Bundle-shaped and ribbon-like tail fibers

Overview

Siphophages have a long, flexible, and noncontractile tail that connects to the capsid through a neck. The phage tail is essential for host cell recognition and virus–host cell interactions; moreover, it serves as a channel for genome delivery during infection. Bundle tail fibers, also known as ribbon fibers, are multiple fibers that are aligned and bonded together in a ribbon-like shape. Includes the Podoviridae, Siphoviridae and Myoviridae. However, the in situ high-resolution. Bacteriophage T4 initially recognizes its host cells using its long tail fibers.

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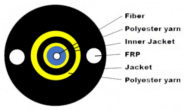
Bundle-shaped and ribbon-like tail fibers

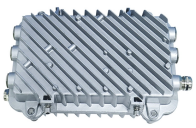
Tail fibers are protein appendages located at the distal end of a bacteriophage''s tail, extending from a structure called the baseplate. These fibers vary in length and number.

Here, we present the structure of DT57C determined by cryo-EM, and an atomic model of the virus, which was further explored using all-atom molecular dynamics simulations.

In this study, we identified a new structure of the podophage with three types of tail fibers, and such phages with different types of fibers may have a broad host range and/or infect host cells ...



The bundle tail fiber is a crucial component in the fiber optic cable assembly, and any failure in this component can significantly impact the performance of the entire system. This article ...



In this chapter, we describe the structure, assembly, function, and evolution of the long, noncontractile tail of the siphophages, which comprise ~60% of the phages on earth.

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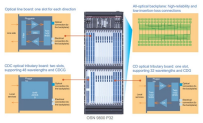
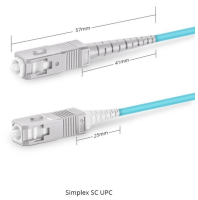
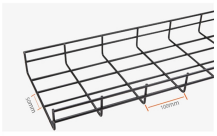
Here, we will discuss the function and dynamics of the tail of the Caudovirales. We will examine the similarities and differences of all three families belonging to this order and point out specific ...



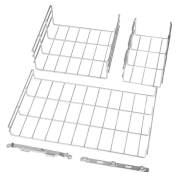
Bacteriophage T4 initially recognizes its host cells using its long tail fibers. Long tail fibers consist of a phage-proximal and a phage-distal rod, each around 80 nm long and attached to each other at a ...



Siphophages have a long, flexible, and noncontractile tail that connects to the capsid through a neck. The phage tail is essential for host cell recognition and virus–host cell interactions; ...



The six bacteriophage T7 tail fibers, homo-trimers of gene product 17, are thought to be responsible for the first specific, albeit reversible, attachment to Escherichia coli lipopolysaccharide.



Bacteriophage lambda has a double-stranded DNA genome and a long, flexible, non-contractile tail encoded by a contiguous block of 11 genes downstream of the head genes. The tail ...

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