

# THEORETICALLY DETECTABLE COMPOUNDS FOR NOVATEST COMPACT GC

NO.	COMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
1	Acetaldehyde	Ethyl Aldehyde; Ethanal	10.21
2	Acetamide		9.77
3	Acetic acid	Ethanoic acid	10.35
4	Acetone	2-Propanone	9.69
5	Acetophenone		9.27
6	Acetyl bromide		10.55
7	Acetylene dichloride		9.8
8	Acridine		7.78
9	Acrolein	2-Propenal; Acrylaldehyde	10.1
10	Acrylic acid		10.09
11	Allene		9.83
12	Allyl alcohol		9.67
13	Allylamine	3-Aminopropene	9.6
14	Allyl chloride	3-Chloropropene	10.2
15	Aminoethanol		9.87
16	2-Amino-pyridine		8.34
17	Ammonia		10.15
18	Aniline	Phenylamine; Aminobenzene	7.7
19	Anisole		8.2
20	Benzaldehyde	Benzoic aldehyde	9.53
21	Benzene		9.25
22	Benzenethiol		8.33
23	Benzonitrile		9.7
24	Benzotrifluoride		9.68
25	Benzyl chloride	Alpha-chlorotoluene	10.16
26	Biphenyl		8.27
27	Bromobenzene	Phenyl bromide	8.98
28	1-Bromobutane		10.13
29	2-Bromobutane		9.95
30	1-Bromobutane		9.54
31	1-Bromobutanone		9.54

NO.	COUMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
32	Bromoethane		10.24
33	Bromoform		10.51
34	1-Bromo-3-hexanone		9.26
35	Bromomethane		10.53
36	Bromomethyl ethyl ether		10.08
37	1-Bromo-2-methylpropane		10.09
38	2-Bromo-2-methylpropane		9.98
39	1-Bromopentane		10.1
40	1-Bromopropane		10.18
41	2-Bromopropane		10.08
42	1-Bromopropene		9.3
43	2-Bromopropene		10.06
44	3-Bromopropene		9.7
45	2-Bromothiophene		8.63
46	o-Bromotoluene		8.78
47	m-Bromotoluene		8.81
48	p-Bromotoluene		8.67
49	1, 2-Butadiene		9.57
50	1, 3-Butadiene	Vinylethylene	9.57
51	2, 3-Butadione		9.23
52	Butanol	n-Butanol	9.83
53	2-Butanal		9.73
54	1-Butanethiol		9.14
55	2-Butanone		9.53
56	iso-Butanol		10.47
57	sec-Butanol		10.23
58	tert-Butanol		10.25
59	2-Butanol		10.1
60	1-Butene		9.58
61	cis-2-Butene		9.13
62	trans-2-Butene		9.13
63	n-Butyl acetate		10.01
64	sec-Butyl acetate		9.91
65	t-Butyl acetate		9.9
66	n-Butyl alcohol		10.04
67	n-Butylamine		8.71
68	iso-Butylamine		8.7

NO.	COMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
69	sec-Butylamine		8.7
70	tert-Butylamine		8.64
71	n-Butylbenzene		8.69
72	iso-Butylbenzene		8.68
73	tert-Butylbenzene		8.68
74	Butyl cellosolve		8.68
75	iso-Butyl ethanoate		9.95
76	iso-Butyl mercaptan		9.12
77	n-Butyl mercaptan		9.15
78	tert-Butyl mercaptan		9.03
79	iso-Butyl methanoate		10.46
80	p-tert-Butyltoluene		8.35
81	Isobutylene		9.44
82	1-Butyne	Isobutyne	10.18
83	2-Butyne		9.85
84	n-Butyl acetate		10.01
85	n-Butyraldehyde		9.86
86	Caprolactam		9.86
87	Carbon disulfide	Carbon bisulfide	10.07
88	Chloroacetaldehyde		10.16
89	o-Chloriodobenzene		8.35
90	Chlorobenzene	Phenyl chloride	9.07
91	1-Chlorobutanone		9.54
92	Chloroethene		10
93	1-Chloro-2-fluorobenzene		9.15
94	1-Chloro-3-fluorobenzene		9.21
95	cis-1-Chloro-2-fluoroethene		9.87
96	trans-1-Chloro-2-fluoroethene		9.87
97	1-Chloro-2-methylbenzene		8.72
98	1-Chloro-4-methylbenzene		8.78
99	Chloromethylethyl ether		10.08
100	Chloromethylmethyl ether		10.25
101	3-Chloropropene		10.04
102	2-Chlorothiophene		8.68
103	o-Chlorotoluene		8.83
104	m-Chlorotoluene		8.86
105	p-Chlorotoluene		8.69

