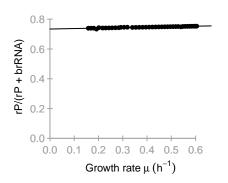
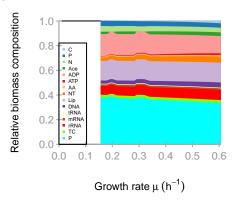
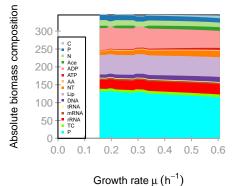
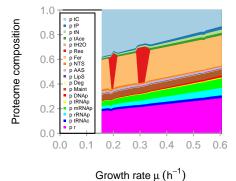


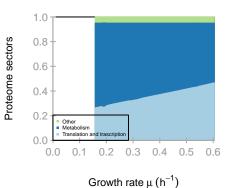
Protein mass fraction in ribosome

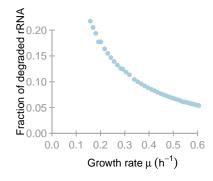












	tC	tP	tN	tAce	tH2O	Res	Fer	NTS	AAS	LipS	Deg	Maint	DNAp	tRNAp	mRNAp	rRNAp	tRNAc	r
С	1	0	0	0	0	-0.2	-0.3	-0.5	-0.76	-0.8	Ō	0	0	0	0	0	0	0
Р	0	1	0	0	0	-0.1	-0.1	-0.2	0	-0.1	0	0	0	0	0	0	0	0
N	0	0	1	0	0	-0.1	-0.1	-0.2	-0.24	-0.1	0	0	0	0	0	0	0	0
Ace	0	0	0	-1	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0
H2O	0	0	0	0	1	-0.1	-0.1	0	0	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	-0.5	-0.4	0.11	0	0	0	1	0	0	0	0	0.1	0.1
ATP	0	0	0	0	0	1	8.0	-0.1	0	0	0	-1	0	0	0	0	-0.1	-0.1
AA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	-0.2	0
NT	0	0	0	0	0	0	0	0.89	0	0	1	0	-1	-1	-1	-1	0	0
Lip	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
tRNA	0	0	0	0	0	0	0	0	0	0	-0.1	0	0	1	0	0	-0.7	0.1
mRNA	0	0	0	0	0	0	0	0	0	0	-0.1	0	0	0	1	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	-0.8	0	0	0	0	1	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	-0.9
P	Ö	Ö	Ö	Ö	Ō	Ö	Ō	Ö	Ö	Ö	Ō	Ō	Ö	Ō	Ō	Ō	0	0.8

	tC	tΡ	tN	tAce	tH2O	Res	Fer	NTS	AAS	LipS 0	Deg	Maint	DNAp	tRNAp	mRNAp	rRNAp	tRNAc	r
x_C	1	0	0	0	0	0	0	0	0	0	Ō	0	0	0	0	0	0	0
x_P	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_N	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_Ace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_Ace x_H2O	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
С	4	0	0	0	0	3.6	4	4	4	4	0	0	0	0	0	0	0	0
P	0	0	0	0	0	1.8	2	2	0	2	0	0	0	0	0	0	0	0
N	0	0	0	0	0	1.8	2	2	2	2	0	0	0	0	0	0	0	0
Ace	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0
Ace H2O	0	0	0	0	0	693.9	771	0	0	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	31.5	35	35	0	0	0	35	0	0	0	0	0	35
ATP	0	0	0	0	0	1.8	2	2	0	0	0	2	0	0	0	0	2	2
AA	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
NT	0	0	0	0	0	0	0	3	0	0	0	0	3	3	3	3	0	0
Lip	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0
DNA	0	0	0	0	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	1	0	0	1	0	0	1	0
mRNA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	0	0
rRNA TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	tC	tP	tN	tAce	tH2O	Res	Fer	NTS	AAS	LipS	Deg	Maint	DNAp	RNAp	mRNAp	rRNAp	tRNAc	r
x_C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_Ace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_H2O	0	0	0	0	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	0	0	0	0
P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ace H2O ADP	0	0	0	0	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	0	0	0	0
ATP	0	0	0	0	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	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lip	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	10	0	0
tRNA	0	0	0	0	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	0	0	0	3
rRNA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
TC	0	0	0	0	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	0	0	0	0

kcat

	tC	tP	tN	tAce	tH2O	Res	Fer	NTS	AAS	LipS	Deg	Maint	DNAp	tRNAp	mRNAp	rRNAp	tRNAc	r
kcatf	22	29	35	11	41625	10	20	323	21	118	10	10	11	152	1	7	201	20
kooth	2	2	4	- 1	4162	- 1	2	22	2	12	0	0	0	0	0	0	0	Λ.

Keq



phi input

[,8] 0.05 **[,9]** 0.05 **[,10]** 0.02 **[,11]** 0.01 **[,12]** 0.2 **[,14]** 0.01

[,13] 0.01 **[,15]** 0.01 **[,16]** 0.02 **[,17]** 0.05 **[,18]** 0.25

[,7] 0.15

[,5] 1e-04

[,6] 0.1

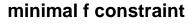
[,4] 0.001

[,3] 0.01

[1,]

average saturation input

minimal	phi	constraint	
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[1,]