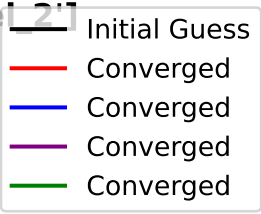
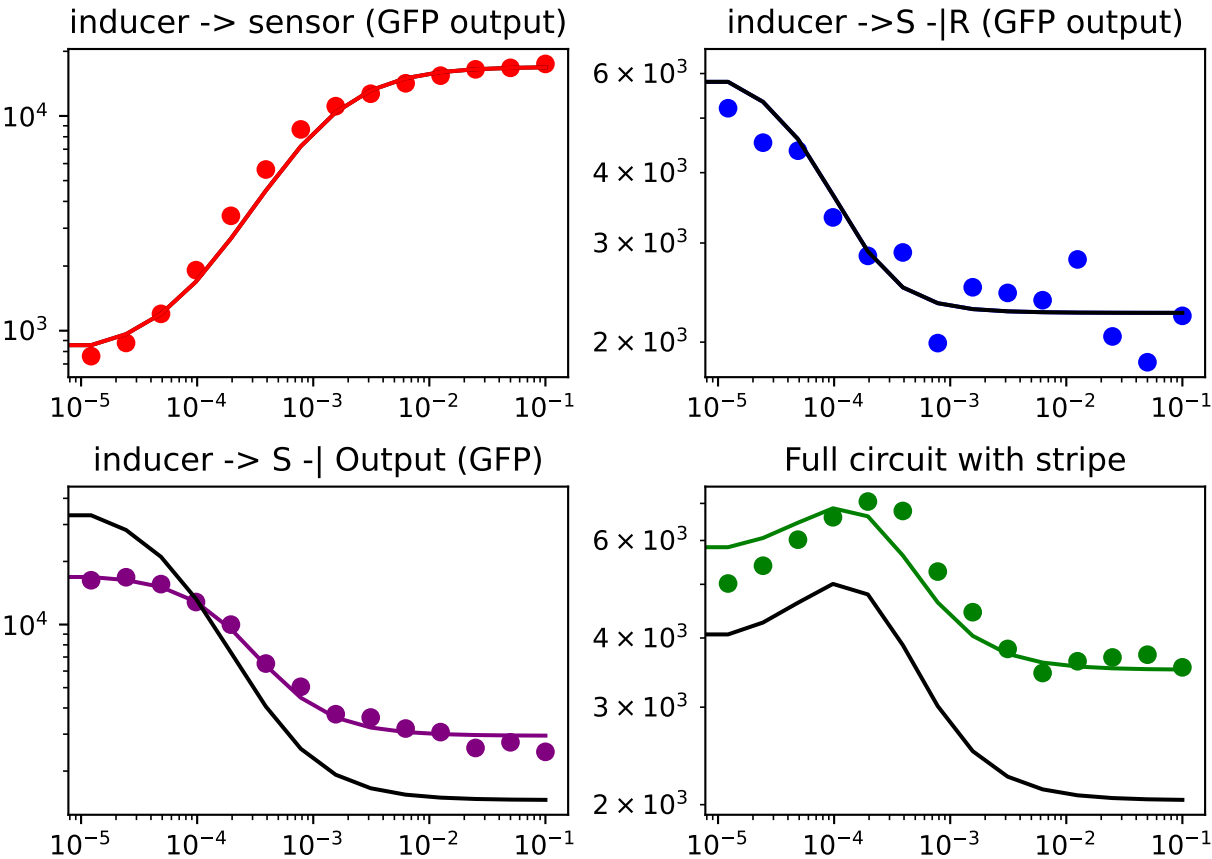


['SM data type data plots for mutation', 'Output8', 'using model:', 'model\_hill.model']



time elapsed for this fit  
--- 13.70864200592041 seconds ---

Across all four plots:

RSS (converged)=0.128

RSS (initial)=1.708

RSS (% reduction)=0.93

|     | epsilon       | Initial_guesses | Converged    |
|-----|---------------|-----------------|--------------|
| A_s | 0.000000e+00  | 7.671584e+02    | 767.158409   |
| B_s | 0.000000e+00  | 1.694202e+04    | 16942.019302 |
| C_s | 0.000000e+00  | 8.969736e+02    | 896.973585   |
| N_s | 0.000000e+00  | 1.151182e+00    | 1.151182     |
| A_r | 0.000000e+00  | 2.229804e+03    | 2229.803862  |
| B_r | 0.000000e+00  | 8.961652e+03    | 8961.651645  |
| C_r | 0.000000e+00  | 1.461384e-03    | 0.001461     |
| N_r | 0.000000e+00  | 1.841235e+00    | 1.841235     |
| A_o | 1.384565e+03  | 9.859837e+02    | 2370.548305  |
| B_o | -1.799744e+07 | 1.801530e+07    | 17854.307122 |
| C_o | -1.005754e-01 | 1.010522e-01    | 0.000477     |
| N_o | 2.095236e-01  | 1.417996e+00    | 1.627519     |
| F_o | -2.454708e-01 | 1.477611e+00    | 1.232140     |

message: Optimization terminated successfully.  
success: True  
status: 0  
fun: 0.12847855119977436  
x: [ 7.672e+02 1.694e+04 ... 1.628e+00 1.232e+00]  
nit: 3534  
nfev: 5020  
final\_simplex: (array([[ 7.672e+02, 1.694e+04, ..., 1.628e+00, 1.232e+00],  
[ 7.672e+02, 1.694e+04, ..., 1.628e+00, 1.232e+00],  
...,  
[ 7.672e+02, 1.694e+04, ..., 1.628e+00, 1.232e+00],  
[ 7.672e+02, 1.694e+04, ..., 1.628e+00, 1.232e+00]]), array([ 1.285e-01, 1.285e-01, ..., 1.285e-01, 1.285e-01]))