

Česká společnost chemická, pobočka Brno

Vás zve na přednášku, která se koná v místnosti 132, 1.NP, budova A11,
Kamenice 5, Přírodovědecká fakulty Masarykovy univerzity, Brno

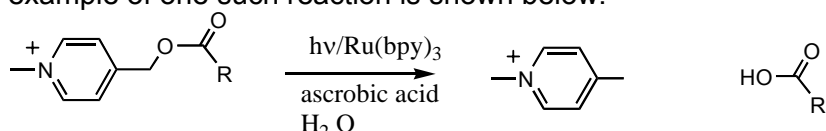
ve čtvrtek 6. října 2011 ve 14:00 hod.

PROF. DANIEL FALVEY

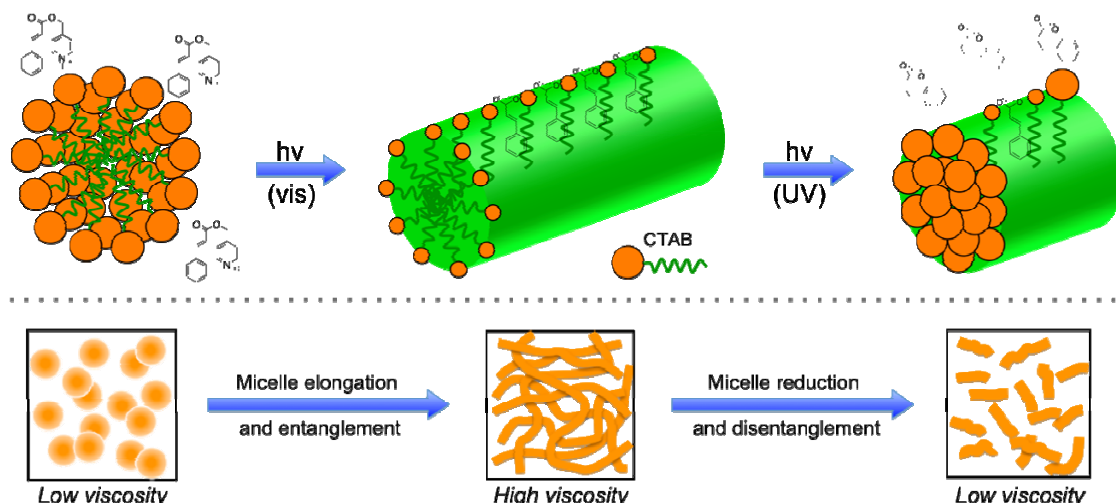
UNIVERSITY OF MARYLAND, COLLEGE PARK, MD, USA

Mechanistic Design of High-Wavelength Photoreleasable Protecting Groups and Applications to Photorheology.

Recent investigations have focused on the mechanistic design, synthesis and study of photoreleasable protecting groups. The overall goal is to create a suite of protecting groups whose release can be triggered using inexpensive visible light sources. One specific strategy has been to photoinduced electron transfer from visible-light absorbing dyes to a protecting group that can be activated through photoinduced single electron transfer. Specifically the release of carboxylic acids phenacyl and 4-N-alkylpicolinium esters have been examined. An example of one such reaction is shown below.



These reactions have recently been applied to the development of phototriggering reagents that can rapidly and reversibly alter the viscosities of bulk liquids by catalyzing self-assembly processes. For example, visible light triggered photorelease of cinnamate ions in the presence of CTAB micelles has been shown to convert the latter from spherical structures into elongated worm-like structures. This in turn causes the solution to convert from a free flowing fluid to a gel-like state. Ultraviolet light can reverse this process through trans-cis photoisomerization of the released cinnamate ions.



doc. Ing. Vladimír Šindelář, Ph.D.
jednatel pobočky

prof. RNDr. Jiří Pinkas, Ph.D.
předseda pobočky

