

Figure S1: Time course of the energy charge in trehalose-grown wild-type and *adk1* mutant cells after sudden increase of glucose concentration to 110 mmol/L. Data represent the average of at least two independent experiments.

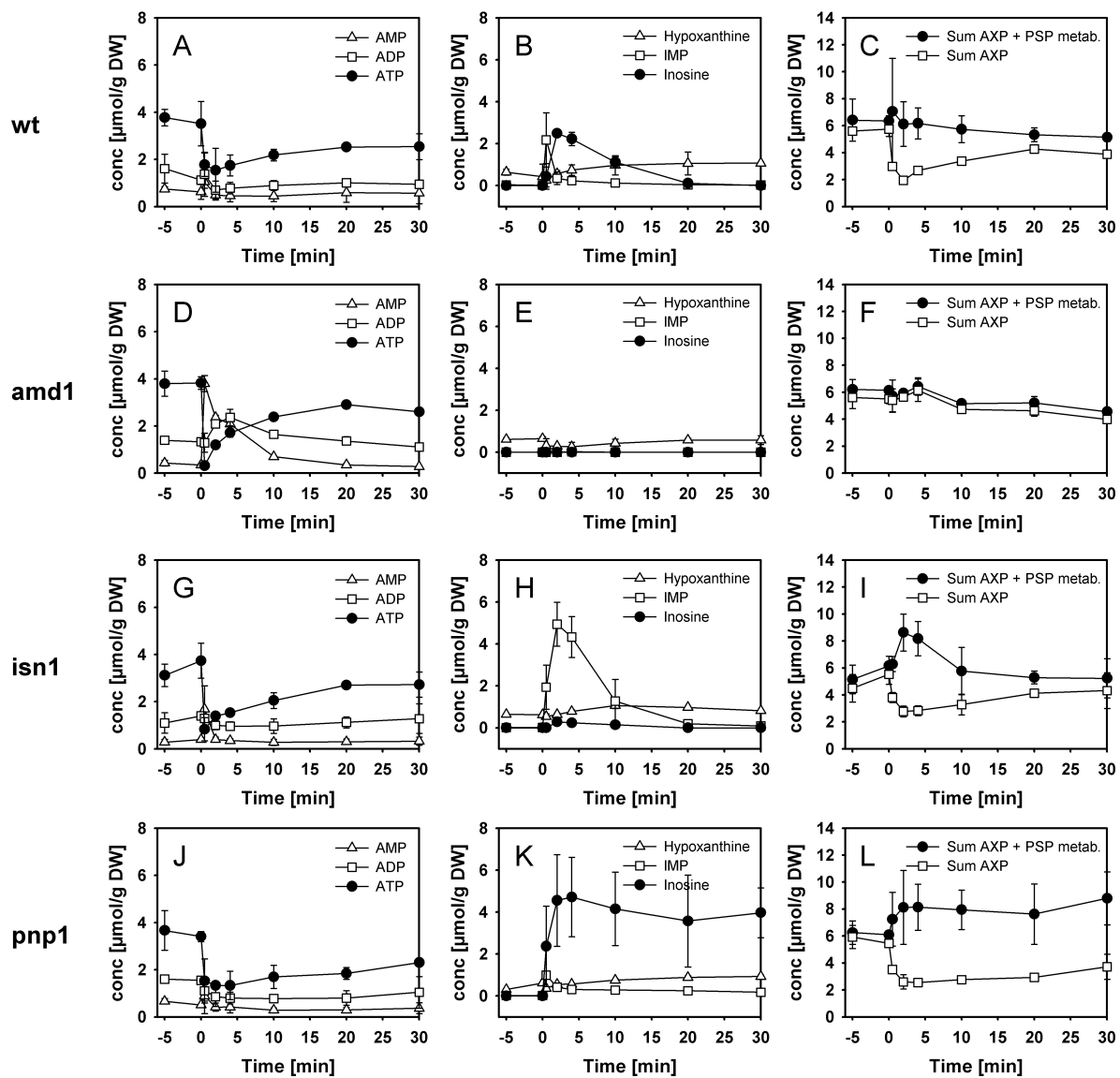


Figure S2: Intracellular concentration of adenine nucleotides and selected purine salvage pathway metabolites in trehalose-grown wild-type and purine salvage pathway mutant cells after a sudden increase of glucose concentration to 110 mmol/L in the presence of 2 $\mu\text{g/mL}$ antimycin A. Antimycin A was added 1.5 min before glucose. Data corresponding to each mutant are arranged row wise. Left column: ATP, ADP, AMP. Middle column: hypoxanthine, inosine, IMP. Right column: Sum of AXP nucleotides, Sum of (AXP + IMP + inosine + hypoxanthine). Data represent the average of at least two independent experiments.

