

Jiuhua Chen

Name and academic rank:

Jiuhua George Chen, Associate Professor

Degrees with fields, institutions and date:

Ph.D. Physics, Graduate University for Advanced Studies, Japan, March 1994.

M.S. Condensed Matter Physics, Jilin University, PRC, July 1987.

B.S. Physics, Jilin University, PRC, July 1984.

Number of years service of this faculty, date of original appointments, and dates of advancement in rank:

7 Years

Associate Professor, Florida International University, June 2007–present

Other related experience:

Adjunct Professor, Dept. of Geosciences, Stony Brook University	2007-present
Adjunct Associate Professor, Dept. of Geosciences, Stony Brook Univ.	2004-2007
Assistant Research Professor, Associate Research Professor and Research Professor, Mineral Physics Institute, Stony Brook Univ.	1996-2007
Associate Dean of Admissions, Stony Brook University	2006-2007
Assistant Dean of Admissions, Stony Brook University	2005-2006
Associate Director, Mineral Physics Institute, Stony Brook University	2002-2007
Acting Director, Mineral Physics Institute, Stony Brook University	2004-2005
Post-doctoral fellow, Dept. of Geosciences, Stony Brook Univ.	1994-1996
Research Associate, Changchun Institute of Applied Chemistry.	1987-1990

Principal publications (five years):

Li Li, Ahmed Addad, Donald Weidner, Hongbo Long, Jiuhua Chen, High pressure deformation in two-phase aggregates, *Tectonophysics* 439(1-4): 107-117 (2007)

Lars Ehm, Sytle M. Antao, Jiuhua Chen, Darren R. Locke, F. Marc Michel, C. David Martin, Tony Yu, Peter L. Lee, Peter J. Chupas, Sarvjit D. Shastri, Quanzhong Guo and John B. Parise, Studies of Local and Intermediate Range Structure in Crystalline and Amorphous Materials at High Pressure Using High-Energy X-Rays, *Advances in X-ray Analysis* 22 (2) 108–112 (2007)

Paul Raterron, Jiuhua Chen, Li Li, Donald Weidner and Patrick Cordier, Pressure-induced slip-system transition in forsterite: Single-crystal rheological properties at mantle pressure and temperature, *American Mineralogist* 92, 1436-1445, (2007)

Sytle M. Antao, Ian Jackson, Baosheng Li, Jennifer Kung, Jiuhua Chen, Ishmael Hassan, Robert C. Liebermann, John B. Parise, High-temperature elasticity of magnesioferrite spinel, *Physics and Chemistry of Minerals*, DOI 10.1007/s00269-007-0152-z (2007)

Chen, Jiuhua, Li Li, Tony Yu, Hongbo Long, Donald Weidner, Liping Wang and Michael Vaughan, Do Reuss and Voigt bounds really bound in high-pressure rheology experiments? *Journal of Physics: Condensed Matter* 18, S1049-S1059 (2006)

Martin, C. D., W. A. Crichton, H. Liu, V. Prakapenka, J. Chen, and J. B. Parise, Phase transitions and compressibility of NaMgF₃ (Neighborite) in perovskite- and post-perovskite-related structures, *Geophys. Res. Lett.*, 33, L11305, doi:10.1029/2006GL026150, (2006)

Li, L., D. Weidner, P. Raterron, J. Chen, M. Vaughan, S. Mei and B. Durham, Deformation of olivine at mantle pressure using the D-DIA, *Eur. J. Mineral.* 18, 7-19 (2006).

Solozhenko, Vladimir L., Oleksandr O. Kurakevych, Elena G. Solozhenko, Jiuhua Chen and John B. Parise, Equation of state of graphite-like BC, *Solid State Communications*, Vol. 137 (5), 268-271 (2006).

Martin, C. David, Wilson A. Crichton, Haozhe Liu, Vitali Prakapenka, Jiuhua Chen, and John B. Parise, Rietveld structure refinement of perovskite and post-perovskite phases of NaMgF₃ at high pressures, *American Mineralogist*, 91, 1703-1706, (2006)

Chen, Jiuhua, Haozhe Liu, C. David Martin, John Parise, Donald Weidner, Crystal chemistry of NaMgF₃ perovskite at high pressure and temperature, *American Mineralogist*, 90 (10), 1534-1539 (2005).

Chen, Jiuhua, Donald J. Weidner, Liping Wang, Michael T. Vaughan, and Christopher E. Young, Density measurements of molten materials at high pressure using synchrotron x-ray radiography: Melting volume of FeS, in *Advances in High-Pressure Technology for Geophysical Applications*, Eds. J. Chen, Y. Wang, T.S. Duffy, G. Shen and L.F. Dobrzhinetskaya, ELSEVIER, Amsterdam, pp. 185-194 (2005).

