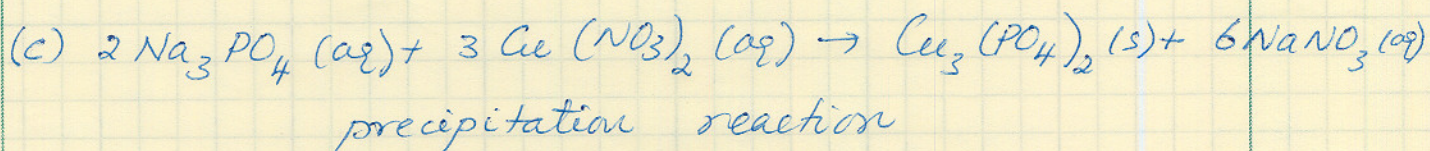
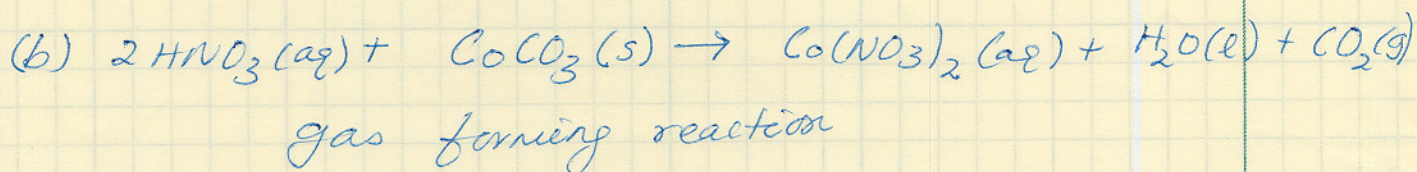
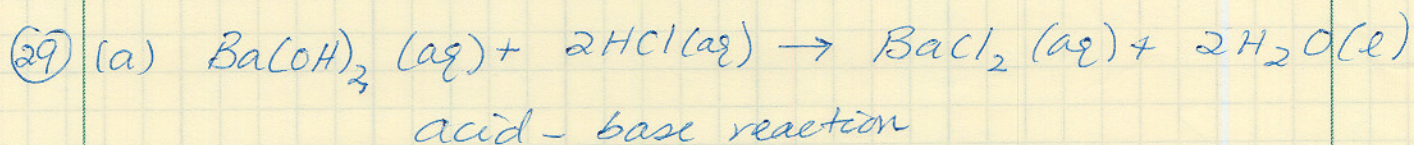
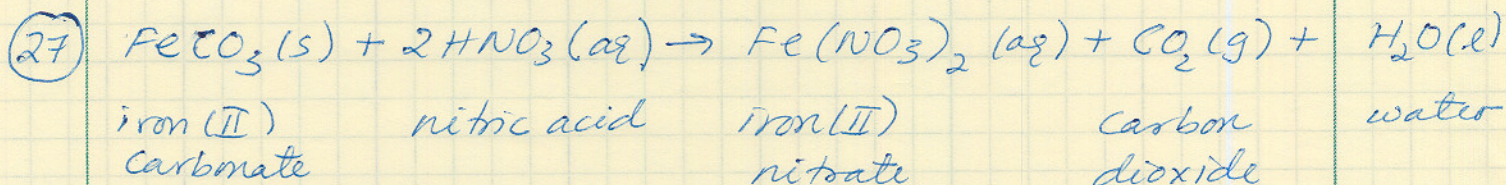


