

Table 1. Effect of system property modifications on Y_A/W_A

System property	Means of modification	Parameters changed in original system	Parameters changed in rescaled system
I protein (i_A) translational efficiency	RBS strength	h_{A0}, h_A, h_{AB}	R_A
I protein (i_A) degradation	LVA tail	d_{iA}	$q_A, q_B, l_{SA}, l_{SB}, l_{IB}, R_A$
Acyl-HSL (s) decay	pH	d_{sA}, d_{sB}	l_{SA}, l_{SB}
R protein expression (in Circuit A)	RBS strength or LVA tail	a_A, a_{AB}	q_B, K_{AB}, K_{BA}
R protein expression (in Circuit B)	RBS strength or LVA tail	a_B, a_{BA}	q_A, K_{AB}, K_{BA}
Acyl-HSL synthesis rate	Temperature	f_A, f_B, c_A, c_B	q_A, q_B, R_A, R_B