

Ions That Form <i>Soluble</i> Compounds	Exceptions
Li^+ Na^+ K^+	
NH_4^+	
NO_3^- ClO_4^-	

Table H
Vapor Pressure of Four Liquids

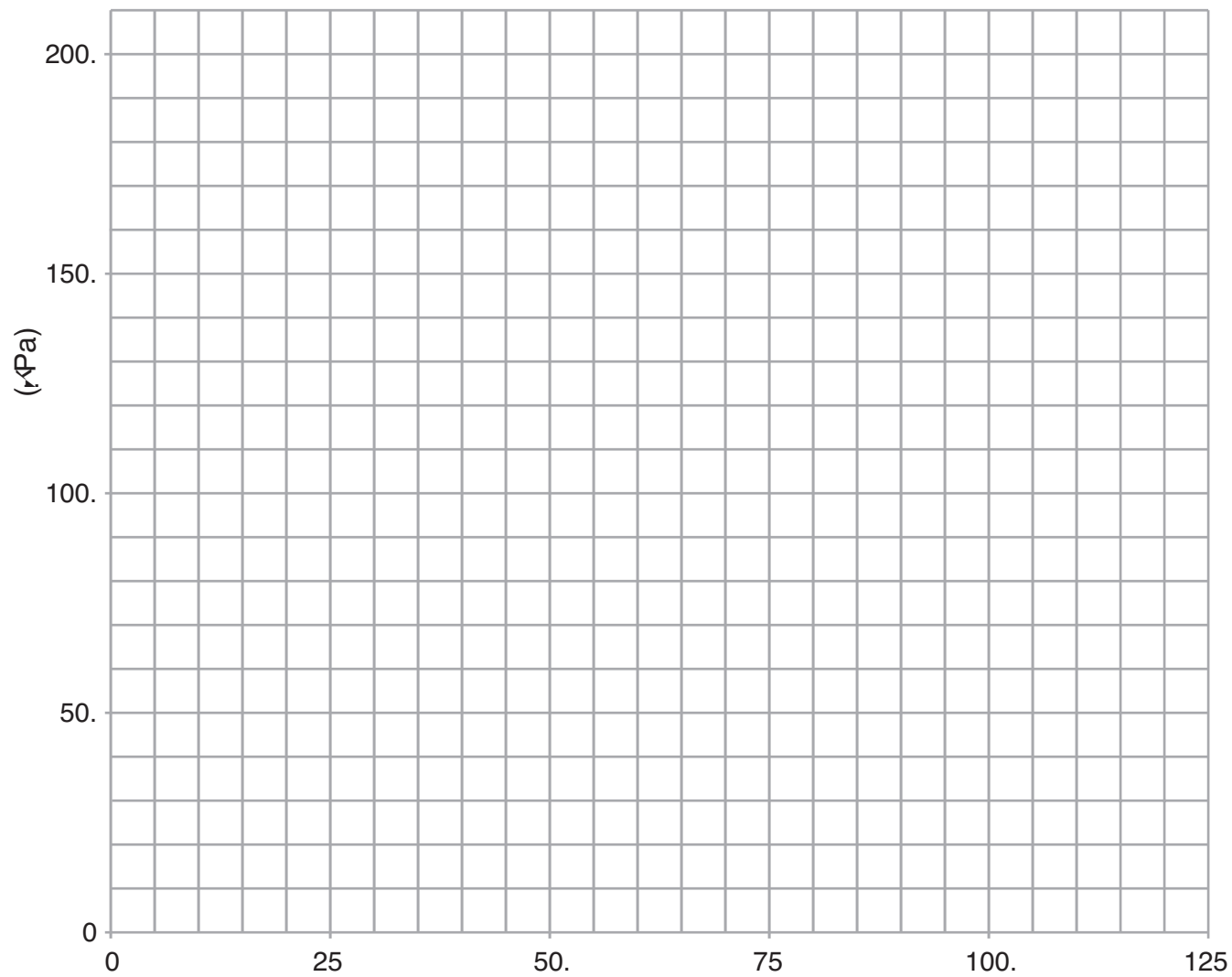


Table I
Heats of Reaction at 101.3 kPa and 298 K

Reaction	ΔH (kJ)*
<div style="text-align: center; margin-top: 20px;">  </div>	

Table J
Activity Series**

Table K
Common Acids

Table N

Table L
Common Bases

Table O

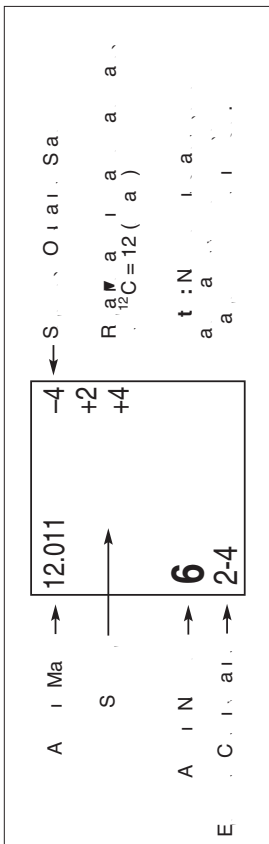
Name	General Formula	Examples	
		Name	Structural Formula
/ / /		/ / /	
/ / /		/ / /	
/ / /		/ / /	

