

Department of Geology
MCMICKEN COLLEGE OF ARTS AND SCIENCES

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE: March 1, 2007

The Department of Geology is pleased to offer the following research project for the summer of 2007. 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.

**DEPOSITIONAL CYCLES DURING THE ORDOVICIAN AS MARKED BY
SULFUR GEOCHEMISTRY**

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Project Description

In previous work we have found that isotopes of sulfur can be used to reconstruct rates of deposition in fine-grained sediments such as those in the Ordovician Kope Formation. Using this approach we have shown that within two cycles in the Alexandria submember deposition rate increases upwards within each cycle. Does this pattern hold for other parts of the Kope? The Alexandria is likely the deepest-water section of the Kope and thus may have a distinctive succession in its geochemical profile. In this project, we propose to test cycles in other parts of the Kope that differ in apparent water depth. In this was we hope to see if how the isotopic signal varies with water depth.