BIN AMIN

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Address: Department of Physics, Abbottabad University of Science & Technology, Pakistan
Phone: +92-333-9434665

I. PERSONAL

1. Place of Birth: Lahor, Swabi, Khyber Pakhtunkhwa, Pakistan
2. Date of Birth: March 02, 1980
3. Marital Status: Married

II. EDUCATION

1. Post-Doctoral: King Abdullah University of Science and Technology (2015)
2. PhD: Physics: Hazara University, Mansehra, Pakistan (2011)
3. MPhil: Physics: University of the Punjab, Pakistan (2008)
4. MSc: Physics: University of Peshawar, Pakistan (2002)
5. BSc: Physics: University of Peshawar, Pakistan (2000)

III. EXPERIENCES

A. Teaching

1. **Associate Professor** (2019-....): Department of Physics, Abbottabad University of Science & Technology, Abbottabad
2. **Assistant Professor** (2016-2019): Department of Physics, Hazara University, Mansehra
3. **Lecturer** (2008-2016): Department of Physics, Hazara University, Mansehra

B. Administration

1. **Chairman** (2019-....): Department of Physics, Abbottabad University of Science & Technology
2. **Director Advanced Studies and Research Board** (2019-): Abbottabad University of Science & Technology
3. **Director Academics** (2019-): Abbottabad University of Science & Technology
4. **Member of the Senate** (2019-....): Abbottabad University of Science & Technology
5. **Member of the Academic Council** (2019-....): Abbottabad University of Science & Technology
6. **Member of the board of studies** (2016-2019): Department of Physics, Hazara University
7. **Coordinator of the PhD program** (2016-2019) Department of Physics, Hazara University

IV. AWARDS/APPRECIATION

1. **Certificate of Appreciation-xxx**
   Vice-Chancellor Hazara University Mansehra, Pakistan, www.hu.edu.pk

2. **Research Productivity Award 2013-14**
   Pakistan Council for Science and Technology, www.pcst.org.pk

3. **Competitive Research Grant Award 2016-17**
   Higher Education Comission of Pakistan, www.hec.gov.pk

4. **Certificate of Appreciation Award-2017**
   OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH)

5. **Certificate of Appreciation-2019**
   Vice-Chancellor Abbottabad University of Science & Technology, Pakistan, www.aust.edu.pk

6. **Certificate of Reviewing Award**
   4.1 Journal of Magnetism and Magnetic Materials 2018
   4.2 Journal of Superlattices and Microstructures 2018
   4.3 Journal of Physics and Chemistry of Solids 2018
   4.4 Computational Materials Science 2018
   4.5 Materials Research Bulletin 2018
   4.6 Optik-International Journal for Light and Electron Optics 2016
   4.7 Journal Material Chemistry and Physics 2016 (two-review)
   4.8 Journal of Alloys and Compounds 2016 (two-review)
   4.9 Physica B: Physics of Condensed Matter 2012

V. RESEARCH GRANT

1. **Deanship of Scientific Research Grant 2018-2019 Project No. 39-YR-2**
   Princess Nourah bint Abdulrahman University, Kingdom of Saudi Arabia

2. **National Research Program For Universities (NRPU) 2016-17 Project No. 5727**
   Higher Education Comission of Pakistan, www.hec.gov.pk

3. **Institutional Strengthening Project 2016 Project No. 11-09(2015)/HEC/Acad/IS**
   Higher Education Comission of Pakistan, www.hec.gov.pk

VI. RESEARCH INTEREST

First-principles study of:

- Phonon spectrum and viberational properties of bulk, two dimensional materials
- Band gap engineering via external electric field and mechanical strain in two dimensional materials
- Out-of-plane (van der Waals) and in-plane hetrostructures of two dimensional layered materials
- Thermoelctric properties in bulk, two dimensional oxides, layered materials and their hetrostructures.
- Alloys study with vacancies and doped magnetic material for new spintronic and optoelectronic devices.
- Organic molecules on metallic surfaces and Interface of oxides pervoskites

