

Table 1. Effect of electron acceptors on ATP and ADP contents and phosphorylation potential ($\Delta G'_{\text{Phos}}$) of *E. coli* AN387 during exponential growth. Growth was performed in supplemented M9 medium with glycerol (20 mM for growth under oxic, 40 mM for growth under anoxic conditions) or glucose (20 mM) and the electron acceptors given (50 mM, except for O₂). In the logarithmic growth phase, samples were drawn and the bacteria were assayed for ATP and ADP. P_i was taken as 20 μmol/g dry cells for growth under oxic and anoxic conditions corresponding to 10 mM (Rao et al., 1993; Shulman et al., 1979; Willsky and Malamy, 1976). $\Delta G'_{\text{Phos}}$ was calculated from $\Delta G'_{\text{Phos}} = 30.5 \text{ kJ/mol} + RT \ln[\text{ATP}/([\text{ADP}] \cdot [\text{P}_i])]$.

Substrate or growth conditions	ATP	ADP	ATP/ADP	$\Delta G'_{\text{Phos}}$
	μmol/g dry cells			kJ/mol
Glycerol + O ₂	13.3	1.30	10.3	47.7
+ nitrate	11.2	2.00	5.6	46.2
+ Me ₃ NO	6.5	0.72	8.9	47.3
+ Me ₂ SO	3.0	0.35	8.6	47.2
+ fumarate	5.1	0.50	10.2	47.6
Glucose	5.5	0.70	7.6	46.5