
PROF. DR. JAVED AHMAD

TENURED PROFESSOR OF PHYSICS | FOUNDING DIRECTOR, INSTITUTE OF PHYSICS

DEAN, FACULTY OF SCIENCE

Bahauddin Zakariya University, Multan 60800, Pakistan

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Dedicated and experienced academic professional with extensive experience in higher education, research, and administration. Proven track record in curriculum development, research supervision, and academic governance. Seeking to leverage my expertise and leadership skills to further enhance the academic and research excellence of a leading institution.

ADMINISTRATIVE APPOINTMENTS - Bahauddin Zakariya University (BZU) Multan.

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|---|-------------------------------|
| 1. Dean, Faculty of Science | from 17-11-2022 To-date. |
| 2. Member, Syndicate | from 04-03-2025 To-date. |
| 3. Member, HEC TTS Standing Grievance Committee | from Oct. 2024 to-date |
| 4. Nominee HEC, plagiarism committee Ghazi University DGK | from July 2025 onward |
| 5. Chairman of Committee to assess physical infrastructure and to devise a plan regarding start of Open and Distance Learning Education | from 24-02-2025 To-date |
| 6. Chairman, Sub-Committee for starting ADA/ADS under Annual System/Semester System for private candidates | from 01-01-2025 To-date |
| 7. Director, Institute of Physics | from 11-08-2022 To-date. |
| 8. Chairman, University Admission Committee | from 04-10-2024 To-date. |
| 9. Convener, Board of Studies in Physics | from 29-07-2016 To-date. |
| 10. Member, Board of Faculty in Science | from 29-05-2011 To-date |
| 11. Member, Academic Council | from 29-05-2011 To-date |
| 12. Member Senate | from 29-05-2011 To-date |
| 13. Chairman, Department of Physics | from 29-07-2016 to 10-08.2022 |
| 14. Chairman Plagiarism Standing Committee | from 26-07-2016 to 17-01-2019 |
| 15. Chairman Sports-based Admission Committee | from Oct.2015 to 01-09-2019 |
| 16. Chief Editor, Journal of Research (Science), | from 28-03-2017 to 27-03-2018 |
| 17. Member Advanced Studies & Research Board | from 17-02-2017 to 16-02-2020 |
| 18. Member, Finance & Planning Committee. | from 19-06-2017 to 18-06-2020 |
| 19. Chairman Campus Site Selection Committee | from 25-11-2016 to 22-05-2019 |
| 20. Chairman, Discipline Committee | from 09-11-2018 to 06-05-2019 |
| 21. Convener, SNE/Budget Estimates Committee | from 18-4-2017 to 30-6-2017 |
| 22. Convener, Austerity Committee | from 09-11-2018 to 06-05-2019 |
| 23. Member, Discipline Committee | from 27-09-2016 to 09-11-2018 |
| 24. Member Hall Council | from 01-02-2017 to 20-05-2019 |
| 25. Member Semester Implementation Committee | from 22-11-2016 to 10-07-2017 |

26. Member Senate (Elected)	from 2007 to 2010
27. Member, Transport Committee	from 13-03-2016 to 09-02-2019
28. President, Academic Staff Association	from 2016 to 2017
29. President Federation of All Pakistan Universities Academic Staff Associations (FAPUASA) Punjab Chapter	from 2016 to 2018
30. Chairman, Accreditation Committee for Computing	from 2024 To-date
31. Chairman, Accreditation Committee for Department of Information and Communication Technology	from 2024 To-date

ADMINISTRATIVE APPOINTMENTS –National level

1. Member, HEC TTS Standing Grievance Committee	from Oct. 2024 to-date
2. Member, Board of Faculty of Science, University of Sargodha	from 07-06-2024 to-date
3. Member, Board of Faculty of Science, University of Okara	from 24-09-2018 to-date
4. Member, Board of Studies in Physics, IUB	from 03-06-2021 to-date
5. Member, Advisory Board of Pakistan Journal of Physics & Mathematical Sciences	from 17-06-2022 to-date
6. Member Departmental Tenure Review Committee (DTRC) for the Department of Physics, University of Okara	from 31-12-2021 to-date
7. Member Departmental Tenure Review Committee (DTRC) for the Department of Physics, The Women University Multan	from 15-01-2021 to-date

