

Section 3: Photosynthesis in Detail

Light-Dependent Reactions

Step	Description
1	energy absorbed from sunlight and transferred to electrons that enter an electron transport chain
2	water molecules are broken down; electrons enter chlorophyll
3	energy from electrons in transport chain is used to pump H ⁺ ions across the thylakoid membrane
4	energy absorbed from sunlight is transferred to electrons
5	high-energy electrons used to produce an energy-carrying molecule called NADPH
6	H ⁺ ions flow (by diffusion) through a channel in the thylakoid membrane
7	The channel is part of ATP synthase, which produces ATP

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