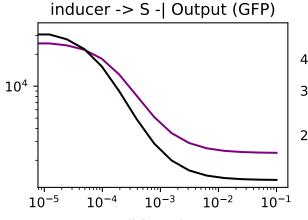
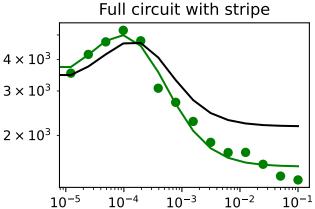
['SM data type data plots for mutation', 'Sensor2', 'using model:', 'model'] **Initial Guess** inducer -> sensor (GFP output) inducer -> S - IR (GFP output) Converged 6×10^3 Converged Converged 10^{4} 4×10^{3} Converged 3×10^{3} 2×10^{3} 10^{3} 10³ time elapsed for this fit --- 16.974259853363037 seconds --- 10^{-3} 10^{-3} 10^{-2} 10^{-4} 10^{-2} 10^{-4} 10^{-1} 10^{-5} 10^{-1}





Across all four plots:

RSS (converged)=0.12

RSS (initial)=0.295

RSS (% reduction)=0.711

```
epsilon Initial guesses
                                  Converged
                                                     message: Optimization terminated successfully.
A_s
      0.000000
                   650.714912
                                650.714912
                                                     success: True
      0.000000
                  16259.979950 16259.979950
                                                      status: 0
C_s
      0.000000
                  1296.448889
                               1296.448889
                                                        fun: 0.1197352048915372
      0.000000
                    1.154067
                                1.154067
                                                         x: [ 6.507e+02 1.626e+04 ... 1.372e+00 7.530e-01]
   -1335.820745
                    2020.019216 684.198471
                                                        nit: 6595
B r -14995.993692
                    23688.809187 8692.815495
                                                       nfev: 8921
     -0.004108
                    0.010358
                                0.006250
                                                  final simplex: (array([[ 6.507e+02, 1.626e+04, ..., 1.372e+00,
      0.683801
                    0.910072
                                1.593873
                                                                7.530e-011,
A h -143.788059
                    143.802212
                                   0.014154
                                                               [6.507e+02, 1.626e+04, ..., 1.372e+00,
                    50238.271408 29944.603464
B h -20293.667944
                                                                7.530e-01],
C h
      -0.000558
                    0.000929
                                 0.000371
                                                               [6.507e+02, 1.626e+04, ..., 1.372e+00,
      0.752950
                    1.673894
                                2.426844
Αо
      0.300063
                    0.895342
                                1.195405
Во
                                                                7.530e-01],
                                                               [6.507e+02, 1.626e+04, ..., 1.372e+00,
Со
                    2.657699
      4.440547
                                7.098246
                    1.379953
                                 1.372010
                                                                7.530e-01]), array([ 1.197e-01, 1.197e-01, ..., 1.197e-01, 1.197e-01]))
      -0.007943
      -1.608237
                    2.361284
                                0.753046
```