AWARDS AND SCHOLARSHIPS

- University **Best Teacher Award** for the year 2023 conferred by Hon'ble Chancellor/Governor the Punjab Province.
- Received multiple merit scholarships and research fellowships from academic institutions and government bodies.
- Recognized as an "Approved Supervisor" by the Higher Education Commission (HEC) of Pakistan.
- Granted the Research Productivity Allowance.
- Included in the list of Productive Scientists of Pakistan for the year 2007.
- Awarded the Japanese Government (Monbusho) scholarship and accepted as a non-degree research student in the Graduate School of Pure and Applied Sciences in October 2000. Subsequently, after successfully passing the entrance examination, accepted as a degree student in the same school with the Monbusho scholarship awarded for a further three years for PhD.
- Acknowledged for excellent research work and awarded the Research Assistantship in the Center of Excellence (COE) Program at the University of Tsukuba during PhD for the years 2002-04.
- Awarded a research fellowship by the University Grants Commission of Pakistan during the M. Phil program for the year 1992-93, based on the results of M.Sc.
- Received Merit Scholarships in Matric, F. Sc., B. Sc., and M. Sc. based on the first division obtained in the preceding examinations.

ACADEMIC/PROFESSIONAL ADVISORY SERVICES (NATIONAL / INTERNATIONAL)

- MOU signed with Henan University of Technology China on Feb. 20, 2025 to officially initiate academic partnership between BZU and Henan University.
- Permanent Referee for recruitment of Professors and Associate Professors at University of Jeddah, Saudi Arabia.
- PhD theses Examiner of Department of Physics University of Malaya Kuala Lumpur Malaysia.
- Member, National Advisory Scientific Program Council, National Center for Physics Islamabad (2010-2013).
- Multiple leadership roles at BZU including Dean, Director, Chairman of various committees.
- Referee for journals i.e., *Materials Science and Engineering: B*, *Chinese Physics Letters*, *Journal of Physics: Condensed Matter*, *Journal of Electronic Materials*, *Physica B: Condensed Matter* and many others.

INTERNATIONAL RESEARCH /PROFESSIONAL EXPERIENCE - Institute of Materials Science University of Tsukuba Japan

- Postdoctoral Foreign Researcher (2004 – 2006)
- Research Assistant (2002 – 2004)
- Monbusho PhD degree student (2001-2004)
- Monbusho non-degree research student (Oct. 2000-March 2001)

ACADEMIC EXPERIENCE - Bahauddin Zakariya University (BZU) Multan, Pakistan.

- Tenured Professor of Physics (2019 – present)
- Professor of Physics on Tenure Track (2015 – 2019)
- Professor of Physics (BPS-21) (2011 – 2015)
- Associate Professor of Physics (2008 – 2011)
- Assistant Professor of Physics (2000 – 2008)
- Lecturer of Physics (1995 – 2000)

EDUCATIONAL BACKGROUND

- **POST-DOCTORATE**, Institute of Materials Science, University of Tsukuba, Tsukuba, Japan (September 2004-March 2006)
- **DOCTOR OF PHILOSOPHY (PH.D.)** in Applied Physics, University of Tsukuba, Tsukuba Ibaraki Japan.
(Apr. 2001–Mar. 2004)

Thesis title: Optical spectroscopic study of polarons and optical phonons in

Peierls semiconductor $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$

Supervisor:

Prof. Hiromoto Uwe

- **MASTER OF PHILOSOPHY (M.PHIL.)** in Physics, Quaid-e-Azam University Islamabad Pakistan. (Jan. 1992–Jul. 1994)

Thesis title: Ac susceptibility studies in some high T_c superconductors

Supervisor:

Prof. Syed Khurshid Hasanain

- **MASTER OF SCIENCE (M.Sc.)** in Physics [Specialization in: Digital Electronics] Bahauddin Zakariya University Multan Pakistan (Sep. 1989–Nov. 1991)
- **BACHELOR OF SCIENCE (B.Sc.)** [Physics, Pure and Applied Mathematics] Government College Sahiwal/Bahauddin Zakariya University Multan Pakistan (Aug. 1987–Sep. 1989)

RESEARCH PROFILE

- **RESEARCH PAPER PUBLISHED/BOOK CHAPTERS** 122/02
- **RESEARCH STUDENTS SUPERVISED**
 - PH.D.
 - Completed 10
 - In Progress 04
 - M.PHIL.
 - Completed 84
 - In Progress 14
 - UNDERGRADUATE PROJECT SUPERVISED >700
 - MENTOR/SUPERVISOR OF PAKISTAN SCIENCE FOUNDATION
 - STFS Students Supervised 49
- **RESEARCH PROJECTS**
 - Completed 07
 - In Progress 01