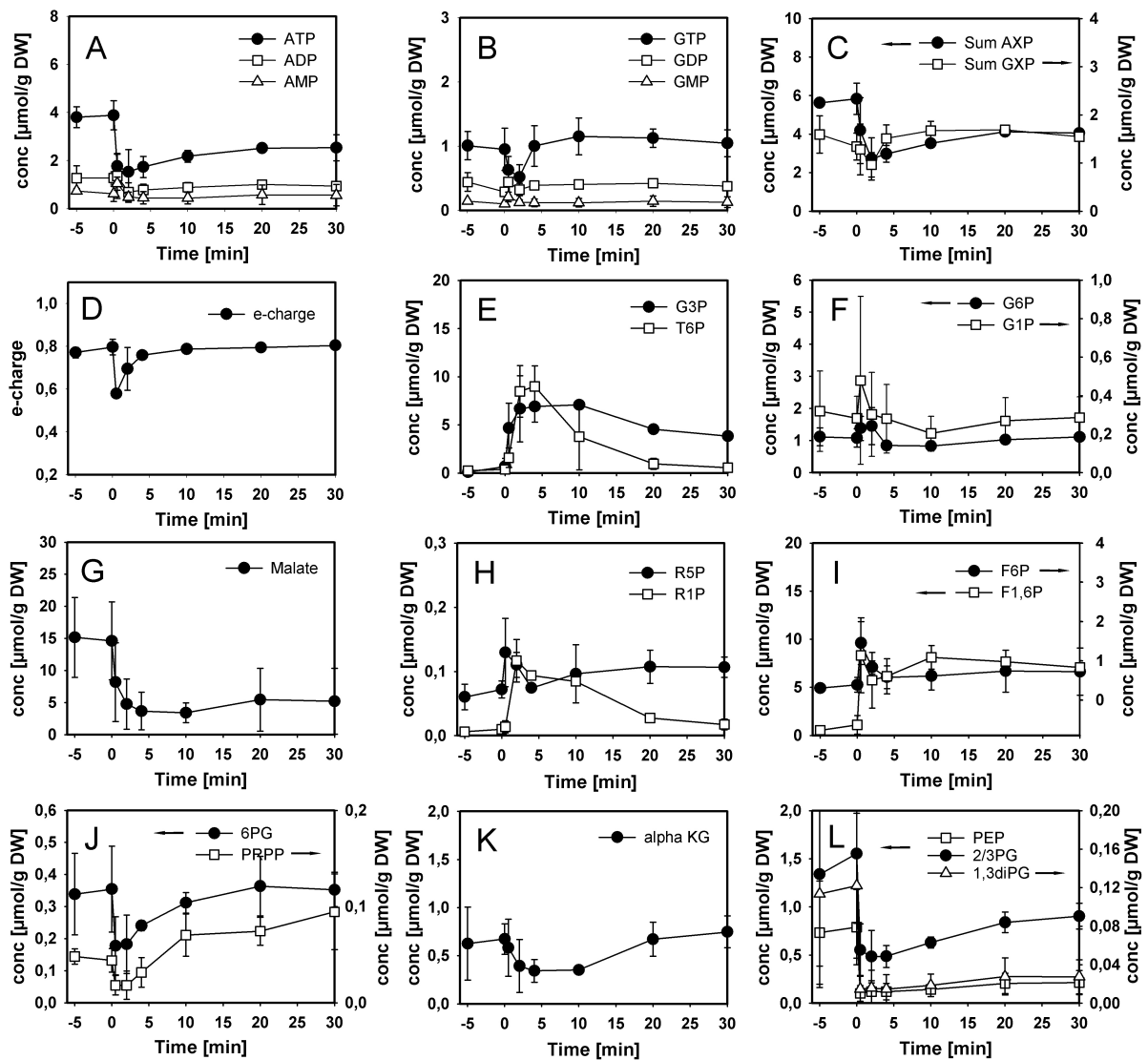


Figure S3: Intracellular concentrations of glycolytic, TCA-cycle, and pentose phosphate pathway metabolites after exposure of trehalose-grown wild-type cells to a sudden increase of glucose concentration to 110 mmol/L in the presence of 2 $\mu\text{g/mL}$ antimycin A. Antimycin A was added 1.5 min before glucose. (A) ATP, ADP, AMP; (B) GTP, GDP, GMP; (C) Sum of adenine and guanine nucleotides; (D) energy charge, inorganic phosphate (Pi); (E) glycerol-3-phosphate (G3P); trehalose-6-phosphate (T6P); (F) glucose-6-phosphate (G6P); glucose-1-phosphate (G1P); (G) malate; (H) ribose-5-phosphate (R5P); ribose-1-phosphate (R1P); (I) fructose-6-phosphate (F6P); fructose-1,6-bisphosphate (F1,6P); (J) 6-phosphogluconate (6PG); phosphoribosyl pyrophosphate (PRPP); (K) alpha-ketoglutarate (alphaKG); (L) phosphoenolpyruvate (PEP); pooled 2 and 3-phosphoglycerate (2/3PG); 1,3-phosphodiglycerate (1,3diPG). Data shown represent the average of at least two independent experiments.