Table R
Organic Functional Groups

Class of Compound	Functional Group	General Formula	Example
		R	
		R	
		R	
		R R'	
		R R'	

ft

4.00260 0
2 2



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1.00794 +1 -1	6.941 +1 0.01218 +2	39.0983 +1 40.08	39.0983 +1 40.08	50.9415 +2 51.966	50.9415 +2 51.966	54.9380 +2 54.9380	55.845 +2 55.845	58.9332 +2 58.9332	58.683 +2 58.683	63.546 +2 63.546	65.409 +2 65.409	10.81 +3 12.011	12.011 +3 12.011	14.0067 -3 14.0067	15.9994 -2 15.9994	18.9984 -1 18.9984	20.180 0 20.180
2	3 2-1	4 2-2	21 2-8-9-2	22 2-8-10-2	23 2-8-11-2	24 2-8-13-1	25 2-8-13-2	26 2-8-14-2	27 2-8-15-2	28 2-8-16-2	29 2-8-18-1	30 2-8-18-2	5 2-3	6 2-4	7 2-5	9 2-6	9 2-7	10 2-8
3	11 2-8-1	12 2-8-2	88.9059 +3 89.924	91.224 +3 91.224	95.94 +3 95.94	95.94 +3 95.94	98 +6 98	101.07 +4 101.07	102.906 +3 102.906	106.42 +3 106.42	107.868 +1 107.868	112.41 +2 112.41	13 2-8-3	14 2-8-4	15 2-8-5	16 2-8-6	17 2-8-7	1 2-8-8
4	19 2-8-8-1	20 2-8-8-2	138.9055 +3 139.924	140.824 +3 140.824	144.24 +3 144.24	144.24 +3 144.24	147.207 +4 147.207	149.23 +3 149.23	152.217 +3 152.217	156.08 +2 156.08	156.867 +1 156.867	162.59 +1 162.59	31 2-8-18-3	32 2-8-18-4	33 2-8-18-5	34 2-8-18-6	35 2-8-18-7	36 2-8-18-8
5	37 2-8-18-8-1	38 2-8-18-8-2	180.948 +5 181.967	183.84 +5 183.84	186.207 +6 186.207	186.207 +6 186.207	188.207 +6 188.207	190.23 +3 190.23	192.217 +3 192.217	195.08 +3 195.08	196.867 +1 196.867	200.59 +2 200.59	4 2-8-18-18-3	50 2-8-18-18-4	51 2-8-18-18-5	52 2-8-18-18-6	53 2-8-18-18-7	54 2-8-18-18-8
6	55 2-8-18-18-8-1	56 2-8-18-18-8-2	232.038 +4 233.057	235.057 +4 235.057	238.029 +4 238.029	238.029 +4 238.029	240.029 +4 240.029	242.029 +4 242.029	244.029 +4 244.029	246.029 +4 246.029	247.029 +3 247.029	247.029 +3 247.029	1 2-8-32-18-9-2	2 2-8-32-18-9-3	3 2-8-32-18-9-4	4 2-8-32-18-9-5	5 2-8-32-18-9-6	6 2-8-32-18-9-7
7	7 2-8-32-18-8-1	8 2-8-32-18-8-2	140.116 +3 140.116	142.24 +3 142.24	144.24 +3 144.24	144.24 +3 144.24	146.24 +3 146.24	148.24 +3 148.24	150.36 +3 150.36	151.964 +3 151.964	157.25 +3 157.25	158.925 +3 158.925	162.500 +3 162.500	164.830 +3 164.830	167.259 +3 167.259	168.934 +3 168.934	173.04 +3 173.04	174.9688 +3 174.9688
			90	91	92	93	94	95	96	97	99	100	66	67	6	69	70	71
			104	106	107	10	110	111	112	113**	114	115	116	117				

* ...
** ...
S : C H N C m p j , 91 , 2010 2011, CRC P

Table S
Properties of Selected Elements

Atomic Number	Symbol	Name	First Ionization Energy	Electro-negativity	Melting Point	Boiling Point	Density**	Atomic Radius
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								

Atomic Number	Symbol	Name	First Ionization Energy	Electro-negativity	Melting Point	Boiling* Point	Density**	Atomic Radius
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
Elements 58-71 have been omitted.								
72								
73								
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								
89								
Elements 90 and above have been omitted.								

* ...
 ** ...
 Source: CRC Handbook of Chemistry and Physics, 91st Edition, 2010-2011, CRC P

Table T
Important Formulas and Equations

Density	$\rho = \frac{m}{V}$
Mole Calculations	$n = \frac{m}{M}$
Percent Error	$\% \text{ Error} = \frac{ \text{Experimental} - \text{Theoretical} }{\text{Theoretical}} \times 100$
Percent Composition	$\% \text{ Composition} = \frac{\text{mass of element}}{\text{total mass}} \times 100$
Concentration	$M = \frac{n}{V}$
	$m = \rho \times V$
Combined Gas Law	$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$
Titration	$M_A V_A = M_B V_B$
Heat	$Q = C \Delta T$ $H = C \times m \times \Delta T$ $H = H_f + H_v + H_c$
Temperature	$T(^{\circ}\text{C}) = T(^{\circ}\text{F}) - 32 \times \frac{5}{9}$