







	tC	ATPS	ADPS	EAA	ENT	LIPS	RNAp	DNAp	r
С	1	-0.02	0	-1	-0.167	-0.18	Ō	0	0
AA	0	0	0	1	-0.167	0	0	0	-0.2
NT	0	0	-1	0	0.334	0	-1	–1	0
ADP	0	-0.98	1	0	0.666	0.82	0	0	0.8
ATP	0	0.98	0	0	-0.666	-0.82	0	0	-0.8
LIP	0	0	0	0	0	0.18	0	0	0
RNA	0	0	0	0	0	0	1	0	0
DNA	0	0	0	0	0	0	0	1	0
р	0	0	0	0	0	0	0	0	0.2

K

	tC	ATPS	ADPS	EAA	ENT	LIPS	RNAp	DNAp	r
x_C	0.1	0	0	0	0	0	0	0	0
x_W	0	20	0	0	0	0	0	0	0
С	0	9	0	9	9	9	0	0	0
AA	0	0	0	0	2	0	0	0	2
NT	0	0	2	0	0	0	2	2	0
ADP	0	1	0	0	0	0	0	0	0
ATP	0	0	0	0	2	2	0	0	2
LIP	0	0	0	0	0	0	0	0	0
RNA	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	0
р	0	0	0	0	0	0	0	0	0

KA

	tC	ATPS	ADPS	EAA	ENT	LIPS	RNAp	DNAp	r
x_C	0	0	0	0	0	0	Ō	Ō	0
x_W	0	0	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0	0	0
LIP	30	0	0	0	0	0	0	0	0
RNA	0	0	0	0	0	0	0	0	50
DNA	0	0	0	0	0	0	5	5	0
р	0	0	0	0	0	0	0	0	0

kcat

	tC	ATPS	ADPS	EAA	ENT	LIPS	RNAp	DNAp	r
kcatf	14	201	10	41	20	49	6	9	22
kcatb	0	0	0	0	0	0	0	0	0

Keq



phi input

[1,]	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]
	0.147	0.031	0.006	0.043	0.21	0.04	0.11	0.003	0.41

average saturation input

minimal phi constraint

[1,]

minimal f constraint