NO.	COMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
106	Chlorotrifluoroethane		10.4
107	m-Cresol		8.48
108	o-Cresol		8.48
109	p-Cresol		8.48
110	Crotonaldehyde	2-Butenal; Betamethylacrolein	9.73
111	Cumene	1-Propyl-benzene	8.75
112	3-Cyanopropene		10.39
113	Cyclobutane		10.5
114	Cyclohexane	Hexamethylene	9.88
115	Cyclohexanol		10
116	Cyclohexanone	Ketohexamethylene	9.14
117	Cyclo-octatetraene		7.99
118	Cyclopentadiene		8.58
119	Cyclopentane	Pentamethylene	10.52
120	Cyclopentanone		9.26
121	Cyclopentene		9.01
122	Cyclopropane		10.06
123	Cyclopropene		9.95
124	Decane	n-Decane; Decyl hydride	10.19
125	2-Decanone		9.4
126	1, 4-Dibromobutane		10.25
127	Dibromochloromethane		10.59
128	Dibromoethane	Ethylene dibromide	10.19
129	1, 1-Dibromoethane		10.19
130	1, 3-Dibromopropane		10.07
131	Dibutyl amine		7.69
132	o-Dichlorobenzene		9.07
133	m-Dichlorobenzene		9.12
134	p-Dichlorobenzene		8.94
135	cis-Dichloroethane		9.65
136	trans-Dichloroethane		9.65
137	1, 1-Dichloroethylene	Vinylidene chloride; 1, 1, dichloroethene	9.6
138	1, 1-Dichloropropanone		9.71
139	2, 3-Dichloropropene		9.82
140	Dicyclopentadiene		7.74
141	Diethoxymethane		9.7

NO.	COUMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
142	Diethylamine		8.01
143	Diethylamino ethanol		8.58
144	Diethyl ether		9.53
145	n, n-Diethyl formamide		8.89
146	Diethyl ketone		9.32
147	Diethyl sulfide		8.43
148	o-Difluorobenzene	1, 2-difluorobenzene	9.31
149	p-Difluorobenzene	1, 4-difluorobenzene	9.15
150	Difluoromethylbenzene		9.45
151	Diiodomethane		9.34
152	Diisopropylamine		7.73
153	Diisobutyl ketone		9.04
154	Diisopropylamine		7.73
155	1,1-Dimethoxymethane		9.65
156	Dimethoxymethane		10
157	Dimethylamine		8.24
158	Dimethylaniline		7.13
159	2, 3-Dimethylbutadiene		8.72
160	2, 2-Dimethylbutane		10.05
161	2, 2-Dimethyl butane-3, 1		9.18
162	2, 3-Dimethylbutane		10.01
163	3, 3-Dimethyl butanone		9.17
164	2, 3-Dimethyl-2-butene		8.3
165	Dimethyl ether		10
166	3, 5-Dimethyl-4-heptanone		9.04
167	2, 2-Dimethyl-3-pentanone		8.98
168	2, 2-Dimethyl propane		10.35
169	Dimethyl disulfide		8.46
170	N, N Dimethyl formamide		9.12
171	3, 5-Dimethyl-4-heptanone		9.04
172	1, 1-Dimethylhydrazine		8.88
173	2, 2-Dimethyl-3-pentanone		8.98
174	2, 2-Dimethylpropane		10.35
175	Dimethyl sulfide		8.69
176	p-Dioxane		9.13
177	di-n-Propyl disulfide	Dipropyl disulfide; Propyl disulfide	8.27

