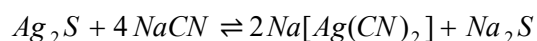
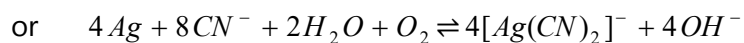
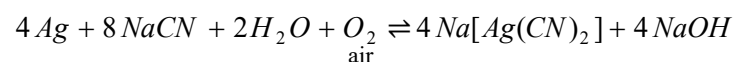


## Silver and its Compounds.

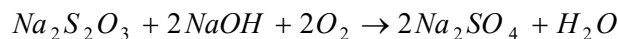
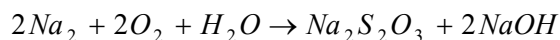
Ores: Argentite (silver glance)  $Ag_2S$ , Horn silver ( $AgCl$ ), Ruby silver (Pyrargyrite)  $3Ag_2S \cdot Sb_2S_3$ .

Extraction: Cyanide process or Mac Arthus-Forrest cyanide process: This method depends on the fact that silver, its sulphide or chloride, forms soluble complex with alkali cyanides in the silver.

This implies that silver compounds will dissolve in solution of alkali cyanides in the presence of blast of air.



The reaction with the sulphide is reversible and accumulation of  $Na_2S$  must be prevented. A free excess of air is continuously passed through the solution which oxidizes  $Na_2S$  into sulphate and thiosulphate.



Compounds of silver :  $AgNO_3$ ,  $Ag_2S$ ,  $AgCl$ ,  $AgBr$ ,  $AgI$ , and  $AgO$ .