AP CHEMISTRY - TEXTBOOK HOMEWORK

ZUMDAHL / ZUMDAHL / DECOSTE 10TH EDITION, 2018

CH 3 - STOICHIOMETRY

atomic mass	mole	% composition	emp. formula	combustion	balancing	stoichiometry	
39 41	49 51 65 69 73	75, 79	83 84 87 89	93 94 95 96	97 100 105	111 113 117 119	
% yield		extra practice					
121 123 125 127 128 129 132		137 145 151 153 155 159 165 173 179					

CH 4 - SOLUTION STOICHIOMETRY & TYPES OF REACTIONS

electrolytes & molarity		ppt rxn	ppt stoich	acid - base rxn	KHP	redox	redox balance
27 31 33 35 37 41 43 45 48		49 51 53 55 57	61 63 65 67 69	71 73 75 77 78 81	83 84	85 87 89	91 93 97 99 100
extra practice							
109 111 113 115 117 136 137 147 150							

CH 5 - GASES

pressure	gas laws		dens MM stoich	gas LR	MM=dRT/P	partial pressure	gas over water
41 43 45	47 49 57 61 62 67 69		71 72 74 75 77	79 81	83 85	87 89 91 93 95	99 101
real gas	stoich	KMT & atmosphere		extra practice			
123 124	105 107	109 111 115 117 119 127		141 144 145 147 153			

CH 12 - CHEMICAL KINETICS

questions	reaction rates		initial rates	integ rate law:use google sheets		integ rate law	integ %
17 19 20 21	25 26 27 28 29 30		31 33 35 37	39 41 45 (make 3 graphs each)		40 42 47 49	51 52 53 55 57
mechanisms		collision model	catalyst	extra practice			
61 62 63 64 65 66		67 69 71 73	79a-b 83	87 89 93a-d 101 111 115 116			

CH 13 - CHEMICAL EQUILIBRIUM

Keq or Kc	Kp	equi calc		LeChat	extra practice		
25 27 29 31	33 35 37 39 43	45 47 51 53 57 59 61 63		71 73 75 77 79	81 85 88 89 92 115 (use boyle's law)		

CH 14 - ACIDS & BASES & SALTS

nature		kw pH	acids	pH WA	% dissociation	bases	pH WB
39 40 41 43 44 45 46 47 48		49 51 52 55	57 59 61 63	67 69 71	75 77 81 83	85 86 87 88 89 90 93	97 99 103
polyprotic acid	Salts		structure	Lewis	extra practice		
105 111	113 115 117 119 120 127 129 130		131 135 136	137 138 139	153 154 189		

CH 15 - ACID - BASE EQUILIBRIA, BUFFERS

buffers				make buffer		titrations	
13 21 22 [25 29 31 33] [26 30 32 34] {35 37} {36 38} 39a-b 40a-b				47 48 49 53 57 58 59 60		61 63 64 65 66 67 68 69 71 73	
indicators	extra practice						
75 76 79 80 85	100 101 103 105 123						

CH 16 - SOLUBILITY & COMPLEX ION EQUILIBRIA

solubility equi		precipitation		complex ion	extra practice		
13 23 25 26 27 29 31 39 43 45 47		53 55 57 61 62 63		65	85 87 101		

CH 17 - SPONTANEITY, ENTROPY & FREE ENERGY							
Free Energy		**entrpy**		**thermo data**	**Pressure effects**	**extra practice**	
29 35 36 37 39 40 41 43		**45 46 47 49 51 55 57**		**63 65 67**	**71 73 75 79 83 85**	**97 100 105 111 119 127 129**	
CH 18 - ELECTROCHEMISTRY							
review ox-red	**galvanic cells / potential**		**Nernst equa. / delta G**		**electrolysis**		
18 19 21 22 32	**37 39 41 43 45 47 57 61 63**		**65 67 69 71 73 75 83 / 85 89**		**91 93 95 97 101 103 105 106 107 109**		
extra practice							
113 122 133							
CH 19 - THE NUCLEUS - NUCLEAR CHEMISTRY							
transformations	**kinetics**	**health**	**extra practice**			**TO BE DONE**	
15 16 19 27 28	**29 31 35 37 39**	**63**	**73 83 85[binding E] 89[rat]**				
						OVER	
CH 22 - ORGANIC						**DECEMBER**	
hydrocarbons		**isomers**	**functional grp**	**reactions**			
15 19 21b 23 27 29 31acd 33		**45**	**51 53 55ab 61ab**	**67abc**		**BREAK**	
CH 6 - THERMOCHEMISTRY							
energy heat work	**enthalpy**	**calorimetry**		**hess's law**	**heat of formation**	**extra practice**	
29 33 34 35 39	**47 48 49 51**	**55 59 61 63 64 67 71 73**		**77 78 79 81 82**	**83 85 89 91**	**109 116 119 125 127 129**	
CH 7 - ATOMIC STRUCTURE & PERIODICITY							
light	**deBroglie**	**bohr**	**quantum #**	**e- configuration**		**trends**	
45 47 51 55 57	**59**	**63 67 69**	**79 80**	**89 91 96 97 99 105 109**		**111 113 115 119 121 122 123 124**	
trends	**PES**	**rxn group 1**	**extra practice**				
125 131	**133 134 162 186**	**136 143 144**	**146 159 161 170 171 176**				
CH 8 - BONDING							
electronegativity	**ions**	**lattice energy**	**bond energy**	**lewis dots**	**resonance/org**	**formal charge**	
31 33 37 39	**47 51 55 56**	**59 61 62**	**69 71 73 77**	**85 87 88 89 91**	**93 95 99 100**	**105**	
polarity		**extra practice**					
113 119 121 123 125 127 129		**140 144 145 147 152**					
CH 9 - COVALENT BODING, HYBRIDIZATION							
hybridization		**extra practice**					
21 23 33 35 37 39 41 43		**67 71 75 77 90**					
CH 10 - LIQUIDS & SOLIDS							
questions		**IMF, properties**	**structure**	**phase change**		**extra practice**	
14 15 17 18 21 23 25 33		**37 39 41 43 45**	**83**	**95 99 101 105**		**111 112 114 115 131 132 133 137**	
CH 11 - PROPERTIES OF SOLUTIONS							
composition	**energy of sol'n**	**vp of sol'n**		**colligative properties**		**extra practice**	
37 39 41 45	**49 51 53 55**	**59 61 63a 67 68 69**		**71 73 75 77 85 87 95**		**99 106 109 111 119**	