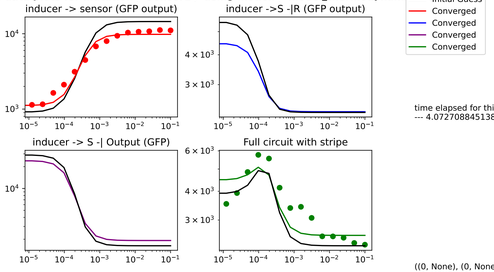
['SM data type data plots for mutation', 'Sensor1', 'using model:', 'model_thermodynami



time elapsed for this fit
--- 4.07270884513855 seconds ---

((0, None), (0, None), (0, None), (0, None), (0, None), (1.2857656642374193, 1.2857656642374193), (0.011016712487438105, 0.011016712487438105), (7.228938965214563e-05, 7.228938965214563e-05), (163354.9385852868, 163354.9385852868), (1.2297278821229507, 1.2297278821229507), (0.012476585206976027, 0.012476585206976027), (2.0182746804764 58e-06, 2.0182746804764 58e-06), (91094.91689184132, 91094.91689184132), (1.4826039143168819, 1.4826039143168819))

Across all four plots:

RSS (converged)=0.13

RSS (initial)=0.392

RSS (% reduction)=0.75

	epsilon	Initial_guesses	Converged
P_b	6.096092e-02	6.710423e-02	1.280651e-01
P_u	5.834927e-07	2.189588e-06	2.773080e-06
K_12	2.439283e+02	1.065381e+03	1.309310e+03
C_pa	1.266291e+08	1.634913e+09	1.761542e+09
A_s	-4.704070e+03	1.452100e+04	9.816929e+03
P_r	0.000000e+00	1.285766e+00	1.285766e+00
C_pt	0.000000e+00	1.101671e-02	1.101671e-02
K_t	0.000000e+00	7.228939e-05	7.228939e-05
A_r	0.000000e+00	1.633549e+05	1.633549e+05
P_o	0.000000e+00	1.229728e+00	1.229728e+00
C_pl	0.000000e+00	1.247659e-02	1.247659e-02
K_l	0.000000e+00	2.018275e-06	2.018275e-06
A_o	0.000000e+00	9.109492e+04	9.109492e+04
F_o	0.000000e+00	1.482604e+00	1.482604e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.1302696644619742
      x: [ 1.281e-01  2.773e-06 ...  9.109e+04  1.483e+00]
    nit: 613
   nfev: 1256
final_simplex: (array([[ 1.281e-01,  2.773e-06, ...,  9.109e+04,
                         1.483e+00],
                       [ 1.281e-01,  2.773e-06, ...,  9.109e+04,
                         1.483e+00],
                       ...,
                       [ 1.281e-01,  2.773e-06, ...,  9.109e+04,
                         1.483e+00],
                       [ 1.281e-01,  2.773e-06, ...,  9.109e+04,
                         1.483e+00]]), array([ 1.303e-01,  1.303e-01, ...,  1.303e-01,  1.303e-01]))
```