

TABLE 4. Effect of changing DNA concentration on macromolecular synthesis rates and cell composition in *E. coli* B/r growing in glucose-amino acids medium at 2 doublings per h

DNA concn changed by:	<i>n</i> -fold change in:											
	Concn				Activity		Rate per mass			Mass doubling time ^b	RNA/ genome ^a	Protein/ genome ^a
	DNA ^a	RNA poly- merase ^b	rRNA gene ^c	<i>lac</i> gene ^d	rRNA gene ^e	<i>lac</i> gene ^f	Bulk mRNA ^g	rRNA, tRNA ^a	Pro- tein ^a			
Initiation control	0.6	1.0	0.6	0.6	1.7	1.3	1.0	1.0	1.0	1.0	1.7	1.7
Replication velocity	0.7	1.0	1.0	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5

^a Data from Fig. 1.

^b Data from Table 2.

^c rRNA gene concentration changes as much as DNA concentration (0.6-fold) by initiation control, and does not change (1.0-fold) by changes in replication velocity (see text).

^d *lac* gene concentration changes as much as DNA concentration (see text).

^e rRNA gene activity changes as the quotient of (change in rRNA synthesis per mass)/(change in rRNA gene concentration).

^f Data from Fig. 3, 4, and 5.

^g Data from Table 3.