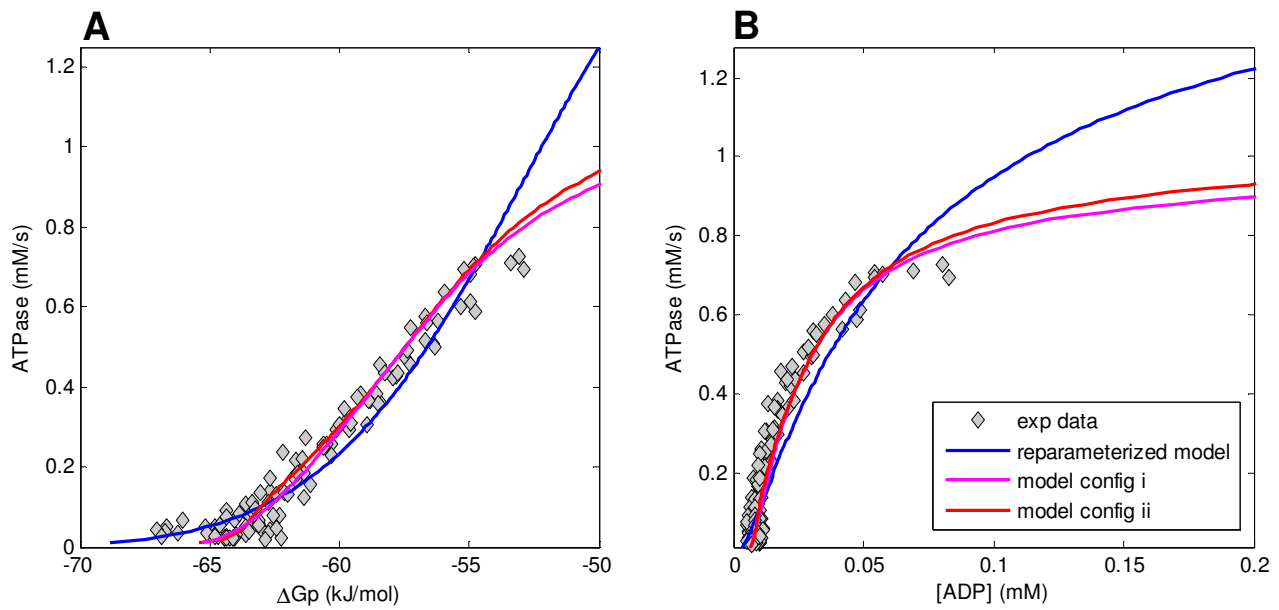


Figure S2



**Figure 2**, predictions according to the reparameterized model (blue lines), model configuration *i* (magenta lines) and model configuration *ii* (red lines) compared to experimental data (grey diamonds) for the  $\Delta G_p - J_p$  relation (A) and the ADP -  $J_p$  relation (B). The simulations of the  $\Delta G_p - J_p$  relation show that the reparameterized model did not follow the expected sigmoidal relation. In addition, panel B shows that the reparameterized model failed in reproducing the ADP -  $J_p$  relation. In contrast, the  $\Delta G_p - J_p$  transduction function predicted according to model configuration *i* and *ii* followed a sigmoidal relation. Furthermore, both model configurations reproduced the ADP -  $J_p$  relation with a highly improved accuracy.