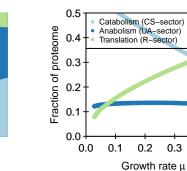


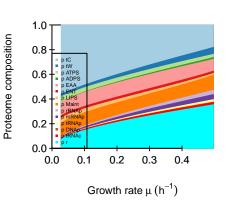
Proteome sectors

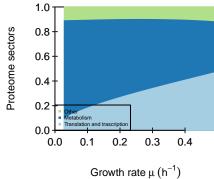
0.2 0.3 0.4 0.5

Growth rate μ (h⁻¹)

0.1







	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
С	1	0	-0.02	0	-1	-0.167	-0.18	0	0	0	0	Ö	0	0
AA	0	0	0	0	1	-0.167	0	0	0	0	0	0	-0.01	0
NT	0	0	0	-1	0	0.334	0	0	-1	-1	-1	-1	0	0
ADP	0	0	-0.98	1	0	0.666	0.82	1	0	0	0	0	0.05	0.05
ATP	0	0	0.98	0	0	-0.666	-0.82	-1	0	0	0	0	-0.05	-0.05
W	0	-1	0.02	0	0	0	0	0	0	0	0	0	0	0
LIP	0	0	0	0	0	0	0.18	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	1	0	0	0	0	0
mRNA	0	0	0	0	0	0	0	0	0	1	0	0	0	0
tRNA	0	0	0	0	0	0	0	0	0	0	1	0	-0.94	0.94
DNA	0	0	0	0	0	0	0	0	0	0	0	1	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0.95	-0.95
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01

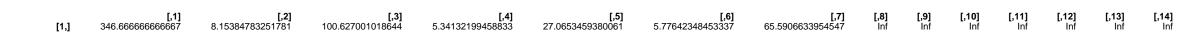
	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
x_C	0.1	0	0	0	0	0	0	0	Ö	Ö	Ō	Ö	0	0
x_W	0	3.655175	0	0	0	0	0	0	0	0	0	0	0	0
С	4	0	2.051875	0	3.98265	1.9911	1.930325	0	0	0	0	0	0	0
AA	0	0	0	0	8.98265	3.9911	0	0	0	0	0	0	3.8228	0
NT	0	0	0	3.23375	0	6.9911	0	0	4.35575	3.677875	3.2244	3.051425	0	0
ADP	0	0	1.551875	1.23375	0	1.9911	1.930325	0	0	0	0	0	0	0
ATP	0	0	4.551875	0	0	2.9911	2.930325	4	0	0	0	0	2.8228	10.12515
W	0	5.155175	7.051875	0	0	0	0	0	0	0	0	0	0	0
LIP	0	0	0	0	0	0	18.430325	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
mRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
tRNA	0	0	0	0	0	0	0	0	0	0	0	0	1.8228	0
DNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0	10.12515
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
x_C	0	0	0	0	0	0	0	0.025	Ō	Ō	Ō	Ō	0	0
x_W	0	0	0	0	0	0	0	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIP	60	60	0	0	0	0	0	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	50
mRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	3
tRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	9	9	9	8	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0

kcat

	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
kcatf	26	23	2246	14	12	217	73	84	10	2	10	16	14679	792
kcatb	3	2	225	1	1	22	7	0	0	0	0	0	0	0

Keq



phi input

[1,]	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]	[,10]	[,11]	[,12]	[,13]	[,14]
	0.089	0.021	0.027	0.005	0.165	0.023	0.031	0.259	0.0426	0.0213	0.0071	0.002	0.023	0.284

average saturation input

minimal phi constraint

ш	13	u	an	•	L

 $\begin{bmatrix} \textbf{1,1} & \textbf{[,2]} & \textbf{[,3]} & \textbf{[,4]} & \textbf{[,5]} & \textbf{[,6]} & \textbf{[,7]} & \textbf{[,8]} & \textbf{[,9]} & \textbf{[,10]} & \textbf{[,11]} & \textbf{[,12]} & \textbf{[,13]} & \textbf{[,14]} \\ \textbf{0} & \textbf{0} \\ \end{bmatrix}$

[1,]

minimal f constraint

[,6] [,7] [,8] [,9] [,10] [,11] [,12] [,13] [,14] 0 0 0 0 0 0



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

[1,]