

Table 2*Amounts of cytoplasmic osmolytes in E. coli K-12 as a function of the osmolarity of the growth medium*

Osmolyte	Osmolarity of the growth medium				
	0.10	0.28	0.56	0.83	1.02
K ⁺	0.48 ± 0.06 ^a	0.60 ± 0.05 ^a	0.79 ± 0.07 ^a	0.90 ± 0.07	0.95 ± 0.08 ^b
Glu ⁻	0.06 ± 0.01 ^a	0.13 ± 0.03 ^c	0.20 ± 0.01 ^a	n.d.	0.23 ± 0.03 ^d
Mops	<0.03 ^e	n.d.	n.d.	n.d.	0.25 ± 0.03 ^{e,f}
Trehalose	<0.03 ^e	n.d.	n.d.	n.d.	0.36 ± 0.03 ^e

All amounts are expressed in units of $\mu\text{mol}/\text{mg}$ dry wt. n.d., not determined.

^a From Richey *et al.* (1987).

^b Average of new data and that of Richey *et al.* (1987).

^c Estimated by interpolation.

^d Average of the ¹³C n.m.r. results of Cayley *et al.* (1989) and the amino acid analysis results of Richey *et al.* (1987).

^e From Cayley *et al.* (1989).

^f We estimate that 70% of cytoplasmic Mops (0.18(±0.03) $\mu\text{mol}/\text{mg}$ dry wt at 1.02 osm) is anionic assuming a cytoplasmic pH of 7.6 (Cayley *et al.*, 1989).