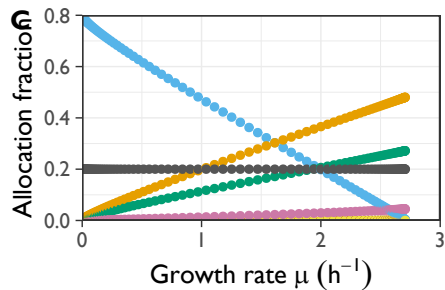
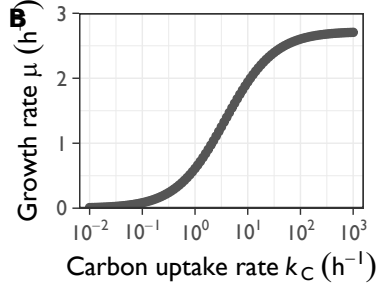
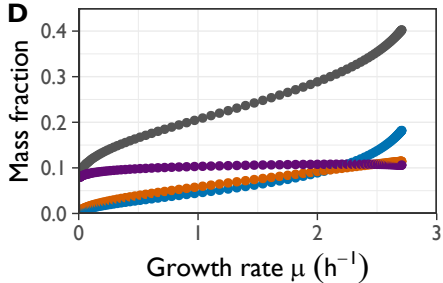


A

Protein

- ribosome R
- amino acid synthesis E_A
- housekeeping Z
- nitrogen uptake E_N
- carbon uptake E_C

B**D**

Metabolite

- total
- carbon c
- amino acid a
- nitrogen n