

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

Table H
Vapor Pressure of Four Liquids

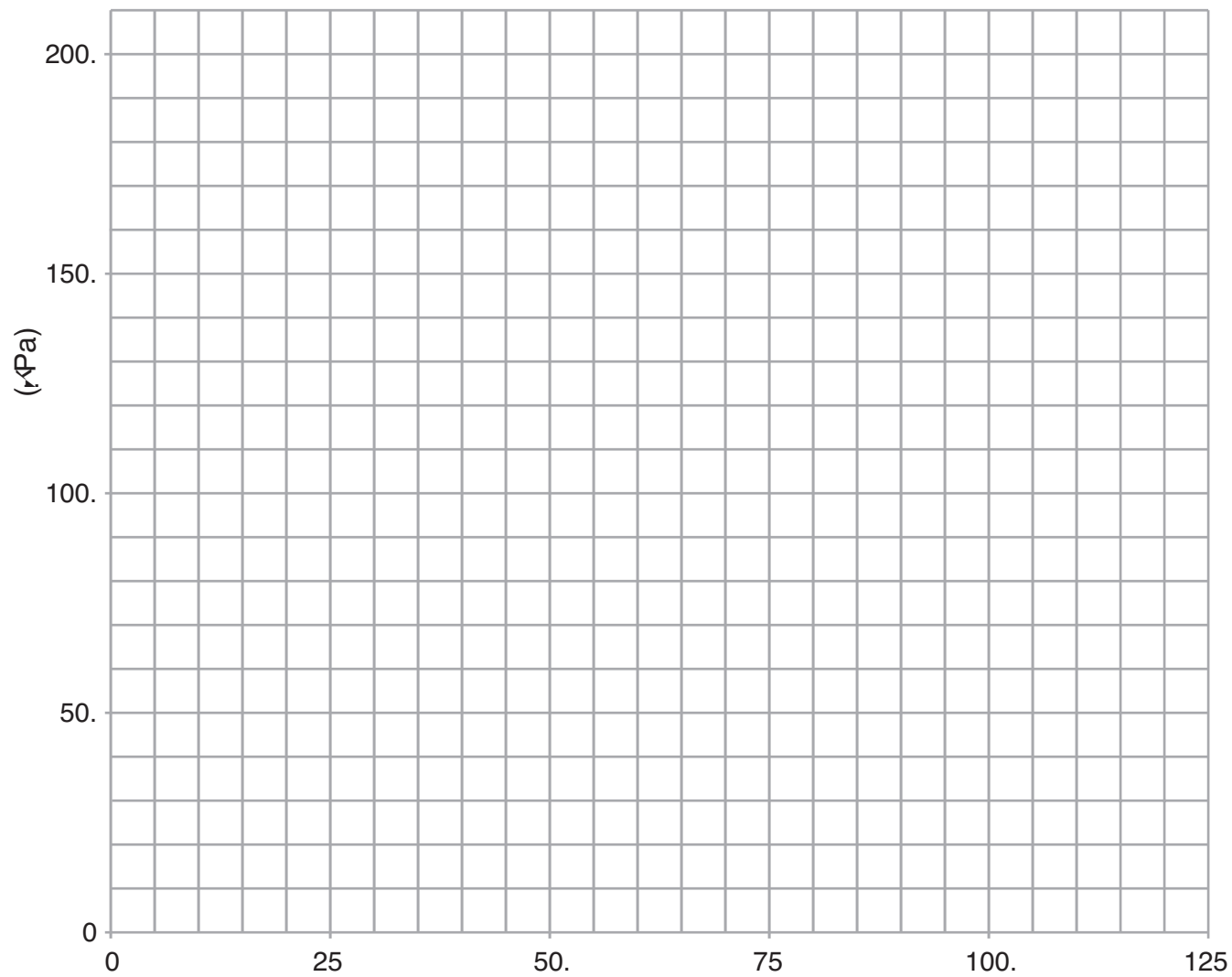


Table I
Heats of Reaction at 101.3 kPa and 298 K

Reaction	ΔH (kJ)*
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Table J
Activity Series**




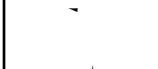
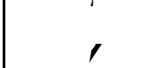

