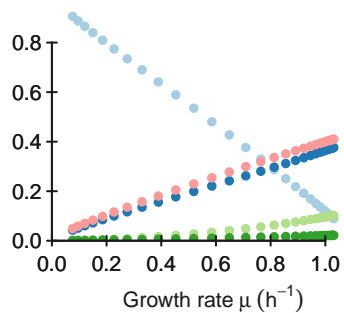
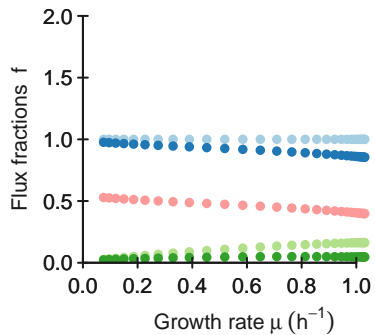
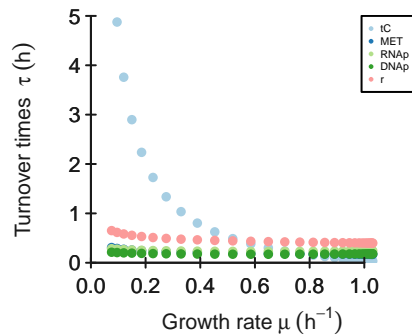
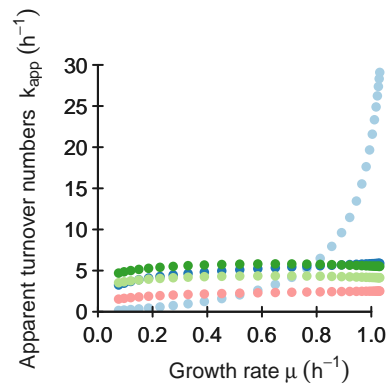
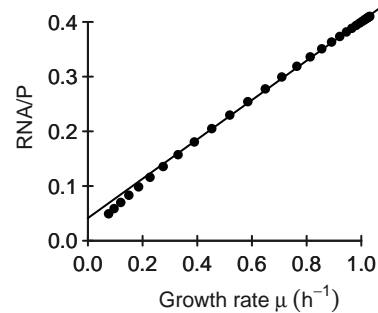
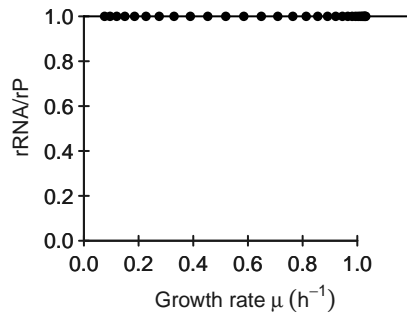


Proteome fractions ϕ Flux fractions f Turnover times τ (h)Apparent turnover numbers k_{app} (h^{-1})

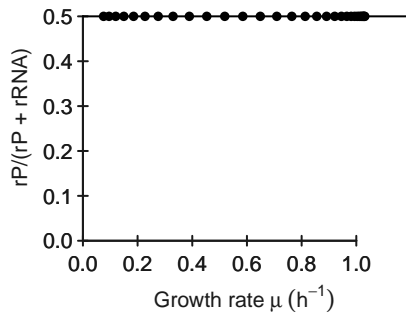
RNA/P



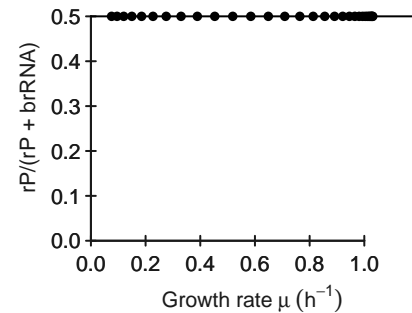
rRNA/rP



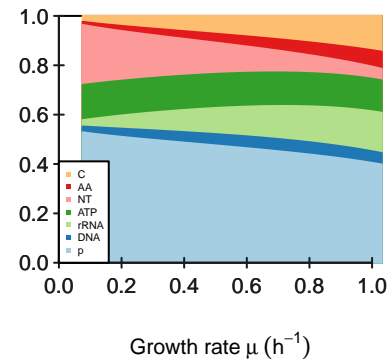
rP/(rP + rRNA)



