



FACULTY FULL NAME: MUHAMMAD GUL BAHAR ASHIQ

POSITION: Member Staff College

#### Personal Data

Nationality | Pakistani

Date of Birth | 10-031980

Department |Physics

Official UoD Email |mgulbahar@iau.edu.sa

Office Phone No. |0534197282

#### Language Proficiency

Language	Read	Write	Speak
Arabic			
English	V Good	V Good	V Good
Others			

#### Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2014	Ph.D (Physics)	University Technology Malaysia	Johor Bahru, Malaysia
2008	M.Phil (Solid State Physics)	University of Punjab	Pakistan
2003	Master (Physics)	BZU Multan	Pakistan

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)



<b>PhD</b>	A numerical study of Laser induced Coulomb Explosion of GNPs for Breast Cancer therapy
<b>Master</b>	Photoconductivity of Zinc Molybdenum Phosphate Glasses
<b>Fellowship</b>	

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Assistant Professor	KSA	Majmaah University, College of Science, Department of Physics	Almajmaah	15 Dec 2015
Assistant Prof	KSA	Imam AbdulRahman BIN Faisal University Department of Physics		22 Agust 2019 to Date
Lecturer	Pakistan	Minhaj University Lahore	Lahore	Agust 2008 to Sep 2010

Administrative Positions Held: (Beginning with the most recent)



Administrative Position	Office	Date

### Scientific Achievements

#### Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1.	Haidar Ali, Muhammad Khalid, M Ashir, Naseem Mushtaq, Mdoped Asadullah Nadir, MGBi2O3)-SnO2 nanocomposites Ashiq	Structural, morphological and dielectric properties of Cerium doped CexBi2-xSn2O7/(β-Bi2O3)-SnO2 nanocomposites	Applied Physics A,5/2024
2.	Muhammad Kashif, Muhammad Khalid, Alim Dad Chandio, Muhammad Gulbahar Ashiq, Muhammad Younas, Thamraa Alshahrani, Zaheer Uddin	Structural, electrical, and magnetic properties of (x)Cu0.05Co0.95Fe2O4/(1-x)La0.15Bi0.85FeO3 nanocomposites for technological applications	Journal of Materials Science: Materials in Electronics,35(8) 555
3.	Q Mahmood, Farhat Iqbal, Tahani H Flemban, Eman Algrafy, Hind Althib, MGBW, Re) for spintronic, and energy application Ashiq, Murefah mana AL-Anazy, Hamid Ullah, Amani Rached, Tahani	Study of ferromagnetism, and thermoelectric behavior of double perovskites K2Z (Cl/Br) 6 (Z= Ta, W, Re) for spintronic, and energy application	Journal of Physics and Chemistry of Solids,186(11)1816



	Alqahtani, T Ghrib		
4.	Muhammad Khalid, Muhammad Yasin, Kiran Naz, Muhammad Gulls Bahar Ashiq, Muhammad Younas, Muhammad Zain Yar, Murefah mana Al-Anazy, Khizar Bin Hassan, Bilal Ahmed, Bilal Anjum Ahmed	Physical properties of zinc substituted lithium oxide $\text{Li}_2[\text{Ni}_6\text{Zn}_x\text{Co}_{2-x}]\text{O}_{10}$ nanomaterials prepared via sol-gel chemical route	Materials Chemistry and Physics, 128959
5.	Muhammad Rahim, Fayaz Hussain, Muhammad Khalid, Nasir Abbas, Muhammad Ateeq, MGB Ashiq, Muhammad Younas, Thamraa Alshahrani	Structural and dielectric properties of Cerium doped Magnesium-Zinc Aluminate spinel nanocrystallites for high frequency applications	Ceramics International, 4/1/2024
6.	Muhammad Khalid, MGB Ashiq, Hafsa Najam, Mohammed Alqahtani, Thamraa Alshahrani, Arshi Anwar, Aneeqah Sabah, M Asadullah Nadir	Lanthanum doped hybrid $\text{La}_x\text{Bi}_{2-x}\text{Sn}_2\text{O}_7/\text{SnO}_2$ ( $\beta$ - $\text{Sb}_2\text{O}_3$ ) nanostructures for energy storage applications	Journal of Alloys and Compounds, 963(171245).
7.	Ahsan Quddus, Syed Zia Hussain Hashmi, Ghulam Mustafa, Muhammad Khalid, MGB Ashiq, Ghazanfar	Sol-Gel synthesis of Ni-doped Zn-based spinel nanoferrites with structural and dielectric characterizations along with magnetic analysis	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 5/11/23



