

Nancy L. Ross

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EDUCATION

Ph.D. 1985 Arizona State University
M.S. 1981 University of British Columbia
B.S. 1979 Virginia Polytechnic Institute and State University, *summa cum laude*

PROFESSIONAL EXPERIENCE

2004-present Associate Dean for Research, Graduate Studies, and Outreach,
College of Science, Virginia Polytechnic Institute & State
University
2000-2003 Professor, Department of Geosciences, Virginia Polytechnic
Institute & State University
1994-2000 Reader, Department of Geological Sciences, University College
London
1988-1994 Lecturer, Department of Geological Sciences, University College
London
1986-1988 Postdoctoral Fellow, Geophysical Laboratory, Carnegie Institution
of Washington
1985-1986 Postdoctoral Research Associate, Department of Earth and Space
Sciences, State University of New York at Stony Brook
1981-1985 Graduate Research Assistant, Department of Geology, Arizona
State University
1979-1981 Graduate Teaching Assistant, Department of Geological Sciences,
University of British Columbia

PROFESSIONAL SOCIETIES

- American Association for Advancement of Science
- Mineralogical Society of America
- American Geophysical Union
- Mineralogical Society of Great Britain and Ireland
- American Crystallographic Association
- Materials Research Society

HONORS AND AWARDS

- Invited lecturer to International School of Crystallography, 34th course: High Pressure Crystallography, "Ettore Majorana" Centre for Scientific Culture, Erice, Sicily, 2003
- Keynote lecture at 18th Meeting of the International Mineralogical Association, 2002
- Elected to Council of Mineralogy Society of America, 2001
- Nuffield Foundation One Year Science Fellowship, 1994
- Elected Fellow of Mineralogical Society of America, 1991
- Carnegie Institution Postdoctoral Fellowship, 1981
- Arizona State University Graduate College Distinguished Student Award, 1984
- University of British Columbia Graduate Fellowship, 1980
- Graduated *summa cum laude*, Virginia Polytechnic Institute & State University, 1979
- Outstanding Senior Award in Geological Sciences, Virginia Polytechnic Institute & State University, 1979
- Elected member *Phi Sigma Kappa*, 1978
- Elected member of *Phi Beta Kappa*, 1978

CURRENT RESEARCH GRANTS:

- NSF EAR-0105864: High-Pressure Behavior of Framework Structures: \$294,767 6/1/04-5/31/07 (Co-PI: R.J. Angel)
- NSF EAR-0229472: Study of the Incorporation of Water in Earth Materials Based on Electron Density Distributions, \$208,995 1/1/03-12/31/05 (Co-PI: G.V. Gibbs)
- NSF EAR-COMPRES (*Consortium for Material Properties Research in Earth Sciences*): Neutron Scattering in Earth Sciences: \$210,000, 4/1/02-3/31/05 (Sole PI)
- NSF EAR-0105864: High-Pressure Behavior of Framework Structures: \$241,544, 6/1/01-5/31/04 (Co-PI: R.J. Angel)

PAST RESEARCH GRANTS:

- NERC GR3/11764: Role of Alumina in the Mantle (1998-2000) \$171,043 (sole PI)
- NERC GR9/03066: Novel High Pressure Synthesis of Large Strain Free Crystals (1997-1998) \$38,385 (Co-PIs: JP Brodholt, AP Jones)
- NERC GR3/9782: Structural properties of Earth-forming materials at pressure (1994-1998) \$216,155 (Sole PI)
- NERC GR3/100330: Electrical conductivity measurements on mantle minerals (1996-1997) \$184,776 (Co-PIs: JP Brodholt, AP Jephcoat)
- ALLIANCE GRANT (w/ University of Rennes), British Council (1995-1997) \$6,075 (Sole PI)
- NERC GR9/1141: Electronic Structure of Mantle Phases at High Pressure (1993-1996) \$18,630 (Sole PI)

- NERC GR3/8496: Coccolith Phylogeny and Patterns of Evolution using New Morphological and Crystallographic Methods of Analysis (Co-PIs: P. Bown, G. Young) (1992-1994) \$109,173
- NERC GR3/7976: Applications of FTIR and FT-Raman Microspectroscopy in Earth Sciences (1990-1993) \$53,250 (Sole PI)
- NERC GR3/7479: Critical Birefringence of Phase Transitions in Major Earth-Forming Minerals (1990-1992) \$108,155 (Co-PI: IG Wood)
- NERC GR3/7529: Earth-Forming Materials at Pressure and Temperature (1989-1990) \$137,174 (Co-PI: RJ Angel)
- NERC GST/02/435: Experimental Earth Science Projects at STC Harlow (1989)\$6,075 (Co-PI: A.P. Jones)

PROFESSIONAL SERVICE (recent activities)

- Program Advisory Committee for the NMI3 workshop Neutrons Earth Sciences and Environment (NESE)
- Chair of COMPRES (Consortium for Material Properties Research in Earth Science) Infrastructure Development Committee 2004-6
- Member of 2005 Goldschmidt Conference Program Committee
- Member of SNAP (Spallation of Neutrons At Pressure) Executive Committee, 2003-2007
- Chair, Dana Award Committee, Mineralogical Society of America, 2004-5
- U.S representative to International Mineralogical Association's Commission on Physics and Chemistry of Minerals
- Co-convenor of topical session at 2003 Geological Society of America Meeting "Impact of Crystal Chemistry in Earth Sciences: A tribute to C.T. Prewitt"
- Elected member of Infrastructure Committee, COMPRES, 2003-5
- Elected member of SNS & HFIR User's Group (SHUG), science advisory group to Oak Ridge National Laboratory, 2002-4
- Co-organizer of workshop: "Neutrons in Solid State Chemistry and Earth Sciences, Today and Tomorrow", March 2003, Oak Ridge, TN (co-organizer, A. Wilkinson, Georgia Tech)
- Chair of COMPRES (Consortium for Material Properties Research in Earth Science) committee to promote Neutron Scattering in Earth Sciences, 2002-7
- Council member of Mineralogical Society of America, 2002-4
- Chair, Crystallographic Research Award Committee, Mineralogical Society of America, 2002-4

GRADUATE STUDENTS:

- C. Hayward, NERC Studentship from 1989-1992 (passed PhD viva in May, 1993).
- L. Vočadlo, NERC Studentship from 1989-1992 (passed PhD viva in June, 1993).
- D. Hugh-Jones, NERC Studentship 1992-95 (passed PhD viva in Oct., 1995)

- J. Sowerby, NERC Studentship 1993-96 (passed PhD viva in Feb., 1997)
- T. Chaplin, NERC Studentship 1994-97 (passed PhD viva Oct., 1998)
- W. Crichton, NERC Studentship 1996-99 (passed PhD viva May, 2000)
- J. Burt, 2001-2005