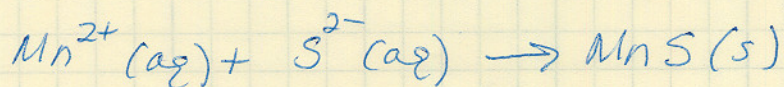
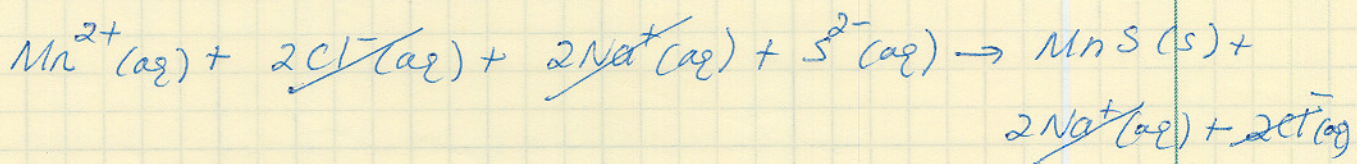
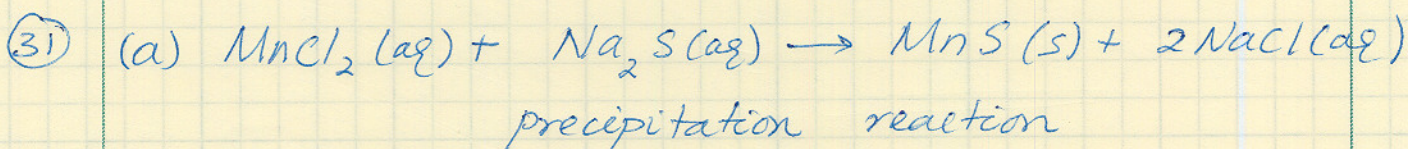
INTRODUCTION TO NATURAL SCIENCE

CHEMISTRY HW - FALL 2006 - WEEK 7

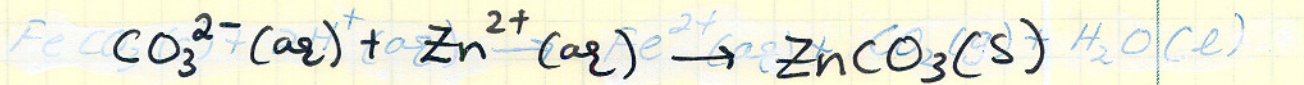
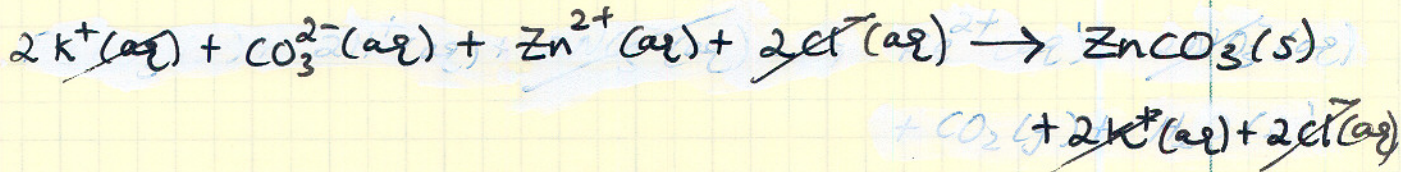
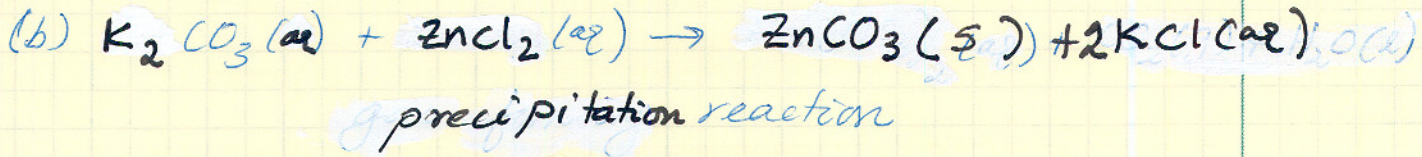
Chapter 5



(30)