Weidner, Donald J., Li Li, William Durham, Jiuhua Chen, High-temperature plasticity measurements using synchrotron X-rays, in *Advances in High-Pressure Technology for Geophysical Applications*, Eds. J. Chen, Y. Wang, T.S. Duffy, G. Shen and L.F. Dobrzhinetskaya, ELSEVIER, Amsterdam, pp. 123-135 (2005).

Liu, H.-Z., J. Chen, J. Hu, C. D. Martin, D. J. Weidner, D. Hausermann, H. -K. Mao, Octahedral tilting evolution and phase transition in orthorhombic NaMgF₃ perovskite under pressure, *Geophys. Res. Lett.*, 32, L04304, doi:10.1029/2004GL022068 (2005).

Chen, J., N. Schmidt, J. H. Chen, L. P. Wang, D. J. Weidner, J. Z. Zhang and Y. B. Wang, Yield strength enhancement of MgO by nanocrystals, *Journal of Materials Science* 40(21): 5763-5766 (2005).

Liu, Haozhe, John S. Tse, Jingzhu Hu, Zhenxian Liu, Luhong Wang, Jiuhua Chen, Don J. Weidner, Yue Meng, Danial Hausermann, Ho-kwang Mao, Structural Refinement of the High-Pressure Phase of Aluminum Trihydroxide: In-Situ High-Pressure Angle Dispersive Synchrotron X-ray Diffraction and Theoretical Studies, *J. Phys. Chem. B* 109, 8857-8860 (2005).

Chen, J., L. Li, D. J. Weidner, M. T. Vaughan, Deformation Experiments using Synchrotron X-rays: In situ stress and strain measurements at high pressure and temperature, *Physics of the Earth and Planetary Interiors* 143-144, 347-356(2004).

Liu, H., C.Q. Jin, J. Chen, J. Lu, Anomalous Dynamical Charge Change Behavior of Nanocrystalline 3C-SiC upon Compression, *J. Am. Ceram. Soc.*, 87 [12] 2291-2293 (2004).

Weidner, D. J., L. Li, M. Davis, and J. Chen, Effect of plasticity on elastic modulus measurements, *Geophys. Res. Lett.*, 31, L06621, doi:10.1029/2003GL019090 (2004).

Li, L., D. Weidner, P. Raterron, J. Chen, M. Vaughan, Stress Measurements of Deforming Olivine at High Pressure, *Physics of the Earth and Planetary Interiors* 143-144, 357-367(2004).

H. Liu, J. Hu, J. Xu, Z. Liu, J. Shu, H. K. Mao, and J. Chen, Phase transition and compression behavior of gibbsite under high-pressure, *Phys Chem Minerals* 31, 240 – 246 (2004).

Paul Raterron, Yujun Wu, Donald J. Weidner, and Jiuhua Chen, Low-Temperature Olivine Rheology at High Pressure, *Physics of the Earth and Planetary Interiors* 145(1-4), 149-159 (2004).

Li, L., D. Weidner, J. Chen, M. Vaughan, and Maria Davis, X-ray strain analysis at high pressure: Effect of plastic deformation in MgO, *Journal of Applied Physics*, 95 (12), 8357 – 8365 (2004).

Solozhenko, V., E. Solozhenko, P. Zinin, L. Ming, J. Chen, and J. Parise, Equation of state and phase stability of turbostratic carbon nitride, *Journal of Physics and Chemistry of Solids*, 64(8): 1265-1270 (2003).

Professional affiliations:

American Geophysical Union, Materials Research Society, Japanese Society for Synchrotron Radiation Research, Japan Society of High Pressure Science and Technology.

Honors and awards:

United University Professions Individual Development Awards, State University of New York at Stony Brook, 2007
Promising Inventor, Research Foundation, State University of New York, 2005

United University Professions Individual Development Awards, State University of New York at Stony Brook, 2001
Research Fellow of Japan Society for the Promotion of Science, Institute of Materials Structure Science, KEK, 1998
Young Scientist Award, International Union of Crystallography, 1997

Fellowship of outstanding foreign students of Japanese Ministry of Education, Science and Culture, 1991-1993,
National Laboratory for High Energy Physics, Tsukuba

Biographical Profile Inclusion in Marquis *Who's Who in America* (56th - 62th Edition, 2002-2008), *Who's Who in Science and Engineering* (2003-2008)

Institutional and professional services (Last five years):

Member of the Committee for Academic Planning and Resource Allocation, Stony Brook University (2006 – 2007).
Founding Editor of the COMPRES (Consortium of Materials Properties Research for Earth Sciences) Newsletter (2002–present).

Representative of the Special Interest Group of High Pressure Research at the National Synchrotron Light Source (NSLS), (2006–2007).

Editorial Advisory Board of *The Open Mineralogy Journal* (2007-present).

Meeting organizer: NSLS Workshop 2006, 2008, MR session at AGU Conference 2007, Union Session of AUG Joint Assembly 2008.