

Subject: MSD Colloquium, Thurs, Aug. 10, 11am, 200 AUDITORIUM
From: Janice Coble <coble@anl.gov>
Date: Wed, 02 Aug 2006 11:27:21 -0500
To: msd@anl.gov

SPEAKER: BOB VON DREELE
Argonne National Laboratory

TITLE: Multipattern Protein Powder Pattern Rietveld Refinement:
How to get to "High Resolution"

DATE: Thursday, August 10, 2006

TIME: 11:00 a.m.

PLACE: Building 200, AUDITORIUM

HOST: Suzanne te Velthuis

Refreshments will be served at 10:45 a.m.

Abstract: The lattice parameters of polycrystalline proteins are remarkably sensitive to a variety of experimental conditions. Changes in pH, salt concentration and even previous radiation exposure can shift the parameters so that reflections that overlap in one pattern are quite separated in another. As the overall structural changes are slight we can take advantage of these shifts to partially solve the powder overlap problem and extend the useful range of data into the traditional single crystal "high resolution" regime. This talk will cover an examination of these effects on the crystal structure of hen egg white lysozyme as determined from powder diffraction data.