

**Table VIII.** Estimated ATP stoichiometry parameters for *E. coli* metabolic network with their standard errors and comparison with published parameters for *S. cerevisiae* (Van Gulik and Heijnen 1995) and *P. chrysogenum* (Van Gulik et al., 2001).

	$\delta$ (mol ATP/ $^{1/2}$ mol O <sub>2</sub> )	$K_X$ (mol ATP/CmolX)	$m_{ATP}$ (mol ATP/CmolX/h)
<i>E. coli</i>	1.49 ± 0.26	0.46 ± 0.27	0.075 ± 0.015
<i>S. cerevisiae</i> <sup>a</sup>	1.20	0.80	—
<i>P. chrysogenum</i> <sup>b</sup>	1.84 ± 0.08	0.38 ± 0.11	0.033 ± 0.012

<sup>a</sup>To express  $K_X$  per Cmol of biomass a protein content of 50% and a MW of 26.4 g/Cmol was used (Lange and Heijnen 2001),  $m_{ATP}$  was not determined.

<sup>b</sup>Errors were given as 95% confidence intervals.