VII. CONFERENCE/WORKSHOP CONTRIBUTIONS

1. B. Amin: Invited Speaker: **One Day DFT Workshop & Poster Presentation (October xx-xx, 2019)**
   Department of Physics, Islamia College Peshawar, Pakistan

2. B. Amin: Symposium Secretary: **First National Symposium on Physics (March 27-29, 2019)**
   Department of Physics, Hazara University, Pakistan

3. B. Amin: Principal Organizer: **International Conference on Modeling and Simuation of Emerging Materials (July 02-04, 2018)**
   Department of Physics, Abbottabad University of Science & Technology, Pakistan

4. B. Amin: Principal Organizer: **National Conference on Emerging Trends in Materials Science (October 05-07, 2017)**
   Department of Physics, Abbottabad University of Science & Technology, Pakistan

5. B. Amin: Organizer: **International workshop on Material Modeling and Simulatin (March 01-02, 2017)**
   Department of Physics, Abbottabad University of Science and Technology, Pakistan

6. B. Amin: **International Workshop on Rational Design of Materials for Energy Needs: Computation and Experimentation (May 22-26, 2017)**
   OIC Ministerial Standing Committe on Scientific and Technological Cooperation (COMSTECH) Islamabad, Pakistan

7. B. Amin, N. Singh, and U. Schwingenschlögl, Heterostructures of transition metal dichalcogenides: **International Scientific Spring (ISS-2016) (March 07-11, 2016)**
   National Centre for Physics (NCP) Islamabad, Pakistan

8. S. A. Khan, Thaneshwor P. Kaloni, Georg Schreckenbach, Michael S. Freund and B. Amin, Materials properties of out-of-plane heterostructures of MoS_2-WSe_2 and WS_2-$MoSe_2$: **International Scientific Spring (ISS-2016) (March 07-11, 2016)**
   National Centre for Physics (NCP) Islamabad, Pakistan

9. B. Amin, T. P. Kaloni, and U.Schwingenschlögl, Strain engineering of WS_2, WSe_2, and WTe_2: **European Material Research Society (EMRS) Fall meeting 2014(September 15-19, 2014)**
   Warsaw University of Technology, Poland

10. B. Amin, N. Singh, T. Tritt, H. N. Alshareef, and U.Schwingenschlögl, Enhancement of the thermoelectric performance in Pr/Nb-doped SrTiO3 by strain: **Material Research Society (MRS) Fall meeting 2013 (December 01-06, 2013)**
    Hynes Convention Center and the Sheraton Boston Hotel, in Boston, Massachusetts, USA

11. B. Amin, M. Upadhyay-Kahaly, H. N. Alshareef, and U. Schwingenschlögl, Enhanced Performance of Oxides Thermoelectrics by Magnetic materials Doping: **Material Research Society (MRS) Fall meeting 2013 (December 01-06, 2013)**
    Hynes Convention Center and the Sheraton Boston Hotel, in Boston, Massachusetts, USA

12. B. Amin, S. Nazir, and U. Schwingenschlögl, Molecular distortion and charge transfer effects in ZnPc/Cu(111): **Interdisciplinary Surface Science Conference (ISSC-19) (March 25-28 2013)**
    Institute of Physics, East Midlands Conference Centre, Nottingham, UK

VIII. PUBLICATIONS

1. Computational insights into structural, electronic and optical characteristics of GeC/C_2N van der Waals heterostructures: Effects of strain engineering and electric field
   RSC Adv. xx, xxx (2020)

2. Tuan V. Vu, Nguyen V. Hieu, Huynh V. Phuc, Nguyen N. Hieu, H. D. Bui, M. Idrees, B. Amin, Chuong V. Nguyen, Graphene/WSeTe van der Waals heterostructure: Controllable electronic properties and Schottky barrier via interlayer coupling and electric field
   Appl. Surf. Sci. 507, 145036 (2020)

3. P. Le, D. Thuan, Huynh V. Phuc, H. Nguyen, H. D. Bui, B. Amin, Computational understanding of the band alignment engineering in PbI_2/PtS_2 heterostructure: Effects of electric field and vertical strain.
   Physica E: Low-dimensional Systems and Nanostructures 115, 113706 (2020)

