

Chemical Name IP (eV) Chemical Name IP (eV)

A

2-Amino pyridine 8
 Acetaldehyde 10.21
 Acetamide 9.77
 Acetic acid 10.69
 Acetic anhydride 10
 Acetone 9.69
 Acetonitrile 12.2
 Acetophenone 9.27
 Acetyl bromide 10.55
 Acetyl chloride 11.02
 Acetylene 11.41
 Acrolein 10.1
 Acrylamide 9.5
 Acrylonitrile 10.91
 Allyl alcohol 9.67
 Allyl chloride 9.9
 *Ammonia 10.2
 Aniline 7.7
 Anisidine 7.44
 Anisole 8.22
 Arsine 9.89

B

1,3-Butadiene (butadiene) 9.07
 1-Bromo-2-chloroethane 10.63
 1-Bromo-2-methylpropane 10.09
 1-Bromo-4-fluorobenzene 8.99
 1-Bromobutane 10.13
 1-Bromopentane 10.1
 1-Bromopropane 10.18
 1-Bromopropene 9.3
 1-Butanethiol 9.14
 1-Butene 9.58
 1-Butyne 10.18
 2,3-Butadione 9.23
 2-Bromo-2-methylpropane 9.89
 2-Bromobutane 9.98
 2-Bromopropane 10.08
 2-Bromothiophene 8.63
 2-Butanone (MEK) 9.54
 3-Bromopropene 9.7
 3-Butene nitrile 10.39
 Benzaldehyde 9.53
 Benzene 9.25
 Benzenethiol 8.33
 Benzonitrile 9.71
 Benzotrifluoride 9.68
 Biphenyl 8.27
 Boron oxide 13.5
 Boron trifluoride 15.56
 Bromine 10.54
 Bromobenzene 8.98

Bromochloromethane 10.77
 Bromoform 10.48
 Butane 10.63
 Butyl mercaptan 9.15
 cis-2-Butene 9.13
 m-Bromotoluene 8.81
 n-Butyl acetate 10.01
 n-Butyl alcohol 10.04
 n-Butyl amine 8.71
 n-Butyl benzene 8.69
 n-Butyl formate 10.5
 n-Butyraldehyde 9.86
 n-Butyric acid 10.16
 n-Butyronitrile 11.67
 o-Bromotoluene 8.79
 p-Bromotoluene 8.67
 p-tert-Butyltoluene 8.28
 s-Butyl amine 8.7
 s-Butyl benzene 8.68
 sec-Butyl acetate 9.91
 t-Butyl amine 8.64
 t-Butyl benzene 8.68
 trans-2-Butene 9.13

C

1-Chloro-2-methylpropane 10.66
 1-Chloro-3-fluorobenzene 9.21
 1-Chlorobutane 10.67
 1-Chloropropane 10.82
 2-Chloro-2-methylpropane 10.61
 2-Chlorobutane 10.65
 2-Chloropropane 10.78
 2-Chlorothiophene 8.68
 3-Chloropropene 10.04
 Camphor 8.76
 Carbon dioxide 13.79
 Carbon disulfide 10.07
 Carbon monoxide 14.01
 Carbon tetrachloride 11.47
 Chlorine 11.48
 Chlorine dioxide 10.36
 Chlorine trifluoride 12.65
 Chloroacetaldehyde 10.61
 a -Chloroacetophenone 9.44
 Chlorobenzene 9.07
 Chlorobromomethane 10.77
 Chlorofluoromethane (Freon 22) 12.45
 Chloroform 11.37
 Chlorotrifluoromethane (Freon 13) 12.91
 Chrysene 7.59
 Cresol 8.14
 Crotonaldehyde 9.73
 Cumene (isopropyl benzene) 8.75
 Cyanogen 13.8
 Cyclohexane 9.8
 Cyclohexanol 9.75

Cyclohexanone 9.14
Cyclohexene 8.95
Cyclo-octatetraene 7.99
Cyclopentadiene 8.56
Cyclopentane 10.53
Cyclopentanone 9.26
Cyclopentene 9.01
Cyclopropane 10.06
m-Chlorotoluene 8.83
o-Chlorotoluene 8.83
p-Chlorotoluene 8.7

