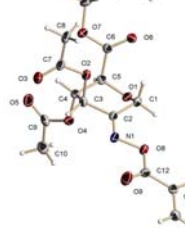
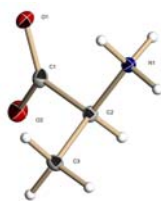
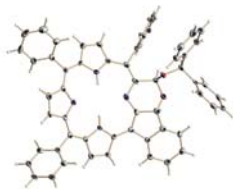




Chemistry 5832
Solid State Structural Methods

Winter 2006

Dr. Allen Hunter



Lecture: Monday & Wednesday, 12:00 till 12:50 (Course Code 0570 - WB 4045)

Laboratory: Tuesdays, 8:00 till 10:50 (Course Code 0571 - WB 5026 & 5035A)

The focus of this course is to learn to use **X-Ray Diffraction** and related structural methods to determine the structures of organics, inorganics, organometallics, biomolecules, minerals, solid state materials, etc. The lecture component will be taught using a non-mathematical approach. It will be integrated with a hands on lab experience using our Bruker APEX CCD, P4 single crystal, and D8 powder X-ray diffractometers and our computer facilities. Special topics for 2006 include neutron diffraction, electron density visualization, remote diffractometer access, crystallographic & chemical data bases, structure validation, & more! Lecture grading will be by exam or term paper - student's choice. During the course, you will determine the single crystal structure of a material that has not been previously crystallographically characterized and prepare it for publication in *Acta Crystallographica Section E*, etc. This course is designed both for Chemistry students and for those in allied disciplines such as **Biology**, **Geology**, **Physics**, & **Engineering** and has been taken very successfully by such students in the past. This class is available for either undergraduate or graduate credit.