4. Shafiq Ur Rehman, B. Amin, Muhammad Hafeez, Syed Ali Khan, Irshad Ahmad Mir, Waqar Uddin, Liu Wei, Zhu ling, Realization of Noble Heterobilayers with Enhanced Optoelectronic Properties.
Appl. Surf. Sci. xx, xxx (2020)

5. Dat D. Vo, Tuan V. Vu, Nguyen V. Hieu, Nguyen N. Hieu, Huynh V. Phuc, Nguyen T. T. Binh, Le T. T. Phuong, M. Idrees, B. Amin, Chuong V. Nguyen, Band alignment and optical features in Janus-MoSeTe/X$(OH)_2$ (X=Ca, Mg) van der Waals heterostuctures.
Phys. Chem. Chem. Phys. 21, 25849 (2019)

6. H. U-Din, M. Idrees, Arwa Albar, M. Shafiq, Iftikhar Ahmad, Chuong V. Nguyen, and B. Amin, Rashba spin splitting and photocatalytic properties of GeC–MSSe (M=Mo, W) van der Waals heterostructures.
Phys. Rev. B 100, 165425 (2019)

7. Tuan V. Vu, Nguyen V. Hieu, Le T. P. Thao, Nguyen N. Hieu, Huynh V. Phuc, H. D. Bui, M. Idrees, B. Amin, Le M. Duc, Chuong V. Nguyen, Tailoring the structural and electronic properties of $SnSe_2/MoS_2$ van der Waals heterostructure by electric field and the insertion of graphene sheet.
Phys. Chem. Chem. Phys. 21, 22140 (2019)

8. Gul Rehman, S. A. Khan, Roshan Ali, Iftikhar Ahmad, Li-Yong Gan, B. Amin, Van der Waals heterostructures of blue phosphorene and scandium-based MXenes monolayers.
J. Appl. Phys. 126, 143101 (2019)

9. M. Idrees, H. U. Din, R. Ali, G. Rehman, T. Hussain, C. V. Nguyen, Iftikhar Ahmad, B. Amin, Optoelectronic and solar cell applications of Janus monolayers and their Van der Waals heterostructure.
Phys. Chem. Chem. Phys. 21, 18612 (2019).

10. Akmal Khan, H. U. Din, M. Idrees, Fawad Khan, Tahani A. Alrebdi, Chuong V. Nguyen, M. Shafiq, B. Amin, First-principles study of metal-semiconductor contact between MX_2 (M=Nb, Pt; X=S, Se) monolayers.
Phys. Lett. A 383, 125867 (2019).

11. Khang D. Pham, Trinh D. Nguyen, Huynh V. Phuc, Nguyen N. Hieu, H. D. Bui, B. Amin, Chuong V. Nguyen, Strain and electric field engineering of band alignment in InSe/$Ca(OH)_2$ heterostructure.
Chem. Phys. Lett. 732, 136649 (2019).

12. Shujaat A Khan, Gul Rehman, Iftikhar Ahmad, Muhammd Maqbool, Cesare Franchini, B. Amin, Intriguing Electronic and Optical Properties of M_2CX_2 (M=Mo, W; X=O, F) MXenes and their van der Waals heterostructures.
Chem. Phys. Lett. 731, 136614 (2019).

13. Khang D. Pham, Long Bach, B. Amin, Muhammad Idrees, Nguyen N. Hieu, Huynh V. Phuc, H Bui, Chuong V. Nguyen, Tri-layered van der Waals heterostructures based on Graphene, Gallium Selenide and Molybdenum Selenide.
J. Appl. Phys. 125, 225304 (2019).

14. C. V. Nguyen, D. V. Thuan, H. V. Phuc, B. D. Hoi, N. N. Hieu, B. Amin, K. D. Pham, Strain and electric field engineering of electronic structures and Schottky contact of layered graphene/$Ca(OH)_2$ heterostructure.
Superlat. Microstruct. 133, 106185 (2019).

15. Q. Mahmood, M. Rashid, B. Amin, N. A. Noor, A. Laref, Theoretical prediction of optoelectronic and thermoelectric properties of $RbXO_2$ (X=Al, Ga, In) for renewable energy applications.
Chem. Phys. Lett. 728, 87-93 (2019).

