

Supporting Material

1. Solubility systems used in the research

No.	System (drug in solvents A + B + C + ...)	Datapoint	Ref
1	Anthracene in benzene + cyclohexane	7	[1]
2	Anthracene in benzene + n-heptane	7	[1]
3	Anthracene in benzene + isooctane	7	[1]
4	Anthracene in cyclooctane + benzene	7	[1]
5	Anthracene in cyclooctane + cyclohexane	7	[1]
6	Anthracene in n-hexadecane + dibutyl ether	11	[2]
7	Anthracene in squalane + dibutyl ether	10	[2]
8	Anthracene in n-heptane + cyclohexane	7	[1]
9	Anthracene in n-hexane + benzene	7	[1]
10	Anthracene in n-hexane + cyclohexane	7	[1]
11	Anthracene in isooctane + cyclohexane	7	[1]
12	Anthracene in n-octane + cyclohexane	7	[1]
13	Benzil in carbon tetrachloride + isooctane	10	[3]
14	Benzil in cyclohexane + cyclooctane	7	[3]
15	Benzil in cyclohexane + n-heptane	7	[3]
16	Benzil in cyclohexane + isooctane	7	[3]
17	Benzil in cyclohexane + n-octane	7	[3]
18	Benzil in cyclooctane + carbon tetrachloride	8	[3]
19	Benzil in n-octane + carbon tetrachloride	9	[3]
20	Benzoic acid in cyclohexane + carbon tetrachloride	7	[4]
21	p-Benzoquinone in cyclohexane + isooctane	7	[5]
22	p-Benzoquinone in cyclooctane + cyclohexane	7	[5]
23	p-Benzoquinone in n-dodecane + n-heptane	7	[5]
24	p-Benzoquinone in n-heptane + carbon tetrachloride	8	[5]
25	p-Benzoquinone in n-heptane + cyclohexane	7	[5]
26	p-Benzoquinone in n-octane + carbon tetrachloride	7	[5]
27	Butyl-p-aminobenzoate in water + propylene glycol	11	[6]
28	Butyl-p-hydroxybenzoate in water + propylene glycol	11	[6]
29	Caffeine in water + dioxane	16	[7]
30	Carbazole in chlorocyclohexane + dibutyl ether	11	[8]
31	Carbazole in 1-chlorohexane + dibutyl ether	11	[9]
32	Carbazole in 1-chlorooctane + dibutyl ether	11	[8]
33	Carbazole in 1-chlorotetradecane + dibutyl ether	11	[8]
34	Carbazole in cyclohexane + dibutyl ether	11	[10]

35 Carbazole in cyclooctane + dibutyl ether	11	[10]
36 Carbazole in n-heptane + dibutyl ether	11	[10]
37 Carbazole in n-hexadecane + dibutyl ether	11	[2]
38 Carbazole in n-hexane + dibutyl ether	11	[10]
39 Carbazole in isooctane + dibutyl ether	11	[10]
40 Carbazole in methyl-cyclohexane + dibutyl ether	11	[10]
41 Carbazole in n-octane + dibutyl ether	11	[10]
42 Carbazole in squalane + dibutyl ether	13	[2]
43 Carbazole in t-butylcyclohexane + tetrahydropyran	11	[11]
44 Carbazole in cyclohexane + tetrahydropyran	11	[11]
45 Carbazole in n-heptane + tetrahydropyran	11	[11]
46 Carbazole in n-hexadecane + tetrahydropyran	12	[11]
47 Carbazole in n-hexane + tetrahydropyran	10	[11]
48 Carbazole in isooctane + tetrahydropyran	11	[11]
49 Ethyl-p-aminobenzoate in water + propylene glycol	11	[6]
50 Ethyl-p-hydroxybenzoate in water + propylene glycol	11	[6]
51 p-Hydroxybenzoic acid in water + dioxane	13	[12]
52 Iodine in n-heptane + benzene	10	[13]
53 Iodine in n-hexadecane + n-heptane	7	[14]
54 Iodine in n-hexadecane + isooctane	7	[14]
55 Iodine in n-hexane + benzene	7	[13]
56 Iodine in isooctane + benzene	9	[13]
57 Methyl-p-aminobenzoate in water + propylene glycol	11	[6]
58 Methyl-p-hydroxybenzoate in water + propylene glycol	11	[6]
59 Naphthalene in water + ethylene glycol	18	[15]
60 Naphthalene in water + methanol	14	[15]
61 Paracetamol in methanol + ethyl acetate	14	[16]
62 Paracetamol in water + methanol	7	[16]
63 Propyl-p-aminobenzoate in water + propylene glycol	11	[6]
64 Propyl-p-hydroxybenzoate in water + propylene glycol	11	[6]
65 Sulphadiazine in water + dimethylformamide	14	[17]
66 Sulphamethazine in water + ethanol	11	[18]
67 Sulphamethazine in ethanol + ethyl acetate	14	[18]
68 Sulphanilamide in water + dioxane	16	[19]
69 Sulphanilamide in water + ethanol	12	[18]
70 Sulphanilamide in ethanol + ethyl acetate	10	[18]
71 Sulphisomidine in water + dioxane	21	[20]
72 Sulphamethoxypyridazine in water + ethanol , 20°C	7	[21]

