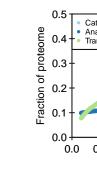


Proteome sectors

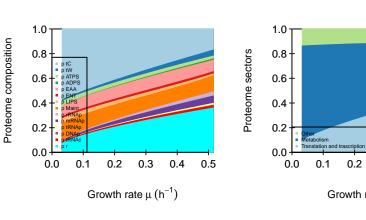


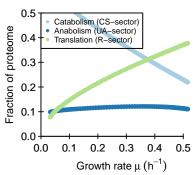
0.2

0.3

Growth rate μ (h⁻¹)

0.4





	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	Ō	Ō	Ō	Ō	0	0
x_W	0	2.36207	0	0	0	0	0	0	0	0	0	0	0	0
С	4	0	1.42075	0	2.19306	1.39644	1.37213	0	0	0	0	0	0	0
AA	0	0	0	0	7.19306	2.39644	0	0	0	0	0	0	2.32912	0
NT	0	0	0	2.0935	0	6.39644	0	0	2.5423	2.27115	2.08976	2.02057	0	0
ADP	0	0	0.92075	1.0935	0	1.39644	1.37213	0	0	0	0	0	0	0
ATP	0	0	3.92075	0	0	1.89644	1.87213	3	0	0	0	0	1.82912	4.75006
W	0	2.86207	6.42075	0	0	0	0	0	0	0	0	0	0	0
LIP	0	0	0	0	0	0	17.87213	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	1.32912	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	4.75006
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	1775	12	11	152	58	75	9	1	9	15	10310	626
kcatb	3	2	178	1	1	15	6	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,]