

1 / 30

Name of Journal: *World Journal of Virology***Manuscript NO:** 55890**Manuscript Type:** MINIREVIEWS**Geometric architecture of viruses**

Mohammad Khalid Parvez

In the current SARS-CoV-2 disease (COVID-19) pandemic, the structural understanding of new emerging viruses in relation to developing effective treatment and interventions are very necessary. Viruses present remarkable differences in geometric shapes, sizes, molecular compositions and organizations. A detailed structural knowledge of a virion is essential for understanding the mechanisms of capsid assembly/disassembly, antigenicity, cell-receptor interaction, and designing therapeutic strategies. X-ray crystallography, cryo-electron microscopy and molecular simulations have elucidated atomic-level

Match Overview

1	Internet 128 words crawled on 05-Nov-2017 link.springer.com	3%
2	Internet 24 words crawled on 10-Jan-2018 www.mdpi.com	1%
3	Crossref 16 words Hayley K. Charlton Hume, João Vidigal, Manuel J. T. Carron do, Anton P. J. Middelberg, António Roldão, Linda H. L. Lu ...	<1%
4	Crossref 16 words K. Subramanya Sastry, Bikash Mandal, John Hammond, S. W. Scott, R. W. Briddon. "Encyclopedia of Plant Viruses & ...	<1%
5	Crossref 15 words Subcellular Biochemistry, 2013.	<1%
6	Internet 14 words crawled on 29-Jun-2020 www.nature.com	<1%
7	Internet 14 words s3-eu-west-1.amazonaws.com	<1%
8	Crossref 13 words Velasco Cimica, Jose M. Galarza. "Adjuvant formulations ...	<1%

国内版 | 国际版

The geometric architecture of viruses

登录

网页 | 图片 | 视频 | 学术 | 词典 | 地图

检测到您输入了英文，试试切换到国际版？ 搜英文结果更丰富更准确

17,700 条结果 | 时间不限

The Secret Mathematics of Viruses - bbvaopenmind.com
2020-6-25 · The geometric key to contagion. Within a virus, macromolecular unions are created that, when viewed through a microscope, display a spectacular molecular architecture. Each virus generates a different geometric structure, according to its behavior, and thus predetermines how it works.
https://www.bbvaopenmind.com/en/science/research/the-secret-mathematics-of-viruses

Structural constraints on the three-dimensional ...
Cited by: 16 | Author: Thomas Keef, Jessica P. Wardman, Neil A...
Publish Year: 2013 | 位置: 8600 Rockville Pike, Bethesda, MD
2013-3-1 · 2. Three-dimensional constraints on virus architecture from affine-extended symmetry groups
The surface lattices and tilings in Caspar-Klug and viral tiling theory can be viewed as subsets of spatially extended structures in three dimensions, as illustrated for the icosahedral triangulation (a structure in the Caspar-Klug classification) in Fig. 1 .
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3571114

- 相关搜索
how viruses work
virus
irues
has
ehview
virus host
what is virus
viruses journal

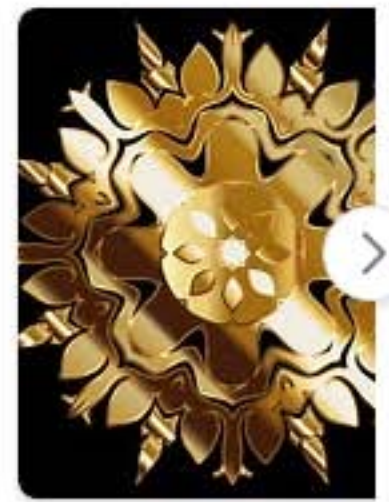
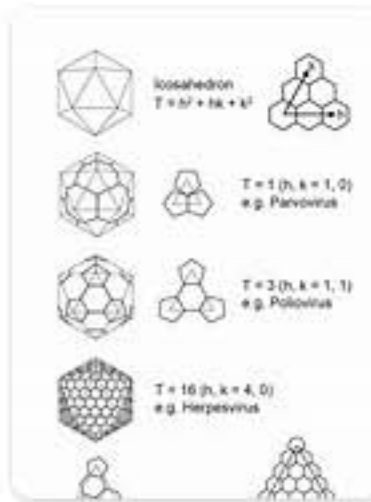




72,600,000 Results Any time ▾

Images of Geometric Architecture of viruses

bing.com/images



See all images >

[PDF] [Viruses and Geometry: Group, Graph and Tiling Theory Open ...](#)

[https://www.lms.ac.uk/sites/lms.ac.uk/files/5_Twarock - Viruses and Geometry.pdf](https://www.lms.ac.uk/sites/lms.ac.uk/files/5_Twarock_Viruses_and_Geometry.pdf)

Protein containers encapsulating viral genomes are salient features of virus architecture. In most viruses, these containers are organized with icosahedral symmetry (cf. Fig. 1a) for reasons of genetic economy, and group theory can therefore be used to better understand virus geometry.

[Virus Structure | Morgridge Institute for Research](#)

<https://morgridge.org/.../virus-structure> ▾

These virus structures have a **combination of icosahedral and helical shape and may have a complex outer wall or head-tail morphology**. The head-tail morphology structure is unique to viruses that only infect bacteria and are known as bacteriophages. The head of the virus has an icosahedral shape with a helical shaped tail.

[Virus - Size and shape | Britannica](#)

<https://www.britannica.com/science/virus/Size-and-shape> ▾