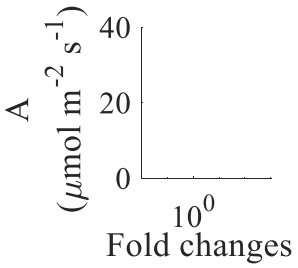
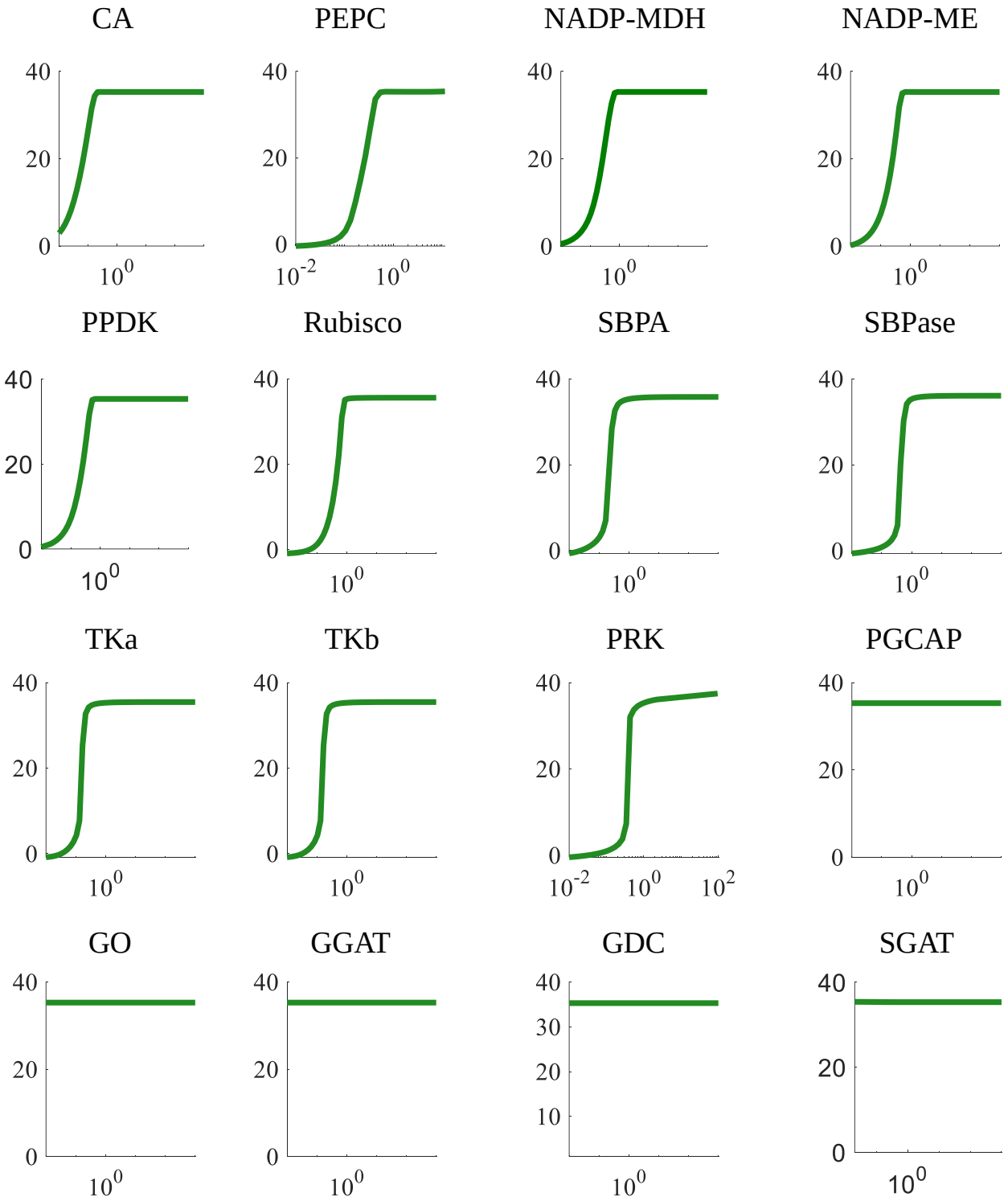
Supplemental Figure

Figure S1. The response curves of photosynthesis to the fold changes of enzymatic capacity. Note: CA: Carbonic anhydrase; PEPC: Phosphoenolpyruvate carboxylase; NADP-MDH: Malate dehydrogenase ($NADP^+$); NADP-ME: NADP-Malic enzyme; PPDK: Pyruvate, phosphate dikinase; Rubisco: Ribulose-bisphosphate carboxylase; SBPA: Sedoheptulose-bisphosphate aldolase; SBPase: Sedoheptulose-bisphosphatase; Tka: Transketolase; TKb: Transketolase; PRK: Phosphoribulokinase; PGCAP: Phosphoglycolate phosphatase; GO: Glycollate oxidase; GGAT: Glutamate Glyoxylate aminotransferase; GDC: Glycine decarboxylase; SGAT: Serine Glyoxylate aminotransferase; HPR: Glycerate dehydrogenase; GLYK: Glycerate Kinase; $Aldolase_{MC}$: Fructose-bisphosphate aldolase in the mesophyll cell chloroplast; $FBPase_{MC}$: Fructose-bisphosphatase in the mesophyll cell chloroplast; UGPU: UTP-glucose-1-phosphate uridylyltransferase; SPS: Sucrose phosphate synthase; SPP: Sucrose phosphatase; PFK: 6-phosphofructo-2-kinase; F26BPP: fructose-2,6-bisphosp hate 2-phosphatase; GPA: Glucose-1-phosphate adenylyl transferase; Diphosphatase: inorganic diphosphatase; Starch Synthase: ADPG Pyrophospho-rylase; $ATPase_{MC}$: ATP synthase in the mesophyll cell chloroplast; FNR: Ferredoxin-NADP+ reductase; $ATPase_{BSC}$: ATP synthase in the bundle sheath cell chloroplast.

