





maintenance_fun constant

keep_ribosome_kcat FALSE keep_transport_kcat FALSE

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	RNAp	DNAp	r
С	1	-0.15	-0.1	0	0	0	0	0	Ō	0	0
I	0	0.0833333333333333	0.0833333333333333	0	-1	-0.167	-0.18	0	0	0	0
AA	0	0	0	0	1	-0.167	0	0	0	0	-0.2
NT	0	0	0	-1	0	0.334	0	0	-1	-1	0
ADP	0	-0.85	-0.9	1	0	0.666	0.82	1	0	0	0.8
ATP	0	0.85	0.9	0	0	-0.666	-0.82	-1	0	0	-0.8
LIP	0	0	0	0	0	0	0.18	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	1	0	0
DNA	0	0	0	0	0	0	0	0	0	1	0
р	0	0	0	0	0	0	0	0	0	0	0.2

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	RNAp	DNAp	r
x_C	0.1	0	0	0	0	0	0	0	Ō	Ō	0
x_W	0	20	10	0	0	0	0	0	0	0	0
С	0	6	3	0	0	0	0	0	0	0	0
I	0	0	0	0	2	2	2	0	0	0	0
AA	0	0	0	0	0	4	0	0	0	0	4
NT	0	0	0	4	0	0	0	0	4	4	0
ADP	0	1	0.5	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	2	2	2	0	0	2
LIP	0	0	0	0	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	0	0	0
р	0	0	0	0	0	0	0	0	0	0	0

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	RNAp	DNAp	r
x_C	0	0	0	0	0	0	0	0.015	Ō	Ō	0
x_W	0	0	0	0	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0	0	0	0	0
I	0	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0	0	0	0	0
LIP	10	0	0	0	0	0	0	0	0	0	0
rRNA	0	0	0	0	0	0	0	0	0	0	40
DNA	0	0	0	0	0	0	0	0	4	4	0
р	0	0	0	0	0	0	0	0	0	0	0

kcat

	tC	FERM	RESP	ADPS	EAA	ENT	LIPS	Maint	RNAp	DNAp	r
kcatf	50	2247.5	449.5	19	10	159	58	56	6	15	29
kcatb	0	0	0	0	0	0	0	0	0	0	0

Keq



phi input



average saturation input

minimal phi constraint

.1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10]	1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]	[,10]	[,11]
0 0 0 0 0 0 0.031 0 0	0	0	0	0	0	0	0.031	0	0	O	0

[1,]

minimal f constraint

	[11	[2]	[3]	Γ Δ 1	[5]	[6]	[7 1	181	T 91	[,10]	[11]
[1,]	0	0	0	0	0	0	0	3.85	0	0	0