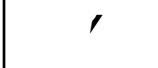













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Table K
Common Acids

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

A I Ma → 12.011
S →

A I N → 6
E C I a i → 2-4

← S O i a i S a
R a w a i a a a
12C=12(a)

t : N i a
a a i i

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	1.00794 +1 -1	9.01218 +2	44.9559 +2	47.867 +3	50.9415 +2 +3 +4	51.966 +2 +3 +4 +5	54.9380 +2 +3 +4 +6	55.845 +2 +3 +4 +7	58.932 +2 +3	58.683 +2 +3	63.546 +2 +3	65.409 +2	69.723 +3	72.64 +2 +4	74.9216 +2 +3 +5	78.96 -2 +4 +6	79.904 -1 +1 +5	83.788 -1 +1 +5	20.180 -1
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	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	10 2-8
3	11 2-8-1	12 2-8-2	88.9059 +2	91.224 +3	92.9064 +2 +4	95.94 +3 +5	98 +6	101.07 +4 +6	102.906 +3	106.42 +3	107.868 +2 +4	112.41 +2	114.818 +3	118.71 +2 +4	121.760 +2 +3 +5	127.60 -3 +3 +5	128.904 -2 +4 +6	131.29 -1 +1 +5	39.948 -1 +1 +5
4	19 2-8-8-1	20 2-8-8-2	39.0983 +1	40.08 +2	41 2-8-18-12-1	42 2-8-18-13-1	43 2-8-18-13-2	44 2-8-18-15-1	45 2-8-18-16-1	46 2-8-18-18	47 2-8-18-18-1	48 2-8-18-18-2	49 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	36 2-8-18-8
5	37 2-8-18-8-1	38 2-8-18-8-2	132.905 +1	137.33 +2	180.948 +4 +5	183.84 +5	186.207 +4 +6 +7	190.23 +3 +4 +7	192.217 +3 +4	195.08 +2 +4	196.867 +1 +3	200.59 +1 +2	204.383 +1 +2	207.2 +2 +4	208.980 +2 +4	209 +3 +5	216.904 -2 +4 +6	217.9 -1 +1 +5	131.29 -1 +1 +5
6	55 2-8-18-18-8-1	56 2-8-18-18-8-2	85.4678 +1	87.62 +2	73 -18-32-11-2	74 -18-32-12-2	75 -18-32-13-2	76 -18-32-14-2	77 -18-32-15-2	78 -18-32-17-1	79 -18-32-18-1	80 -18-32-18-2	81 -18-32-18-3	82 -18-32-18-4	83 -18-32-18-5	84 -18-32-18-6	85 -18-32-18-7	86 -18-32-18-8	54 2-8-18-18-8
7	7 -18-32-18-8-1	8 -18-32-18-8-2	(223) +1	(226) +2	(262) +4	(266) +3	(272) +3	(277) +3	(276) +3	(281) +3	(280) +3	(285) +3	(284) +3	(289) +3	(288) +3	(292) +3	(291) +3	(294) +3	(222) 0
				104 -18-32-18-9-2	105	106	107	10	109	110	111	112	113**	114	115	116	117	11	

140.116 +3 +4	140.908 +3 +4	144.24 +3	150.36 +3	157.25 +2 +3	151.964 +2 +3	162.500 +3	164.830 +3	167.259 +3	168.934 +3	173.04 +2 +3	174.9688 +2 +3
5	59	60	62	64	63	66	67	6	69	70	71
232.038 +4	231.036 +4	238.029 +4 +5	244 +3 +4 +5 +6	247 +3 +4 +5 +6	243 +3 +4 +5 +6	251 +3 +4	252 +3	257 +3	258 +2 +3	259 +2 +3	262 +2 +3
90	91	92	94	96	95	97	99	100	101	102	103

* ...
** ...
S : C H N C m p p , 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								

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	$M = \frac{n}{V}$
	$m\% = \frac{m_{\text{solute}}}{m_{\text{solution}}} \times 100$
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	$Q = C \Delta T$ $H = C m \Delta T$ $H = H_{\text{fusion}} + H_{\text{vaporization}}$
Temperature	$T_{\text{C}} = \frac{5}{9}(T_{\text{F}} - 32)$