

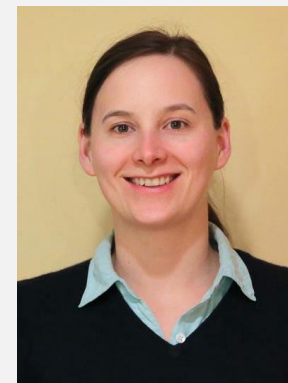
Moments in Materials Presentation:

# ***Mechanochemistry: Pushing reactions up and downhill***

Speaker: Aileen Nielsen

When: Thursday, June 27<sup>th</sup> 2013, 4:30 p.m.

Where: NWC, 7<sup>th</sup> floor meeting room, RM 703



The rational design and implementation of single molecule junctions has made rapid progress in the past decade. While the electronic properties of such junctions have been studied extensively, the possibility for measurement and control of chemical reactions one molecule at a time has only recently emerged as an experimentally viable pursuit. This talk will describe advances in the use of applied force to create or rupture bonds in a single molecule junctions and the potential for novel functionality and measurements of single molecule junctions.

Selected references

Brantley et al., *Science* 333 (6049): 1606 (2011)

Duwez et al., *Nat. Nano.* 1, 122 (2006)

Beyer and Clausen-Schauman, *Chem. Rev.* 105(8) 2921 (2005)

