

TABLE I

## RATE OF ACID PRODUCTION BY ORGANISMS RESUSPENDED IN THE PRESENCE OF VARIOUS SUBSTRATES

Substrates were added to give 20 mM final concentration. Steady state cells refer to freshly harvested organisms; K<sup>+</sup>-depleted cells correspond to organisms whose K<sup>+</sup>-content has been lowered by incubation in glucose-free medium for 2 h at 37°C.

Substrate	Rate of acid production ( $\mu\text{equiv. H}^+/\text{mg protein}/\text{min}$ )	
	Steady state cells	K <sup>+</sup> -depleted cells
None	0.028	0.002
Glucose	0.350	0.191
Pyruvate	0.180	0.147
L-Lactate	0.082	0.093
D-Lactate	0.020	0.002
Succinate	0.015	0.003
Acetate	0.006	0.010