73 Sulphamethoxypyridazine in water + ethanol, 25°C	7	[21]
74 Sulphamethoxypyridazine in water + ethanol, 30°C	7	[21]
75 Sulphamethoxypyridazine in water + ethanol, 35°C	7	[21]
76 Sulphamethoxypyridazine in water + ethanol, 40°C	7	[21]
77 Testosterone in chloroform + cyclohexane	15	[22]
78 Theobromine in water + dioxane	11	[23]
79 Theophylline in water + acetonitrile	17	[15]
80 Theophylline in water + dioxane	21	[24]
81 Theophylline in water + ethylene glycol	17	[15]
82 Theophylline in water + methanol	13	[15]
83 Tolbutamide in water + ethanol	9	[25]
84 p-Tolylacetic acid in n-hexane + cyclohexane	7	[26]
85 p-Tolylacetic acid in cyclohexane + n-heptane	7	[26]
86 p-Tolylacetic acid in cyclohexane + isooctane	7	[26]
87 p-Tolylacetic acid in cyclohexane + n-octane	7	[26]
88 Paracetamol in water + acetone 30°C	15	[27]
89 Paracetamol in acetone + toluene 30°C	13	[27]
90 Paracetamol in ethanol + water	13	[28]
91 Paracetamol in ethanol + ethylacetate	13	[28]
92 Paracetamol in isopropanol + water, 40°C	11	[29]
93 Paracetamol in isopropanol + water, 35°C	11	[29]
94 Paracetamol in isopropanol + water, 30°C	11	[29]
95 Paracetamol in isopropanol + water, 25°C	11	[29]
96 Paracetamol in isopropanol + water, 20°C	11	[29]
97 Paracetamol in isopropanol + water, 15°C	11	[29]
98 Paracetamol in isopropanol + water, 10°C	11	[29]
99 Paracetamol in isopropanol + water, 5°C	11	[29]
100 Paracetamol in water + dioxane, 40°C	12	[30]
101 Paracetamol in water + dioxane, 35°C	12	[30]
102 Paracetamol in water + dioxane, 30°C	12	[30]
103 Paracetamol in water + dioxane, 25°C	12	[30]
104 Paracetamol in water + dioxane, 20°C	12	[30]
105 Paracetamol in propylene glycol + water, 40°C	11	[31]
106 Paracetamol in propylene glycol + water, 35°C	11	[31]
107 Paracetamol in propylene glycol + water, 30°C	11	[31]
108 Paracetamol in propylene glycol + water, 25°C	11	[31]
109 Paracetamol in propylene glycol + water, 20°C	11	[31]
110 Paracetamol in ethanol + propylene glycol, 40°C	11	[32]

