

Disassembly of viruses

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1. Abstract

Viruses have to live dangerously. At different points of their life cycle, they have to be able both to self assemble and self disassemble. Premature self disassembly leads to inactivation. In this talk, I will review data showing that the viability of many viruses show an Arrhenius behaviour, displaying a single well-defined activation free energy. I will then seek to interpret the measure activation enthalpy and entropy of influenza A viruses, and suggest a model of the disassembly mechanism that is consistent with these measured values. I will end by pointing out medical and biomimetic implications.