

reaction name	reaction	kinetic law	mathematical form
mRNA _{amo} transcription	DNA _{amo} → mRNA _{amo}	mass action	C _{amo} · DNA _{amo}
mRNA _{factor} transcription	DNA _{factor} → mRNA _{factor}	mass action	C _{factor} · DNA _{factor}
mRNA _{GFP} transcription	complex:promoter → mRNA _{GFP}	mass action	C _{GFP} · [complex:promoter]
AMO protein translation	mRNA _{amo} → AMO	mass action	v _{amo} · [mRNA _{amo}]
factor translation	mRNA _{factor} → factor	mass action	v _{factor} · [mRNA _{factor}]
GFP (immature) translation	mRNA _{GFP} → GFP _{im}	mass action	v _{GFPim} · [mRNA _{GFP}]
complex AMO:chlor formation	AMO + chlor ↔ AMO:chlor	mass action	k ₁ · [AMO] · [chlor] - k ₋₁ · [AMO:chlor]
COCl ₂ formation	complex AMO:chlor → AMO + COCl ₂	mass action	k _{COCl2} · [AMO:chlor]
complex factor:COCl ₂ formation	factor + COCl ₂ ↔ factor:COCl ₂	mass action	k ₂ · [factor] · [COCl ₂] - k ₋₂ · [factor:COCl ₂]
Complex_poly formation	factor:COCl ₂ + Polymerase ↔ complex_poly	mass action	k ₃ · [factor:COCl ₂] - k ₋₃ · [complex_poly]
Complex_promoter formation	Complex_poly + mbla ↔ complex_promoter	mass action	k ₄ · [complex_poly] · [mbla] - k ₋₄ · [complex_promoter]
GFP protein formation	GFP _{im} → GFP	mass action	k _{fold} · [GFP _{im}]
GFP(misfold) formation	GFP _{im} → GFP _{mis}	mass action	k _{mis} · [GFP _{im}]
inhibited complex formation	factor (pH inhibition) → factor _{mis}	mass action	k ₁ · [factor] · (1 + 10 ^{a · pH} + 10 ^{b · pH - c}) - k ₋₁ · [factor _{mis}]
mRNA _{amo} degradation	mRNA _{amo} →	mass action	d _{mRNAamo} · [mRNA _{amo}]
AMO protein degradation	AMO →	mass action	d _{AMO} · [RNA]
complex AMO:chlor degradation	AMO:chlor →	mass action	d _{AMO:chlor} · [AMO:chlor]
mRNA _{factor} degradation	mRNA _{factor} →	mass action	d _{mRNAfactor} · [mRNA _{factor}]
factor degradation	factor →	mass action	d _{factor} · [factor]
complex factor:COCl ₂ degradation	factor:COCl ₂ →	mass action	d _{factor:COCl2} · [factor:COCl ₂]
Complex_poly degradation	Complex_poly →	mass action	d _{complex:poly} · [complex_poly]
Complex_promoter degradation	Complex_promoter →	mass action	d _{complex:promoter} · [complex_promoter]
mRNA _{GFP} degradation	mRNA _{GFP} →	mass action	d _{mGFP} · [mRNA _{GFP}]
GFP (immature) degradation	GFP _{im} →	mass action	d _{GFPim} · [GFP _{im}]
GFP (misfold) degradation	GFP _{mis} →	mass action	d _{GFPmis} · [GFP _{mis}]
GFP protein degradation	GFP →	mass action	d _{GFP} · [GFP]
Misfolded factor degradation	factor _{mis} →	mass action	d _{TH} · [factor _{mis}]
equilibrium between GFP protein and GFP misfolded	GFP _{im} ↔ GFP	mass action	k ₅ · [GFP] - k ₋₅ · [GFP _{mis}]