MATTER AND MINERALS

CHEMISTRY HOMEWORK - FALL - WEEK 2

Chapter 2

(37) Sn = tin Pt = platinum Co = cobalt Ni = nickel
Mg = magnesium Ba = barium K = potassium

(38) As = arsenic I = iodine Xe = xenon He = helium
C = carbon Si = silicon

(41) (a) 8 (b) 8 (c) 18 (d) 5

(49)

Symbol	# of p	# of n	# of e	net charge
$^{75}_{33}As^{3+}$	33	42	30	3+
$^{128}_{52}Te^{2-}$	52	128 - 52 = 76	54	2−
$^{32}_{16}S$	16	16	16	0
$^{204}_{81}Tl^{+}$	81	123	80	1+
$^{195}_{78}Pt$	78	195 - 78 = 117	78	0

(51)

metals	non-metals
Mg	Si
Ti	B
Au	At
Bi	Rn
Eu	Br
Am	
Ge	

(54) (a) transition metals (b) alkaline earth metals
(c) alkali metals (d) noble gases (e) B_2 halogens

(58) (a) lose ē to make Ra^{+2}
(b) In = lose ē to make In^{3+}
(c) P = gain ē to make P^{3-}
(d) Te = ~~lose~~ gain ē to make Te^{2-}
(e) Br = gain ē to make Br^-
(f) Rb = lose ē to make Rb^+

(59) (a) sodium chloride (b) rubedium oxide
(c) calcium sulfide (d) aluminum iodide

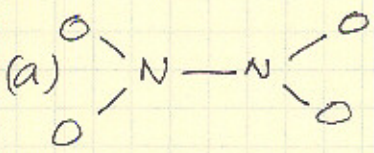
(61) (a) Chromium (VI) oxide (b) Chromium (III) oxide
(c) aluminum oxide (d) sodium hydride
(e) calcium bromide (f) zinc (II) chloride

(63) (a) potassium perchlorate (b) $Ca_3(PO_4)_2$ – calcium phosphate

(c) aluminum sulfate (d) lead (II) nitrate

(64) (a) barium sulfite (b) sodium nitrite

(c) potassium permanganate (d) [illegible]

(66) (a)  $= N_2O_4$ dinitrogen tetroxide

(b) ICl_3 = iodine trichloride

(c) sulfur dioxide (d) diphosphorus pentasulfide

(69) (a) $CsBr$ (b) $BaSO_4$ (c) NH_4Cl (d) ClO

(e) $SiCl_4$ (f) ClF_3 (g) BeO (h) MgF_2

(70) (a) SF_2 (b) SF_6 (c) NaH_2PO_4 (d) Li_3N

(e) $Cr_2(CO_3)_3$ (f) SnF_2 (g) $NH_4O_2C_2H_3$ or $C_2H_3O_2NH_4$

(h) NH_4HSO_4 (i) $Co(NO_3)_3$

(j) $HgCl$ (k) $KClO_3$ (l) NaH