

Abstract Submitted
for the 4CF09 Meeting of
The American Physical Society

Vibrating virus capsids and interactions with short light pulses – picking up good vibrations OTTO SANKEY, DARYN BENSON, Arizona State University — Viruses are the simplest “life” form. They reproduce by borrowing the machinery of their host cell. Viruses consist of an outer coat (capsid) that protects its genomic material inside. They are pathogenic to plants, bacteria, animals, and of course humans. Experimental studies at ASU by Tsen et al. have discovered that ultra-short laser pulses are capable of “inactivating” viruses. One potential mechanism is the coupling of light to the soft dynamical modes of the capsid. We describe theoretical modeling of this effect.

Otto Sankey
Arizona State University

Date submitted: 28 Sep 2009

Electronic form version 1.4