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Class : Deg. II (Subs.)

Topic : Photosynthesis (contd.)

Lecture No. - 102

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• Types of Photosynthetic Units :

There are two types of photosynthetic units known as PSI and PS II. Differences between the two are enumerated below:

Points	PS I	PS II
(i) site	Takes place in non-appressed portion of grana and intergranal or stromal thylakoid.	Takes place on appressed portion of grana.
(ii) Photo-center	P <sub>700</sub>	P <sub>680</sub>
(iii) Ratio of chlorophyll and Carotenoid	20-30 : 1	3-7 : 1
(iv) Ratio of chlorophyll 'a' & 'b'	2 : 1	1 : 1
(v) Photo-lysis of water	Does not takes place	Does takes place.
(vi) Source of Electron	PS II	Photolysis of water

could.

Points	PS I	PS II
(VII) Acceptor Molecule	'X'	'O'
(VIII) First carrier Molecule	Ferredoxin	Plastoquinone
(IX) Assimilatory Power	Only ATP is formed	ATP and NADPH are formed.
(X) Photo-Phosphorylation	Cyclic	Non-Cyclic
(XI) Condition	Anaerobic Low concentration of CO <sub>2</sub>	Aerobic High concentration of CO <sub>2</sub>
(XII) Type of organism involved	Only in bacteria	In all green-plants

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