16. H. U. Din, M. Idrees, Tahani A. Alrebdi, Chuong V. Nguyen, B. Amin, Electric field tunable electronic properties of P-ZnO and SiC-ZnO van der Waals heterostructures.
Comp. Mater. Sci. 164, 166-170 (2019).

17. Khang D. Pham, Nguyen N. Hieu, Le M. Bui, I. Ershov, Nguyen N. Hieu, Huynh V. Phuc, Bui D. Hoi, P. Le, L. Duc, M. Idrees, B. Amin, Chuong V. Nguyen, Strain engineering and electric field tunable electronic properties of Ti_2CO_2 MXene monolayer.
Mater. Res. Express 6, 065910 (2019).

18. P. T. T.Le, Le M.Bui, Nguyen N. Hieu, Huynh V.Phuc, B. Amin, Nguyen V. Hieu, Chuong V.Nguyen, Tailoring electronic properties and Schottky barrier in sandwich heterostructure based on graphene and tungsten diselenide.
Diamond and Related Materials 94,129-136 (2019).

19. M. Idrees, H. U. Din, S. A. Khan, Iftikhar Ahmad, Li-Yong Gan, Chuong V. Nguyen, B. Amin, Van der Waals heterostructures of P, BSe and SiC monolayers.
J. Appl. Phys. 125, 094301 (2019).

20. Khang D. Pham, Chuong V. Nguyen, Huong T.T. Phung, , Huynh V. Phuc, B. Amin, Nguyen N. Hieu, Strain and electric field tunable electronic properties of type-II band alignment in van der Waals GaSe/$MoSe_2$ heterostructure.
Chem. Phys. Lett. 521, 92-99 (2019).

21. F. Subhan, S. Azam, G. Khan, M. Irfan, S. Muhammad, A. G. Al-Sehemi, S. H. Naqib, R. Khenata, S. A. Khan, I. V. Kityk, B. Amin, Elastic and optoelectronic properties of $CaTa_2O_6$ compounds: Cubic and orthorhombic phases.
J. Alloys and Comp. 785, 223-239 (2019).

22. Fawad Khan, H. U. Din, S. A. Khan, G. Rehman, M. Bilal, Chuong V. Nguyen, Iftikhar Ahmad, Li-Yong Gan, B. Amin, Theoretical investigation of electronic structure and thermoelectric properties of MX_2 (M=Zr, Hf; X=S, Se) van der Waals heterostructures.
J. Phys. Chem. Solids 126, 304 (2019).

23. Khang D. Pham, Nguyen N. Hieu, Le M. Bui, Huynh V. Phuc, Bui D. Hoi, Le Tu, Long Bach; Victor V. Ilyasov, B. Amin, M. Idrees, Vertical strain and electric field tunable electronic properties of type-II band alignment C_2N/InSe van der Waals heterostructure.
Chem. Phys. Lett. 716, 155 (2019).

24. Do Muoi, Nguyen N. Hieu, Huong T. T. Phung, Huynh V. Phuc, B. Amin, Bui D. Hoi, Nguyen V. Hieu, Le C. Nhan, Chuong V. Nguyen, P. T. T. Le, Electronic properties of WS_2 and WSe_2 monolayers with biaxial strain: A first-principles study.
Chem. Phys. 519, 69 (2019).

25. P. T. T. Le, Nguyen N. Hieu, Le M. Bui, Huynh V. Phuc, Bui D. Hoi, B. Amin, Chuong V. Nguyen, Structural and electronic properties of van der Waals heterostructure based on silicene and gallium selenide: Effect of strain and electric field.
Phys. Chem. Chem. Phys. 20, 27856 (2018).

26. Khang D. Pham, Nguyen N. Hieu, Huynh V. Phuc, I. A. Fedorov, C. A. Duque, B. Amin, and Chuong V. Nguyen, Layered graphene/GaS van der Waals heterostructure: Controlling the electronic properties and Schottky barier by vertical strain.
Appl. Phys. Lett. 113, 171605 (2018).

