TABLE 1

Characteristics of pulse-labeled phage T4 DNA

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Phage strain	Interval of pulse (min)	Label given during exponential (E) or linear (L) synthesis	Number of tracks measured	Mean length of track (μm)	Rate of elongation (μm/min)	Rate of elongation (Chromosome equivalent min) (r)†	Rate of elongation (Nucleotides/s) ‡	Rate of DNA increase (k)§	Growing points chromosome equivalent (g)¶
T4D$^+$	10–15	E	379	46·8	9·36	0·254	749	0·14	0·55
	35–40	L	388	36·3	7·26	0·197	581	0·14	0·71
	35–37·5	L	424	16·1	6·44	0·175	516	0·14	0·80
*am*NG576	10–15	E	256	43·2	8·64	0·235	693	0·034	0·14
	35–40	E	133	47·2	9·44	0·257	758	0·034	0·13
	70–75	L	330	51·7	10·34	0·281	829	0·035	0·12

†The rate of elongation in chromosome equivalents/min (r) is obtained by dividing the rate in μm/min (column (6)) by the mean length of the phage chromosome on Millipore membranes (36·8 μm).

‡The rate of elongation in nucleotides/s is obtained by multiplying the values in column 7 by $1{\cdot}77 \times 10^5$ (the number of base-pairs in a phage chromosome) and dividing by 60 (to convert to s).

§The estimates of k are derived from the DNA synthesis curves shown in Figures 6 (a) and (b) and 7(a) and (b) and as described in the text. The values shown here are equal to k_E if they are exponential phase values and k_L if they are linear phase values.

¶The number of growing points/chromosome equivalent of template DNA is equal to g_E for exponential phase values and g_L for linear phase values. The values given here were calculated from the relationships $k_E = r_E \cdot g_E$ and $k_L = r_L \cdot g_L$, which were obtained as described in the text.