

Ashfia Huq
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EDUCATION

SUNY at Stony Brook (September 1996 – May 2003): Graduate Student, Department of Physics and Astronomy under the supervision of Dr. Peter W. Stephens. Ph.D. Thesis Title: “Structure and Properties of Alkali Fullerides and Structure Solution from Powder Diffraction.”

SUNY at Stony Brook (December 2000): Master of Arts, Cumulative Grade Point Average 3.8.

Mount Holyoke College, South Hadley, Massachusetts, (May 1996): Bachelor of Arts, Magna Cum Laude. Majors in Physics and Computer Science, Cumulative Grade Point Average 3.86.

RESEARCH EXPERIENCE

Doctoral Research Topic

- Structure solution of doped fullerene systems and studying their transport properties.
- Structure solution of organic molecules using simulated annealing method.

Research carried out principally at beamline X3B1, National Synchrotron Light Source, Brookhaven National Laboratory and Physics Department of SUNY at Stony Brook. Took part in experiments at NIST Center for Neutron Research, Gaithersburg, Maryland ISIS facility, Rutherford Appleton Laboratory, Oxford and Advanced Photon Source, Illinois.

Invited Talk

1. "Lattice Expansion does not explain the T_c in chloroform and bromoform intercalated C_{60} ", ECS Meeting, Philadelphia, PA, May 2002.

External Talks

1. “Solving Crystal structures with Molecular Orientational disorder using XRPD and Simulated Annealing Methods”, PPXRD-2, Concordville, PA, December 10,2002.
2. “Synchrotron Radiation and Pharmaceuticals”, Lunch Seminar: Advanced Photon Source, November 15,2002.
3. “Synchrotron Radiation, Pharmaceuticals and Fullerenes”, Hahn Meitner Institute, Berlin, September 10,2002.

4. "Lattice Expansion does not explain the T_c in chloroform and bromoform intercalated C_{60} ", APS March Meeting, Indianapolis, March 22, 2002.
5. "Polymeric Fullerene Chains in KC_{60} and RbC_{60} ", APS March Meeting, Seattle, March 12, 2001.
6. "Thermal Activation of Vacancies in Rb_3C_{60} ", APS Centennial Meeting, Atlanta, March 24, 1999.

External Posters

1. "Bond Length distribution of RbC_{60} ", Accuracy in Powder Diffraction III, NIST Gaithersburg, April 23, 2001. (To be published in the conference proceedings.)
2. "Elemental and Mineralogical Analysis of Punic Make-Up", 50th Annual Denver X-ray Conference, Steamboat Springs, July 31, 2001.

TEACHING EXPERIENCE

Teaching Assistant SUNY at Stony Brook (September 1996-December 1997): Taught introductory laboratory sections for undergraduate physics.

HONORS and AWARDS

1. Rachel Brown Fellowship, Mount Holyoke College, May 1996.
2. Joseph A. Skinner Fellowship, Mount Holyoke College, May 1996.
3. Elected to Phi Beta Kappa, Sigma Xi and Sigma Pi Sigma, Mount Holyoke College, May 1996.
4. Roger D. Rusk Prize for excellence in Physics, Mount Holyoke College, May 1995.

ADDITIONAL SKILLS

Managed all the computers (both linux and windows based) in the X3B1 powder diffraction group. Proficient in coding in C and familiar with crystallographic program suites (e.g. GSAS, Fullprof, DASH, PSSP etc.) routinely used for powder diffraction data analysis.

REFERECES

Dr. Peter W. Stephens
(Thesis Advisor)
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