27. H. U-Din, M. Idrees, Gul Rehman, Chuong V. Nguyen, Li-Yong Gan, Iftikhar Ahmad, M. Maqbool, B. Amin, Electronic structure, optical and photocatalytic performance of novel SiC-MX_2 (M= Mo, W and X=S, Se) van der Waals heterostructures.
Phys. Chem. Chem. Phys. 20, 24168 (2018).

28. Khang D. Pham, Nguyen N. Hieu, Huynh V. Phuc, Bui D. Hoi, Victor V. Ilysov, B. Amin, Chuong V. Nguyen, First principles study of the electronic properties and Schottky barrier in vertically stacked graphene on the Janus MoSeS under electric field.
Comp. Mater. Sci. 153, 438 (2018).

29. Gul Rehman, S. A. Khan, B. Amin, Iftikhar Ahmad, Li-Yong Gan and Muhammad Maqbool, Intriguing Electronic Structure and Optical Properties of Two-dimensinal van der Waals Heterostructures of Zr_2CT_2 (T=O, F) with $MoSe_2$ and WSe_2.
J. Mater. Chem. C 6, 2830 (2018).

30. Huynh V. Phuc, Victor V. Ilyasov, Nguyen N. Hieu, B. Amin, Chuong V. Nguyen, Van der Waals graphene/g-GaSe Heterostructure: Tuning the Electronic Properties and Schottky Barrier by Interlayer Coupling, Biaxial Strain and Electric Gating.
J. Alloys and Comp. 750, 765 (2018)

31. B. Amin, Farzana Majid, M. Bilal Saddique, Bakhtiar Ul Haq, A. Laref, Tahani A. Alrebdi, Muhammad Rashid, Physical properties of half-metallic $AMnO_3$ (A = Mg, Ca) oxides via ab initio calculations.
Comp. Mater. Sci. 146, 248 (2018).

32. Iqtidar Ahmad, Shujaat Ali Khan, Muhammad Idrees, Muhammad Haneef, Ismail Shahid, Haleem Ud Din, Saleem Ayaz Khan, B. Amin, Influence of strain on specific features of MoX_2 (X = S, Se, Te) monolayers.
Physica B: Condensed Matter 545, 113 (2018).

33. Jing-He Liu, Xiang Kan, B. Amin, Li-Yong Gan and Yong Zhao, Theoretical exploring potential applications of Sc-based MXenes.
Phys. Chem. Chem. Phys. 19, 32253 (2017).

34. B. Amin, U. Eckern, and U. Schwingenschlögl, Thermoelectric properties of the misfit cobaltate $Ca_3Co_4O_9$.
Appl. Phys. Lett. 110, 233505 (2017).

35. S. A. Khan, B. Amin, Li-Yong Gan, and Iftikhar Ahmad, Strain Engineering of Electronic structures and Photocatalytic response of MXenes Functionalized by Oxygen.
Phys. Chem. Chem. Phys. 19, 14738 (2017).

36. Mehmood Khan, S. Muhammad and B. Amin, First principle studies of structural, elastic, electronic and magnetic properties of spinel XAl_2O_4 (X= Mg, Mn, Fe, Co, Cu, Ni, Zn) compounds.
Computational Condensed Matter 13, 72 (2017).

37. Uzma Haroon, Muhammad Haneef, Humayun Khan, B. Amin, Saeed Ullah Jan, Photodetachment cross section of a negative molecular ion near a nanospherical surface.
Laser Physics 27, 096002 (2017).

38. B. Amin, T. P. Kaloni, G. Schreckenbach, and M. S. Freund, Materials properties of out-of-plane heterostructures of MoS_2-WSe_2 and WS_2-$MoSe_2$.
Appl. Phys. Lett. 108, 063105 (2016).

39. M. Hassan, N.A. Noor, Q. Mahmood and B. Amin, Investigation of ferromagnetic semiconducting and opto-electronic properties of$Zn_{1-x}Mn_xS$ ($0 \leq x \leq 1$) alloys: A DFT-mBJ approach.
Curnt. Appl. Phys. 16, 1473 (2016).

