

Moses Ntam, Ph.D., Assistant Professor, Physics Department, College of Arts and Sciences

Publications and presentations 2008-2016

Publications

1. Xiaoli Tang,* **Moses C. Ntam**, Jianjun Dong, Emma S. G. Rainey, and Abby Kavner, *The Thermal Conductivity of Earth's Lower Mantle*, Geophysical Research Letters(March 2014).
2. First-Principles Calculation of Thermal Conductivity in MgO and NaCl at High Temperatures, 2009 COMPRES annual Meeting.
3. Effects of lattice anharmonicity on the thermodynamic properties of minerals at high temperatures: a first principles study, 2010 COMPRES annual meeting
4. First-Principles calculation of Thermal Conductivity of silicate perovskite at high pressures and temperatures, 2011 American Physical Society (APS) March meeting.
5. First-principles study of pressure dependence of lattice thermal conductivity of α - Al_2O_3 , 2011COMPRES annual meeting.
6. First-principles calculation of lattice thermal conductivity of ferropericlase $Mg_{1-x}Fe_xO$, 2011 American Geophysical Union (AGU) annual meeting.

Manuscripts in preparation

1. **Moses Ntam** Bin Xhu, JJ Dong, *First-principles study of thermodynamic properties and density dependence of phonon lifetimes in $\alpha - Al_2O_3$*
2. **Moses Ntam**, Jianjun Dong , Xiaoli Tang , *First-principles calculation of lattice thermal conductivity of $MgSiO_3$ - post perovskite phase and Fe-bearing silicate perovskite at high pressures and temperatures*

Presentations

- Selected Graduate Student Talk, 2009 Consortium for Material Properties Research in Earth Sciences (COMPRES) Annual Meeting, *First-Principles Calculation of Thermal Conductivity in MgO and NaCl at High Temperatures*, Mount Washington Resort, Bretton Woods, New Hampshire, June 19-22, 2009.
- Selected Graduate Student Talk, 2010 COMPRES Annual Meeting, *Effects of lattice anharmonicity on the thermodynamic properties of minerals at high temperatures: a first principles study*, Skamania Lodge, Stevenson, Washington, June 22-25, 2010.

- Contributed talk, Focus Session: Materials at High Pressure; Geophysical Materials, 2011 APS March Meeting *First-Principles calculation of Thermal Conductivity of silicate perovskite at high pressures and temperatures* , Dallas, Texas, March 23, 2011.
- Contributed talk, Focus Session: Thermoelectric Materials, 2011APS March Meeting *Thermal Conductivity of Aluminium Oxide from First-Principles*, Dallas, Texas, March 24, 2011.
- Selected Graduate Student Talk, 2011 joint annual conference of the National Society of Black Physicists and National Society of Hispanic Physicists: *First-principles calculation of lattice thermal conductivity of lower mantle minerals* , Renaissance Hotel, Austin, TX Sept. 21-Sept. 24, 2011.
- Poster presentation, 2011 COMPRES Annual Meeting, *First-principles study of pressure dependence of lattice thermal conductivity of $\alpha - Al_2O_3$* . Kingsmill Resort, Williamsburg, Virginia, June 14-17, 2011.
- Poster presentation, 2011 American Geophysical Union(AGU) Annual Meeting, *First-principles calculation of lattice thermal conductivity of ferropericlase $Mg_{1-x}Fe_xO$* . Moscone Center, San Francisco, California, December 5-9, 2011.
- 2013 HBCU/MEI summer Faculty Program at Oak Ridge National Laboratory, June-July 2013, First-principles calculation of anharmonicity induced phonon lifetimes in FeSi
- New Directions for High Pressure Neutron Research, June 3rd -5th, 2013 at the Oak Ridge National Laboratory in Oak Ridge, Tennessee Jianjun Dong, Moses Ntam; First principles study of pressure dependence of phonon lifetimes of structurally complex mineral;
- Annual Meeting of American Association of Physics Teachers AAPT, U. South Alabama, Mobile, AL, Saturday, April 5, 2014, Sessa S. Srinivasan, Moses Ntam, Zengjun Chen, P.C. Sharma, Leah M. Sanks, Sherry King; *21st Century Teaching Methodologies to enhance the Physics-I Course Effectiveness, Students Learning Outcomes and Assessments*;