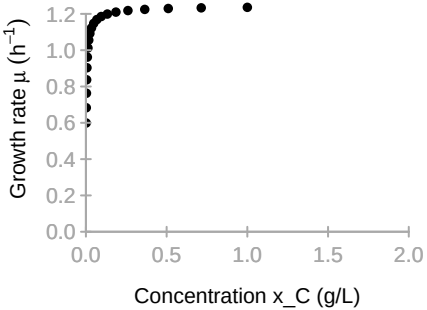
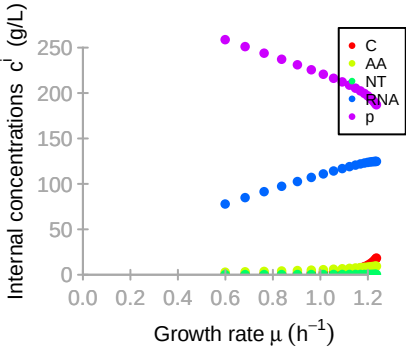
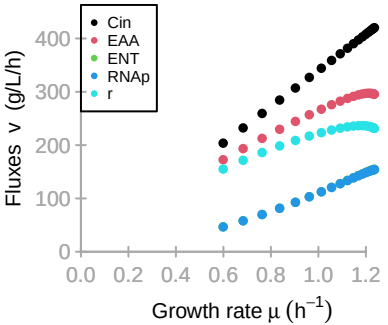
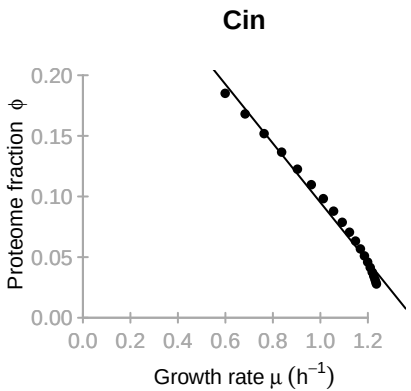
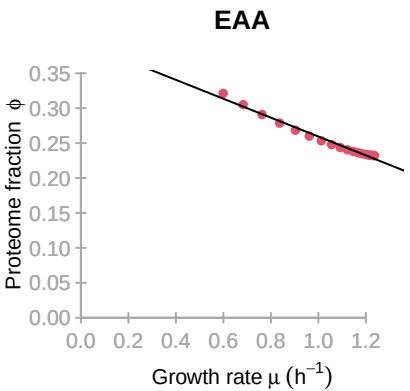
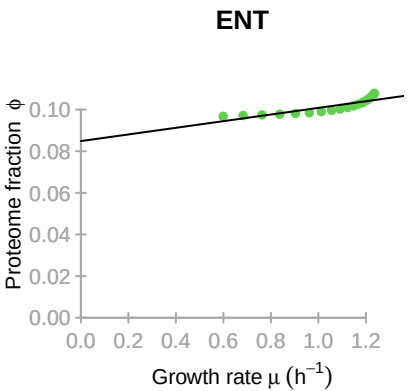

Growth rate μ (h^{-1})
Concentration x_C (g/L)

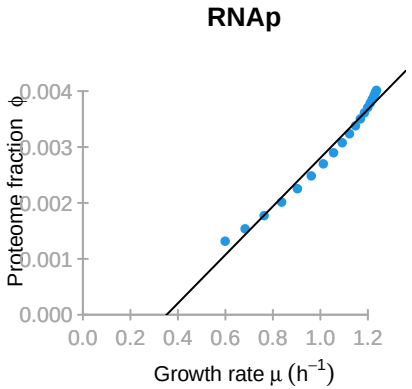

Internal concentrations c^{i} (g/L)
Growth rate μ (h^{-1})
C
AA
NT
RNA
p

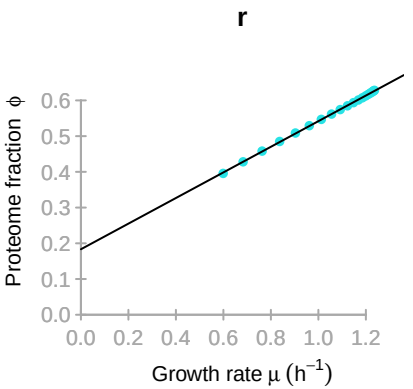

Fluxes v (g/L/h)
Growth rate μ (h^{-1})
Cin
EAA
ENT
RNAp
r

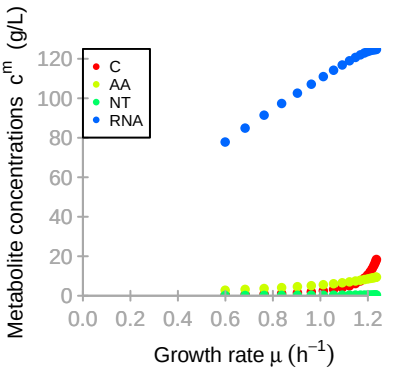

Cin
Proteome fraction ϕ
Growth rate μ (h^{-1})

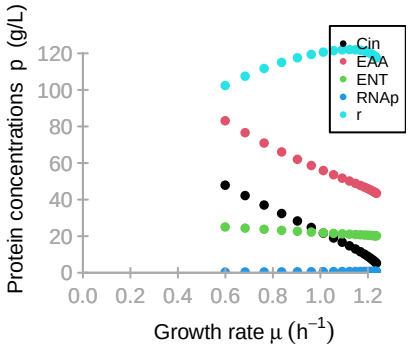

EAA
Proteome fraction ϕ
Growth rate μ (h^{-1})