111 Paracetamol in ethanol + propylene glycol, 35°C	11	[32]
112 Paracetamol in ethanol + propylene glycol, 30°C	11	[32]
113 Paracetamol in ethanol + propylene glycol, 25°C	11	[32]
114 Paracetamol in ethanol + propylene glycol, 20°C	11	[32]
115 Paracetamol in water + acetone 25°C	10	[27]
116 Paracetamol in water + acetone 23°C	15	[27]
117 Paracetamol in water + acetone 20°C	10	[27]
118 Paracetamol in water + acetone 16°C	15	[27]
119 Paracetamol in water + acetone 15°C	10	[27]
120 Paracetamol in water + acetone 10°C	10	[27]
121 Paracetamol in water + acetone 5°C	10	[27]
122 Paracetamol in water + acetone 0°C	10	[27]
123 Paracetamol in acetone + toluene 25°C	13	[27]
124 Paracetamol in acetone + toluene 20°C	13	[27]
125 Paracetamol in acetone + toluene 16°C	9	[27]
126 Paracetamol in acetone + toluene 15°C	13	[27]
127 Paracetamol in acetone + toluene 10°C	13	[27]
128 Paracetamol in acetone + toluene 5°C	13	[27]
129 Paracetamol in acetone + toluene 0°C	13	[27]
130 Paracetamol in water + acetone + toluene 30°C	12	[27]
131 Paracetamol in water + acetone + toluene 25°C	12	[27]
132 Paracetamol in water + acetone + toluene 20°C	12	[27]
133 Paracetamol in water + acetone + toluene 16°C	12	[27]
134 Paracetamol in water + acetone + toluene 15°C	12	[27]
135 Paracetamol in water + acetone + toluene 10°C	12	[27]
136 Paracetamol in water + acetone + toluene 5°C	12	[27]
137 Paracetamol in water + acetone + toluene 0°C	12	[27]
138 Acetanilide in water + dioxane, 40°C	11	[30]
139 Acetanilide in water + dioxane, 35°C	11	[30]
140 Acetanilide in water + dioxane, 30°C	11	[30]
141 Acetanilide in water + dioxane, 25°C	11	[30]
142 Acetanilide in water + dioxane, 20°C	11	[30]
143 Nalidixic acid in water + dioxane, 40°C	12	[30]
144 Nalidixic acid in water + dioxane, 35°C	12	[30]
145 Nalidixic acid in water + dioxane, 30°C	12	[30]
146 Nalidixic acid in water + dioxane, 25°C	12	[30]
147 Nalidixic acid in water + dioxane, 20°C	12	[30]
148 Nalidixic acid in water + dioxane, 10°C	12	[30]

149 Naphthalene in water + methanol	6	[33]
150 Naphthalene in water + ethanol	9	[33]
151 Naphthalene in water + 1-propanol	6	[33]
152 Naphthalene in water + 1-butanol	6	[33]
153 Naphthalene in water + 1-pentanol	5	[33]
154 Naphthalene in water + methanol + 1-propanol	7	[33]
155 Naphthalene in water + methanol + 1-butanol	7	[33]
156 Naphthalene in water + benzene	4	[33]
157 Naphthalene in water + methanol + 1-propanol + 1-butanol	8	[33]
158 Naphthalene in water + acetonitrile	12	[15]
159 Methyl-p-aminobenzoate in water + ethanol 15°C	4	[34]
160 Methyl-p-aminobenzoate in water + ethanol 25°C	4	[34]
161 Methyl-p-aminobenzoate in water + ethanol 40°C	4	[34]
162 Methyl-p-aminobenzoate in water + ethanol 50°C	4	[34]
163 Ethyl-p-aminobenzoate in water + ethanol 15°C	4	[34]
164 Ethyl-p-aminobenzoate in water + ethanol 25°C	4	[34]
165 Ethyl-p-aminobenzoate in water + ethanol 40°C	4	[34]
166 Ethyl-p-aminobenzoate in water + ethanol 50°C	4	[34]
167 Propyl-p-aminobenzoate in water + ethanol 15°C	4	[34]
168 Propyl-p-aminobenzoate in water + ethanol 25°C	4	[34]
169 Propyl-p-aminobenzoate in water + ethanol 40°C	4	[34]
170 Propyl-p-aminobenzoate in water + ethanol 50°C	3	[34]
171 Methyl p-(dimethylamino)benzoate in water + ethanol 15°C	4	[34]
172 Methyl p-(dimethylamino)benzoate in water + ethanol 25°C	4	[34]
173 Methyl p-(dimethylamino)benzoate in water + ethanol 40°C	4	[34]
174 Methyl p-(dimethylamino)benzoate in water + ethanol 50°C	4	[34]
175 Methyl-p-hydroxybenzoate in water + ethanol 15°C	4	[34]
176 Methyl-p-hydroxybenzoate in water + ethanol 25°C	4	[34]
177 Methyl-p-hydroxybenzoate in water + ethanol 40°C	4	[34]
178 Methyl-p-hydroxybenzoate in water + ethanol 50°C	4	[34]
179 Propyl-p-hydroxybenzoate in water + ethanol 15°C	4	[34]
180 Propyl-p-hydroxybenzoate in water + ethanol 25°C	4	[34]
181 Propyl-p-hydroxybenzoate in water + ethanol 40°C	3	[34]
182 Propyl-p-hydroxybenzoate in water + ethanol 50°C	3	[34]
183 Paracetamol in water + ethanol 15°C	4	[34]
184 Paracetamol in water + ethanol 25°C	4	[34]
185 Paracetamol in water + ethanol 40°C	4	[34]
186 Paracetamol in water + ethanol 50°C	4	[34]