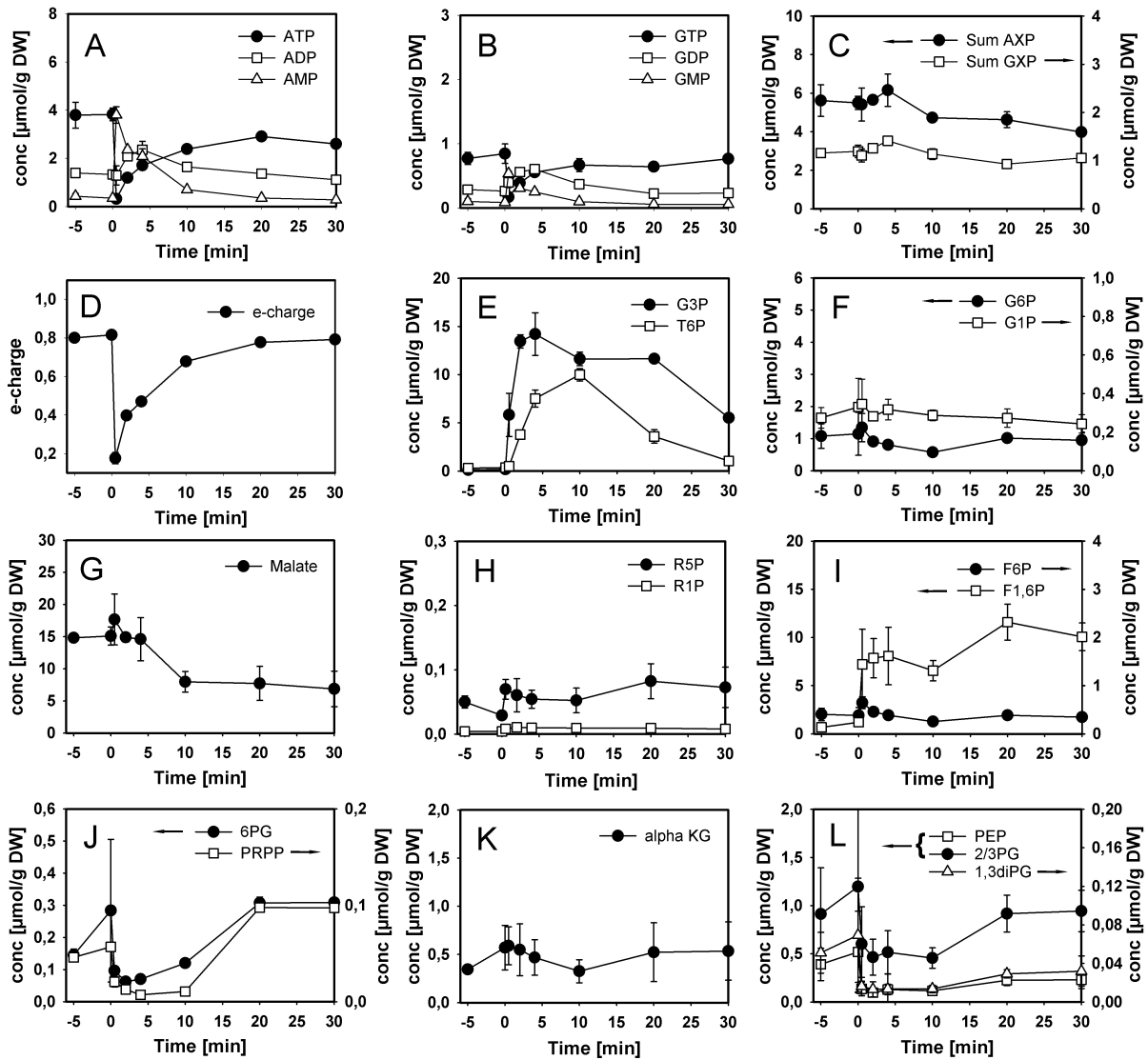


Figure S4: Intracellular concentrations of glycolytic, TCA-cycle, and pentose phosphate pathway metabolites after exposure of trehalose-grown *amd1* mutant cells to a sudden increase of glucose concentration to 110 mmol/L in the presence of 2 μ g/mL antimycin A. Antimycin A was added 1.5 min before glucose. (A) ATP, ADP, AMP; (B) GTP, GDP, GMP; (C) Sum of adenine and guanine nucleotides; (D) energy charge, inorganic phosphate (Pi); (E) glycerol-3-phosphate (G3P); trehalose-6-phosphate (T6P); (F) glucose-6-phosphate (G6P); glucose-1-phosphate (G1P); (G) malate; (H) ribose-5-phosphate (R5P); ribose-1-phosphate (R1P); (I) fructose-6-phosphate (F6P); fructose-1,6-bisphosphate (F1,6P); (J) 6-phosphogluconate (6PG); phosphoribosyl pyrophosphate (PRPP); (K) alpha-ketoglutarate (alphaKG); (L) phosphoenolpyruvate (PEP); pooled 2 and 3-phosphoglycerate (2/3PG); 1,3-phosphodiglycerate (1,3diPG). Data shown represent the average of at least two independent experiments.

