

Table 3

Growth yields, basal respiratory activity and calculated ATP turnover rate of yeast cells during lactate-limited growth^a

	Growth phase		
	Early exponential	Late exponential	Stationary
$Y_{X/S}$ (g dry weight/g lactate)	0.25 ± 0.01	0.28 ± 0.02	–
Enthalpic growth yield (%)	32 ± 2	37 ± 3	–
JO basal (nat.O/min/mg dry wt)	318 ± 22	223 ± 39	63 ± 14
J_{ATP} (nmol ATP/min/mg dry wt)	366 ± 31	234 ± 38	54 ± 12

^aGrowth yields were determined by calculating the part of enthalpy equivalent of lactate input conserved as biomass (enthalpic growth yield) (see Fig. 2 and Section 3) or by plotting cumulative biomass production versus cumulative lactate consumption ($Y_{X/S}$) (see Fig. 2A). The respiratory rates were measured in the growth medium as described in Section 2. The ATP turnover rate, J_{ATP} , was calculated from the basal respiratory rate multiplied by effective ATP/O ratio values of 1.15, 1.05 and 0.85 for early, late exponential and stationary phase, respectively, as described in the text.