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***Measuring Virus Rigidity by QCM-D***

The ability to study conformational changes of a virus can give us a glimpse of its intriguing structure, its infection cycle and more importantly its interactions with the host which enable it to cause the infection. These biophysical changes occur *in-vivo* due to different chemical environments and are of great interest. The effects of chemical changes such as; different pHs and salt concentrations can be studied *in-vitro* and can help us expand our knowledge about such virus particles. Many instruments and techniques are available for measuring such values. One instrument is the Quartz Crystal Microbalance with Dissipation Monitoring. The Q-Sense™ D300 instrument is capable of measuring both the fundamental frequency and the damping (dissipation) of the stored resonance energy of an excited quartz crystal. The measurement of these values allows us to calculate the rigidity of virus particles. Flock House Virus (FHV) and Nudaurelia Capensis Omega Virus (NwV) were studied so that values of rigidity and insight to the virus' viscoelastic properties could be obtained.