LIST OF PROJECTS

1. **HEC project** entitled “Production and Characterization of Various Heavy Metal Oxide based Glassed and Glass Ceramics as Alternative Radiation Shielding Materials”
 - **Project Number:** 20-GCF-987/RGM/R&ID/HEC/2021
 - **Status:** In progress
 - **Funding:** Rs. 26,457,375/-
2. **National Research Program for Universities (NRPU) project** entitled, “NOVEL SPECTROSCOPIC CHARACTERIZATION OF DOUBLE PEROVSKITES FOR ENERGY RELATED APPLICATIONS”
 - **Project Number:** 20-9301/Punjab/NRPU/R&D/HEC/2017-18
 - **Status:** Completed
 - **Funding:** Rs. 5,939,908/-

3. **HEC project** entitled, “Tuning of Magneto crystalline Anisotropy and Curie Temperature in Cr Based Two-Dimensional Magnetic Materials”
 - **Project Number:** 390/IPFP-II(Batch-I)/SRGP/NAHE/HEC/2020/177
 - **Status:** Completed
 - **Funding:** Rs. 844,900/-
4. **HEC project** entitled, “Synthesis and characterization of carbon nanotubes/metaloxide composites for photocatalytic applications for water purification”
 - **Project Number:** 21-1838/SRGP/R&D/HEC/2018
 - **Status:** Completed
 - **Funding:** Rs. 405,500/-
5. **HEC project** entitled, “Synthesis and Characterization of Ceramic Nanomaterials for advanced functional applications”
 - **Project Number:** 21-590/SRGP/R&D/HEC/2014
 - **Status:** Completed
 - **Funding:** Rs. 367,200/-
6. **Research project funded by B. Z. University Multan Pakistan** in the year 2012
 - **Title:** Synthesis and characterization of lead-free piezoelectric materials
 - **Status:** Completed
7. **Research project funded by Bahauddin Zakariya University Multan Pakistan** for the year 2007-08
 - **Title:** Synthesis BaPbxBi1-xO3 single crystals
 - **Status:** Completed
8. **Project of Rs. 31.251 millions from the Govt. of Punjab Pakistan in 2007-08**
 - **Title:** Upgrading research infrastructure of Department of Physics B. Z. University Multan
 - **Equipment Purchased:**
 - FTIR spectrometer (VERTEX 80v, Bruker)
 - Box furnace (up to 1700 C)
 - Electrometer
 - Source meter
 - Nano voltmeter
 - **Status:** Completed
 - **Funding:** Rs. 31,251,000/-

MEMBERSHIPS OF LEARNED AND PROFESSIONAL SOCIETIES

- Member, Physical Society of Japan (2001-2006)
- Life Member, The Pakistan Physical Society
 - Elected as Joint Secretary (2010)
 - Elected as Secretary Punjab Chapter (2011)
- Life Member, The Pakistan Institute of Physics (since 2009)
- Life Member, The Khwarizmi Science Society (since 2020)

PRESENT/PAST RESEARCH COLLABORATIONS

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|---|------------------------------------|
| 1. Superconductivity/Magnetism Lab,
Q.A.U. Islamabad | Group Leader: Prof. S. K. Hasanain |
| 2. Uwe-Minami Lab, University of
Tsukuba Japan | Group Leader: Prof. Hiromoto Uwe |
| 3. Japan Aerospace Exploration | Group Leader: Jianding Yu |

Agency, Japan

4. National Institute of Materials
Science, Tsukuba Japan

Group Leader: Dr. M. Isobe

5. National Institute of Materials
Science, Tsukuba Japan

Group Leader: Dr. H. Sakurai

RESEARCH INTERESTS

Experimental Condensed Matter Physics:

- Infrared spectroscopy
- Dielectric spectroscopy
- Magnetic and transport properties of multi-functional materials such as multiferroics and strongly correlated electron systems.
- Green Energy device fabrication: Solar cells and supercapacitors etc.

