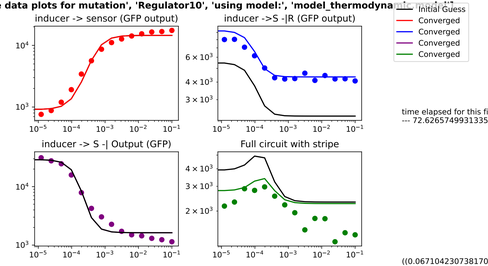
['SM data type data plots for mutation', 'Regulator10', 'using model:', 'model_thermodyna



time elapsed for this fit
--- 72.62657499313354 seconds ---

((0.06710423073817094, 0.06710423073817094), (2.1895876615348227e-06, 2.1895876615348227e-06), (1065.381191469127, 1065.381191469127), (1634912744.490322, 1634912744.490322), (14520.998594483866, 14520.998594483866), (0, None), (0, None), (0, None), (0, None), (1.2297278821229507, 1.2297278821229507), (0.01247658520697602 7, 0.01247658520697602 7), (2.0182746804764 58e-06, 2.0182746804764 58e-06), (91094.91689184132, 91094.91689184132), (1.4826039143168819, 1.4826039143168819))

Across all four plots:

RSS (converged)=0.532

RSS (initial)=1.738

RSS (% reduction)=0.766

	epsilon	Initial_guesses	Converged
P_b	0.000000	6.710423e-02	6.710423e-02
P_u	0.000000	2.189588e-06	2.189588e-06
K_12	0.000000	1.065381e+03	1.065381e+03
C_pa	0.000000	1.634913e+09	1.634913e+09
A_s	0.000000	1.452100e+04	1.452100e+04
P_r	12.102436	1.285766e+00	1.338820e+01
C_pt	-0.009960	1.101671e-02	1.056732e-03
K_t	0.000885	7.228939e-05	9.572957e-04
A_r	147224.505282	1.633549e+05	3.105794e+05
P_o	0.000000	1.229728e+00	1.229728e+00
C_pl	0.000000	1.247659e-02	1.247659e-02
K_l	0.000000	2.018275e-06	2.018275e-06
A_o	0.000000	9.109492e+04	9.109492e+04
F_o	0.000000	1.482604e+00	1.482604e+00

```
message: Optimization terminated successfully.
 success: True
  status: 0
     fun: 0.5316268601428119
       x: [ 6.710e-02  2.190e-06 ...  9.109e+04  1.483e+00]
     nit: 15389
    nfev: 21049
final_simplex: (array([[ 6.710e-02,  2.190e-06, ...,  9.109e+04,
                         1.483e+00],
                       [ 6.710e-02,  2.190e-06, ...,  9.109e+04,
                         1.483e+00],
                       ...,
                       [ 6.710e-02,  2.190e-06, ...,  9.109e+04,
                         1.483e+00],
                       [ 6.710e-02,  2.190e-06, ...,  9.109e+04,
                         1.483e+00]]), array([ 5.316e-01,  5.316e-01, ...,  5.316e-01,  5.316e-01]))
```