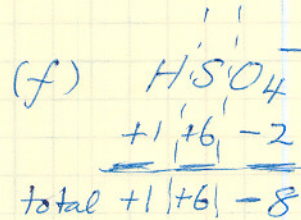
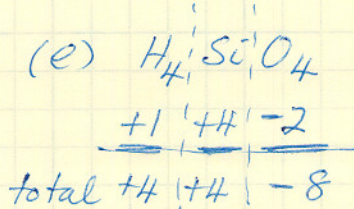
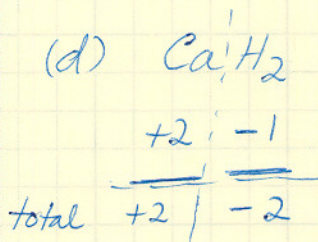
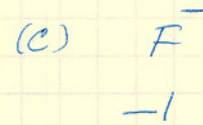
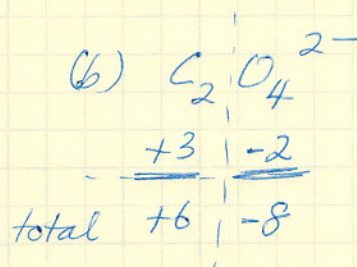
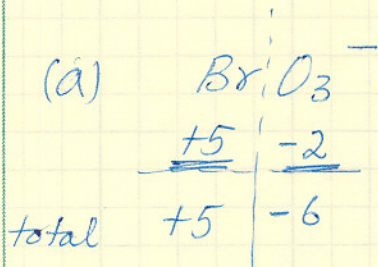
21



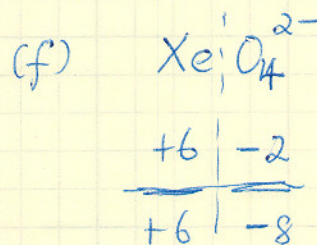
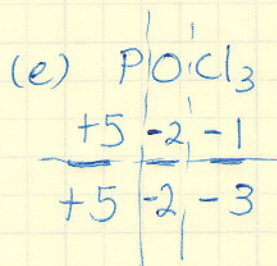
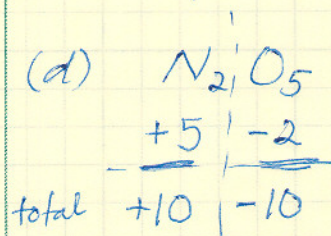
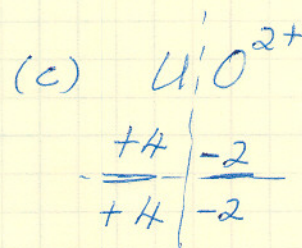
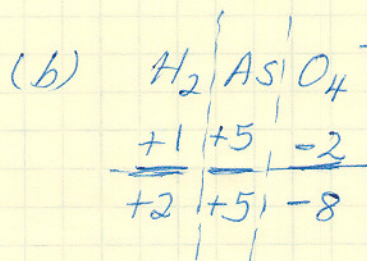
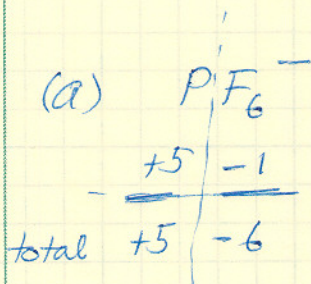
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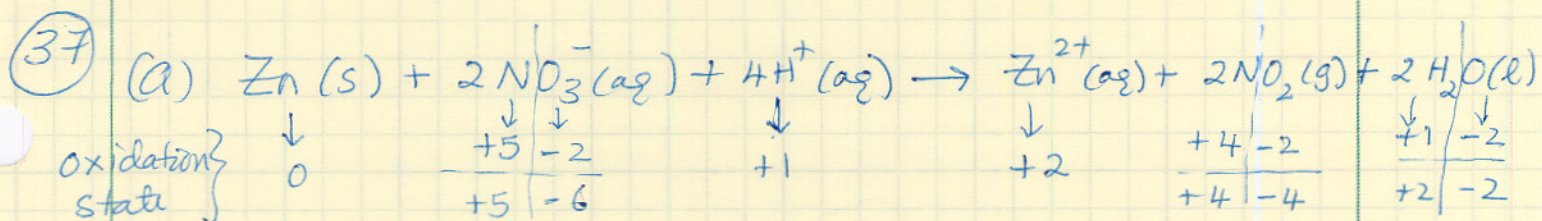
- (33) (a) formation of a precipitate  
 (b) formation of water (acid-base neutralization)