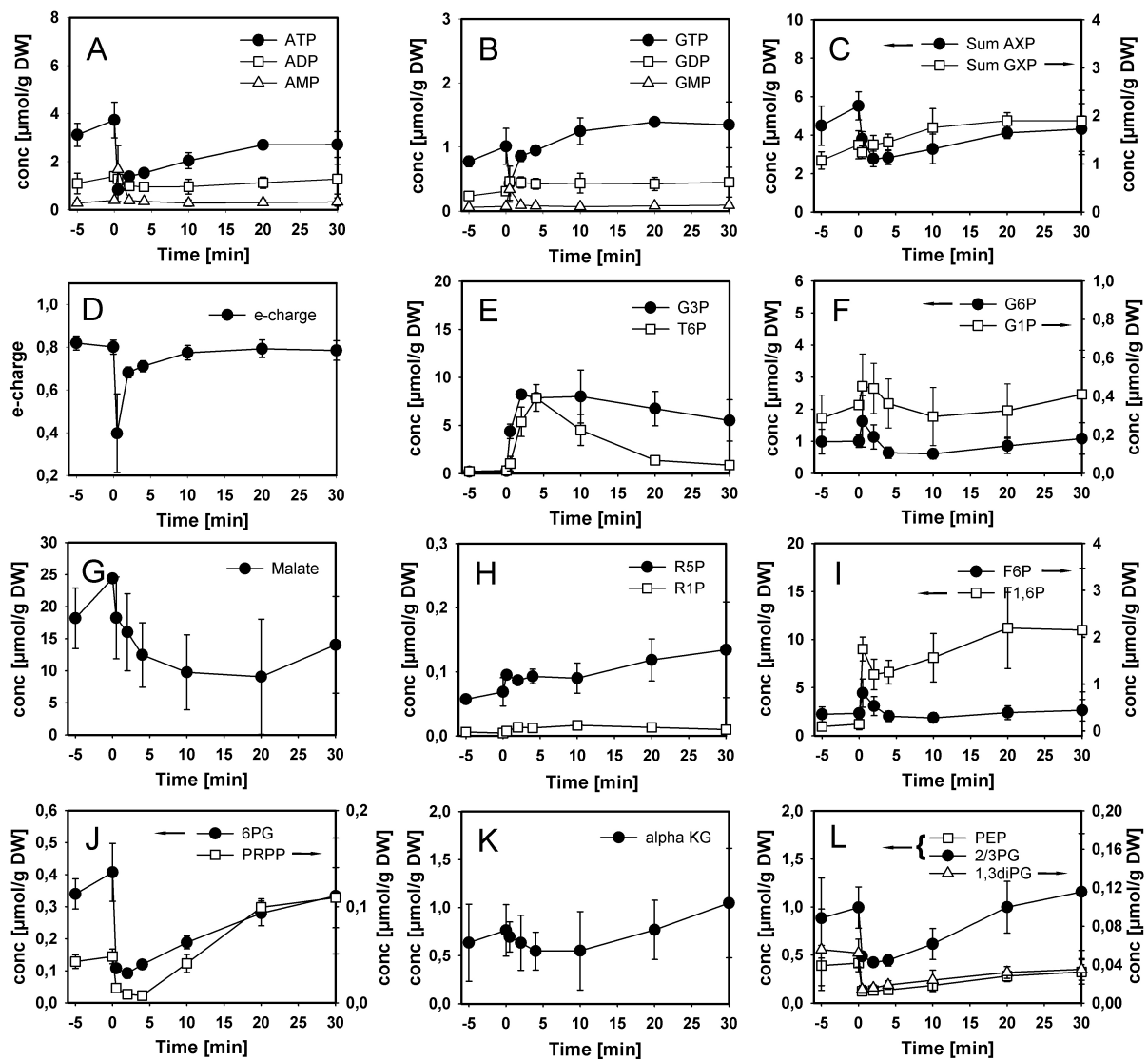


Figure S5: Intracellular concentrations of glycolytic, TCA-cycle, and pentose phosphate pathway metabolites after exposure of trehalose-grown *isn1* mutant cells to a sudden increase of glucose concentration to 110 mmol/L in the presence of 2 $\mu\text{g/mL}$ antimycin A. Antimycin A was added 1.5 min before glucose. (A) ATP, ADP, AMP; (B) GTP, GDP, GMP; (C) Sum of adenine and guanine nucleotides; (D) energy charge, inorganic phosphate (Pi); (E) glycerol-3-phosphate (G3P); trehalose-6-phosphate (T6P); (F) glucose-6-phosphate (G6P); glucose-1-phosphate (G1P); (G) malate; (H) ribose-5-phosphate (R5P); ribose-1-phosphate (R1P); (I) fructose-6-phosphate (F6P); fructose-1,6-bisphosphate (F1,6P); (J) 6-phosphogluconate (6PG); phosphoribosyl pyrophosphate (PRPP); (K) alpha-ketoglutarate (alphaKG); (L) phosphoenolpyruvate (PEP); pooled 2 and 3-phosphoglycerate (2/3PG); 1,3-phosphodiglycerate (1,3diPG). Data shown represent the average of at least two independent experiments.