40. B. Amin, N. Singh, and U. Schwingenschlögl, Heterostructures of transition metal dichalcogenides.
Phys. Rev. B 92, 075439 (2015).

41. Saleem Ayaz Khan, Sikander Azam, Fahad Ali Shah, B. Amin Electronic structure and optical properties of CdO from bulk to nanosheet: DFT approach.
Optical Materials 47, 372 (2015).

42. S. Rauf, S. Arif, M. Haneef, B. Amin, The first principle study of magnetic properties of Mn_2WSn, Fe_2YSn (Y=Ti, V), Co_2YSn (Y=Ti, Zr, Hf, V, Mn) and Ni_2YSn (Y=Ti, Zr, Hf, V, Mn) heusler alloys.
J. Phys. Chem. Solids, 76, 153 (2015).

43. H. Ud. Din, A. H. Reshak, G. Murtaza, B. Amin, R. Ali, Z. A. Alahmed, J. Chysky, J. Bila and H. Kamarudin, Structural, elastic, thermal and electronic properties of M_2X (M = Sr, Ba and X = Si, Ge, Sn) compounds in anti-fluorite structure: first principle calculations.
Indian J Phys. 89, 369 (2015).

44. W. Tanveer, M. A. Faridi, N. A. Noor, Asif Mahmood, B. Amin First-principles investigation of structural, elastic, electronic and magnetic properties of $Be_{0.75}Co_{0.25}Y$ (Y=S, Se and Te) compounds.
Current Applied Physics 15, 1324 (2015).

45. B. Amin, T. P. Kaloni, and U. Schwingenschlögl, Strain engineering of WS_2, WSe_2, and WTe_2.
RSC Adv. 4, 34561 (2014).

46. Muhammad Rashid, N. A. Noor, Bushra Sabir, S. Ali, M. Sajjad, F. Hussain, N.U. Khan, B. Amin, R. Khenata, Ab-initio study of fundamental properties of ternary $ZnO_{1-x}S_x$ alloys by using special quasi-random structures.
Comp. Mater. Sci. 91, 285 (2014).

47. B. Amin, N. Singh, T. Tritt, H. N. Alshareef, and U. Schwingenschlögl, Major enhancement of the thermoelectric performance in Pr/Nb-doped $SrTiO_3$ by strain.
Appl. Phys. Lett. 103, 031907 (2013).

48. B. Amin, S. Nazir, and U. Schwingenschlögel, Relaxation and Charge transfer effect at ZnPc/Cu(111) interface states.
Sci. Rep. 3, 1705 (2013).

49. S. Nazir, B. Amin, and U. Schwingenschlögel, Suppression of the two-dimensional electron gas in $LaGaO_3/SrTiO_3$ by cation intermixing.
Sci. Rep. 3, 3409 (2013).

50. Iftikhar Ahmad and B. Amin, Robust half-metallicity in $Ga_{1-x}Mn_xP$ and $Ga_{1-x}Mn_xAs$.
Comp. Mater. Sci. 68, 55 (2013).

51. F. Semari,, T. Ouahrani, H. Khachai, R. Khenata, M. Rabah, A. Bouhemadou, G. Murtaza , B. Amin, and D. Rached, Electronic Band structure, Optical, Thermal, and Bonding Properties of properties of XMg_2O_4 (X = Si, Ge) Spinel Compounds.
IJMPB 27, 00, 1350082 (2013).

52. B. Amin, Iftikhar Ahmad, M. Maqbool, S. Muhammad, G. Murtaza, S. Ali, and N.A. Noor, Optoelectronic Response of $GeZn_2O_4$ through Modified Becke Johnson Potential.
Chin. Phys. Lett. 29, 097102 (2012).

53. B. Amin, R. Khenata, A. Bouhemadou, Iftikhar Ahmad, and M. Maqbool, Opto-electronic response of spinels $MgAl_2O_4$ and $MgGa_2O_4$ through modified Becke-Johnson exchange potential.
Physica B 407, 2588 (2012).

