

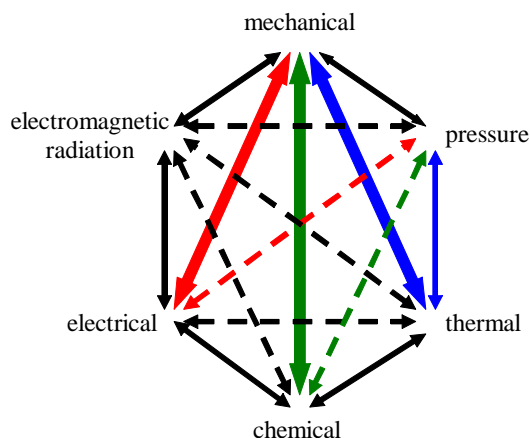
Spring 2008 - Special Topics Course

Chemistry 1010-559-02 (undergraduate) and 1010-772-02 (graduate)

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Stimuli-Responsive Materials and Intelligent Material Systems

Materials that respond to digitally addressable stimuli (pressure, temperature, light, electric field, pH, etc.) have the potential for being used as transducers and actuators in a wide variety of imaging and sensing systems.



The present special topics course will be a discussion forum in which the materials and chemistry underlying commercial, historic, and, emerging phenomena and technologies that have enabled imaging, data storage and sensing systems will be surveyed. Emphasis will be placed on nanomaterials and microsystems and on elucidation of the commonalities among organic electronic and photonic materials employed in photoconductors, non-linear optical materials, field effect transistors, organic light emitting diodes and photovoltaics. Seminal publications in the current literature describing stimuli-responsive materials in biomolecular systems “molecular machines” will also be examined.

M,W 4:00-5:20 pm
 3 Credits