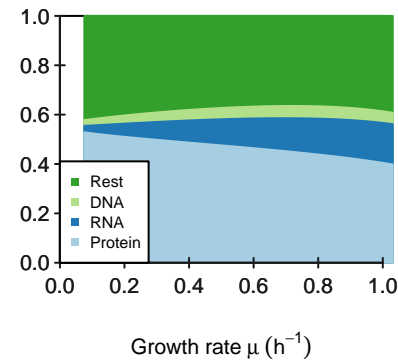
Protein mass fraction in ribosome



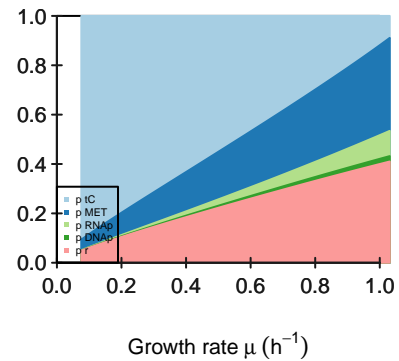
Relative biomass composition



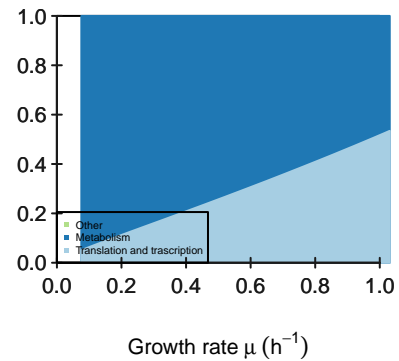
Predicted biomass



Proteome composition



Proteome sectors



keep_ribosome_kcat FALSE
keep_transport_kcat FALSE
maintenance_fun constant

M

| | tC | MET | RNAp | DNAp | r |
|-------------|-----------|------------|-------------|-------------|----------|
| C | 1 | -1 | 0 | 0 | 0 |
| AA | 0 | 0.5 | 0 | 0 | -0.9 |
| NT | 0 | 0.3 | -1 | -1 | 0 |
| ATP | 0 | 0.2 | 0 | 0 | -0.1 |
| rRNA | 0 | 0 | 1 | 0 | 0 |
| DNA | 0 | 0 | 0 | 1 | 0 |
| p | 0 | 0 | 0 | 0 | 1 |

K

| | tC | MET | RNAp | DNAP | r |
|------|-----|-----|------|------|----|
| x_C | 0.1 | 0 | 0 | 0 | 0 |
| C | 0 | 7 | 0 | 0 | 0 |
| AA | 0 | 0 | 0 | 0 | 3 |
| NT | 0 | 0 | 1 | 1 | 0 |
| ATP | 0 | 0 | 0 | 0 | 12 |
| rRNA | 0 | 0 | 0 | 0 | 0 |
| DNA | 0 | 0 | 0 | 0 | 0 |
| p | 0 | 0 | 0 | 0 | 0 |

KA

| | tC | MET | RNAp | DNAp | r |
|------|----|-----|------|------|---|
| x_C | 0 | 0 | 0 | 0 | 0 |
| C | 0 | 0 | 0 | 0 | 0 |
| AA | 0 | 0 | 0 | 0 | 0 |
| NT | 0 | 0 | 0 | 0 | 0 |
| ATP | 0 | 0 | 0 | 0 | 0 |
| rRNA | 0 | 0 | 0 | 0 | 0 |
| DNA | 0 | 0 | 4 | 4 | 0 |
| p | 0 | 0 | 0 | 0 | 0 |

kcat

| | tC | MET | RNAp | DNAp | r |
|--------------|-----------|------------|-------------|-------------|----------|
| kcatf | 32 | 7 | 6 | 8 | 4 |
| kcatb | 0 | 0 | 0 | 0 | 0 |

Keq

| | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|
| [1,] | [,1] | [,2] | [,3] | [,4] | [,5] |
| | Inf | Inf | Inf | Inf | Inf |

phi input

| | [,1] | [,2] | [,3] | [,4] | [,5] |
|-------------|-------------|-------------|-------------|-------------|-------------|
| [1,] | 0.065 | 0.352 | 0.12 | 0.003 | 0.46 |

average saturation input

3

minimal phi constraint

| | | | | | | |
|------|------|------|------|------|------|------|
| | [1,] | [,1] | [,2] | [,3] | [,4] | [,5] |
| [1,] | | 0 | 0 | 0 | 0 | 0 |

minimal f constraint

| | | | | | | |
|------|------|------|------|------|------|------|
| | [1,] | [,1] | [,2] | [,3] | [,4] | [,5] |
| [1,] | 0 | 0 | 0 | 0 | 0 | |