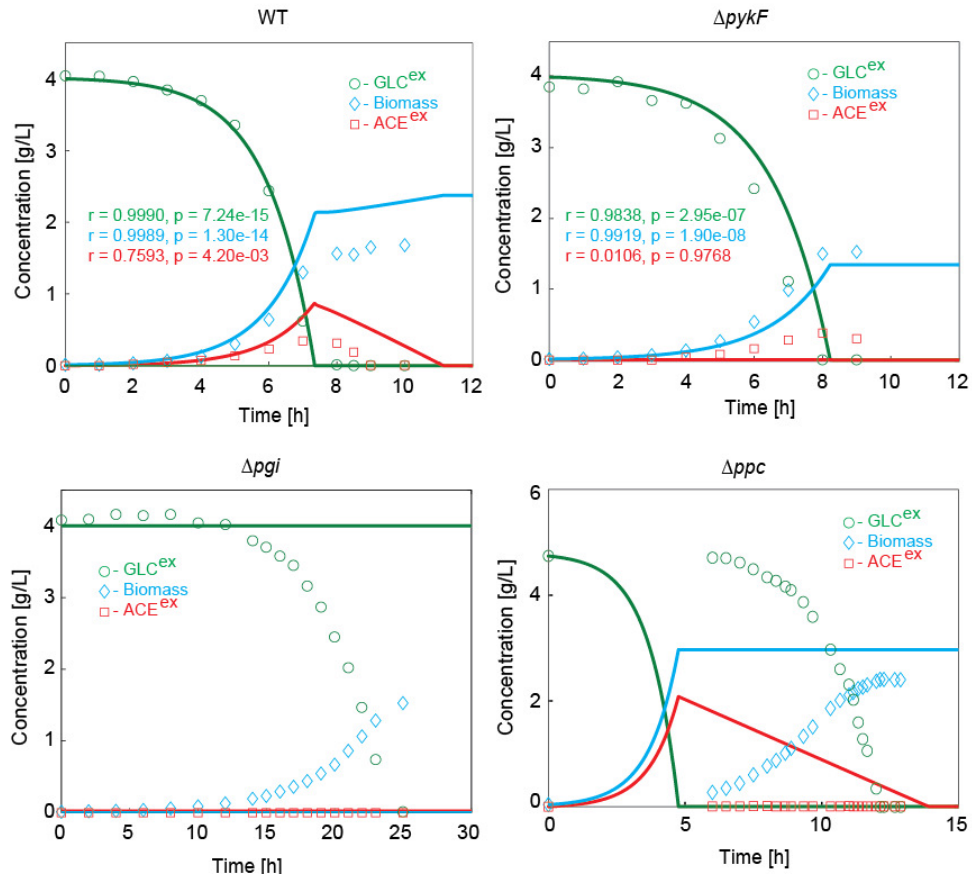
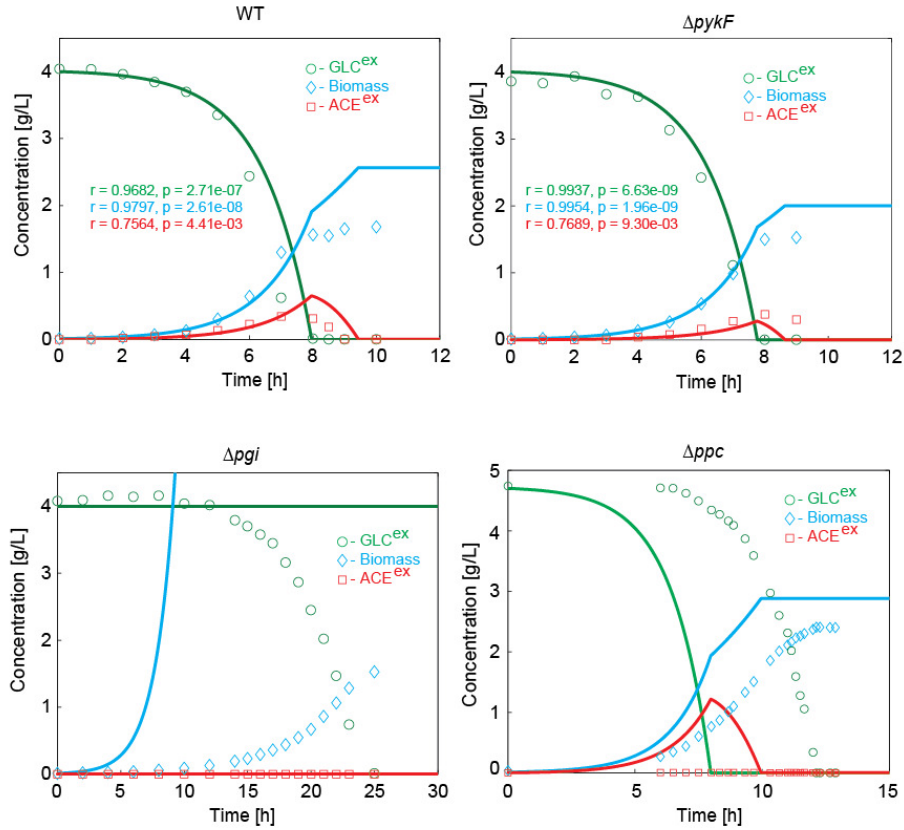


