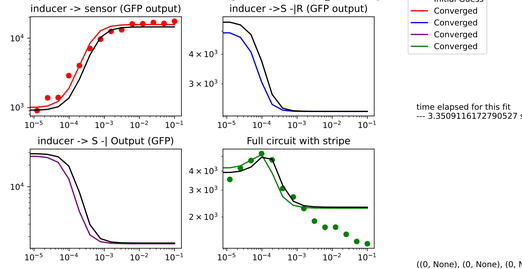
['SM data type data plots for mutation', 'Sensor2', 'using model:', 'model_thermodynami



time elapsed for this fit
--- 3.3509116172790527 seconds ---

((0, None), (0, None), (0, None), (0, None), (0, None), (0.40066868978976133, 0.40066868978976133), (0.00973243696853663, 0.00973243696853663), (8.404183514288889e-05, 8.404183514288889e-05), (587629.7486661357, 587629.7486661357), (2011833990057.0366, 2011833990057.0366), (0.019680354296355312, 0.019680354296355312), (1.2819864660412365e-06, 1.2819864660412365e-06), (176014.34482799913, 176014.34482799913), (1.4826334558626444, 1.4826334558626444))

Across all four plots:

RSS (converged)=0.289

RSS (initial)=0.413

RSS (% reduction)=0.588

	epsilon	Initial_guesses	Converged
P_b	7.803915e-04	6.681702e-02	6.759741e-02
P_u	1.158109e-07	5.466972e-07	6.625081e-07
K_12	5.037474e+03	1.814527e+04	2.318275e+04
C_pa	8.192664e+07	3.819882e+08	4.639149e+08
A_s	1.165319e+03	1.458909e+04	1.575441e+04
P_r	0.000000e+00	4.006687e-01	4.006687e-01
C_pt	0.000000e+00	9.732437e-03	9.732437e-03
K_t	0.000000e+00	8.404184e-05	8.404184e-05
A_r	0.000000e+00	5.876297e+05	5.876297e+05
P_o	0.000000e+00	2.011834e+12	2.011834e+12
C_pl	0.000000e+00	1.968035e-02	1.968035e-02
K_l	0.000000e+00	1.281986e-06	1.281986e-06
A_o	0.000000e+00	1.760143e+05	1.760143e+05
F_o	0.000000e+00	1.482633e+00	1.482633e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.2892895472164466
      x: [ 6.760e-02  6.625e-07 ...  1.760e+05  1.483e+00]
    nit: 552
   nfev: 1149
final_simplex: (array([[ 6.760e-02,  6.625e-07, ...,  1.760e+05,
                         1.483e+00],
                       [ 6.760e-02,  6.625e-07, ...,  1.760e+05,
                         1.483e+00],
                       ...,
                       [ 6.760e-02,  6.625e-07, ...,  1.760e+05,
                         1.483e+00],
                       [ 6.760e-02,  6.625e-07, ...,  1.760e+05,
                         1.483e+00]]), array([ 2.893e-01,  2.893e-01, ...,  2.893e-01,  2.893e-01]))
```