NATIONAL AND INTERNATIONAL CONFERENCE TALKS

1. Participant of 3rd International Symposium on Advanced Materials, Islamabad, Pakistan, 1993.
2. Participant of National Symposium on Frontiers in Physics, Islamabad, Pakistan, 1994.
3. Participant of National Symposium on Frontiers in Physics, Islamabad, Pakistan, 1998.
4. Poster presentation on “Optical Properties of Zinc Silicon Phosphate Glasses” Tutorial Course and Symposium on Topics in Semiconductors, Karachi, Pakistan, April 17-19, 2000
5. Participant of 56th conference of the Physical Society of Japan, Tokyo, Japan, March 2001.
6. 6) Poster presented on “A new IR excitation in semiconducting $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ single crystals” in 23rd Inter. Conference on Low Temperature Physics, Hiroshima, Japan, August 21-28, 2002
7. Oral presentation on “Effect of temperature on the optical reflectivity of semiconducting $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ single crystals” in 58th Conference of the Physical Society of Japan, Tohoku, Sendai, March 27-31, 2003. (Abstract ID. 30pWF-9).
8. “Anomalous temperature dependence of the optical phonon properties of $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ single crystals” Autumn Meeting of the Physical Society of Japan, Okayama, Japan, September 20-23, 2003. (Abstract ID. 21pTP-6)
9. Poster presented on “Anomalous temperature dependence of the optical phonon properties of $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ single crystals” in 16th International Symposium on Superconductivity, Tsukuba, Japan, October 27-29, 2003. (Abstract ID. PCP-52)
10. Oral Presentation on “Small-polaron excitations in $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ studied by optical reflectivity measurements” in Autumn Meeting of the Physical Society of Japan, Kyoto, Japan, September 19-22, 2005. (Abstract ID. 21aYD-13)
11. Poster presented on “Optical phonons in new ordered perovskite $\text{Sr}_2\text{Cu}(\text{Re}_{0.69}\text{Ca}_{0.31})\text{O}_y$ system observed by infrared reflectance spectroscopy” in 18th International Symposium on Superconductivity, Tsukuba, Japan, October 24-26, 2005. (Abstract ID. PCP-59)
12. Oral presentation on “Study of the magnetic properties of new ordered perovskite $\text{Sr}_2(\text{Re}_{0.69}\text{Ca}_{0.31})\text{O}_y$ ($y = 6.0-5.8$) system by AC susceptibility measurements” 3rd International Conference on Frontiers of Advanced Engineering Materials held in Lahore Pakistan December 15-17, 2008 (Abstract ID. FAEM-08/73)

13. Oral presentation on “Bipolaronic Point Defects and Small-Polaron Excitations in $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ ” 11th National Symposium on Frontiers in Physics GCU Lahore Pakistan Jan. 29-31, 2009
14. Oral presentation on “Bipolaronic Point Defects and Small-Polaron Excitations in $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ ” Pakistan Institute of Physics International Conference-2009 UET Lahore Pakistan Feb. 23-26 (2009)
15. Invited talk on “Spectroscopic study of persistent semiconducting state and semiconductor-metal transition in $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$ (BKBO)” First NCP Scientific Spring-2009” Islamabad Pakistan April 6-9 (2009)
16. Participant of 34th International Nathigalli Summer College held at NCP Islamabad June 29-July 04, 2009
17. Poster presentation on “Infrared reflectance spectroscopy of MgAl_2O_4 nanoparticles substituted by Co^{2+} ions” in International conference on “Condensed Matter Physics and Engineering” Bahauddin Zakariya University Multan, Pakistan, December 27-29 (2012).
18. Poster presentation on “Infrared reflectance spectroscopy of MgAl_2O_4 nanoparticles substituted by K^{1+} ions” International conference on “Condensed Matter Physics and Engineering” Bahauddin Zakariya University Multan, Pakistan, December 27-29 (2012).
19. Poster presentation on “Structural and electrical properties of Ba^{2+} and Co^{2+} co-substituted BiFeO_3 nanoparticles” International conference on “Condensed Matter Physics and Engineering” Bahauddin Zakariya University Multan, Pakistan, December 27-29 (2012).
20. Poster presentation on “Synthesis and Characterization of MgAl_2O_4 nanoparticles substituted by Co^{2+} ions” 2nd National Physics Colloquium, COMSATS Institute of Information Technology Lahore, Pakistan, April 3 (2013).
21. Poster presentation on “Infrared active phonons in GdMn_2O_5 and NdMn_2O_5 multiferroics” International Conference on Physics and Contemporary Needs, GC University, Lahore, November, 19-21, 2014.
22. Poster presentation on “Synthesis and lattice dynamics of LaFeO_3 studied by infrared reflectivity spectroscopy” International Conference on Physics and Contemporary Needs, GC University, Lahore, November, 19-21, 2014.
23. Co-organizer, Invited Speaker/ Guest of Honour/ Session Chair in 1st international conference on strongly correlated electron systems and nanotechnology at Women University Multan January 15-17, 2019.
24. Poster presentation/participation in International chemistry conference on “Frontiers of Chemistry: Celebrating the Periodic Table Year” at Institute of Chemical Sciences B Z University Multan Pakistan March, 2019.
25. Participation in 4th international conference on Food and Nutritional security in changing climate” organised by IFSN Multan March 2019.
26. Paper presented in First IiScience International Conference: Light Generation, Sensing & Energy Sources, Multan Pakistan 2020.
27. Participated in Webinar arranged by PHEC on Technology Commercialization and Entrepreneurship on Oct. 20, 2020.
28. International Conference on Global Challenges in Sustainable Energy and Environment and Development, The Women University Multan May 24-26, 2021 (Invited Speaker)
29. Invited to deliver a talk and chair a session of 1st International Conference on Emerging Trends in Physics, Islamia University, Bahawalpur May 23-24, 2022.
30. Participate as a “Guest Speaker” in 3rd Annual International Conference “Advances in Materials Science” AIMS-December 15-16, 2022.
31. Invited to deliver a talk and chair a session of 1st International Conference on Advance Nanomaterials, University of Okara, Okara October 2–4 , 2023.