(35)



(36)

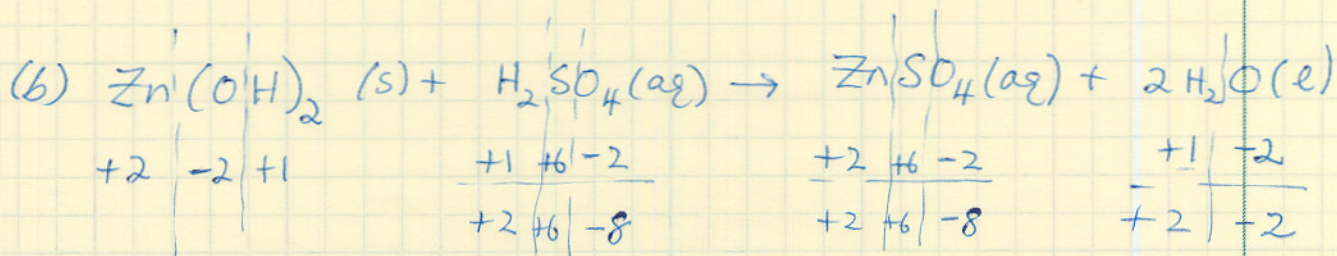




Zn is oxidized (oxidation number increased from zero to +2)

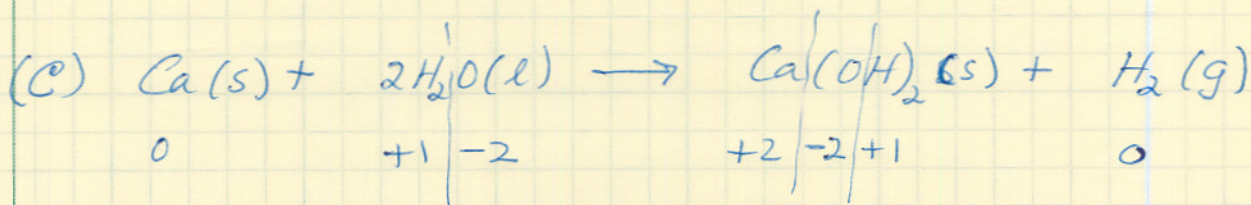
N is reduced (oxidation number decreased from +5 to +4)

This is a re-dox reaction.



Oxidation numbers of elements do not change. Not a redox reaction.

This is an acid-base neutralization reaction.

