# 3:50 D-68 Invited—Transient Microstructure of Thermoplastic Polyurethane Nanocomposites Under Uniaxial Deformation

H. Koerner, R. Vaia, Air Force Research Lab, WPAFB, OH

#### 4:20 D-75 Preferred Orientation in Polymer Fibers

C. Burger, B.S. Hsiao, B. Chu, Stony Brook University, Stony Brook, NY

### 4:40 D-11 Polymer-Oriented Tools in the *Irena* Package for Small-Angle Scattering Data Analysis

J. Ilavsky, APS- Argonne National Laboratory, Argonne, IL

# 5:00 D-99 Relaxation Behaviors of Nanoparticles in Polymer Composites: Influence of Local Frictions by Polymer Chains

B. Lee, P. Thiyagarajan, S. Narayanan, A. Sandy, C.-T. Lo, V. Pol, D. Bohnsack, Argonne National Laboratory, Argonne, IL

#### WEDNESDAY PM

#### **XRD**

#### HANAWALT AWARD SESSION

#### NANOSTRUCTURE STUDIES USING THE ATOMIC PAIR DISTRIBUTION FUNCTION

Chair: E. Bozin, Brookhaven National Laboratory, Upton, NY

**EVERGREEN D** 

All presentations are invited

#### 1:20 Presentation of the 2010 Hanawalt Award

Presented to Takeshi Egami, University of Tennessee, Knoxville, TN and Simon Billinge, Columbia University, New York, NY
Presented by Robert L. Snyder, Chairman of the Denver X-ray Conference

#### 1:30 D-87 Recent Advances in the PDF Technique (2)

T. Egami, University of Tennessee, Knoxville, TN

### 2:15 D-100 Structure at the Nanoscale: Atomic Pair Distribution Function Analysis of Nanostructured Materials

S. Billinge, Columbia University, New York, NY

3:00 Break

#### 3:30 D-92 Structure of Crystallographically Challenged Hydrogen Storage Materials

H.J. Kim, Los Alamos National Laboratory, Los Alamos, NM

#### 3:55 D-97 PDF Analysis of Glassy and Nanocrystalline Metallic Materials

W. Dmowski, Y. Iwashita, T. Egami, *University of Tennessee, Knoxville, TN* S.H. Overbury, *ORNL*, *Oak Ridge, TN* 

#### 4:20 D-89 Force Measurement of DNA with Pair Distribution Function

X. Qiu, National Institutes of Health, Bethesda, MD

## 4:45 D-83 Element-Specific Structure of Nanosized Materials by High-Energy Resonant X-ray Diffraction and Differential Atomic Pair Distribution Functions

V. Petkov, Central Michigan University, Mt. Pleasant, Ml S. Shastri, APS- Argonne National Laboratory, Argonne, IL

#### 5:10 D-98 Progress with the GSAS-II Software Package for Crystallography

B.H. Toby, R.B. Von Dreele, APS - Argonne National Lab. Argonne, IL