D

1,1-Dibromoethane 10.19
1,1-Dichloroethane 11.12
1,1-Dimethoxyethane 9.65
1,1-Dimethylhydrazine 7.28
1,2-Dibromoethene 9.45
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114) 12.2
1,2-Dichloroethane 11.12
1,2-Dichloropropane 10.87
1,3-Dibromopropane 10.07
1,3-Dichloropropane 10.85
2,2-Dimethyl butane 10.06
2,2-Dimethyl propane 10.35
2,3-Dichloropropene 9.82
2,3-Dimethyl butane 10.02
3,3-Dimethyl butanone 9.17
cis-Dichloroethene 9.65
Decaborane 9.88
Diazomethane 9
Diborane 12
Dibromochloromethane 10.59
Dibromodifluoromethane 11.07
Dibromomethane 10.49
Dibutylamine 7.69
Dichlorodifluoromethane (Freon 12) 12.31
Dichlorofluoromethane 12.39
Dichloromethane 11.35
Diethoxymethane 9.7
Diethyl amine 8.01
Diethyl ether 9.53
Diethyl ketone 9.32
Diethyl sulfide 8.43
Diethyl sulfite 9.68
Difluorodibromomethane 11.07
Dihydropyran 8.34
Diiodomethane 9.34
Diisopropylamine 7.73
Dimethoxymethane (methylal) 10
Dimethyl amine 8.24
Dimethyl ether 10
Dimethyl sulfide 8.69
Dimethylaniline 7.13
Dimethylformamide 9.18

Dimethylphthalate 9.64
Dinitrobenzene 10.71
Dioxane 9.19
Diphenyl 7.95
Dipropyl amine 7.84
Dipropyl sulfide 8.3
Durene 8.03
m-Dichlorobenzene 9.12
N,N-Diethyl acetamide 8.6
N,N-Diethyl formamide 8.89
N,N-Dimethyl acetamide 8.81
N,N-Dimethyl formamide 9.12
o-Dichlorobenzene 9.06
p-Dichlorobenzene 8.95
p-Dioxane 9.13
trans-Dichloroethene 9.66

E

Epichlorohydrin 10.2
Ethane 11.65
Ethanethiol (ethyl mercaptan) 9.29
Ethanamine 8.96
Ethene 10.52
Ethyl acetate 10.11
Ethyl alcohol 10.48
Ethyl amine 8.86
Ethyl benzene 8.76
Ethyl bromide 10.29
Ethyl chloride (chloroethane) 10.98
Ethyl disulfide 8.27
Ethylene 10.5
Ethyl ether 9.51
Ethyl formate 10.61
Ethyl iodide 9.33
Ethyl isothiocyanate 9.14
Ethyl mercaptan 9.29
Ethyl methyl sulfide 8.55
Ethyl nitrate 11.22
Ethyl propionate 10
Ethyl thiocyanate 9.89
Ethylene chlorohydrin 10.52
Ethylene diamine 8.6
Ethylene dibromide 10.37
Ethylene dichloride 11.05
Ethylene oxide 10.57
Ethylenimine 9.2
Ethynylbenzene 8.82

F

2-Furaldehyde 9.21
Fluorine 15.7
Fluorobenzene 9.2
Formaldehyde 10.87
Formamide 10.25
Formic acid 11.05
Freon 11 (trichlorofluoromethane) 11.77

Freon 112 (1,1,2,2-tetrachloro-1,2-difluoroethane) 11.3
Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane) 11.78
Freon 114 (1,2-dichloro-1,1,2,2-tetrafluoroethane) 12.2
Freon 12 (dichlorodifluoromethane) 12.31
Freon 13 (chlorotrifluoromethane) 12.91
Freon 22 (chlorofluoromethane) 12.45
Furan 8.89
Furfural 9.21
m-Fluorotoluene 8.92
o-Fluorophenol 8.66
o-Fluorotoluene 8.92
p-Fluorotoluene 8.79

H

1-Hexene 9.46
2-Heptanone 9.33
2-Hexanone 9.35
Heptane 10.08
Hexachloroethane 11.1
Hexane 10.18
Hydrazine 8.1
Hydrogen 15.43
Hydrogen bromide 11.62
Hydrogen chloride 12.74
Hydrogen cyanide 13.91
Hydrogen fluoride 15.77
Hydrogen iodide 10.38
Hydrogen selenide 9.88
Hydrogen sulfide 10.46
Hydrogen telluride 9.14
Hydroquinone 7.95

I

1-Iodo-2-methylpropane 9.18
1-Iodobutane 9.21
1-Iodopentane 9.19
1-Iodopropane 9.26
2-Iodobutane 9.09
2-Iodopropane 9.17
Iodine 9.28
Iodobenzene 8.73
Isobutane (Isobutylene) 9.4
Isobutyl acetate 9.97
Isobutyl alcohol 10.12
Isobutyl amine 8.7
Isobutyl formate 10.46
Isobutyraldehyde 9.74
Isobutyric acid 10.02
Isopentane 10.32
Isophorone 9.07
Isoprene 8.85
Isopropyl acetate 9.99
Isopropyl alcohol 10.16

Isopropyl amine 8.72
Isopropyl benzene 8.69
Isopropyl ether 9.2
Isovaleraldehyde 9.71
m-Iodotoluene 8.61
o-Iodotoluene 8.62
p-Iodotoluene 8.5