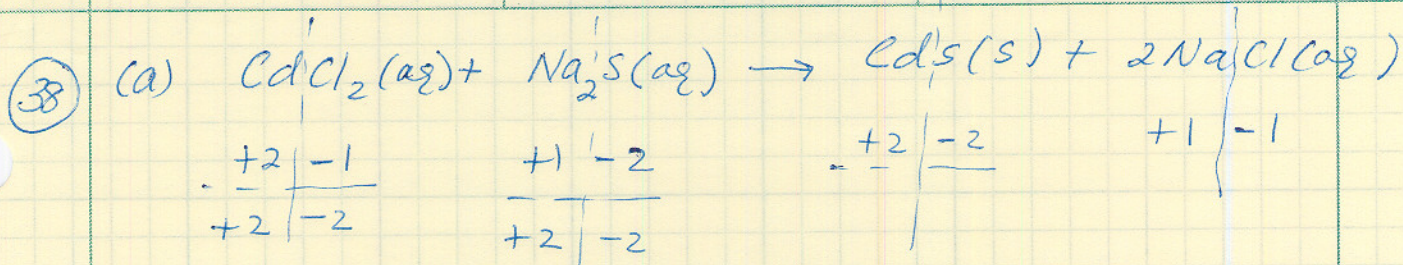


Ca is oxidized - } Redox reaction.  
H is reduced . }

Ca oxidation # increases from 0 to +2

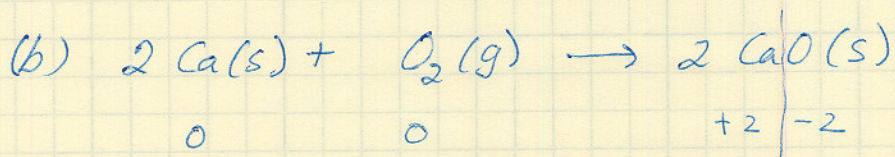
H oxidation # decreases from +1 to 0.

4



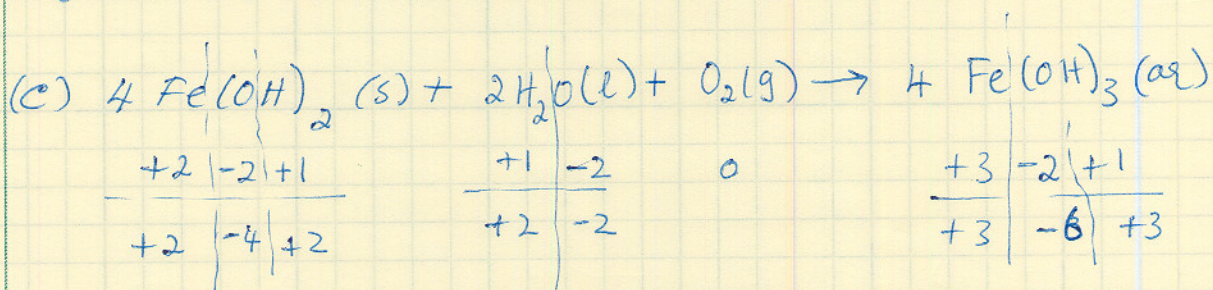
Not a redox reaction since oxidation states of elements do not change.

This is a precipitation reaction.



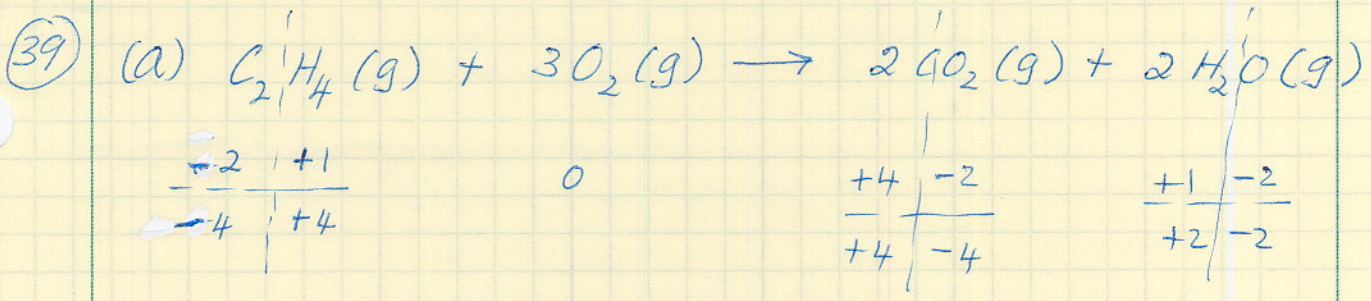
Ca has oxidized (oxidation # has increased from zero to +2). O has reduced (oxidation # has decreased from zero to -2).

This is a redox reaction.



Fe is oxidized (oxidation state ~~changes~~ <sup>increased</sup> from +2 to +3). O is reduced (oxidation state decreased from 0 to -2). This is a redox reaction.