32. Invited speaker of International Conference on Collaborative Strategies of Higher Education Institutions and Industry to Promote Sustainable Development Goals at The Women University Multan 4th-5th March 2024
33. Invited to deliver a talk and chair a session of 2nd International Conference on Emerging Trends in Physics, Islamia University, Bahawalpur May 6-8, 2024.
34. Patron of 9th International & 18th National Conference of Plant Scientists “Capitalizing Plant Diversity for Ensuring Food Security” INCPS-2024 28th-30th October 2024

REVIEW SERVICES

- PhD theses reviewed (National/International): (09)
- M. Phil theses reviewed: (20)
- Research articles/reports: (60)

LIST OF PUBLICATIONS

1. **Javed Ahmad** and M. Ashraf Chaudhry, “Ac susceptibility hysteresis and its dc field sweep rate dependence in melt-texture grown $Y_1Ba_2Cu_3O_{7-d}$ superconductor” Karachi University Journal of Science, 30 (2002) 81 (HEC Approved).
2. **Javed Ahmad**, TaichiroNishio and HiromotoUwe, “A new IR excitation in semiconducting $Ba_{1-x}K_xBiO_3$ single crystals”Physica C 388-389 (2003) 455.
3. **Javed Ahmad** and HiromotoUwe, “Anomalous temperature dependence of the optical phonon properties of $Ba_{1-x}K_xBiO_3$ single crystals”Physica C 412-414 (2004) 288.
4. Sher Alam, **Javed Ahmed** and Yoshio Matsui, “X-ray absorption near edge structure of small FePt atomic clusters” Applied Surface Science 241 (2005) 199.
5. TaichiroNishio, **Javed Ahmad**, and HiromotoUwe, “Spectroscopic observation of bipolaronic point defects in $Ba_{1-x}K_xBiO_3$ ”, Phys. Rev. Lett. 95 (2005) 176403
6. **Javed Ahmad** and HiromotoUwe, “Small-polaron excitations in $Ba_{1-x}K_xBiO_3$ studied by optical reflectivity measurements” Phys. Rev. B 72 (2005) 125103.
7. **Javed Ahmad**, M. Shizuya, M. Isobe, S. Alam and H. Uwe, “Optical phonons in new ordered perovskite $Sr_2Cu(Re_{0.69}Ca_{0.31})O_y$ system observed by infrared reflectance spectroscopy”Physica C, 133, 445-448(2006).
8. N. Hiraoka, T.Buslaps, V. Honkimaki, Javed Ahmad and H. Uwe, “Fermi surface nesting in $Ba_{1-x}K_xBiO_3$ observed by Compton scattering: Three-dimensional momentum density reconstruction study” Phys. Rev. B 75, 121101 (R)(2007).
9. Hiromoto Uwe, Hidetoshi Minami, TaichiroNishio, Javed Ahmad and MitsuzukiShizuya, “Bipolaronic point defects and small-polaron excitations in $Ba_{1-x}K_xBiO_3$ and $BaPbxBi_{1-x}O_3$ ” Ferroelectrics 346, 1 (2007).
10. Sher Alam, A. T. M. N. Islam, T. Nagai, Javed Ahmad, Y. Matsui and I. Tanaka, “Possible experimental signature of charge-orbital density waves in $Nd_{1-x}Ca_1+xMnO_4$: Heat capacity and magnetization study” Phys. Rev. B 75, 205134 (2007).
11. Javed Ahmad, Hisayuki Yamanaka and HiromotoUwe, “Bismuth charge disproportionation in semiconducting $BaPbxBi_{1-x}O_3$ ” J. Phys.: Condens. Matter 19, 266223(2007).
12. Javed Ahmad, Hidetoshi Minami, Sher Alam, Jianding Yu, Yasutomo Arai, and HiromotoUwe, “Optical transmittance and band gap of ferroelectric $BaTi_2O_5$ bulk glass” Chin. Phys. Lett. 25, 4421 (2008).
13. Javed Ahmad, Jianding Yu and Yasutomo Arai, “Effect of Ca substitution on the optical band gap and Urbach energy of ferroelectric $BaTi_2O_5$ -based bulk glass” Modern Phys.Letts. B 23 No. 25, 3045 (2009).

