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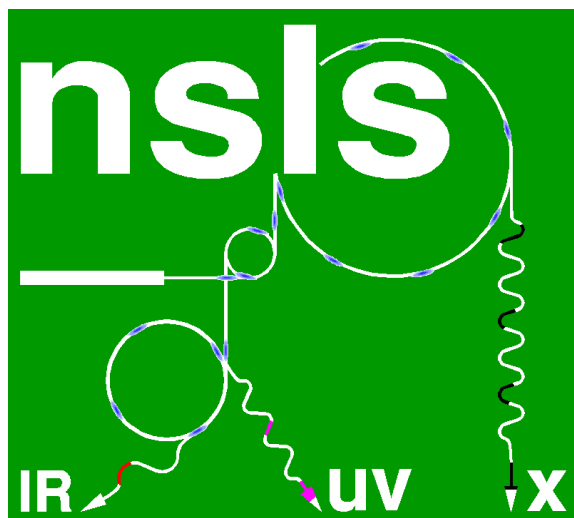
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**National Synchrotron  
Light Source**

Activity Report

**For the period October 1, 1999 through September 30, 2000**

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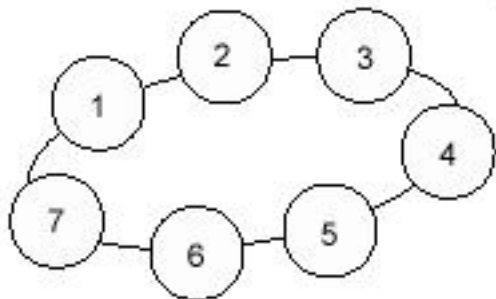
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**Cover images**



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1. Professor Janos Hajdu, Uppsala University, Sweden. Professor Hajdu presented the Scientific Highlight at the 2000 NSLS Users' Meeting, "Femtosecond Imaging of Biomoleculars with X-Rays."
2. Elaine DiMasi of the BNL Physics Department aligns a sample chamber at Beamline X22A for x-ray scattering from clays to study changes in structure during a hydration process that is controlled by temperature and water vapor pressure.
3. Jianzhong Zhang of SUNY at Stony Brook and Heather Goss of Haverford College examine a high-pressure sample prior to X-ray diffraction at Beamline X17B1.
4. Giovanni Gigante, Health & Medical Physics, University of Rome, performing energy dispersive x-ray fluorescence analyses of paper samples treated for deacidification at Beamline X26A in collaboration with BNL's Department of Advanced Technology. Dr. Gigante was also the 7000th user to perform research at the NSLS.
5. Mark Chance, Albert Einstein College of Medicine, during the 2000 NSLS Users' Meeting. Mark is also a member of the NSLS Users' Executive Committee and has served as its Chair for the 2000-2001 year.
6. Robert Sweet, of the BNL Biology Department, is part of an international collaboration that used freeze-trapping and protein crystallography to discover transition states in catalysis by a molecule that is "the biological equivalent of a blow-torch."
7. Michael Vaughan of SUNY at Stony Brook and Jeremy Smith of Earlhan College examine large volume high-pressure apparatus at Beamline X17B1.

Photos taken by Roger Stoutenburgh, BNL

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