	Nazir, Thamraa Alshahrani, Mohammed S Alqahtani, Kiran Naz		
8.	Asif Hussain, Muhammad Khalid, Ali Dad Chandio, Muhammad Yasin, Nasir Abbas, MGB Ashiq, Hind Albalawi, Kiran Naz, Muhammad Younas, Beenish Masud	Dielectrically modified Nd <sup>3+</sup> doped (Ni–Mn) based spinel ferrite Ni <sub>0.5</sub> Mn <sub>0.5</sub> Nd <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> nanoparticles for energy storage applications	Physica B: Condensed Matter,1/10/23
9.	MGB Ashiq, Q Mahmood, Taharh Zelai, Othman Hakami, Nessrin A Kattan, Hind Albalawi, AI Aljameel, S Bouzgarrou, Taher Ghrib, Khaild I Hussein	<b>The narrow band gap double perovskites X<sub>2</sub>CuInCl<sub>6</sub> (X = K, Rb, Cs) for optoelectronics, and thermoelectric applications</b>	Materials Science and Engineering: B,1/10/23
10.	Muhammad Zain Yar, Muhammad Khalid, Muhammad Yasin, Kiran Naz, Muhammad Gul Bahar Ashiq, Muhammad Younas, Thamraa Alshahrani, Khaild I Hussein, Khizar Bin Hassan, Bilal Ahmed, M Mohamed Javid	Structural, dielectric, and magnetic properties of nickel rich manganese substituted Li <sub>2</sub> Ni <sub>6</sub> Mn <sub>x</sub> Co <sub>2-x</sub> O <sub>10</sub> nanomaterial synthesized via sol- gel method	Physica B: Condensed Matter,1/10/23
11.	Syed Zia Hussain Hashmi, Muhammad Khalid, Ghulam Mustafa, Muhammad Gul Bahar	Synthesis of Nickel-doped Magnesium spinel ferrites (Ni <sub>x</sub> Mg <sub>1-x</sub> Fe <sub>2</sub> O <sub>4</sub> ) nanomaterials and study of their structural,	Materials Chemistry and Physics,1/9/23



	Ashiq, Muhammad, Younas, Ahsan Quddus, Hisham SM Abd-Rabboh, Thamraa Alshahrani, Kiran Naz, M Mohamed Javid	electrical and magnetic properties	
12.	Aneeqa Sabah, Imrana Shafaqat, Amin Naifar, Hind Albalawi, Mohammed S Alqahtani, MGB Ashiq, Syeda Ammara Shabbir	Investigation of band parameters and electrochemical analysis of multi core-shell CdSe/CdS/ZnS quantum dots	Optical Materials,1/08/2023
13.	Zohaib Khan, Muhammad Khalid, Junaid Kareem Khan, Muhammad Gulbahar Ashiq, Syed Jazib Ali, Sana Naz, Kiran Naz, Syed Zeeshan Akhter	Dielectric, impedance, and modulus spectroscopic studies of cerium-doped zinc spinel ferrite ZnCe <sub>x</sub> Fe <sub>2-x</sub> O <sub>4</sub> nanoparticle	Journal of Materials Science: Materials in Electronics,6/2023
14.	MGB Ashiq, Hind Albalawi	Study of electronic, mechanical, thermoelectric and optical properties of K <sub>2</sub> ScAuZ <sub>6</sub> (Z= Br, I) for energy harvesting	The European Physical Journal Plus,6/2023
15.	M G B Ashiq	Structural, dielectric, morphological and magnetic properties of cobalt-substituted nickel spinel ferrites (Co <sub>x</sub> Ni <sub>1-x</sub> Fe <sub>2</sub> O <sub>4</sub> ) nanoparticles	Applied Nanoscience 6/2023
16.	Nouf H Alotaibi, Saad Tariq, Nessrin A Kattan, Hind Albalawi, Qrenewable energy; Alternative of Mahmood, MGB Ashiq, AA Mubarak, HH	Study of double perovskites In <sub>2</sub> Ti <sub>6</sub> (Br/I) for solar cells, and hybrid perovskites	Materials Science in Semiconductor Processing,15/3/23