Supplemental Figure





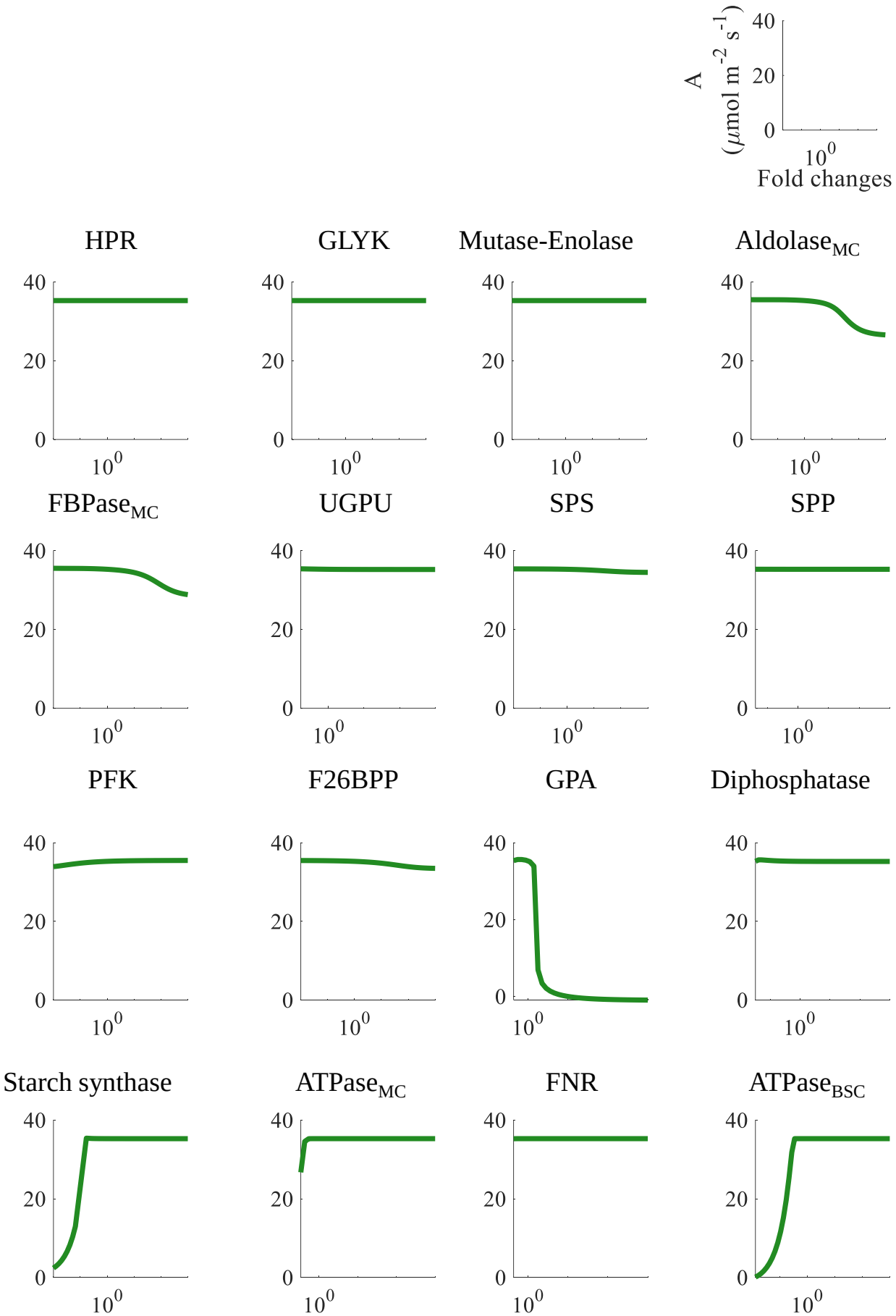

A
(μmol m-2 s-1)
40
20
0
10^0
Fold changes
HPR
GLYK
Mutase-Enolase
Aldolase_MC
FBPase_MC
UGPU
SPS
SPP
PFK
F26BPP
GPA
Diphosphatase
Starch synthase
ATPase_MC
FNR
ATPase_BSC

Figure S1.

- Figure S2. The response curves of PGA (a and b), T3P (c and d) and PEP (e and f) to the fold changes of enzymatic capacities. Aldolase$_{MC}$ (a, c and e) and FBPase$_{MC}$ (b, d and f) are the enzymes of sucrose synthesis in mesophyll cells.