

 10^{-4}

 10^{-4}

 10^{-3}

Full circuit with stripe

10⁻³

 10^{-2}

 10^{-2}

 10^{-1}

 10^{-1}

message: Optimization terminated successfully.

 4×10^3 3×10^3

 6×10^{3}

 4×10^{3}

 3×10^{3}

 2×10^{3}

10-5

10⁻⁵

Across all four plots:

 10^{-4}

 10^{-4}

 10^{-3}

inducer -> S -| Output (GFP)

 10^{-2}

 10^{-2}

 10^{-1}

 10^{-1}

 10^{3}

 10^{4}

 10^{3}

 10^{-5}

RSS (converged)=1.951

 10^{-3}

RSS (initial)=3.253

RSS (% reduction)=0.625

```
epsilon Initial guesses
                              Converged
                                                   success: True
A s 0.000000e+00
                   6.599635e+02 6.599635e+02
                                                   status: 0
B s 0.000000e+00
                   1.634714e+04 1.634714e+04
                                                     fun: 1.9510759911241236
C s 0.000000e+00
                    1.259256e+03 1.259256e+03
                                                      x: [ 6.600e+02 1.635e+04 ... 2.721e+00 1.250e+00]
N s 0.000000e+00
                    1.160440e+00 1.160440e+00
                                                     nit: 2835
A r 2.309387e+03
                   1.998310e+03 4.307697e+03
                                                    nfev: 4457
                   2.040009e+11 7.028201e+11 final simplex: (array([[ 6.600e+02, 1.635e+04, ..., 2.721e+00,
Br 4.988193e+11
C r-2.771583e+06
                   2.771808e+06 2.246829e+02
                                                             1.250e+001,
N r 7.481116e-01
                   8.375226e-01 1.585634e+00
                                                            [6.600e+02, 1.635e+04, ..., 2.721e+00,
A h 0.000000e+00
                    5.477878e-06 5.477878e-06
                                                             1.250e+00],
B h 0.000000e+00
                    6.710814e+04 6.710814e+04
C h 0.000000e+00
                    1.412943e-03 1.412943e-03
                                                            [6.600e+02, 1.635e+04, ..., 2.721e+00,
                    5.414338e+07 5.414338e+07
A o 0.000000e+00
                                                             1.250e+00],
B o 0.000000e+00
                    2.126439e+00 2.126439e+00
                                                            [6.600e+02, 1.635e+04, ..., 2.721e+00,
C o 0.000000e+00
                    2.720605e+00 2.720605e+00
                                                             1.250e+00]), array([ 1.951e+00, 1.951e+00, ..., 1.951e+00, 1.951e+00]))
N_o 0.000000e+00
                    1.250443e+00 1.250443e+00
```