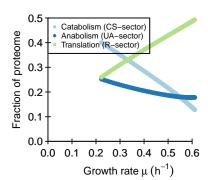
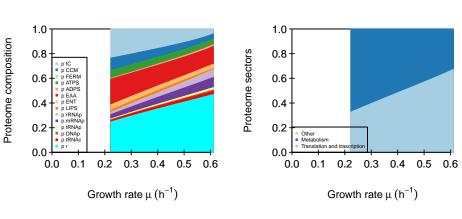


Proteome sectors





	tC	CCM	FERM	ATPS	ADPS	EAA	ENT	LIPS	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
С	1	-1	-0.2	-0.02	0	-0.5	-0.167	0	0	Ō	Ō	Ō	0	0
AA	0	0	0	0	0	1	-0.167	0	0	0	0	0	-0.01	0
NT	0	0	0	0	-1	0	0.334	0	-1	-1	-1	-1	0	0
ADP	0	0	-0.8	-0.98	1	0	0.666	0.82	0	0	0	0	0.05	0.05
ATP	0	0	0.8	0.98	0	0	-0.666	-0.82	0	0	0	0	-0.05	-0.05
CI1	0	1	0	0	0	-0.5	0	-0.18	0	0	0	0	0	0
LIP	0	0	0	0	0	0	0	0.18	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	CCM	FERM	ATPS	ADPS	EAA	ENT	LIPS	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
x_C	0.05	0	0	0	0	0	0	0	Ō	0	0	Ō	0	0
x_W	0	0	5	4.5	0	0	0	0	0	0	0	0	0	0
x_CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
С	10	4	4	3.6	0	4	4	0	0	0	0	0	0	0
AA	0	0	0	0	0	11	4	0	0	0	0	0	4	0
NT	0	0	0	0	4	0	11	0	4	4	4	4	0	0
ADP	0	0	1	0.9	2	0	2	2	0	0	0	0	0	0
ATP	0	0	6	5.4	0	0	2	2	0	0	0	0	2	2
CI1	0	4	0	0	0	2	0	2	0	0	0	0	0	0
LIP	0	0	0	0	0	0	0	31	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	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	2
р	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	tC	CCM	FERM	ATPS	ADPS	EAA	ENT	LIPS	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
x_C	0	0	0	0	0	0	0	0	0	0	Ō	Ō	0	0
x_W	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_CO2	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
CI1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIP	60	0	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	8	8	8	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	CCM	FERM	ATPS	ADPS	EAA	ENT	LIPS	rRNAp	mRNAp	tRNAp	DNAp	tRNAc	r
kcatf	734	20	3320	332	9	10	109	41	7	1	7	10	7351	446
kcath	73	2	332	33	1	1	11	4	0	0	0	0	0	0

Keq

[1,]	[,1] 2010.95890410959	[,2] 10	[,3] 75	[,4] 16.76767676768	[,5] 4.5	[,6] 13.75	[,7] 6.8125	[,8] 158.875	[,9] Inf	[, 10] Inf	[,11] Inf	[, 12] Inf	[,13] Inf	[, 14] Inf	

phi input



[,8] 0.0434782608695652 **[,9]** 0.0597475455820477

0.002805

[,7] 0.032258064516129

[,3] 0.0575035063113605

[,4] 0.0364656381486676

[,5] 0.00701262272089762 **[,6]** 0.231416549789621

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

)I	15	τr	а	Iľ	I	

[,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11] [,12] [,13] [,14] 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

[1,]