PHOTOSYNTHESIS IN CHLOROPLAST

LIGHT REACTIONS

PROTON TRANSLOCATION from stroma to lumen. These protons, together with those from water produce a pH gradient that drives ATP synthase to form ATP.

DARK" REACTIONS

CALVIN CYCLE: 6CO₂ + 2NADPH + 2ATP + 12NADP⁺ + 18H⁺ → C₆H₁₂O₆ + 12NADP⁺ + 18ATP + 18H⁺

ENZYMES

1.2.1.13 Glyceraldehyde-3-P dehydrogenase
2.7.1.19

1.18.1.2 Ferredoxin-NADPH reductase
2.7.2.3

2.2.1.11 Dihydroxyacetonephosphate transferase (Transaldolase)
3.1.3.37

2.2.1.2 Dihydroxyacetonephosphate transferase (Transketolase)
3.1.3.37

4.1.1.30 Ribulose-5-P carboxylase

4.1.1.30 Ribose-5-P isomerase

4.1.1.30 RibOSE-5-P epimerase

4.1.1.30 Fructose-6-phosphate isomerase

4.1.1.30 Fructose-1,6-bisphosphate kinase

4.1.1.30 Fructose-1,6-bisphosphate aldolase

4.1.1.30 Fructose-6-phosphate aldolase

4.1.1.30 Glucose-6-phosphate aldolase

4.1.1.30 Phosphoglycerate kinase

4.1.1.30 Phosphoribulokinase

4.1.1.30 ATP synthase

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