46	1
264	c1(ccc1OC)OC)C(O)=O	3.44	1
265	c1(cccc(OC)c1OC)C(O)=O	3.98	1
266	c1(c(Cl)ccc(Cl)c1OC)C(O)=O	1.97	1
267	c1(cccc1Oc2cccc2)C(O)=O	3.53	1
268	c1(cccc1C(C)C)C(O)=O	3.63	1
269	[N+](=O)([O-])c1ccc(c(C(O)=O)c1)Cl	2.17	1
270	[N+](=O)([O-])c1cccc(C(O)=O)c1Cl	2.02	1
271	c2c(NC(c1c(C(O)=O)cccc1)=O)cccc2	2.50	1
272	N(=O)(=O)c1cccc(Cl)c1C(O)=O	1.34	1

273	c1(c(C)cccc1C)C(O)=O	2.75	1
274	c1(cccc1NCC(N)=O)C(O)=O	4.20	1
Anilines			
275	Nc1cc(C(O)=O)ccc1	4.53	3
276	Nc1ccc(C(O)=O)cc1	2.38	2
277	Nc1cc(O)c(C(O)=O)cc1	2.05	2
278	Nc1ccc(O)cc1	5.48	2
279	Nc1cc(O)ccc1	4.37	2
280	Nc1cc(N(=O)=O)cc(N(=O)=O)cc1	0.30	2
281	Nc1cc(Cl)cc(Cl)c1	2.51	2
282	Nc2ccc(c1cccc1)cc2	4.35	2
283	Cc1c(N(=O)=O)ccc(N)c1	1.64	2
284	C(c1cccc1)(=O)c2ccc(cc2)N	2.24	2
285	[N+](=O)[{[O-]}]c1c(C)cc(cc1C)N	2.54	2
286	[N+](=O)[{[O-]}]c1c(C)cc(N)c1	0.40	2
287	S(C)(=O)(=O)c1cc(cc1)N	1.35	2
288	N(=O)(=O)c1c(C)ccc(N)c1	1.90	2
289	C(F)(F)c1cccc(cc1)N	2.45	2
290	C(Oc)(=O)c1ccc(cc1)N	2.47	2
291	c(OCCCC)(=O)c1ccc(cc1)N	2.47	2
292	c(OCCC)(=O)c1ccc(cc1)N	2.49	2
293	c(OCC)(=O)c1ccc(cc1)N	2.51	2
294	c1(C)cc(C)ccc(N)c1	2.97	2
295	C(F)(F)c1cccc(N)c1	3.49	2
296	c1c(cccc1N)Br	3.58	2
297	c1c(cccc1N)I	3.61	2
298	c1(ccc(cc1))N	3.78	2
299	c1(ccc(cc1)Br)N	3.86	2
300	c1(C)cc(ccc1Br)N	4.05	2
2-chloro-6-methyl-benzoic acid			
2-[(acetylamino)amino]-benzoic acid			

301	c1(cccc1N)C(O)=O	2.14	2
302	c1(cccc1O)N	4.84	2
303	[N+](=O)([O-])c1ccc(c(N)c1)O	3.10	2
304	c1(Br)c(N)ccc(Br)c1	2.30	2
305	[N+](=O)([O-])c1cc(C)ccc1N	3.03	2
306	c1(cccc1N)c2cccc2	3.83	2
307	[N+](=O)([O-])c1cc(Cl)c(c(Cl)c1)N	-2.55	2
308	[N+](=O)([O-])c1cc(C)c(c(C)c1)N	0.98	2
309	c1(N)c(Cl)ccc(Cl)c1	2.05	2
310	c1(c(N)ccc(c1)[N+](=O)[O-])[N+](=O)[O-]	-4.25	2
311	[N+](=O)([O-])c1c(N)ccc(Cl)c1	-1.02	2
312	[N+](=O)([O-])c1cccc(c(Cl)c1)N	-0.94	2
313	c1(N)c(F)c(F)c(c(F)c1F)F	-0.28	2
314	c1(N)c(cccc1Cl)Cl	0.42	2
315	N(=O)(=O)c1c(N)ccc(OC)c1	0.77	2
316	[N+](=O)([O-])c1ccc(c(Cl)c1)N	1.04	2
317	c1(C)c(cccc1N)Cl	1.76	2
318	c1(C)c(N)ccc(Cl)c1	2.00	2
319	c1(cccc1N)C(OC)=O	2.18	2
320	c1(cccc1N)C(OC)=O	2.23	2
321	[N+](=O)([O-])c1ccc(c(N)c1)C	2.35	2
322	c1(c(C)c(C)c(C)c1)N[N+](=O)[O-]	2.36	2
323	[N+](=O)([O-])c1ccc(c(N)c1)OC	2.49	2
324	c1(cccc1Br)N	2.53	2
325	c1(cccc1)N	2.60	2
326	N(=O)(=O)c1cccc(c1N)N(=O)=O	-5.00	2
327	c1(N)c(Cl)cc(cc1Cl)Cl	-0.03	2
328	c1c(Cl)c(Cl)cc(Cl)c1N	1.09	2
329	c1(N)c(OC)ccc(OC)c1	3.93	2