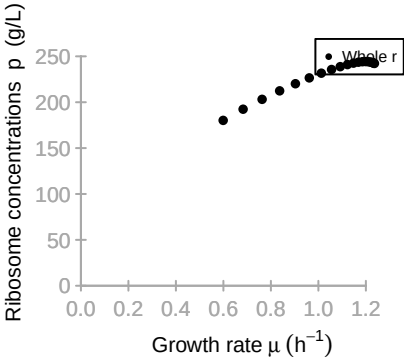

ENT
Proteome fraction ϕ
Growth rate μ (h^{-1})

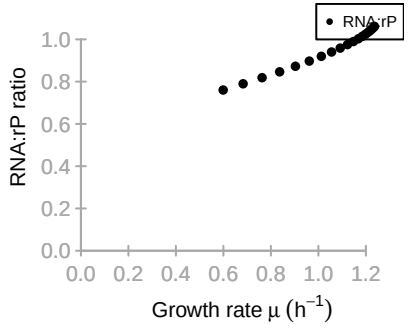

RNAp
Proteome fraction ϕ
0.000
0.001
0.002
0.003
0.004
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)

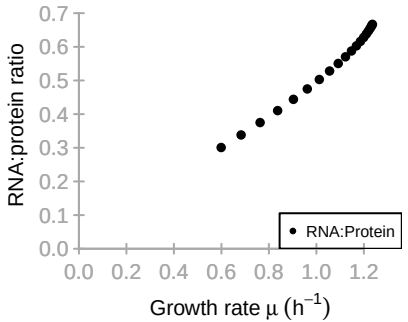

r
Proteome fraction ϕ
0.0 0.1 0.2 0.3 0.4 0.5 0.6
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)

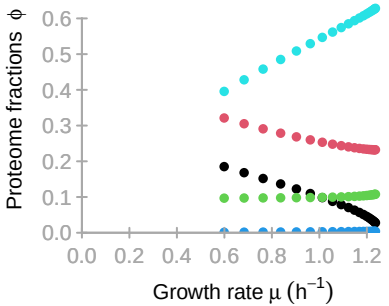

Metabolite concentrations cm (g/L)
C
AA
NT
RNA
0 20 40 60 80 100 120
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)

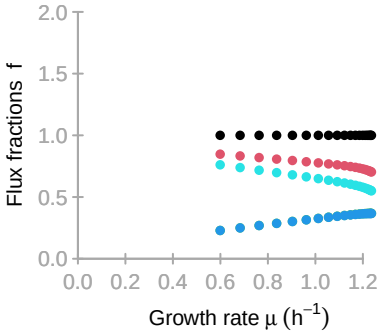

Protein concentrations p (g/L)
Cin
EAA
ENT
RNAp
r
0 20 40 60 80 100 120
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)

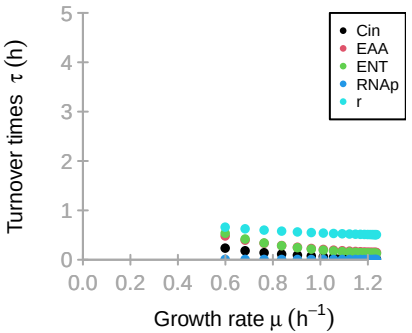

Ribosome concentrations p (g/L)
Whole r
0 50 100 150 200 250
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)

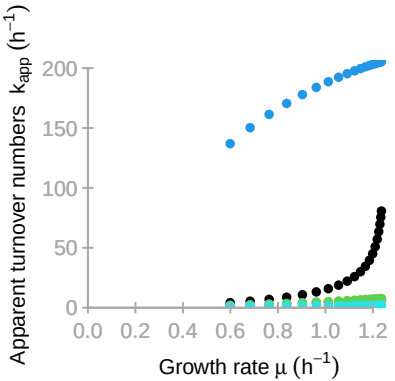

RNA:rP ratio
RNA:rP
0.0 0.2 0.4 0.6 0.8 1.0
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)


RNA:protein ratio
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)
RNA:Protein


Proteome fractions ϕ
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)


Flux fractions f
0.0
0.5
1.0
1.5
2.0
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)


Turnover times τ (h)
0
1
2
3
4
5
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)
Cin
EAA
ENT
RNAp
r


Apparent turnover numbers kapp (h−1)
0
50
100
150
200
0.0 0.2 0.4 0.6 0.8 1.0 1.2
Growth rate μ (h−1)

M

	Cin	EAA	ENT	RNAp	r
C	1	−1	−0.66	0	0
AA	0	1	−0.34	0	−1
NT	0	0	1	−1	0
RNA	0	0	0	1	0
p	0	0	0	0	1

K

	Cin	EAA	ENT	RNAp	r
[1,]	0.01	0	0	0	0
[2,]	1	1	1	0	0
[3,]	0	20	2	0	0.1
[4,]	0	0	20	0.1	0
[5,]	0	0	0	0	0
[6,]	0	0	0	0	0

KA

	Cin	EAA	ENT	RNAp	r
[1,]	0	0	0	0	0
[2,]	0	0	0	0	0
[3,]	0	0	0	0	0
[4,]	0	0	0	0	0
[5,]	0	0	0	0	100
[6,]	0	0	0	0	0

kcat

	[,1]	[,2]	[,3]	[,4]	[,5]
kcatf	100	7.3846	9.8004	260.2688	3.5828
kcatb	20	1.47692	1.96008	0	0

Keq

	[,1]	[,2]	[,3]	[,4]	[,5]
[1,]	500	100	50	Inf	Inf