

MCMICKEN COLLEGE OF ARTS AND SCIENCES
Department of Chemistry

SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: March 1, 2006

The Department of Chemistry is pleased to offer the following research project for the summer of 2006. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and if possible, develop a timetable for the twelve-week research period.

PHOTORELEASE OR PHOTOPROTECTING GROUPS FOR ALCOHOLS

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Photoremovable protecting groups are of interest since they can be used in wide variety of application, such as delivering fragrance in household goods to drug delivery. Our group reported that ester **1** can be used independent of the reaction medium to release alcohols in applications upon exposure to UV light. We are currently preparing derivatives of ester **1** that will release the alcohol moiety more efficiently.

An under-graduate project would focus on preparing various derivatives of ester **1** and investigate if they release alcohol upon exposure to sunlight. The undergraduate student working on this project will gain experience in carrying out simple synthesis and how to purify the starting material by column chromatography. The student will also learn to use ¹H-NMR, IR and MS spectroscopy to characterize the starting materials.