NO.	COMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
178	di-n-Propylamine		7.84
179	di-i-propyl ether		9.2
180	di-n-Propyl ether		9.27
181	di-n-Propyl sulfide		8.3
182	Ethanol	Ethyl alcohol	10.21
183	Ethanethiol	Ethyl mercaptan	9.29
184	Ethylene	Ethene	10.52
185	Ethyl acetate		10.11
186	Ethyl amine		8.86
187	Ethyl amyl ketone		9.1
188	Ethylbenzene		8.76
189	Ethyl bromide		10.29
190	Ethyl butyl ketone		9.02
191	Ethyl chloroacetate		10.2
192	Ethyl ethanoate		10.1
193	Ethyl ether		9.41
194	Ethyl disulfide		8.27
195	Ethyl iodine	Iodoethane	9.33
196	Ethyl mercaptan		9.29
197	Ethyl isothiocyanate		9.14
198	Ethyl methyl sulfide		8.55
199	Ethyl propanoate		10
200	Ethyl trichloroacetate		10.44
201	Ethylene	Ethene	10.52
202	Ethylene dibromide	Dibromomethane; EDB	10.37
203	Ethylene oxide	EtO	10.57
204	Ethylbenzene		8.87
205	Fluorobenzene		9.2
206	Fluoroethene		10.37
207	o-Fluorotoluene		8.91
208	m-Fluorotoluene		8.91
209	p-Fluorotoluene		9.79
210	Formic acid		10.37
211	Formamide		10.25
212	2-Furaldehyde		9.21
213	Furan		8.89
214	Furfural		9.21

NO.	COUMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
215	Heptane	n-heptane	10.07
216	2-Heptanone		9.33
217	4-Heptanone		9.12
218	Hexane	n-hexane	10.18
219	Hexafluorobenzene		9.39
220	Hexafluoropropene		10.3
221	Hexamethylbenzene		7.85
222	2-Hexanone		9.34
223	1-Hexene		9.46
224	Hydrazine		9
225	Hydrofluoric acid		9.88
226	Hydrogen selenide		9.88
227	Hydrogen sulfide		10.46
228	Hydrogen telluride		9.14
229	Iodine		9.28
230	Iodobenzene		8.73
231	1-Iodobutane		9.71
232	2-Iodobutane		9.09
233	Iodoethane	Ethyl iodide	9.33
234	Iodomethane	Methyl iodide	9.45
235	1-Iodo-2-methylpropane		9.18
236	1-Iodopentane		9.19
237	1-Iodopropane		9.26
238	2-Iodopropane		9.17
239	m-Iodotoluene		8.61
240	o-Iodotoluene		8.62
241	p-Iodotoluene		8.5
242	Isoamyl acetate		9.9
243	Isobutylene	2-Methylpropene	9.23
244	Isopropanol	Isopropyl alcohol	10.16
245	Isopropyl acetate		9.99
246	Isopropylamine		8.72
247	Isopropylbenzene		8.75
248	Isopropyl ether		9.2
249	Isovalderdehyde	3-Methylbutanal	9.71
250	Ketene		9.61
251	Mesitylene		8.4

NO.	COUMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
252	Mesityl oxide		9.08
253	Methyl acetate		10.27
254	Methyl amine		8.97
255	2-Methyl-1, 3-butadiene		8.85
256	2-Methylbutanal		9.71
257	2-Methylbutane		10.31
258	2-Methyl-1-butene		9.12
259	3-Methyl-1-butene		9.51
260	3-Methyl-2-butene		8.67
261	Methyl n-butyl ketone		9.34
262	Methyl bromide	Bromomethane	10.53
263	Methyl butyrate		10.07
264	Methyl chloroacetate		10.35
265	Methylcyclohexane		9.85
266	Methylcyclohexanol		9.8
267	Methylcyclohexanone		9.05
268	4-Methylcyclohexene		8.91
269	Methylcyclopropane		9.52
270	Methyl dichloroacetate		10.44
271	Methyl ethanoate		10.27
272	Methyl ethyl ether		9.81
273	Methyl ethyl ketone	MEK; 2-Butanone	9.53
274	Methyl ethyl sulfide		8.55
275	2-Methyl furan		8.39
276	Methyl iodide		9.54
277	Methyl isobutyl ketone	Hexanone; Isopropylacetone	9.32
278	Methyl isobutyrate		9.98
279	Methyl isopropyl ketone		9.32
280	Methyl mercaptan	Methanethiol	9.44
281	Methyl methacrylate		9.74
282	2-Methylpentane		10.11
283	3-Methylpentane		10.08
284	3-Methylpentane		10.07
285	2-Methylpropanal		9.74
286	2-Methyl-2-propanol		9.7
287	2-Methylpropene		9.23
288	Methyl n-propyl ketone		9.39