14. Javed Ahmad, Sher Alam, Jianding Yu and Yasutomo Arai, "Effect of Ti on the optical band gap of ferroelectric BaTi_xO₅-based bulk glass" *Modern Phys.Letts. B* 23 No. 19, 2377 (2009).
15. Javed Ahmad, M. Q. Awan, M. E. Mazhar and M. N. Ashiq, "Effect of substitution of Co²⁺ ions on the structural and electrical properties of nanosized magnesium aluminate" *Physica B* 406, 254-258 (2011).
16. Javed Ahmad, M. E. Mazhar, M. Q. Awan, and M. N. Ashiq, "Effect of substitution of K⁺ ions on the structural and electrical properties of nanocrystalline MgAl₂O₄ spinel oxides" *Physica B* 406, 3484-3488 (2011).
17. Javed Ahmad and Shafiq Anwar, "Dielectric properties for the ordered-perovskite cuprates Sr₂Cu (Re_{0.69}Ca_{0.31}) O₆" *Physica B* 407, 412-415 (2012).
18. Sher Alam, Javed Ahmad, Yutaka Ohya, Dong Chungli, Chih-Chin Hsu, Jyh-Fu Lee, Shima Mutsuhiro, Kazuki Miki, Salem S. Al-Deyab, Chikashi Nishimura, "Theory and the Experimental Confirmation of the Local Electronic Structure of the Multiferroic PbVO₃, a New Member of PbTiO₃ Family, Studied by X-ray Near Edge Absorption Structure: I" *Journal of the Physical Society of Japan* 81, 074709 (2012).
19. Malika Rani, Hiroya Sakurai, Susumu Okubo, Keisuke Takamoto, Ryohei Nakata, Takahiro Sakurai, Hitoshi Ohta, Akira Matsuo, Yoshimitsu Kohama, Koichi Kindo and Javed Ahmad, "Antiferromagnetic ordering in Sr₂CrO₄" *J. Phys.: Condens. Matter.* 25, 226001 (2013).
20. Malika Rani, Hiroya Sakurai and Javed Ahmad, "Magnetic Properties of Ba₂CrO₄ with Honeycomb Layers" *Physica B* 456, 182 (2015).
21. S. H. Bukhari and Javed Ahmad, "Infrared active phonons and optical band gap in multiferroic GdMn₂O₅ studied by infrared and UV-visible spectroscopy" *Acta Physica Polonica A* 129 No.1 43 (2016).
22. S. Anwer, Javed Ahmad, T. Zia, H. Kimura, "Electrical properties of Cr⁺³ substituted LaFe_{1-x}Cr_xO₃" *Journal of Ovonic Research* 12(1) 35 (2016).
23. M. Tufiq Jamil, Javed Ahmad, M. Saleem and S. M. Ramay, "Phonon lattice dynamics and transport properties of multiferroic LaFeO₃" *Journal of Ovonic Research* 12 No. 2 (2016).
24. Syed Hamad Bukhari and Javed Ahmad, "Emergent excitation in the paramagnetic phase of geometrically frustrated GdMn₂O₅" *Physica B* 492, 39-44 (2016).
25. S. H. Bukhari and Javed Ahmad, Evidence for magnetic correlation in the paramagnetic phase of DyMn₂O₅, *Physica B: Physics of Condensed Matter*, 503, 179-182 (2016).
26. S. H. Bukhari, Th. Kain, M. Schiebl, A. Shuaev, Anna Pimenov, A. M. Kuzmenko, X. Wang, S.-W. Cheong, Javed Ahmad, and A. Pimenov, Magnetoelectric phase diagrams of multiferroic GdMn₂O₅, *Phys. Rev. B*, 94, 174446-174453 (2016).
27. Syed Hamad Bukhari, Javed Ahmad, "Magnetoelectric effect in multiferroic NdMn₂O₅" *Chinese Physics B*, 26(1), 018103 (2017).
28. Javed Ahmad, Syed Hamad Bukhari, M. Tufiq Jamil, Mehr Khalid Rehmani, Hammad Ahmad and Tahir Sultan, "Lattice Dynamics and Transport Properties of Multiferroic DyMn₂O₅" *Advances in Condensed Matter Physics*, (2017).
29. M. T. Jamil, Javed Ahmad, S. H. Bukhari, T. Sultan, M. Y. Akhter, H. Ahmad and G. Murtaza, "Effect on structural and optical properties of Zn-substituted Cobalt ferrite CoFe₂O₄" *J. Ovonic Res.*, 13(1), 45-53 (2017).
30. M. J. Iqbal Khan, Shahzeen Babar, Azeem Nabi, A. Manzoor Rana, Mazhar Iqbal, Saifur Rehman, Javed Ahmad, Theoretical studies of optical properties of Cu doped rock salts CdS, *J. Alloy. Compound.* 695(25), 3605-3611 (2017).
31. Javed Ahmad, M. K. Rehmani, J. Mansoor, M. T. Jamil, T. Sultan, S. H. Bukhari, Frequency shifts of infrared active phonon modes in orthorhombic Dy_{1-x}Y_xMn₂O₅, *Physica B*, 514, 30-36 (2017).

