

parameter	description	value
b_I	max rate of LuxI synthesis	0.8
b_A	max rate of AiiA synthesis	2
b_T	max rate of TetR synthesis	0.6
b_H	max rate of AHL synthesis	0.3
σ	leakiness	0.0001
K_1	activation coefficient of LuxR	0.3
K_2	repression coefficient of TetR	0.4
τ	time period from beginning of transcription to end of protein maturation	20
d_I	LuxI degradation rate	0.5
d_A	AiiA degradation rate	0.5
d_T	TetR degradation rate	0.01
d_H	AHL degradation rate	0.03
γ_H	degradation coefficient of AHL	0.3
g	Michaelis-Menten coefficient	2
S	diffusion rate of AHL through cell membrane	2.5
D	diffusion constant	0.024