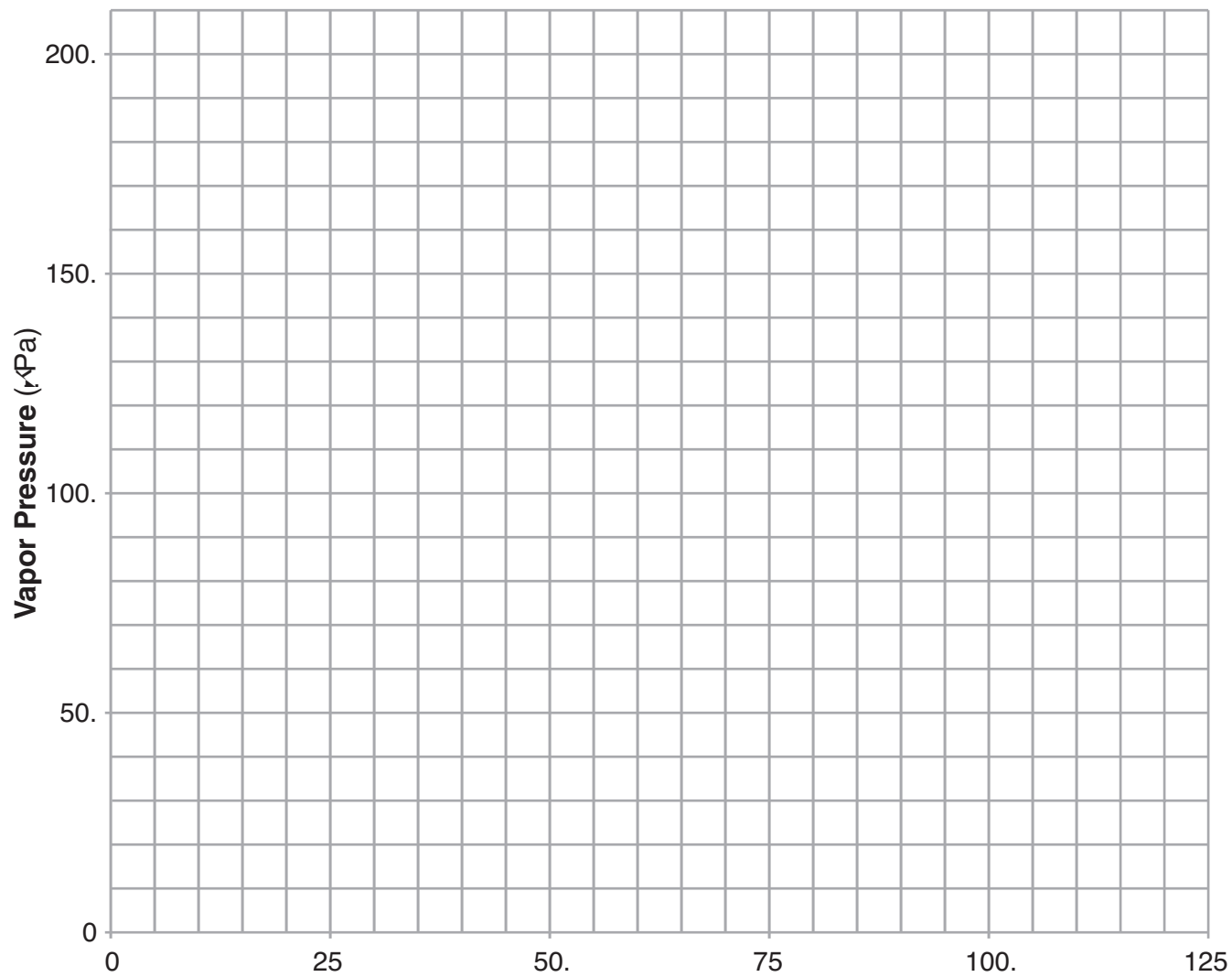




<b>Ions That Form <i>Soluble</i> Compounds</b>	<b>Exceptions</b>
$\text{Li}^+$ $\text{NH}_4^+$	
$\text{NO}_3^-$	
$\text{ClO}_4^-$	



**Table H**  
**Vapor Pressure of Four Liquids**





**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
		$R$	
		$R$	
		$R$	
		$R$ $R'$	
		$R$ $R'$	



# Periodic Table of the Elements

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	1.00794 1 H	4.00260 2 He																	

**KEY**

A I Ma → ← S O i a l . S a  
 S → R a w a l a a a  
 C  
 12C=12(a)

A I N → 6  
 E C i a l . → 2-4

**Note:** N l a . . . . .  
 a a . . . . .

2	6.941 3 Li	9.01218 4 Be																		
3	22.98977 11 Na	24.305 12 Mg																		
4	39.0983 19 K	40.08 20 Ca	44.9559 21 Sc	47.867 22 Ti	50.9415 23 V	51.996 24 Cr	54.9380 25 Mn	55.845 26 Fe	58.9332 27 Co	58.9332 28 Ni	63.546 29 Cu	65.409 30 Zn	69.723 31 Ga	72.64 32 Ge	74.9216 33 As	78.96 34 Se	79.904 35 Br	83.798 36 Kr		
5	85.4678 37 Rb	87.62 38 Sr	88.9059 39 Y	91.224 40 Zr	92.9064 41 Nb	95.94 42 Mo	101.07 43 Tc	101.07 44 Ru	102.906 45 Rh	106.42 46 Pd	107.868 47 Ag	112.41 48 Cd	114.818 49 In	118.71 50 Sn	121.760 51 Sb	127.60 52 Te	126.904 53 I	131.29 54 Xe		
6	132.905 55 Cs	137.33 56 Ba	138.9055 57 La	178.49 72 Hf	180.948 73 Ta	183.84 74 W	186.207 75 Re	190.23 76 Os	192.227 77 Ir	195.08 78 Pt	196.967 79 Au	200.59 80 Hg	204.383 81 Tl	207.2 82 Pb	208.980 83 Bi	209 84 Po	210 85 At	(222) 86 Rn		
7	(223) 87 Fr	(226) 88 Ra	(227) 89 Ac	(261) 104 Rf	(262) 105 Db	(266) 106 Sg	(272) 107 Bh	(277) 108 Hs	(281) 109 Mt	(281) 110 Ds	(280) 111 Rg	(285) 112 Cn	(284) 113*** Uut	(289) 114 Uuq	(288) 115 Uup	(292) 116 Uuh	(?) 117 Uus	(294) 118 Uuo		

140.116 58 Ce	140.908 59 Pr	144.24 60 Nd	150.36 61 Pm	151.964 62 Sm	157.25 63 Eu	158.925 64 Gd	162.500 65 Tb	164.930 66 Dy	167.259 67 Ho	168.934 68 Er	173.04 69 Tm	174.9668 70 Yb	175.9126 71 Lu
232.038 90 Th	231.036 91 Pa	238.029 92 U	237 93 Np	244 94 Pu	243 95 Am	247 96 Cm	247 97 Bk	251 98 Cf	252 99 Es	257 100 Fm	258 101 Md	259 102 No	262 103 Lr

\* . . . . .  
 \*\* . . . . .  
 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**

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