54. G. Murtaza, B. Amin, S. Arif, M. Maqbool, Iftikhar Ahmad, A. Afaq, S. Nazir, M. Imran, and M. Haneef, Structural, electronic and optical properties of $Ca_xCd_{1-x}O$ and its conversion from semimetal to wide bandgap semiconductor.
Comp. Mater. Sci. 58, 71 (2012).

55. Suneela Arif, B. Amin, Iftikhar Ahmad, M. Maqbool, R. Ahmad, M. Hanif, and N. Ikram, Investigation of half metallicity in Fe doped CdSe and Co doped CdSe materials.
Curnt. Appl. Phys. 12, 184 (2012).

56. S. Arif, Iftikhar Ahmad, and B. Amin, Investigation of Co/Ni substituted AlN for spintronics application.
Int. J. Quntm. Chemistry, 112, 882 (2012).

57. S. Arif, Iftikhar Ahmad, and B. Amin, Study of Robust Half-Metallicity of Co/Ni substituted AlCoN and AlNiN.
Int. J. Quntm. Chemistry 112, 2668 (2012).

58. Zahid Ali, Iftikhar Ahmad, Imad Khan and B. Amin, Electronic structure of cubic perovskite $SnTaO_3$.
Intermetallics 31, 287 (2012).

59. B. Amin, S. Arif, Iftikhar Ahmad, M. Maqbool, R. Ahmad, S. Goumri- Said, and K. Prisbrey, Cr doped III-V nitrides: potential candidates for spintronics.
J. Elect. Mater. 40, 1428 (2011).

60. B. Amin, Iftikhar Ahmad, M. Maqbool, S. Goumri-Said, and R. Ahmad, Ab-initio study of the bandgap engineering of $Al_{1-x}Ga_xN$ for optoelectronic applications.
J. Appl. Phys. 109, 023109 (2011).

61. G. Murtaza , Iftikhar Ahmad, B. Amin, A. Afaq, F. Ghafoor, and A. Benamrani, Linear and nonlinear optical response of $Mg_xZn_{1-x}O$: A density functional study.
Physica B 406, 2632 (2011).

62. S. Arif, Iftikhar Ahmad, B. Amin, and H. A. Rahnamaye Aliabad, Robust Half-Metallicity in Cr substituted AlN.
Chin. Phys. Lett. 28, 108501 (2011).

63. I. Khan, Iftikhar Ahmad, B. Amin, and G. Murtaza, Bandgap engineering of $Cd_xSr_{1-x}O$.
Physica B 406, 2509 (2011).

64. G. Murtaza, Iftikhar Ahmad, G. Saddique, B. Amin, N. Khalid, and S. Naeem, First principle study on structural, electronic and optical properties of cubic pervoskites $AgTF_3$ (T=Mg, Zn).
Physica B 406, 4584 (2011).

65. G. Murtaza, Iftikhar Ahmad, B. Amin, A. Afaq, M. Maqbool, J. Maqssod, I. Khan, and M. Zahid, The investigation of structural and optoelectronic properties of $BaThO_3$ for novel devices applications.
Optical Materials 33, 553 (2011).

66. Z. Ali, Iftikhar Ahmad, B. Amin, M. Maqbool, G. Murtaza, I. Khan, and M. J. Akhtar, Theoretical studies of structural and magnetic properties of cubic perovskites $PrCoO_3$ and $NdCoO_3$.
Physica B 406, 3800 (2011).

67. B. Amin, Iftikhar Ahmad, and M. Maqbool, Conversion of direct to indirect bandgap and optical response of B substituted InN for novel optical devices applications.
J. Lightwave Technology 28, 223 (2010).

68. B. Amin, Iftikhar Ahmad, M. Maqbool, N. Ikram, Y. Saeed, A. Ahmad, and S. Arif, Generalized gradient calculations of structural, electronic and optical properties of $Mg_xCd_{1-x}O$ oxides.
J. Ally. Comp. 493, 212 (2010).

69. B. Amin, and Iftikhar Ahmad, Theoretical investigation of half metallicity in Fe/Co/Ni doped ZnSe materials systems.
J. Appl. Phys. 106, 093710 (2009).

70. M. Maqbool, B. Amin, and Iftikhar Ahmad, Bandgap investigations and the effect of the In and Al concentration on the optical properties of $In_xAl_{1-x}N$.
J. Opt. Soc. Am. B 26, 2181 (2009).

