Shape transformation of viral capsids and HIV

TOAN NGUYEN, ROBIJN BRUINSMA, WILLIAM GELBART, University of California, Los Angeles
— We present a continuum description of the shape transformation of viral capsids. The cone-like HIV virus is shown to be a thermodynamically stable shape, intermediate between icosahedral and spherico-cylinder capsid shapes. A generalized Caspar-Klug classification is introduced to describe spherical, conical and cylindrical shapes of virus.

Toan Nguyen
University of California, Los Angeles

Date submitted: 03 Dec 2004