

TABLE 2 Idealized geometries of bacteriophage

Phage type	Geometry	R_{out} (nm)	h (nm)	Genome length (nm)	ρ_{pack}
T4 (Iwasaki et al., 2000)	Capped cylinder	39.8	29.0	57,424	0.442
T7* (Cerritelli et al., 1997)	Sphere	26.6	0	13,579	0.541
ϕ 29 (Tao et al., 1998)	Capped cylinder	19.4	12.0	6584	0.461
HK97 (Lata et al., 2000)	Sphere	27.2	0	13,509	0.503
λ (Baker et al., 1999)	Sphere	29.0	0	16,491	0.507

The radius and height are determined by using the volume available to the DNA. They have been calculated from experimental data about the geometry of capsids from several sources (in parentheses above). The value of ρ_{pack} for some phage in this table is higher than corresponding values in Table 1 since this table uses internal volumes whereas Table 1 uses the outer dimensions that are more readily available.

*The T7 phage is unusual in that a part of its cylindrical tail (radius 9.5 nm, height 28.5 nm) protrudes into the empty space within the spherical capsid. The space occupied by this tail is not available to the DNA and we exclude it to get an effective radius.

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