

Parameter	Description	Value	Source
C_{AMO}	Maximal transcription rate	0.08 min^{-1}	[11]
d_{mRNA_amo}	mRNA_amo degradation rate	0.005 min^{-1}	[10]
v_{amo}	Maximal translation rate	0.96 min^{-1}	[10]
k_1	Complex $AMO:chlor$ formation reaction rate	$2 (\mu\text{M}\cdot\text{min})^{-1}$	Assumed
k_{-1}	Complex $AMO:chlor$ reverse rate constant	1 min^{-1}	Assumed
k_2	Complex $factor:COCl_2$ formation reaction rate	$2 (\mu\text{M}\cdot\text{min})^{-1}$	Assumed
k_{-2}	Complex $factor:COCl_2$ reverse rate constant	1 min^{-1}	Assumed
k_{COCl_2}	$COCl_2$ formation rate constant	1 min^{-1}	Assumed
$d_{AMO:chlor}$	$AMO:chlor$ degradation rate	0.002 min^{-1}	[10]
d_{AMO}	AMO degradation rate	0.02 min^{-1}	[10]
P	Permeability coefficient	0.24 cm/h	[15]
A_{int}	Interface surface	0.206 m^2	[3]
V_{cell}	Total volume of cells	0.04 ml	Estimated
C_{factor}	Maximal transcription rate	0.08 min^{-1}	[11]
d_{mRNA_factor}	mRNA_factor degradation rate	0.005 min^{-1}	[10]
v_{factor}	Maximal translation rate	0.96 min^{-1}	[10]
k_3	Complex: $poly$ formation reaction rate	$2 (\mu\text{M}\cdot\text{min})^{-1}$	Assumed
k_{-3}	Complex: $poly$ reverse rate constant	1 min^{-1}	Assumed
k_4	Complex: $promoter$ formation reaction rate	$2 (\mu\text{M}\cdot\text{min})^{-1}$	Assumed
k_{-4}	Complex: $promoter$ reverse rate	1 min^{-1}	Assumed
k_I	Non-active factor formation rate	$1 \cdot 10^{10} (\text{M}\cdot\text{min})^{-1}$	Assumed
k_{-I}	Non-active factor reverse rate	1 min^{-1}	Assumed
d_{fH}	Non-active factor degradation rate	0.005 min^{-1}	[10]
$d_{factor:COCl_2}$	factor: $COCl_2$ degradation rate	0.002 min^{-1}	[10]
$d_{complex:poly}$	complex: $poly$ degradation rate	0.002 min^{-1}	[10]
$d_{complex:promotor}$	complex: $promotor$ degradation rate	0.002 min^{-1}	[10]
C_{GFP}	maximal transcription rate	0.08 min^{-1}	[12]
d_{mGFP}	mRNA _{GFP} degradation rate	$1.65 \cdot 10^{-3} \text{ min}^{-1}$	[13]
v_{GFPim}	Maximal translation rate	0.24 min^{-1}	[10]
k_5	Equilibrium GFP _{mis} -GFP constant forward rate	5 min^{-1}	Assumed
k_{-5}	Equilibrium GFP _{mis} -GFP constant reverse rate	1 min^{-1}	Assumed
k_{mis}	GFP _{mis} formation rate	1 min^{-1}	Assumed

<i>Parameter</i>	<i>Description</i>	<i>Value</i>	<i>Source</i>
k_{fold}	GFP formation rate	2 min^{-1}	Assumed
d_{GFPim}	GFP_{im} degradation rate	$2.14 \cdot 10^{-4} \text{ min}^{-1}$	[10]
d_{mis}	GFP_{mis} degradation rate	$2.14 \cdot 10^{-4} \text{ min}^{-1}$	[10]
d_{GFP}	GFP degradation rate	$2.14 \cdot 10^{-4} \text{ min}^{-1}$	[10]
k_{Dg}	Mass transfer coefficient from bulk to gas.	$2.48 \cdot 10^{-3} \text{ L/s}$	Estimated
m_g	Equilibrium constant bulk-gas	$0.4533 \frac{\text{M}_{\text{bulk}}}{\text{M}_{\text{gas phase}}}$	Estimated
V_g	Gas volume	10 ml	Experimental
V_b	Bulk volume	40 ml	Experimental
DNAamo	Concentration of DNA coding AMO in the cell	0.06 μM	[3]
DNAfactor	Concentration of DNA coding sigma70 factor	0.06 μM	[3]
Promoter	Concentration of mbla in the cell	0.06 μM	[3]
poly	Concentration of RNA polymerasa in the cell	0.239 μM	[3]
a	Inhibition parameter	5.37	Estimated
b	Inhibition parameter	0.41	Estimated
c	Inhibition parameter	4.14	Estimated