	Somaily, Abeer Mera		
17	Q. Mahmood <sup>a,b*</sup> , Tahani H. Flemban <sup>a, b</sup> , Saher Saad <sup>c</sup> , Bakhtiar ul Haq <sup>d</sup> , M.G.B. Ashiq <sup>a,b</sup> , T. Ghrib <sup>a,b</sup> , A. Laref <sup>e</sup> , Aroob M. I. Surrati <sup>a,b</sup> , Azhar Aljaber <sup>a,b</sup> , S. M. Ramay <sup>e</sup>	Exploring solar cell and mechanical applications of Cs <sub>2</sub> SeX <sub>6</sub> (X = Cl, Br, I) using quantum mechanical approach under DFT perspective	Journal of Material chemistry and Physics
18	Q. Mahmood <sup>a,b</sup> , M. Younas <sup>c*</sup> , Atiba Shahid <sup>d</sup> , Thamra Alshahrani <sup>e</sup> , M. G. B. Ashiq <sup>a,b</sup> , M. H. Alhossainy <sup>f</sup> , A. Laref <sup>g</sup>	First Principle Study of Lead-free Double Perovskites Halides Rb <sub>2</sub> PdCl/Br <sub>6</sub> for Solar Cells and Renewable Energy Devices: A Quantum DFT	Chemistry A European Journal
19	Tahani H. Flemban <sup>a, b</sup> , Q. Mahmood <sup>a, b**</sup> , Hind Althib <sup>a,b</sup> , Thamra Alshahrani <sup>c</sup> , M. G. B. Ashiq <sup>a,b</sup> , Bakhtiar Ul Haq <sup>d*</sup> , Nessrin A. Kattan <sup>e</sup> , A. Laref <sup>f</sup> , S.M. Ramay <sup>f</sup> , Kawther Al Hamadah <sup>a</sup>	First Principle Analysis of Lead-free Variant Perovskites Iodides for Optical and Thermoelectric Applications	Journal of Material Science and Engineering B
20	Q Mahmood, Tahani H Flemban, Hind Althib, Thamra Alshahrani, <b>MGB Ashiq</b> , Baktiar Ul Haq, Yasmeen Tahir, Aroob Surrati, Nessrin A	The study of optical and thermoelectric properties of lead-free variant iodides (K/Rb) 2TiI <sub>6</sub> ; Renewable energy	Journal of Materials Research and Technology 2020/11/1



	Kattan, A Laref		
21	W Tanveer, Q Mahmood, I Mahmood, <b>MGB Ashiq</b> , Shahid M Ramay, Asif Mahmood	First-principles calculation to investigate half metallic ferromagnetism and thermoelectric properties of $Ca_{0.75}Ti_{0.25}X$ (X= S, Se) alloys	Chemical Physics. 2020/4/1
22	MHA Mhareb, Muna Alqahtani, Fatimh Alshahri, YSM Alajerami, Noha Saleh, N Alonizan, MI Sayyed, <b>MGB Ashiq</b> , Taher Ghrib, Sarah Ibrahim Al-Dhafar, Tasneem Alayed, Mohamed A Morsy	The impact of barium oxide on physical, structural, optical, and shielding features of sodium zinc borate glass	Journal of Non-Crystalline Solids, 2020/8/1
23	<b>M G B Ashiq</b>	Laser-irradiated gold nanoparticles for breast cancer therapy	Modern Physics Letters B Page 1950217 2019/6/20
24	Syeda Ammara Shabbir, Sana Tariq, <b>M Gul Bahar Ashiq</b> , Waqar A Khan	Non-enzymatic glucose sensor with electrodeposited silver/carbon nanotubes composite electrode	Bioscience reports 2019/6/28 Vol 39 issue 6





