

Publications:

1. A. Stewart, **B. Khamala**, D. Hart, Y. Malozovisky and D. Bagayoko, "Ab-initio Calculations of Electronic, Transport and Bulk Properties of cubic Boron Nitride (zb-BN)" Journal of Advances in Physics 05/2015; 9 (1):2277-2286.
2. Ifeanyi H. Nwigboji, John I. Ejembi, Yuriy Malozvosky, **Bethuel Khamala**, Lashounda Franklin, Guanglin Zhao, Chinedu Ekuma, Diola Bagayoko. "Ab-Initio computations of electronic and transport properties of wurtzite Aluminum Nitride" Journal of Material Chemistry and Physics (2015), DOI information: 10.1016/j.matchemphys.2015.03.019
3. Yacouba Issa Diakit , Sibiry D. Traor , Yuriy Malozovsky, **Bethuel Khamala**, Lashounda Franklin, Diola Bagayoko. "Calculated Electronic and Related Properties of Wurtzite and Zinc Blende Gallium Nitride (GaN)". (manuscript submitted for publication and available on <http://arxiv.org/abs/1410.0984>).
4. D. Bagayoko, **B. Khamala**, L. franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, D. Yacouba, A.saliev, " Density functional theory revisited: The Mathematical and Physical Conditions for the Physical Content of the Eigenvalues". Bulletin of the American Physical Society, 2014/3/5; (59).
5. **B. Khamala**, A. Stewart, L. franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, and D. Bagayoko, "Accurate, Calculated electronic, transport, and structural Properties of zinc-blende Zinc Sulphide"(manuscript to be submitted for publication and to be available on ArXiv).
6. **B. Khamala**, A. Stewart, L. Franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, and D. Bagayoko, "Ab-initio Calculations of Accurate Electronic Properties of wurzite Zinc Sulphide" (manuscript in preparation).
7. Walter Lynn, **Bethuel Khamala**, Yuriy Malozovsky, and Diola Bagayoko, "Accurate Electronic, Transport, and Structural Properties of Disodium Sulfide (Na₂S)" presented at the Amrican Physical society (APS), 2015/3 (1), 15007.

Conference Presentations:

1. SMU Finite Element Rodeo, Southern Methodist University, Dallas, Texas. February 27-28, 2015.
2. Careers in Mathematical Sciences: Workshop for Underrepresented Groups, Institute for Mathematics and its Applications (IMA), University of Minnesota, Minneapolis, MN. March 26-28, 2015.
3. **B. Khamala**, A. Stewart, L. Franklin, Y. Malozovsky, and D. Bagayoko, "Accurate Computations of Electronic and Transport Properties of zinc-blende Zinc Sulphide" Poster presented at the 2014 Annual Workshop of The University of Texas at El Paso-New Mexico (UTEP/NM), El Paso, Texas. Nov 1, 2014.
4. **B. Khamala**, A. Stewart, L. Franklin, Y. Malozovsky, and D. Bagayoko, "Accurate Calculations of Electronic and Transport Properties of zinc-blende Zinc Sulphide" presented at the American Physical society (APS), Denver, Colorado. March 3-7, 2014.
5. **B. Khamala**, A. Stewart, L. Franklin, Y. Malozovsky, and D. Bagayoko, "Accurate Calculations of Electronic and Transport Properties of zinc-blende Zinc Sulphide" presented at the 88 th Annual meeting of Louisiana Academy of Science (LAS), LSU - Alexandria, LA. March 8, 2014.
6. **B. Khamala**, A. Stewart, L. Franklin, Y. Malozovsky, and D. Bagayoko, "Computation of the Bulk modulus and Total energy of ZnS" presented at the 2014 National Conference of NAAAS, NAHLS, NANAS, and IAAS at the Crowne plaza, Baton Rouge, LA. February 10-15, 2014.
7. **B. Khamala**, L. Franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, A. Stewart, and D. Bagayoko, "Ab-initio Calculations of Accurate Electronic Properties of materials (zb-ZnS)" at 2013 LA-SiGMA RII Symposium, Marriott Hotel, Baton Rouge, LA. July 29, 2013.
8. **B. Khamala**, L. Franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, A. Stewart, and D.

- Bagayoko, “Ab-initio Calculations of Accurate Electronic Properties of materials (w-ZnS)” Presented a poster at the 2013 Southern University Sustainability conference, Baton Rouge, LA. April 22 to 26, 2013.
9. S. Adonnay, **B. Khamala**, L. Franklin, C. E. Ekuma, and D. Bagayoko, “First Principle Study of Electronic structures of (zb-InAs).” Adonnay presented a poster at the 2013 Southern University Sustainability conference, Baton Rouge, LA. April 22nd to 26th, 2013.
 10. **B. Khamala**, L. Franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, A. Stewart, and D. Bagayoko, “Ab-initio Calculations of Accurate Electronic Properties of materials (zb-ZnS).” Default Presented a poster at the Fourth Annual Industry-Academia Collaborative Workshop: Next Generation Energy Technology, Marriott Hotel, Baton Rouge, LA. April 9, 2013.
 11. S. Adonnay, **B. Khamala**, L. Franklin, C. E. Ekuma, and D. Bagayoko, “First Principle Study of Electronic structures of (zb-GaAs).” Adonnay presented a poster at the Fourth Annual Industry-Academia Collaborative Workshop: Next Generation Energy Technology, Marriott Hotel, Baton Rouge, LA. April 9, 2013.
 12. **B. Khamala**, L. Franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, A. Stewart, and D. Bagayoko, “Ab-initio Calculations of Accurate Electronic Properties of (zb-ZnS).” Presented a Poster at the 87th Annual Meeting of Louisiana Academy of Sciences (LAS) at Grambling State University, Grambling, LA, March. 9, 2013.
 13. A. Stewart, **B. Khamala**, L. Franklin, C. E. Ekuma, G. L. Zhao, Y. Malozovsky, and D. Bagayoko, “Ab-initio Calculations of Accurate Electronic Properties of (w-CdS).” Stewart presented at the 87th Annual Meeting of Louisiana Academy of Sciences (LAS) at Grambling State University, Grambling, LA, March 9, 2013.
 14. S. Adonnay, **B. Khamala**, L. Franklin, C. E. Ekuma, and D. Bagayoko, “First Principle Study of Electronic structures of (zb-GaAs).” Adonnay presented a poster at the 87th Annual Meeting of Louisiana Academy of Sciences (LAS) at Grambling University, Grambling, LA, March 9, 2013.

Conference and Workshop Attendance:

15. MPI 2015 Industrial Workshop, University of Delaware, June 22-26, 2015.
16. Graduate Student mathematical Modeling Camp (GSMMC), Rensselaer Polytechnic, June 16-19, 2015.
17. Careers and opportunities in industry for Mathematical Scientists, Institute for Mathematics and its Applications (IMA), University of Minnesota, Minneapolis, MN. April 20-22, 2015.
18. 2012 LA-SiGMA RII Symposium, Marriott Hotel, Baton Rouge, LA. July 23, 2012 .
19. Louisiana Alliance for Simulation-Guided Materials Application (LA-SiGMA) Graduate Student Retreat, Tulane University, New Orleans, LA. July 2, 2012.
20. LA -SiGMA All-hands Meetings, EPSCoR RII. Baton Rouge, Louisiana. July 23, 2012.
21. Virtual School of Computation Science and Engineering (VSCSE). VSCSE Programming Heterogeneous Parallel Computing Systems Summer School 2012. Louisiana State University.
22. Density Functional Theory Workshop Louisiana State University, Baton Rouge, LA. July 23 - 27, 2012.