187 Methacetin in water + ethanol 15°C	4	[34]
188 Methacetin in water + ethanol 25°C	4	[34]
189 Methacetin in water + ethanol 40°C	4	[34]
190 Methacetin in water + ethanol 50°C	4	[34]
191 Phenacetin in water + ethanol 15°C	4	[34]
192 Phenacetin in water + ethanol 25°C	4	[34]
193 Phenacetin in water + ethanol 40°C	4	[34]
194 Phenacetin in water + ethanol 50°C	4	[34]
195 Methyl-p-aminobenzoate in cyclohexane + ethanol 15°C	4	[34]
196 Methyl-p-aminobenzoate in cyclohexane + ethanol 25°C	4	[34]
197 Methyl-p-aminobenzoate in cyclohexane + ethanol 40°C	4	[34]
198 Methyl-p-aminobenzoate in cyclohexane + ethanol 50°C	4	[34]
199 Ethyl-p-aminobenzoate in cyclohexane + ethanol 15°C	4	[34]
200 Ethyl-p-aminobenzoate in cyclohexane + ethanol 25°C	4	[34]
201 Ethyl-p-aminobenzoate in cyclohexane + ethanol 40°C	4	[34]
202 Ethyl-p-aminobenzoate in cyclohexane + ethanol 50°C	4	[34]
203 Propyl-p-aminobenzoate in cyclohexane + ethanol 15°C	4	[34]
204 Propyl-p-aminobenzoate in cyclohexane + ethanol 25°C	4	[34]
205 Propyl-p-aminobenzoate in cyclohexane + ethanol 40°C	2	[34]
206 Propyl-p-aminobenzoate in cyclohexane + ethanol 50°C	1	[34]
207 Methyl p-(dimethylamino)benzoate in cyclohexane + ethanol 15°C	4	[34]
208 Methyl p-(dimethylamino)benzoate in cyclohexane + ethanol 25°C	4	[34]
209 Methyl p-(dimethylamino)benzoate in cyclohexane + ethanol 40°C	4	[34]
210 Methyl p-(dimethylamino)benzoate in cyclohexane + ethanol 50°C	1	[34]
211 Methyl-p-hydroxybenzoate in cyclohexane + ethanol 15°C	4	[34]
212 Methyl-p-hydroxybenzoate in cyclohexane + ethanol 25°C	4	[34]
213 Methyl-p-hydroxybenzoate in cyclohexane + ethanol 40°C	4	[34]
214 Methyl-p-hydroxybenzoate in cyclohexane + ethanol 50°C	4	[34]
215 Propyl-p-hydroxybenzoate in cyclohexane + ethanol 15°C	4	[34]
216 Propyl-p-hydroxybenzoate in cyclohexane + ethanol 25°C	4	[34]
217 Propyl-p-hydroxybenzoate in cyclohexane + ethanol 40°C	4	[34]
218 Propyl-p-hydroxybenzoate in cyclohexane + ethanol 50°C	4	[34]
219 Paracetamol in cyclohexane + ethanol 15°C	3	[34]
220 Paracetamol in cyclohexane + ethanol 25°C	3	[34]
221 Paracetamol in cyclohexane + ethanol 40°C	3	[34]
222 Paracetamol in cyclohexane + ethanol 50°C	3	[34]
223 Methacetin in cyclohexane + ethanol 15°C	4	[34]
224 Methacetin in cyclohexane + ethanol 25°C	4	[34]

225 Methacetin in cyclohexane + ethanol 40°C	4	[34]
226 Methacetin in cyclohexane + ethanol 50°C	4	[34]
227 Phenacetin in cyclohexane + ethanol 15°C	4	[34]
228 Phenacetin in cyclohexane + ethanol 25°C	4	[34]
229 Phenacetin in cyclohexane + ethanol 40°C	4	[34]
230 Phenacetin in cyclohexane + ethanol 50°C	4	[34]
231 Naphthalene in water + acetone	5	[33]
232 Naphthalene in water + methylethylketone	5	[33]
233 Naphthalene in water + diethylketone	3	[33]
234 Naphthalene in water + benzene	3	[33]
235 Naphthalene in water + toluene	3	[33]

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