71. S. Nazir, N. Ikram, B. Amin, M. Tanveer, A. Shaukat, and Y. Saeed, Structural, electronic and optical calculations of $Ca_xZn_{1-x}O$ alloys: A first principles study.
J. Phys. Chem. Solids 70, 874 (2009).

72. B. Amin, S. Nazir, N. Ikram, Iftikhar Ahmad, Y. Saeed, and Suneela Arif, Theoretical calculation of structural, electronic and optical properties of $Ca_xZn_{1-x}S$.
Material Science: Indian journal: 26 (2009).

IX. PHD STUDENTS SUPERVISSION

1. Mr. Shujaat Ali Khan: No.17/HU/CE/2019/1512
2. Mr. Mahmood Khan: No.17/HU/CE/2018/5603
3. Mr. Haleem Ud Din: In-progress
4. Mr. Muhammad Idrees: In-progress
5. Mr. Gul Rehman: In-progress
6. Mr. Fawad Khan: In-progress

X. MPHIL STUDENTS SUPERVISSION

1. Mr. Muhammad Islam: completed
2. Mr. Waqas Haidar: completed
3. Mr. Attaur Rahman: No.17/HU/CE/2020/36
4. Mr. Zama Jan: No.17/HU/CE/2019/3355
5. Mr. Abdul Rahim: No.17/HU/CE/2019/3115
6. Mr. Shahab Irshad: No.17/HU/CE/2019/2528
7. Miss Sania Bano: No.17/HU/CE/2019/2358
8. Mr. Haris Habib: No.17/HU/CE/2019/1727
9. Mr. Naeem Khan: No.17/HU/CE/2019/1417
10. Mr. Danish Khan: No.17/HU/CE/2019/1289
11. Mr. Akmal Khan: No.17/HU/CE/2018/6812
12. Mr. Muhammad Akram: No.17/HU/CE/2018/6501
13. Miss. Faiza bibi: No.17/HU/CE/2018/5848
14. Miss. Hina Ali Khan: No.17/HU/CE/2018/5777
15. Mr. Qaisar Alam No.17/HU/CE/2018/1811
16. Mr. Arshad Ali No.17/HU/CE/2018/1810
17. Miss. Amina bibi: No.17/HU/CE/2018/936
18. Mr. Muhammad Maaz: No.17/HU/CE/2018/878
19. Mr. Muhammad Ilyas No.17/HU/CE/2017/4453
20. Mr. Muhammad Faisal: No.17/HU/CE/2017/4399
21. Mr. Fazal Dayan: No.17/HU/CE/2017/4330
22. Mr. Mehtab Ur Rehman: No.17/HU/CE/2017/4086
23. Miss. Sadia Hassan Gul: No.17/HU/CE/2017/2842
24. Miss. Uzma Haroon: No.17/HU/CE/2017/2680
25. Miss Sanum Niaz: No.17/HU/CE/2017/2318

26. Mr. Ismail Shahid: No.17/HU/CE/2017/736
27. Mr. Muhammad Idrees: No.17/HU/CE/2017/733
28. Mr. Sheraz Ahmad: No.17/HU/CE/2017/660
29. Mr. Iqtidar Ahmad: No.17/HU/CE/2016/7083
30. Mr. Babool Khan: No.17/HU/CE/2016/6979
31. Mr. Saif Ullah: No.17/HU/CE/2014/6907
32. Miss. Aisha Mumtaz: No.17/HU/CE/2013/5796
33. Mr. Naimat Ullah Khan: No.17/HU/CE/2013/5678
34. Mr. Hamid Ullah: No.17/HU/CE/2013/4091
35. Mr. Roshan Ali: No.17/HU/CE/2013/4090
36. Mr. Shujaat Ali Khan: No.17/HU/CE/2013/4089
37. Mr. Haleem Ud Din: No.17/HU/CE/2013/4088

XI. GOOGLE SCHOLAR REPORT

1. Total impact points: 180
2. Citations: 1300
3. h-index: 21
4. i10-index: 35