NSF-funded summer research opportunities with Dr. Hoffmann

Dr. Hoffmann has received a grant from the National Science Foundation to investigate ion pairing of particular ionic liquids in low dielectric media conducting a host of physicochemical measurements. Ionic liquids are salts which are liquid at or near room temperature. They are currently intensively studied as a novel medium for chemical synthesis and chemical applications in general. During the 2007/08 academic year Dr. Hoffmann spent a sabbatical research stay at the Friedrich-Schiller-University in Jena, Germany working with Dr. Annegret Stark at the Institute for Technical and Environmental Chemistry, an institute entirely devoted to "Green Chemistry" research. The NSF grant will support a continuation of the research collaboration with Dr. Stark. The grant will fund summer research stipends for two undergraduate students, each **ten weeks** in length (differing from the usual eight weeks of our summer research students), 400$/week:

Student A will conduct mainly NMR experiments (diffusion coefficients, relaxation measurements) on The College's Bruker Avance 300 NMR instrument, purchased and installed in 2005. Careful sample preparation will be involved as well. Additional on-campus housing support, if needed, may be available through The College.

Student B will this year most likely conduct synthetic research with Dr. Stark in Germany to make ionic liquids of interest for further studies. Possibly, the student will also conduct calorimetry experiments. The grant covers the travel expenses and an additional housing allowance.

Both students, especially student A, are highly encouraged to take the offered NMR Winter session course CHM 423 (first two weeks in January, see Dr. Hoffmann for details.)

Eligibility requirements for the students:

1. Be a full time student in the current 2011/12 academic year and be returning as a full-time student to The College for the ensuing 2012/13 academic year.
2. Be a Chemistry or Biochemistry Major having
    a. passed CHM 205-206 College Chemistry I and II,
    b. passed or being currently enrolled in CHM 305-306 Organic Chemistry,
    c. passed or being currently enrolled in PHS 235-240 calculus based Physics.
3. Must have seen me in person in my office to discuss the summer research opportunities prior to applying. Please send an e-mail (mhoffman@brockport.edu) to make an appointment.
4. Additional preference will be given to students who are taking the NMR winter course CHM 423 with Dr. Hoffmann (January 2 – 13, 2012).

Expectations:

1. Must enroll for 1 lab credit (3.25 hours per week) of independent study with Dr. Hoffmann during the Spring 2012 term to prepare for the summer research experience.
2. A continuation of the summer research through independent study during the ensuing 2012/13 academic year is expected. This will include presentation of results at undergraduate research symposia and related venues such as Scholar's Day.

All application materials must be received by Dr. Hoffmann, ***by Friday, December 16, 2011 at 3 pm****.*
A complete application will consist of:

1. a transcript of courses from each college you have attended (transcripts can be unofficial).
2. your personal statement that describes why you wish to participate in summer research and which opportunity you would prefer, if you do prefer one.

The chosen students will be contacted one week prior to the Spring 2012 semester and must accept the offer within three days.