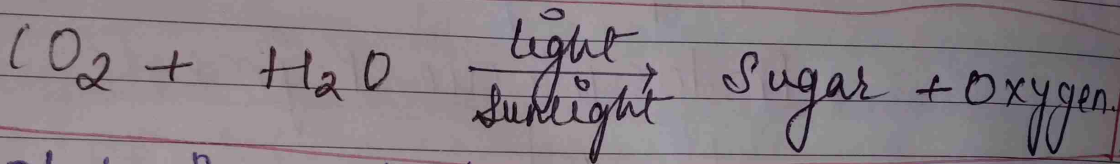


Photolysis of Water

According to Barkmann (1905) the process of photosynthesis consists of two phases:-
 1) light reaction or light phase or photochemical phase.

2) Dark reaction or Dark phase or light independent phase or Biochemical phase.



Photolysis of Water and Oxygen Evolution (Hill Reaction) :-

Before 1930 it was thought that the oxygen released during photosynthesis comes from CO_2 . But for the first time Van Neil discovered that the source of O_2 evolution is not CO_2 but H_2O . In his experiment Neil used green sulphur bacteria which do not release oxygen during photosynthesis. They release sulphur. These bacteria require H_2S in place of H_2O .

The idea of Van Neil was supported by R. Hill. Hill observed that the chloroplasts extracted from leaves of *Stellaria media* and *Lamb. ears* album when suspended in a test tube containing suitable electron acceptors (Potassium ferrioxalate or Potassium

September '21

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

You don't walk away if you love someone. You help the person. - Hillary Clinton

September '21

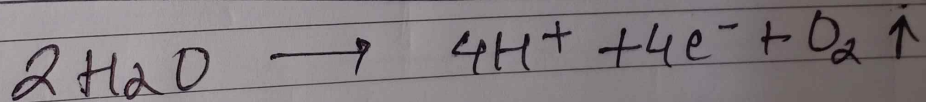
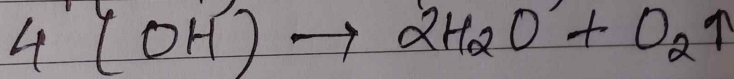
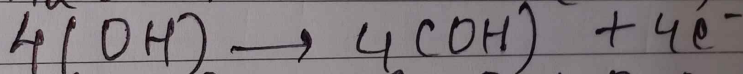
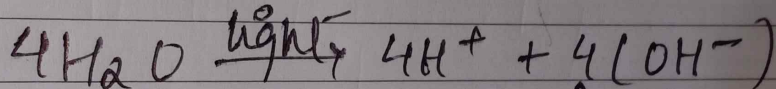
Week-37 (252-113)

THURSDAY

09

9 (ferrous sulfate), Oxygen evolution took place
due to photochemical splitting of water.

10 The splitting of water during photosynthesis
is called photolysis of water. Mn, Ca and
11 Cl ions play prominent role in the photolysis
of water. This reaction is also known
12 as Hill reaction. To release one molecule of
oxygen, two molecules of water are required.



NOTES

October '21						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

to people or things. - Albert Einstein