Table S2

Flux	Lower value $mM \cdot s^{-1}$	Upper value $mM \cdot s^{-1}$	Pool size	Lower value mM	Upper value mM
$\nu_{f_{ADKI}}$	0	10.944	D_M	0.008021875	0.010853125
$\nu_{r_{ADKI}}$	1.06	11.06	D_I	0.00064175	0.00086825
$\nu_{f_{ADKO}}$	1.06	11.06	D_O	0.054227875	0.073367125
$\nu_{r_{ADKO}}$	0	10.944	D_E	0.00064175	0.00086825
$\nu_{f_{ASE}}$	2.35	12.35	D_S	0.00064175	0.00086825
$\nu_{r_{ASE}}$	0.10	10.10	T_M	0.8021875	1.0853125
$\nu_{f_{ASS}}$	2.35	12.35	T_I	0.064175	0.086825
$\nu_{r_{ASS}}$	0.10	10.10	T_O	5.54472	7.50168
$\nu_{f_{CKI}}$	1.12	11.12	T_E	0.00320875	0.00434125
$\nu_{r_{CKI}}$	0	10.0	T_S	0.00320875	0.00434125
$\nu_{f_{CKO}}$	4.88	14.88	P_M	0.088125	0.3525
$\nu_{r_{CKO}}$	6.0	16.0	P_O	0.61617	2.46468
$\nu_{f_{ATPOE}}$	2.25	2.25	P_E	0.0003525	0.00141
$\nu_{f_{ATPSM}}$	2.25	2.25	P_S	0.0003525	0.00141
$\nu_{f_{PEO}}$	2.25	52.25	C_I	0.1394	0.1886
$\nu_{r_{PEO}}$	0	50.0	C_O	13.8006	18.6714
$\nu_{f_{PMS}}$	2.25	52.25	W_E	0.00025	0.001
$\nu_{r_{PMS}}$	0	50.0	W_S	0.00025	0.001
$\nu_{f_{WEO}}$	2.25	52.25			
$\nu_{r_{WEO}}$	0	50.0			
$\nu_{f_{WOS}}$	2.25	52.25			
$\nu_{r_{WOS}}$	0	50.0			
$\nu_{f_{ADPEO}}$	2.25	52.25			
$\nu_{r_{ADPEO}}$	0	50.0			
$\nu_{f_{ADPMS}}$	2.25	52.25			
$\nu_{r_{ADPMS}}$	0	50.0			
$\nu_{f_{ADPIM}}$	2.25	2.55			
$\nu_{r_{ADPIM}}$	0	0.30			
$\nu_{f_{ADPOI}}$	2.25	2.55			
$\nu_{r_{ADPOI}}$	0	0.30			
$\nu_{f_{ATPMI}}$	2.25	2.55			
$\nu_{r_{ATPMI}}$	0	0.30			
$\nu_{f_{ATPIO}}$	2.25	2.55			
$\nu_{r_{ATPIO}}$	0	0.30			
$\nu_{f_{CIO}}$	2.25	4.25			
$\nu_{r_{CIO}}$	0	2.0			
$\nu_{f_{POM}}$	2.25	2.25			