## Comparison of our kinetic model with other existing models



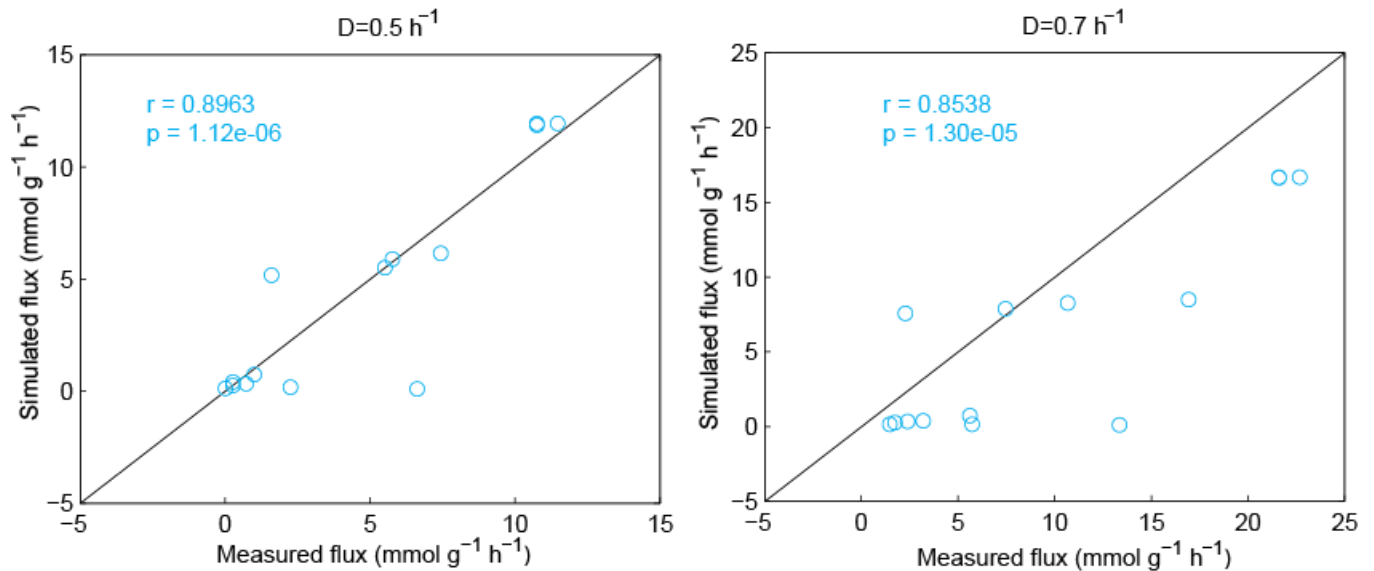
**Figure S13:** Simulated results by the Matsuoka model [1] for WT,  $\Delta pykF$ ,  $\Delta pgi$ , and  $\Delta ppc$  in a batch culture.

The green, blue and red lines represent the simulated results of the extracellular glucose, biomass and acetate, respectively. The corresponding open circles represent the experimental data [2, 3].



**Figure S14:** Simulated results by the Kotte model [4] for WT,  $\Delta pykF$ ,  $\Delta pgi$ , and  $\Delta ppc$  in a batch culture.

The green, blue and red lines represent the simulated results of the extracellular glucose, biomass and acetate, respectively. The corresponding open circles represent the experimental data [2, 3].



**Figure S15:** Comparison of the simulated flux by the Chassagnole model [5] with experimental data [6] for WT in a continuous culture.

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