

yeast__GEM

2025.09.11

reaction_id	reaction_name	flux_bound (mmol · gDW ⁻¹ · h ⁻¹)	metabolite_ids	metabolite_names	reaction_equation
r_1654	ammonium exchange	1000.0	s_0420	ammonium	s_0420 <=>
r_1714	D-glucose exchange	1.0	s_0565	D-glucose	s_0565 <=>
r_1832	H ⁺ exchange	1000.0	s_0796	H ⁺	s_0796 <=>
r_1861	iron(2+) exchange	1000.0	s_0925	iron(2+)	s_0925 <=>
r_1992	oxygen exchange	1000.0	s_1277	oxygen	s_1277 <=>
r_2005	phosphate exchange	1000.0	s_1324	phosphate	s_1324 <=>
r_2020	potassium exchange	1000.0	s_1374	potassium	s_1374 <=>
r_2049	sodium exchange	1000.0	s_1438	sodium	s_1438 <=>
r_2060	sulphate exchange	1000.0	s_1468	sulphate	s_1468 <=>
r_2100	water exchange	1000.0	s_0805	H ₂ O	s_0805 <=>
r_4593	chloride exchange	1000.0	s_4200	chloride	s_4200 <=>
r_4594	Cu ² (+) exchange	1000.0	s_4201	Cu ² (+)	s_4201 <=>
r_4595	Mn(2+) exchange	1000.0	s_4202	Mn(2+)	s_4202 <=>
r_4596	Zn(2+) exchange	1000.0	s_4203	Zn(2+)	s_4203 <=>
r_4597	Mg(2+) exchange	1000.0	s_4204	Mg(2+)	s_4204 <=>
r_4600	Ca(2+) exchange	1000.0	s_4199	Ca(2+)	s_4199 <=>