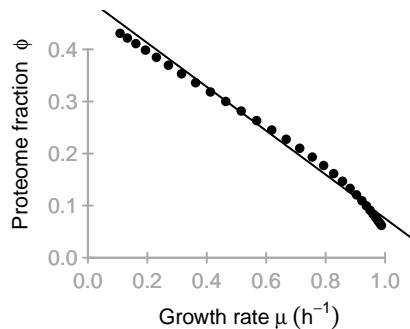
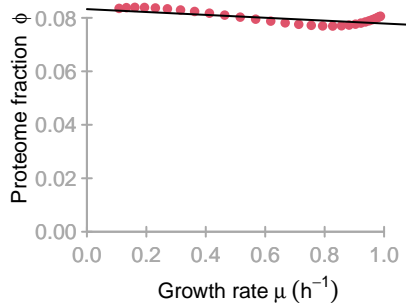


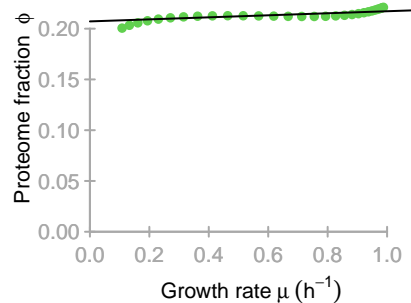
TC

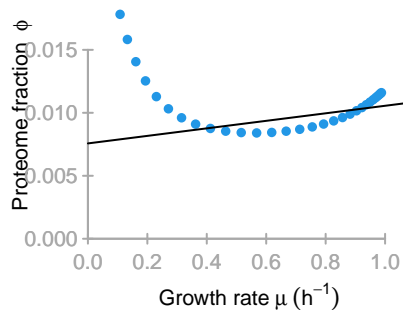
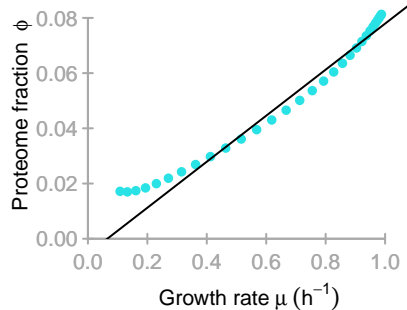
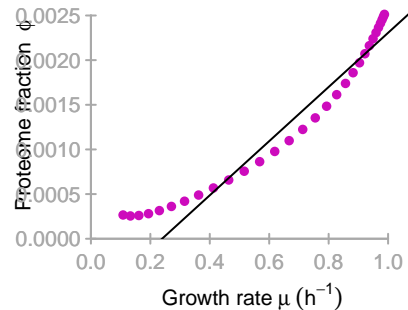
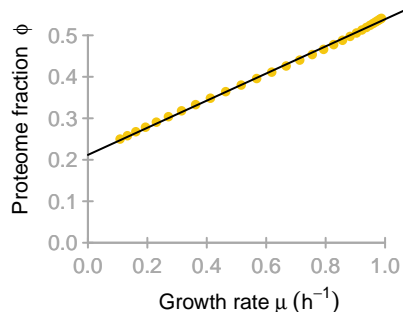
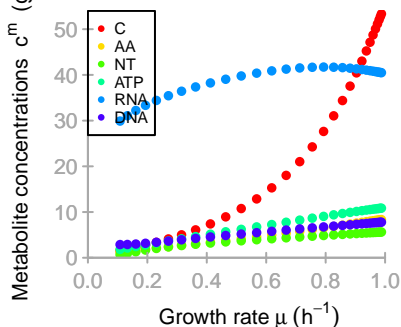
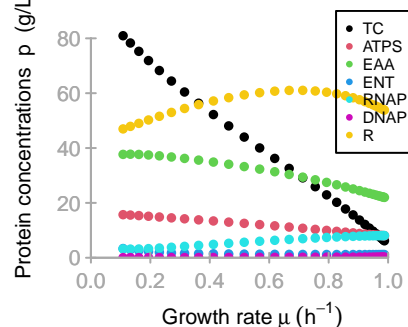


