

TABLE II
Charge values for cultures grown on various carbon sources

Carbon source	Growth rate ^a	Catabolic reduction charge	Anabolic reduction charge	$\frac{\text{NADP(H)}}{\text{NAD(H)} + \text{NADP(H)}}$	Adenylate energy charge
doublings/h					
Glucose + 1% casamino acids	2.39				0.85
Casamino acids, 1%	2.00	0.04	0.44	0.17	
Glucose	1.42	1.43	0.05	0.46	0.22
Galactose	1.30	1.25	0.04	0.49	0.18
Arabinose		1.27			0.85
Lactose		1.29			0.92
Glycerol	1.15	1.20	0.04	0.46	0.20
Fructose		1.10			0.95
Xylose		1.06			0.96
Sorbitol		1.00			0.96
Lactate	0.71	0.90	0.05	0.48	0.18
Glucose + 3% α -methyl glucoside	0.68		0.05	0.42	0.22
Mannose	0.43	0.75	0.06	0.39	0.19
Succinate		0.58			0.92
Fumarate		0.53			0.93
Pyruvate		0.36			0.93
Acetate		0.30			0.94
2-Ketoglutarate		0.22			0.91
Mean values		0.05 ± 0.01	0.45 ± 0.04	0.19 ± 0.02	0.91 ± 0.04

^a Measurements of reduction charges and adenylate energy charge were performed in different experiments with slightly varying growth rates; first column gives the growth rates in reduction charge measurements; second column gives the growth rates in adenylate energy charge measures. Cultures were labeled at A_{450} 0.1 and measurements performed at A_{450} 0.4.