final_simplex: (array([[6.18047086e+02, 1.62788566e+04, 1.30065379e+03, 1.09654125e+00,
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6.83835638e+02, 3.24643802e+04, 4.73376905e-04, 7.03926960e+00,
6.32148081e-01, 9.72768210e-01, 2.64017386e+00, 1.91933916e+00],
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6.83835638e+02, 3.24643802e+04, 4.73376960e-04, 7.03926960e+00,
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6.32148081e-01, 9.72768210e-01, 2.64017386e+00, 1.91933916e+00],
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6.32148081e-01, 9.72768210e-01, 2.64017386e+00, 1.91933916e+00],
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6.83835638e+02, 3.24643802e+04, 4.73376905e-04, 7.03926960e+00,
6.32148081e-01, 9.72768210e-01, 2.64017386e+00, 1.91933916e+00],
[6.18047086e+02, 1.62788566e+04, 1.30065379e+03, 1.09654125e+00,
5.66927212e+03, 1.50521324e+04, 9.67394124e-04, 1.43662483e+00,
6.83835638e+02, 3.24643802e+04, 4.73376905e-04, 7.03926960e+00,
6.32148081e-01, 9.72768210e-01, 2.64017386e+00, 1.91933916e+00]]), array([0.15873254, 0.15873254, 0.15873254, 0.15873254, 0.15873254,
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0.15873254, 0.15873254, 0.15873254, 0.15873254,
0.15873254, 0.15873254]))
fun: 0.15873254068697146
message: 'Optimization terminated successfully.'
nfev: 2354
nit: 1579
status: 0
success: True
x: array([6.18047086e+02, 1.62788566e+04, 1.30065379e+03, 1.09654125e+00,
5.66927212e+03, 1.50521324e+04, 9.67394127e-04, 1.43662483e+00,
6.83835638e+02, 3.24643802e+04, 4.73376905e-04, 7.03926960e+00,
6.32148081e-01, 9.72768210e-01, 2.64017386e+00, 1.91933916e+00])

['SM data type data plots for mutation', 'Regulator68']

inducer -> sensor (GFP output)

inducer -> S_r (RFP output)

inducer -> S -| Output (GFP)

Full circuit with stripe

Legend: Initial Guess, Converged, Converged, Converged, Converged

Across all four plots:

RSS (converged)=0.159

RSS (initial)=3.419

RSS (% reduction)=0.956

	epsilon	Initial_guesses	Converged
A_s	0.000000	618.047086	618.047086
B_s	0.000000	16278.856600	16278.856600
C_s	0.000000	1300.653790	1300.653790
N_s	0.000000	1.096541	1.096541
A_r	3753.096513	1916.175610	5669.272123
B_r	-3822.108380	18874.240800	15052.132420
C_r	-0.008063	0.009030	0.000967
N_r	0.616191	0.820433	1.436625
A_h	0.000000	683.835638	683.835638
B_h	0.000000	32464.380200	32464.380200
C_h	0.000000	0.000473	0.000473
F_o	4.217918	2.821352	7.039270
A_o	0.000000	0.632148	0.632148
B_o	0.000000	0.972768	0.972768
C_o	0.000000	2.640174	2.640174
N_o	0.000000	1.919339	1.919339