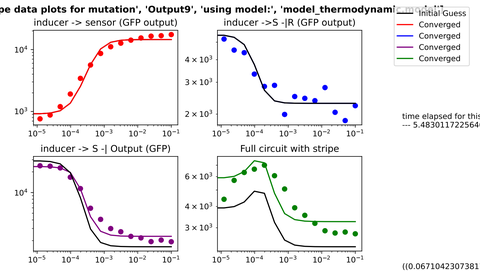
['SM data type data plots for mutation', 'Output9', 'using model:', 'model_thermodynami



time elapsed for this fit
--- 5.483011722564697 seconds ---

((0.06710423073817094, 0.06710423073817094), (2.1895876615348227e-06, 2.1895876615348227e-06), (1065.381191469127, 1065.381191469127), (1634912744.490322, 1634912744.490322), (14520.998594483866, 14520.998594483866), (1.2857656642374193, 1.2857656642374193), (0.011016712487438105, 0.011016712487438105), (7.228938965214563e-05, 7.228938965214563e-05), (163354.9385852868, 163354.9385852868), (0, None), (0, None), (0, None), (0, None), (1.4826039143168819, 1.4826039143168819))

Across all four plots:

RSS (converged)=0.293

RSS (initial)=0.949

RSS (% reduction)=0.764

	epsilon	Initial_guesses	Converged
P_b	0.000000	6.710423e-02	6.710423e-02
P_u	0.000000	2.189588e-06	2.1895888e-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	0.000000	1.285766e+00	1.285766e+00
C_pt	0.000000	1.101671e-02	1.101671e-02
K_t	0.000000	7.228939e-05	7.228939e-05
A_r	0.000000	1.633549e+05	1.633549e+05
P_o	0.507942	1.229728e+00	1.737669e+00
C_pl	0.011789	1.247659e-02	2.426520e-02
K_l	-0.000001	2.018275e-06	7.743412e-07
A_o	-44817.458443	9.109492e+04	4.627746e+04
F_o	0.000000	1.482604e+00	1.482604e+00

```
message: Optimization terminated successfully.
success: True
 status: 0
    fun: 0.2927207405915618
      x: [ 6.710e-02  2.190e-06 ...  4.628e+04  1.483e+00]
   nit: 617
  nfev: 1061
final_simplex: (array([[ 6.710e-02,  2.190e-06, ...,  4.628e+04,
                         1.483e+00],
                       [ 6.710e-02,  2.190e-06, ...,  4.628e+04,
                         1.483e+00],
                       ...,
                       [ 6.710e-02,  2.190e-06, ...,  4.628e+04,
                         1.483e+00],
                       [ 6.710e-02,  2.190e-06, ...,  4.628e+04,
                         1.483e+00]]), array([ 2.927e-01,  2.927e-01, ...,  2.927e-01,  2.927e-01]))
```