K

Ketene 9.61

L

2,3-Lutidine 8.85
2,4-Lutidine 8.85
2,6-Lutidine 8.85

M

2-Methyl furan 8.39
2-Methyl naphthalene 7.96
1-Methyl naphthalene 7.96
2-Methyl propene 9.23
2-Methyl-1-butene 9.12
2-Methylpentane 10.12
3-Methyl-1-butene 9.51
3-Methyl-2-butene 8.67
3-Methylpentane 10.08
4-Methylcyclohexene 8.91
Maleic anhydride 10.8
Mesityl oxide 9.08
Mesitylene 8.4
Methane 12.98
Methanethiol (methyl mercaptan) 9.44
Methyl acetate 10.27
Methyl acetylene 10.37
Methyl acrylate 9.9
Methyl alcohol 10.85
Methyl amine 8.97
Methyl bromide 10.54
Methyl butyl ketone 9.34
Methyl butyrate 10.07
Methyl cellosolve 9.6
Methyl chloride 11.28
Methyl chloroform (1,1,1-trichloroethane) 11
Methyl disulfide 8.46
Methyl ethyl ketone 9.53
Methyl formate 10.82
Methyl iodide 9.54
Methyl isobutyl ketone 9.3
Methyl isobutyrate 9.98
Methyl isocyanate 10.67
Methyl isopropyl ketone 9.32
Methyl isothiocyanate 9.25
Methyl mercaptan 9.44
Methyl methacrylate 9.7
Methyl propionate 10.15
Methyl propyl ketone 9.39

a -Methyl styrene 8.35
Methyl thiocyanate 10.07
Methylal (dimethoxymethane) 10
Methylcyclohexane 9.85
Methylene chloride 11.32
Methyl-n-amyl ketone 9.3
Monomethyl aniline 7.32
Monomethyl hydrazine 7.67
Morpholine 8.2
n-Methyl acetamide 8.9

N

1-Nitropropane 10.88
2-Nitropropane 10.71
Naphthalene 8.12
Nickel carbonyl 8.27
Nitric oxide, (NO) 9.25
Nitrobenzene 9.92
Nitroethane 10.88
Nitrogen 15.58
Nitrogen dioxide 9.78
Nitrogen trifluoride 12.97
Nitromethane 11.08
Nitrotoluene 9.45
p-Nitrochloro benzene 9.96

O

Octane 9.82
Oxygen 12.08
Ozone 12.08

P

1-Pentene 9.5
1-Propanethiol 9.2
2,4-Pentanedione 8.87
2-Pentanone 9.38
2-Picoline 9.02
3-Picoline 9.02
4-Picoline 9.04
n-Propyl nitrate 11.07
Pentaborane 10.4
Pentane 10.35
Perchloroethylene 9.32
Pheneloic 8.18
Phenol 8.5
Phenyl ether (diphenyl oxide) 8.82
Phenyl hydrazine 7.64
Phenyl isocyanate 8.77
Phenyl isothiocyanate 8.52
Phenylene diamine 6.89
Phosgene 11.77
Phosphine 9.87
Phosphorus trichloride 9.91
Phthalic anhydride 10
Propane 11.07
Propargyl alcohol 10.51

Propiolactone 9.7
Propionaldehyde 9.98
Propionic acid 10.24
Propionitrile 11.84
Propyl acetate 10.04
Propyl alcohol 10.2
Propyl amine 8.78
Propyl benzene 8.72
Propyl ether 9.27
Propyl formate 10.54
Propylene 9.73
Propylene dichloride 10.87
Propylene imine 9
Propylene oxide 10.22
Propyne 10.36
Pyridine 9.32
Pyrrole 8.2

Q

Quinone 10.04

S

Stibine 9.51
Styrene 8.47
Sulfur dioxide 12.3
Sulfur hexafluoride 15.33
Sulfur monochloride 9.66
Sulfuryl fluoride 13

T

o-Terphenyls 7.78
1,1,2,2-Tetrachloro-1,2-difluoroethane (Freon 112)
11.3
1,1,1-Trichloroethane 11
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
11.78
2,2,4-Trimethyl pentane 9.86
o-Toluidine 7.44
Tetrachloroethane 11.62
Tetrachloroethene 9.32
Tetrachloromethane 11.47
Tetrahydrofuran 9.54
Tetrahydropyran 9.25
Thiolacetic acid 10
Thiophene 8.86
Toluene 8.82
Tribromoethene 9.27
Tribromofluoromethane 10.67
Tribromomethane 10.51
Trichloroethene 9.45
Trichloroethylene 9.47
Trichlorofluoromethane (Freon 11) 11.77
Trichloromethane 11.42
Triethylamine 7.5
Trifluoromonobromo-methane 11.4
Trimethyl amine 7.82

Appendix : Ionization Potentials

Tripropyl amine 7.23

V

o-Vinyl toluene 8.2

Valeraldehyde 9.82

Valeric acid 10.12

Vinyl acetate 9.19

Vinyl bromide 9.8

Vinyl chloride 10

Vinyl methyl ether 8.93

W

Water 12.59

X

2,4-Xylidine 7.65

m-Xylene 8.56

o-Xylene 8.56

p-Xylene 8.45