Fluorophenols			
330	Oc1ccc(F)cc1F	2,4-difluorophenol	8.58 4
331	Oc1c(F)cccc1F	2,6-difluorophenol	7.51 4
332	Oc1c(F)c(F)cc(F)c1F	2,3,5,6-tetrafluorophenol	6 4
Methoxyphenols			
333	COc1cc(CO)ccc1O	4-(hydroxymethyl)-2-(methoxy)phenols	9.78 5
334	COCC1CC(O)C(OC)c1	2-(methyloxy)-4-[(methyloxy)methyl]phenol	9.79 5
335	COc(=O)c1ccc(O)c(OC)c1	methyl 4-hydroxy-3-(methyloxy)benzoate	8.3 5
336	COc1cc(CCO)ccc1O	4-(2-hydroxyethyl)-2-(methoxy)phenol	10.09 5
337	COc1cc(ccc1O)C(C)O	4-(1-hydroxyethyl)-2-(methoxloxy)phenol	9.83 5
338	COc(C)c1ccc(O)c(OC)c1	2-(methyloxy)-4-[1-(methyloxy)ethyl]phenol	9.75 5
339	COc1cc(ccc1O)C(O)CO	1-[4-hydroxy-3-(methyloxy)phenyl]-1,2-ethanediol	9.5 5
340	COc1cc(ccc1O)C(C)=O	1-[4-hydroxy-3-(methyloxy)phenyl]ethanone	7.81 5
341	CCCC1CCC(O)c(OC)c1	2-(methyloxy)-4-propylphenol	9.85 5
342	COc1cc(\C=C\CO)ccc1O	4-[(1E)-3-hydroxy-1-propen-1-yl]-2-(methyloxy)phenol	9.54 5
343	COc1cc(\C=C\C\CO)c1O	(2E)-3-[4-hydroxy-3-(methyloxy)phenyl]-2-propenal	7.94 5
344	CCCC1CCC(O)c(OC)c1	4-(1-hydroxypropyl)-2-(methyloxy)phenol	9.83 5
345	CCCC1CCC(O)c(OC)c1	1-[4-hydroxy-3-(methyloxy)phenyl]-1-propanone	7.98 5
346	COc1cc(ccc1O)C(=O)CC(O)	2-hydroxy-1-[4-hydroxy-3-(methyloxy)phenyl]-1-propanone	7.32 5
347	COc1cc(ccc1O)C(O)C(CO)Oc1cccccc1OC	1-[4-hydroxy-3-(methyloxy)phenyl]-2-{{[2-(methyloxy)phenyl]oxy}-1,3-propanediol}	9.88 5
348	COCC1CC(\C=C\Oc2cccc2O)c1O	2-[methyloxy)methyl]-4-((Z)-2-{{[2-(methyloxy)phenyl]oxy}ethenyl})phenol	9.49 5
Meta/Para-Nitrophenols			
349	Oc1ccc(c(F)c1)[N+](O-)=O	3-fluoro-4-nitrophenol	5.3 6
350	Oc1cc(F)c(c(F)c1)[N+](O-)=O	3,5-difluoro-4-nitrophenol	4.4 6
351	Cc1cc(O)ccc1[N+](O-)=O	3-methyl-4-nitrophenol	7.29 7
352	Cc1cc(O)cc(C)c1[N+](O-)=O	3,5-dimethyl-4-nitrophenol	8.25 8
353	Oc1ccc(c(C)c1)[N+](O-)=O	3-chloro-4-nitrophenol	6.49 8

Meta-Anilines

354	Nc1cccc(N)c1	4.88	9
355	Nc1cccc(Cl)c1	3.34	9
356	Nc1cccc(c1)C#N	2.76	9
357	Nc1cccc(F)c1	3.59	9
358	COc1ccccc(N)c1	4.2	9
359	Cc1cccc(N)c1	4.69	9
360	Nc1cccc(c1)[N+](O-)=O	2.5	9
361	Cc1cc(C)cc(N)c1	5.17	9
362	Nc1ccc(O)c(N)c1	5.7	9
363	COc1ccc(N)cc1Br	4.08	9
364	Cc1ccc(N)cc1Br	3.98	9
365	Cc1ccc(N)cc1Cl	4.05	9
366	Nc1cc(Br)cc(Br)c1	2.34	9
367	COc1cc(N)cc(OC)c1	3.82	9
368	Cc1cc(C)cc(N)c1	4.91	9
369	COc1cc(N)cc(Cl)c1	3.1	9
370	COc1cc(N)cc(c1)[N+](O-)=O	2.11	9
371	Nc1cc(Br)c(O)c(Br)c1	3.2	9
372	COc1c(Br)cc(N)cc1Br	2.98	9
373	Cc1c(Br)cc(N)cc1Br	2.87	9

Hydroxybenzoic Acids

373	OC(=O)c1cccccc1O	2.98	10
374	OC(=O)c1cccc(O)c1	4.08	10
375	OC(=O)c1ccc(O)cc1	4.58	10
376	OC(=O)c1cccc(O)c1O	2.98	10
377	OC(=O)c1ccc(O)cc1O	3.29	10
378	OC(=O)c1cc(O)ccc1O	2.97	10
379	OC(=O)c1c(O)cccc1O	1.3	10

380	<chem>OC(=O)c1cccc(O)c(O)c1</chem>	4.48	10
381	<chem>OC(=O)c1cc(O)cc(O)c1</chem>	4.04	10
382	<chem>OC(=O)c1c(O)cc(O)cc1O</chem>	1.68	10
383	<chem>OC(=O)c1cc(O)c(O)c(O)c1</chem>	4.19	10
384	<chem>OC(=O)c1cccccc1</chem>	4.2	10

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