NO.	COUMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
289	Methyl styrene		8.35
290	Methyl-tert-butylether		10
291	Morpholine		8.88
292	Napthalene		8.12
293	Nitric oxide		9.25
294	Nitrobenzene		9.82
295	p-nitrochlorobenzene		9.96
296	Nitroethane		9.92
297	Nonane	n-Nonane	10.21
298	5-Nonanone		9.1
299	Octane	n-Octane	10.24
300	3-Octanone		9.19
301	4-Octanone		9.1
302	1-Octene		9.52
303	Pentane	n-Pentane; Amyl hydride	10.34
304	Isopentane		10.32
305	1, 3-Pentadiene (cis)		8.65
306	1, 3-Pentadiene (trans)		8.56
307	Pentafluorobenzene		9.84
308	Pentamethylbenzene		7.92
309	n-Pentanal		9.82
310	2, 4-Pentanedione		8.87
311	2-Pentanone		9.39
312	3-Pentanone		9.32
313	1-Pentene		9.5
314	Perchloroethylene		9.32
315	Perfluoro-1-heptene		10.48
316	n-Perfluoropropyl iodide		10.26
317	(n-Perfluoropropyl)-iodomethane		9.96
318	(n-Perfluoropropyl)-methyl ketone		10.58
319	Phenol		8.5
320	Phenyl ether		8.09
321	Phenyl isocyanate		8.77
322	Phosphine		10.1
323	Pinene, alpha		8.07
324	Pinene, beta		8.07
325	Propadiene		10.19

NO.	COUMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
326	n-Propanal		9.95
327	1-Propanethiol		9.2
328	Propanol	n-propanol alcohol; Propyl alcohol	10.51
329	Propenal	Acrolein	10.1
330	Propene	propylene	9.73
331	Propionaldehyde		9.98
332	Propionic acid		10.34
333	n-Propyl acetate		10.04
334	n-Propyl amine		8.78
335	n-Propyl benzene		8.72
336	Propylene	Propene	9.73
337	Propylene imine		8.76
338	Propylene oxide		10.22
339	n-Propyl ether		9.27
340	n-Propyl formate		10.54
341	Propyne		10.36
342	Pyridine		9.32
343	Styrene	Vinyl benzene; Phenyl ethylene	8.47
344	Tetrachloroethylene	Perchloroethylene; PERC	9.32
345	1, 2, 3, 4-Tetrafluorobenzene		9.61
346	1, 2, 3, 5-Tetrafluorobenzene		9.55
347	1, 2, 4, 5-Tetrafluorobenzene		9.39
348	Tetrafluoroethane		10.12
349	Tetrahydrofuran	THF	9.45
350	Tertrahdropyran		9.26
351	1, 2, 4, 5-Tetramethylbenzene		8.03
352	2, 2, 4, 4-Tetramethyl-3-pentanone		8.65
353	Thioethanol		9.29
354	Thiomethanol		9.44
355	Thiophene		8.86
356	1-Thiopropanol		9.2
357	Toluene		8.82
358	o-Toluidine		7.44
359	Tribromoethene		9.27
360	Tribromomethane		10.51
361	1, 1, 1-Trichlorobutanone		9.54

NO.	COMPOUND	ALTERNATE NAME	PHOTOIONIZATION ENERGY (eV)
362	Trichloroethylene	Trichloroethene; TCE	9.45
363	Trichloromethyl ethyl ether		10.08
364	Triethylamine		7.5
365	1, 2, 4-Trifluorobenzene		9.37
366	1, 3, 5-Trifluorobenzene		9.3
367	1, 1, 2-Trifluoroethane		10.14
368	Trifluoroethene		10.14
369	1, 1, 1-Trifluoro-2-iodoethane		10
370	Trifluoroiodomethane		10.4
371	Trifluoromethylbenzene		9.68
372	Trifluoromethylcyclohexane		10.46
373	Trimethylamine		7.82
374	1, 2, 3-Trimethylbenzene		8.48
375	1, 2, 4-Trimethylbenzene		8.27
376	1, 3, 5-Trimethylbenzene		8.39
377	2, 2, 4-Trimethyl pentane		9.85
378	2, 2, 4-Trimethyl-3-pentanone		8.82
379	n-Valderaldehyde	n-Pentanal	9.82
380	Vinyl acetate		9.19
381	Vinyl benzene (styrene)		8.47
382	Vinyl bromide		9.8
383	Vinyl chloride	Chloroethylene; VCM	10
384	4-vinylcyclohexene		8.93
385	Vinyl ethanoate		9.19
386	Vinyl fluoride		10.37
387	Vinyl methyl ether		8.93
388	o-Vinyl toluene		8.2
389	o-Xylene		8.56
390	m-Xylene		8.56
391	p-Xylene		8.45
392	2,4-Xylidine		7.65

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February 2018

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