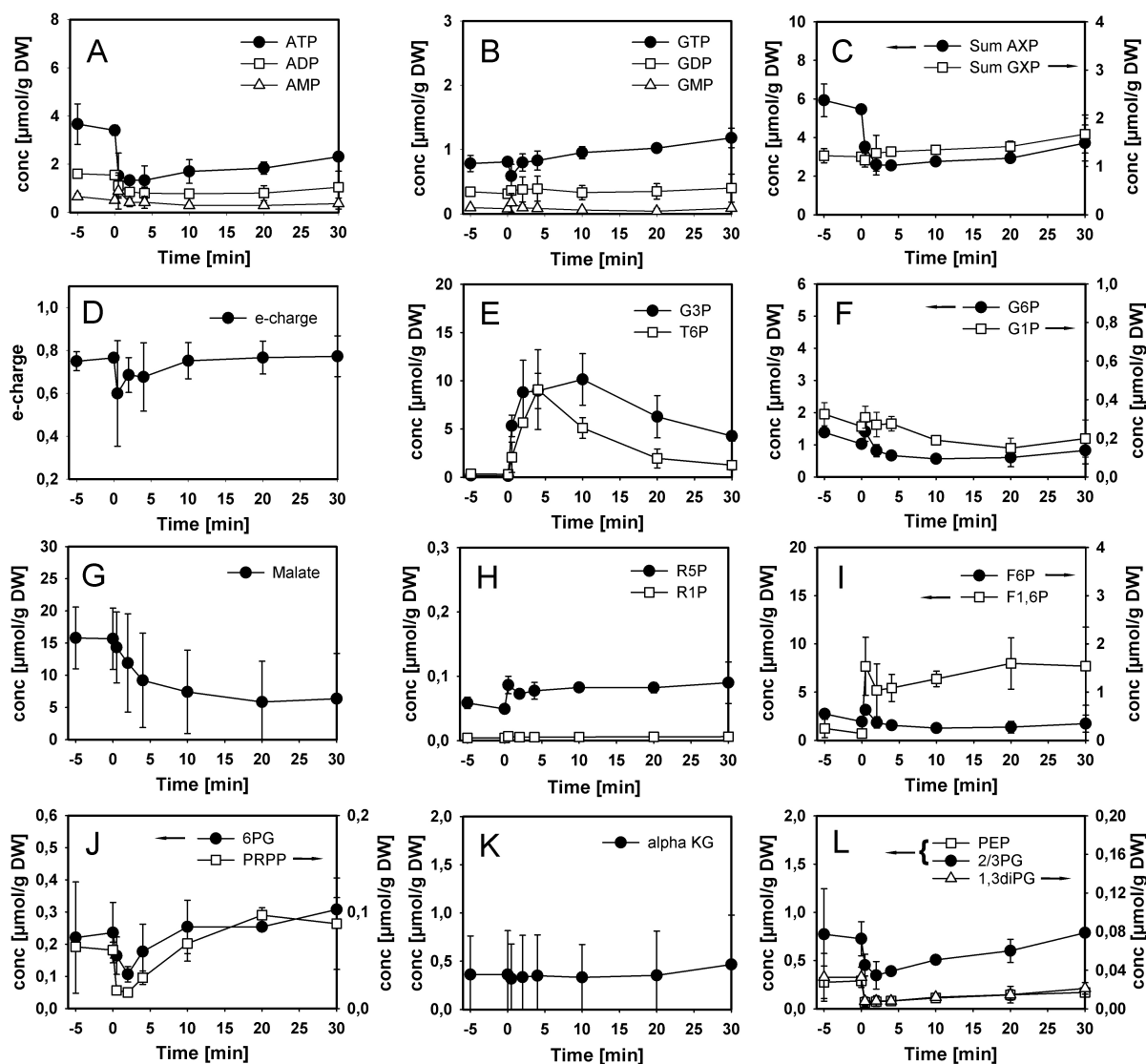


Figure S6: Intracellular concentrations of glycolytic, TCA-cycle, and pentose phosphate pathway metabolites after exposure of trehalose-grown *pnp1* mutant cells to a sudden increase of glucose concentration to 110 mmol/L in the presence of 2 µg/mL antimycin A. Antimycin A was added 1.5 min before glucose. (A) ATP, ADP, AMP; (B) GTP, GDP, GMP; (C) Sum of adenine and guanine nucleotides; (D) energy charge, inorganic phosphate (Pi); (E) glycerol-3-phosphate (G3P); trehalose-6-phosphate (T6P); (F) glucose-6-phosphate (G6P); glucose-1-phosphate (G1P); (G) malate; (H) ribose-5-phosphate (R5P); ribose-1-phosphate (R1P); (I) fructose-6-phosphate (F6P); fructose-1,6-bisphosphate (F1,6P); (J) 6-phosphogluconate (6PG); phosphoribosyl pyrophosphate (PRPP); (K) alpha-ketoglutarate (alphaKG); (L) phosphoenolpyruvate (PEP); pooled 2 and 3-phosphoglycerate (2/3PG); 1,3-phosphodiglycerate (1,3diPG). Data shown represent the average of at least two independent experiments.