

maintenance\_fun constant

keep\_ribosome\_kcat FALSE keep\_transport\_kcat FALSE

	tC	GLY	FERM	RESP	ADPS	EAA	ENT	RNAp	DNAp	r
С	1	-0.2	0	0	0	0	-0.167	Ō	0	0
I	0	0.2	-1	-0.019	0	-1	0	0	0	0
AA	0	0	0	0	0	1	-0.167	0	0	-0.2
NT	0	0	0	0	-1	0	0.334	-1	-1	0
ADP	0	-0.8	0	-0.981	1	0	0.666	0	0	0.8
ATP	0	8.0	0	0.981	0	0	-0.666	0	0	-0.8
RNA	0	0	0	0	0	0	0	1	0	0
DNA	0	0	0	0	0	0	0	0	1	0
р	0	0	0	0	0	0	0	0	0	0.2

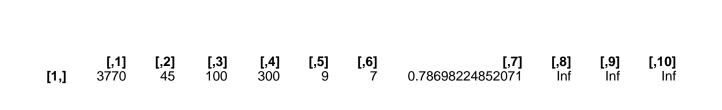
	tC	GLY	FERM	RESP	ADPS	EAA	ENT	RNAp	DNAp	r
x_C	0.1	0	0	0	0	0	0	Ō	Ō	0
$x_W$	0	40	10	20	0	0	0	0	0	0
С	39	0	0	0	0	0	13	0	0	0
I	0	2	1	1	0	1	0	0	0	0
AA	0	0	0	0	0	1	1	0	0	1
NT	0	0	0	0	1	0	1	1	1	0
ADP	0	2	0	1	1	0	1	0	0	0
ATP	0	6	0	3	0	0	1	0	0	1
RNA	0	0	0	0	0	0	0	0	0	0
DNA	0	0	0	0	0	0	0	0	0	0
р	0	0	0	0	0	0	0	0	0	0

	tC	GLY	FERM	RESP	ADPS	EAA	ENT	RNAp	DNAp	r
x_C	0	0	0	0	0	0	0	Ō	Ō	0
$x_W$	0	0	0	0	0	0	0	0	0	0
С	0	0	0	0	0	0	0	0	0	0
I	0	0	0	0	0	0	0	0	0	0
AA	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0
ADP	0	0	0	0	0	0	0	0	0	0
ATP	0	0	0	0	0	0	0	0	0	0
RNA	0	0	0	0	0	0	0	0	0	40
DNA	0	0	0	0	0	0	0	4	4	0
р	0	0	0	0	0	0	0	0	0	0

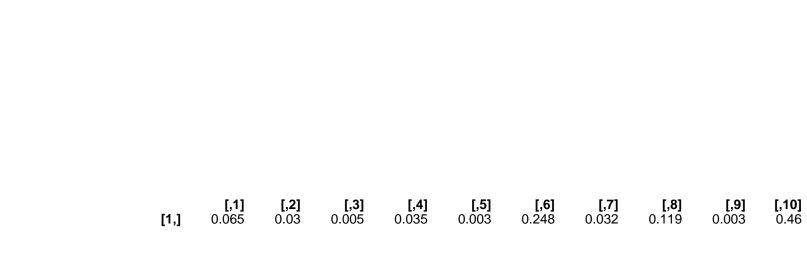
#### kcat

	tC	GLY	FERM	RESP	ADPS	EAA	ENT	RNAp	DNAp	r
kcatf	29	15	250	5	9	7	133	6	13	19
kcatb	3	2	25	1	1	1	13	0	0	0

# Keq



## phi input



### average saturation input

## minimal phi constraint

[1,]

### minimal f constraint

[1,]

**[,10]** 0