

Jiuhua Chen

1. Name and academic rank:

Jiuhua Chen, Professor, Department of Mechanical and Materials Engineering, Director, CeSMEC

2. Education – degree, discipline, institution, year

Ph.D. Synchrotron Radiation Physics, Japan Graduate University for Advanced Studies, Tsukuba Japan, April 1994

M.S. Condensed Matter Physics, Jilin University, Changchun China, July 1987

B.S. Physics, Jilin University, Changchun China, July 1984

3. Academic experience – institution, rank, title

27 years

Professor, Mech. & Mater. Eng. Dept., FIU, 2012-present

Director, CeSMEC, FIU, 2017-present

Graduate Program Director, Mech. & Mater. Eng. Dept., FIU, 2008-2009

Associate Professor, Mech. & Mater. Eng. Dept., FIU, 2007-2012

Deputy Director, CeSMEC, FIU, 2007-2017

Adjunct Professor, Geosci. Dept. Stony Brook University, 2007-2019

Adjunct Research Professor, MPI, Stony Brook University, 2007-2019

Guest Professor, HPSTAR and Jilin University, 2013-2018

Adjunct Associate Professor, Geosci. Dept. Stony Brook University, 2004-2007

Associate Research Professor, MPI, Stony Brook University, 2001-2007

Associate Dean of Admissions, Stony Brook University, 2006-2007

Assistant Dean of Admissions, Stony Brook University, 2005-2006

Associate Director, MPI, Stony Brook University, 2002-2007

Acting Director, MPI, Stony Brook University, 2004-2005

Assistant Research Professor, MPI, Stony Brook University, 1996-2001

Post-doc, MPI, Stony Brook University, 1994-1996

4. Non-Academic experience

Research Associate, Changchun Institute of Applied Chemistry, 1987-1990

5. Certifications or professional registrations: N/A

6. Current membership in professional organizations

American Geophysical Union (AGU)

The Mineral, Metal and Material Society (TMS)

Materials Research Society (MRS)

High Pressure Society of America (HiPSA)

7. Honors and awards

Faculty Award of Excellence in Advising and Mentorship, FIU, 2015

Research Fellow of Japan Society for the Promotion of Science, Ehime University, 2014.

Faculty Award of excellence in Research and Creative Activities, FIU, 2012

Top Scholars from Across the Disciplines, FIU, 2009
United University Professions Individual Development Award, Stony Brook University, 2001, 2007
Promising Inventor, Research Foundation, Stony Brook University, 2005
Research Fellow of Japan Society for the Promotion of Science, PF, KEK, 1998.
Young Scientist Award, International Union of Crystallography, 1997
Fellowship of outstanding foreign students of Japanese Ministry of Education, Science and Culture, National Laboratory for High Energy Physics, 1991-1993.

8. Service activities (within and outside of the institution)

College Faculty Council, College T&P Committee, College Budget Committee, Member of Education Outreach Infrastructure and Development Committee for the Consortium for Materials Properties Research in Earth Sciences (2016-2019); Chair, IASPEI/IAVCEI/IAGA Joint Commission on Physics and Chemistry of Earth Materials of International Union of Geodesy and Geophysics (2013-2020); Member of Editorial Board of Scientific Reports, 2015-present; Review Editor, *Frontiers in Earth Science: Earth and Planetary Materials* (2014-present) Chair, Scientific Program Committee for AIRAPT 2017 (the 26th International Conference on High Pressure Science and Technology); NSF Reviewer, DOE Reviewer.

9. Briefly list the most important publications and presentations from the past five years

Li, B., Y. Ding, D. Y. Kim, L. Wang, T.-C. Weng, W. Yang, Z. Yu, C. Ji, J. Wang, J. Shu, J. Chen, K. Yang, Y. Xiao, P. Chow, G. Shen, W. L. Mao and H.-K. Mao. "Probing the Electronic Band Gap of Solid Hydrogen by Inelastic X-Ray Scattering up to 90 GPa." *Physical Review Letters*, 2021

Hou, M., Y. He, B. G. Jang, S. Sun, Y. Zhuang, L. Deng, R. Tang, J. Chen, F. Ke, Y. Meng, V. B. Prakapenka, B. Chen, J. Shim, J. Liu, D. Y. Kim, Q. Hu, C. J. Pickard, R. J. Needs and H.-K. Mao. "Superionic iron oxide–hydroxide in Earth’s deep mantle." *Nature Geoscience*, 2021

Chen, J. "Tracking the origin of ultralow velocity zones at the base of Earth's mantle." *National Science Review*, 2021

Smith, A., M. Asadikiya, M. Yang, J. Chen and Y. Zhong. "An Investigation of Creep Resistance in Grade 91 Steel through Computational Thermodynamics." *Engineering*, 2020

Smith, A., M. Asadikiya, J. Chen and Y. Zhong. "The compositional optimization and secondary phases evaluation regarding the creep resistance in Grade 91 steel through the CALPHAD approach." *Computational Materials Science*, 2020

Najiba, S., S. J. Juhl, M. Mandal, C. Liu, A. Durygin, J. Chen, Y. Fei, N. Alem and K. Landskron. "Synthesis of nanopolycrystalline mesoporous diamond from periodic mesoporous carbon: Mesoporosity increases with increasing synthesis pressure." *Scripta Materialia*, 2019

Mora Mendoza, E. Y., A. Sarmiento Santos, E. Vera López, V. Drozd, A. Durygin, J. Chen and S. K. Saxena. "Iron oxides as efficient sorbents for CO2 capture." *Journal of Materials Research and Technology*, 2019

10. Briefly list the most recent professional development activities

- Developed Quality Matters (QM) certified online course EGN3311 Statics, 2020
- Attended team-based learning (TBL) teaching strategy summer workshop, and developed TBL EGN3311 statics course.