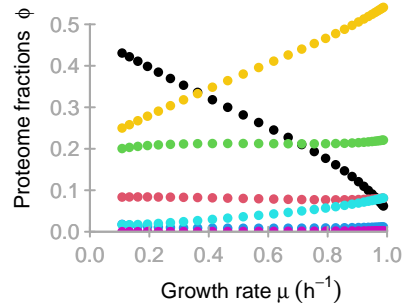
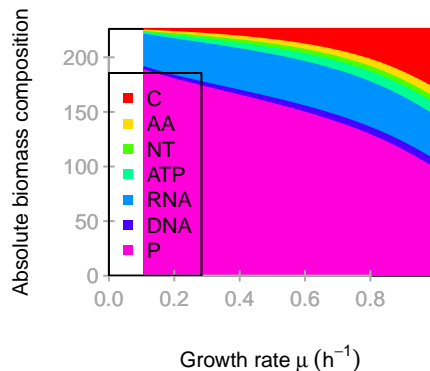
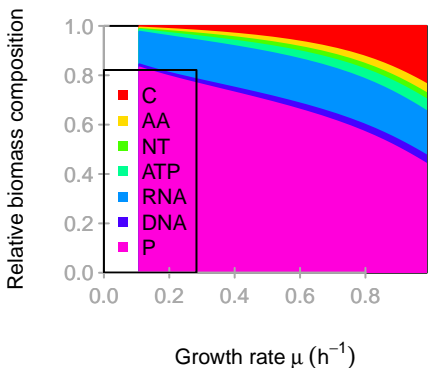
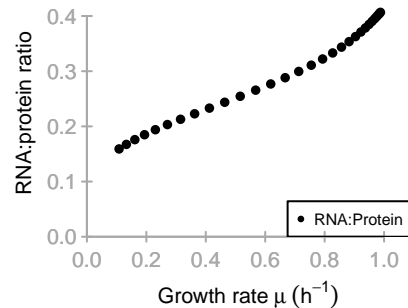
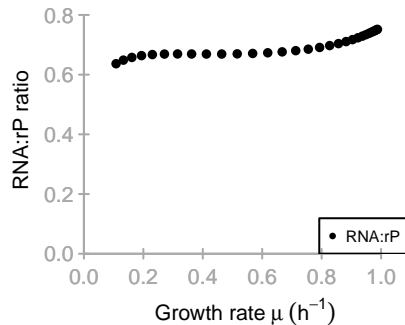
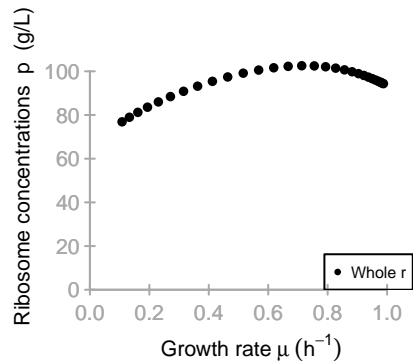
ATPS

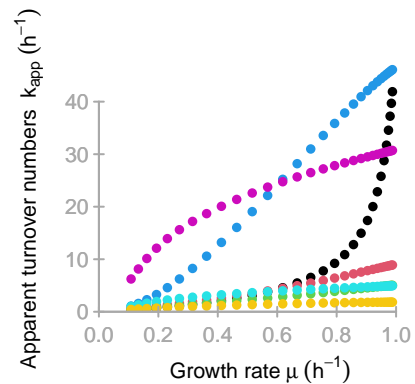
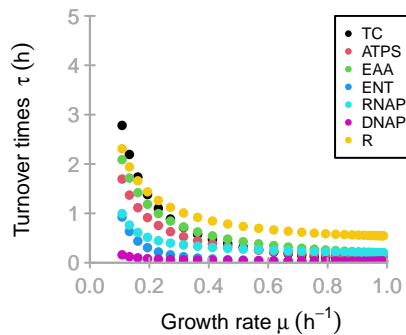
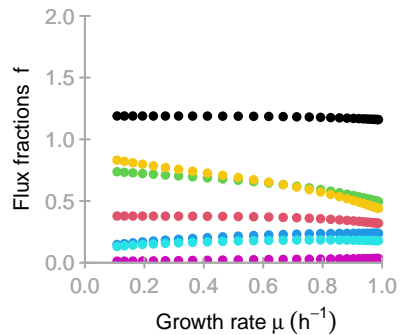


EAA



ENT**RNAP****DNAP****R**Metabolite concentrations c^m (g/L)Protein concentrations p (g/L)





M

| | TC | ATPS | EAA | ENT | RNAP | DNAP | R |
|-----|----|------|-----|-------|------|------|------|
| C | 1 | -1 | -1 | -0.45 | 0 | 0 | 0 |
| AA | 0 | 0 | 1 | -0.45 | 0 | 0 | -0.8 |
| NT | 0 | 0 | 0 | 1 | -1 | -1 | 0 |
| ATP | 0 | 0.5 | 0 | -0.1 | 0 | 0 | -0.2 |
| RNA | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| DNA | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

K

| | TC | ATPS | EAA | ENT | RNAP | DNAP | R |
|-----|----|------|-----|-----|------|------|---|
| x_C | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| x_W | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 36 | 12 | 12 | 12 | 0 | 0 | 0 |
| AA | 0 | 0 | 5 | 2 | 0 | 0 | 2 |
| NT | 0 | 0 | 0 | 5 | 2 | 2 | 0 |
| ATP | 0 | 5 | 0 | 2 | 0 | 0 | 2 |
| RNA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DNA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

KA

| | TC | ATPS | EAA | ENT | RNAP | DNAP | R |
|-----|----|------|-----|-----|------|------|----|
| x_C | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| x_W | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AA | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NT | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ATP | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RNA | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| DNA | 0 | 0 | 0 | 0 | 5 | 5 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

kcat

| | [,1] | [,2] | [,3] | [,4] | [,5] | [,6] | [,7] |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| kcatf | 53.9 | 16.9 | 8.7 | 83.6 | 11 | 68.4 | 4.8 |
| kcatb | 10.8 | 3.4 | 1.7 | 16.7 | 0 | 0 | 0 |

Keq

| [1,] | [,1] | [,2] | [,3] | [,4] | [,5] | [,6] |
|------|-------------------|------------------|------------------|-------------------|------|------|
| | 179.6666666666667 | 2.07107843137255 | 2.13235294117647 | 0.521457085828343 | Inf | Inf |