32. Javed Ahmad, J. Mansoor, M. K. Rehmani, M. T. Jamil, S. H. Bukhari, Lattice dynamics of $Gd_{1-x}Y_xMn_2O_5$ investigated by infrared spectroscopy, *Adv. Mater. Sci. Engg.*, 3040254 (2017).
33. Javed Ahmad, Maria Sabir, M. Qadeer Awan, Shafiq Anwar, M. Ehsan Mazhar, R. Arif Khalil, Syed Hammad Bukhari, Effect of Co^{2+} substitution on $MgAl_2O_4$ studied by infrared reflectance spectroscopy, *Optik*, 147, 180-186 (2017).
34. M. T. Jamil, Javed Ahmad, S. H. Bukhari, M. E. Mazhar, U. Nissar, A. J. Rao, H. Ahmad, G. Murtaza, Atmospheric pressure glow discharge (APGD) plasma generation and surface modification of aluminum and silicon Si (100), *Digest Journal of Nanomaterials and Biostructures*, 12(2), 595 (2017).
35. U. Nissar, Javed Ahmad, A. M. Rana, S. H. Bukhari, M. T. Jamil, J. A. Khan, R. Shakeel, M.Y. Nadeem, Electrical Characteristics of MnO_2 doped Bismuth Borate Glass Systems, *Journal of Electronic Materials*, 47(2), 1421-1430 (2018).
36. S.H. Bukhari, Javed Ahmad, S.N. Khan and M.A. Ahmad, Decoherence and relative phase sensitivity of entangled coherent states, *Optik* 155, 56-62 (2018).
37. Javed Ahmad, M. Qadeer Awan, R. Yasmin, M. Sabir, S. Anwar, M. E. Mazhar and S.H. Bukhari, Infrared reflectance spectroscopy of $MgAl_2O_4$ nanoparticles substituted by K^+ ions, *Int. J. Mod. Physics B*, 32, 1850067 (2018).
38. M.Q. Awan, Javed Ahmad, A. Berlie and Y. Liu, Influence of oxidation number of manganese on magnetic properties of lead free piezoelectric BNT Ceramics, *Dig. J. Nano. Bio.* 13 (1), 67- (2018).
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BOOK CHAPTERS

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