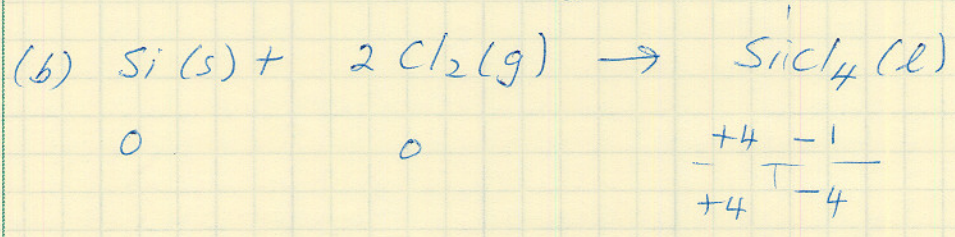
5



C is oxidized. O is reduced.

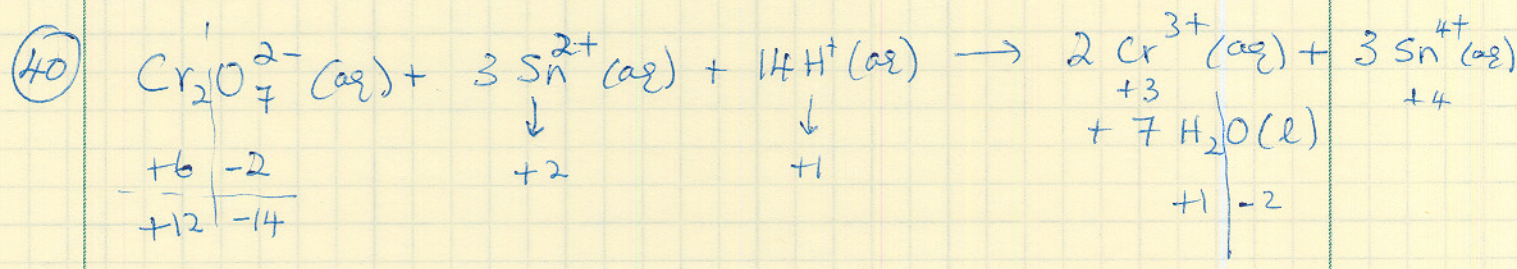
$C_2H_4$  is the reducing agent

$O_2$  is the oxidizing agent.



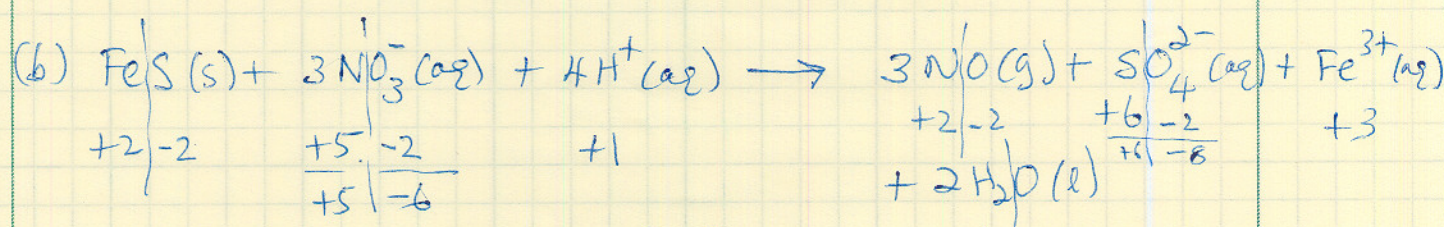
Si is oxidized. Si is the reducing agent

Cl is reduced.  $Cl_2$  is the oxidizing agent.



Cr is reduced (from +6 to +3).  $Cr_2O_7^{2-}$  is the oxidizing agent.

Sn is oxidized (from +2 to +4).  $Sn^{2+}$  is the reducing agent.



Fe is oxidized (+2 to +3) } FeS and  $H^+$  } ~~both are~~ reducing agents  
 S is oxidized (-2 to +6) }  $NO_3^-$

N is reduced (+5 to +2)  $\Rightarrow$  oxidizing agent is  $NO_3^-$