## Abstract Submitted for the NEF10 Meeting of The American Physical Society

## The use of Nanotubes as reaction vessels or facilitators RICHARD

KRISKE, University of Minnesota — There is some reason to believe, due to symmetry, that certain sizes and compositions of Nanotubes would allow the flow of particles, atoms and molecules near the centers of the tube. The flow may be controlled with potentials, mass flows, or perhaps electron flows on the surface of the tubes. This could be exploited or perhaps exist naturally in Bacteria or between Cells or within Cells as reaction chambers, filters or perhaps force generating and conveying devices. The nanotubes, in the proper sizes could be seen as a simple machine for the Quantum Mechanical side of Physics in larger sizes as Classical machines and in intermediate sizes as Chemical Reaction Vessels. Controlling the flow of materials in the nanotube can be explored by varying parameters of size and materials.

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