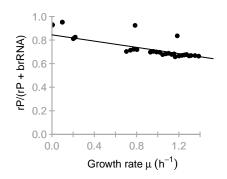
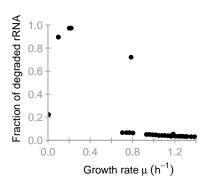
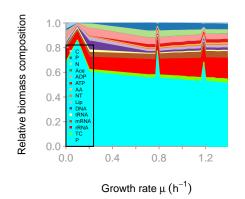
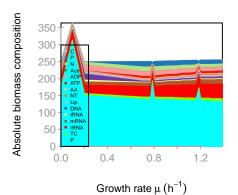


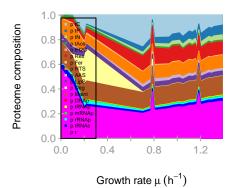
### Protein mass fraction in ribosome

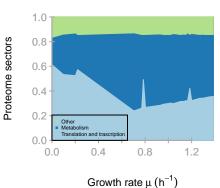












	tC	tP	tN	tAce	tH2O	Res	Fer	NTS	AAS	LipS	Deg	Maint	DNAp	tRNAp	mRNAp	rRNAp	tRNAc	r
С	1	0	0	0	0	-0.002	-0.02	-0.175	-0.76	-0.112	ō	0	Ō	Ö	Ö	Ō	0	0
Р	0	1	0	0	0	-0.124	-0.12	0.046	0	0.102	0	0	0	0	0	0	0.002	0.008
N	0	0	1	0	0	0	0	-0.079	-0.24	-0.004	0	0	0	0	0	0	0	0
Ace	0	0	0	-1	0	0.002	0.02	0	0	0	0	0	0	0	0	0	0	0
H2O	0	0	0	0	1	0.072	0.07	-0.054	0	-0.064	0	0	0	0	0	0	-0.001	-0.004
ADP	0	0	0	0	0	-0.874	0.91	0.657	0	0.774	0	1	0	0	0	0	0.013	0.053
ATP	0	0	0	0	0	0.926	-0.86	-0.692	0	-0.82	0	-1	0	0	0	0	-0.014	-0.057
AA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	-0.005	0
NT	0	0	0	0	0	0	0	0.297	0	0	1	0	-1	-1	-1	-1	0	0
Lip	0	0	0	0	0	0	0	0	0	0.124	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	-0.98	0.934
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	0.985	-0.939
Р	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.005

	tC	tΡ	tN	tAce	tH2O	Res	Fer	NTS	AAS	LipS	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	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
x_H2O	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
С	1	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0
P	0	0	0	0	0	1	1	1	0	10	0	0	0	0	0	0	0	0
N	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0
Ace	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Ace H2O	0	0	0	0	0	800	800	800	0	750	0	0	0	0	0	0	800	800
ADP	0	0	0	0	0	10	10	10	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	1	1	1	0	1	0	1	0	0	0	0	1	1
AA	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	1	0
NT	0	0	0	0	0	0	0	10	0	0	0	0	1	1	1	1	0	0
Lip	0	0	0	0	0	0	0	0	0	30	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	0	0	0	2	0
mRNA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
TC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	Ō	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
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 NT	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	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DNÀ	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

kcatf	<b>[,1]</b>	<b>[,2]</b>	[, <b>3]</b>	<b>[,4]</b>	<b>[,5]</b>	<b>[,6]</b>	<b>[,7]</b>	<b>[,8]</b>	<b>[,9]</b>	[, <b>10]</b>	<b>[,11]</b>	<b>[,12]</b>	[ <b>,13]</b>	<b>[,14]</b>	[, <b>15]</b>	[, <b>16]</b>	<b>[,17]</b>	<b>[,18]</b>
	200	40	40	40	40000	1000	1000	100	100	40	10	10	200	136	96	136	60000	6000
kcatb	20	4	4	2	4000	100	100	10	10	4	0	0	0	0	0	0	0	0

# Keq

[1,]	[ <b>,1]</b> 10	[ <b>,2]</b> 10	<b>[,3]</b> 10	[, <b>4</b> ] 200	<b>[,5]</b> 10	<b>[,6]</b> 800	[ <b>,7]</b> 80000	<b>[,8]</b> 1.25	<b>[,9]</b> 100	[,10] 4	[,11] Inf	[,12] Inf	[,13] Inf	[ <b>,14]</b> Inf	[,15] Inf	[,16] Inf	[ <b>,17]</b> Inf	<b>[,18]</b> Inf

minimal phi coi	nstraint
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[1,]

[,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11] [,12] [,13] [,14] [,15] [,16] [,17] [,18] 0 0 0 0 0.7 0 0 0 0 0 0 0 0 0 0 0 0 0 0

[1,]