

Table 1 | Elemental composition, genome lengths and radii of selected viral heads

Virus	Carbon (atoms)	Nitrogen (atoms)	Phosphorus (atoms)	C/N/P*	Genome length (bp) [‡]	Radius (nm)	Refs
Enterobacteria phage T4	7,339,851	2,309,461	337,806	22.3/6.6/1	168,903	46.3 [§]	78,84
Escherichia spp. phage N4	2,765,271	891,989	140,306	17.9/5.9/1	70,153	34.8	79
Synechococcus phage Syn5	1,664,612	563,058	92,428	17.3/5.9/1	46,214	30	80
Enterobacteria phage λ	1,897,088	621,823	97,004	19.2/6.3/1	48,502	31.5	21,78
Enterobacteria phage HK97	1,640,059	536,465	79,464	20.6/6.8/1	39,732	33	81
Enterobacteria phage T7	1,550,638	517,474	79,874	18.1/6.1/1	39,937	30	21,82
Bacillus spp. phage Φ29	1,058,584	326,209	38,564	23.3/7.3/1	19,282	22.8 [§]	83

*Composition based on sequence information and experimentally validated stoichiometry of structural proteins. [†]The GenBank accession numbers of the DNA sequences are: NC_000866.4 (T4), NC_008720.1 (N4), NC_009531.1 (Syn5), NC_001416.1 (λ), NC_002167.1 (HK97), NC_001604.1 (T7), NC_011048 (φ29). [‡]The reported radius is equivalent to that of the sphere with the same volume as an ellipsoid with the dimensions of the corresponding phage prolate head.

21. Calendar, R. & Abedon S. T. *The Bacteriophages* (Oxford University Press, 2005).
78. De Paepe, M. & Taddei, F. Viruses' life history: towards a mechanistic basis of a trade-off between survival and reproduction among phages. *PLoS Biol.* **4**, e193 (2006).
79. Choi, K. H. *et al.* Insight into DNA and protein transport in double-stranded DNA viruses: the structure of bacteriophage N4. *J. Mol. Biol.* **378**, 726–736 (2008).
80. Pope, W. H. *et al.* Genome sequence, structural proteins, and capsid organization of the cyanophage Syn5: a 'horned' bacteriophage of marine *Synechococcus*. *J. Mol. Biol.* **368**, 966–981 (2007).
81. Wikoff, W. R. *et al.* Topologically linked protein rings in the bacteriophage HK97 capsid. *Science* **289**, 2129–2133 (2000).
82. Ionel, A. *et al.* Molecular rearrangements involved in the capsid shell maturation of bacteriophage T7. *J. Biol. Chem.* **286**, 234–242 (2011).
83. Tao, Y. *et al.* Assembly of a tailed bacterial virus and its genome release studied in three dimensions. *Cell* **95**, 431–437 (1998).
84. Leiman, P. G. *et al.* Structure and morphogenesis of bacteriophage T4. *Cell. Mol. Life Sci.* **60**, 2356–2370 (2003).