25	Q Mahmood, M Rashid, NA Noor, M <b>Gul Bahar</b> Ashiq, Shahid M Ramay, Asif Mahmood	Opto-electronic and thermoelectric properties of MgIn <sub>2</sub> X <sub>4</sub> (X= S, Se) spinels via ab-initio calculations	Journal of Molecular Graphics and Modelling, Elsevier Volume 8
26	Q Mahmood, Bakhtiar Ul Haq, M Yaseen, Shahid M Ramay, <b>Muhammad Gul Bahar Ashiq</b> , Asif Mahmood	The first-principle study of mechanical, optical and thermoelectric properties of SnZrO <sub>3</sub> and SnHfO <sub>3</sub> for renewable energy applications	Solid State Communications, Volume 292



27	HSS Ali, Ali S Alghamdi, G Murtaza, HSS Arif, Wasim Naeem, G Farid, Sadia Sharif, <b>Muhammad Gul Bahar Ashiq</b> , Syeda Ammara Shabbir	Facile Microemulsion Synthesis of Vanadium-Doped ZnO Nanoparticles to Analyze the Compositional, Optical, and Electronic Properties	Materials Volume 12 Page 821
28	M Ibrahim, Hayat Ullah, Saeed Ullah Jan, Manzar Ali, <b>M Gulbahar Ashiq</b>	Structural Parameters AND OPTOELECTRONIC PROPERTIES OF Mg-IV-V <sub>2</sub> (IVSi, Ge, Sn AND VP, As) COMPOUNDS	Surface Review and Letters, Volume 25
29	<b>Muhammad Gul Bahar Ashiq</b>	Breast cancer treatment by nanophotolysis Approach	Results in Physics, Elsevier
30	Mohammed El Amine Monir, Hayat Ullah, Hadj Baltach, <b>M Gulbahar Ashiq</b> , R Khenata	Mechanical and magneto-electronic properties of half-metallic ferromagnetism in Ti-doped ZnSe and CdSe alloys: Ab initio study	Journal of Magnetism and Magnetic Materials, Elsevier, Vol 442
31	Syed Sarmad Ali Shah, Afzal Khan, Shah Haidar Khan, Nisar Muhammad, Saleem Ayaz Khan, M Gulbahar Ashiq, G Murtaza	Ab initio study of the electronic and optical properties of Ag <sub>3</sub> AuS <sub>2</sub> polymorphs	Materials Research Express, Vol 4
32	M G B ASHIQ, IKhan	Current Therapeutic Techniques and Nanophotolysis Approach for Treatment of Breast Cancer	Journal of Computational and Theoretical Nanoscience, Vol 13



33	MA Ghauri, SA Siddiqi, MGB Ashiq	Band gap measurement of ZnO-MoO <sub>3</sub> -P <sub>2</sub> O <sub>5</sub> glasses by photoconductivity	Glass Physics and Chemistry.Vol 40
34	Muhammad Gul Bahar Ashiq, Mohammad Alam Saeed, Bashir Ahmad Tahir, Noorddin Ibrahim, Muhammad Nadeem	Breast cancer therapy by laser-induced Coulomb explosion of gold nanoparticles	Chinese Journal of Cancer Research Vol 25
35	MGB Ashiq, MA Saeed, Noorddin Ibrahim, M Shahid, BA Tahir	Numerical study of nanophotolysis approach for breast cancer	Modern Physics Letters B Modern Physics Letters Vol 26
36	MGB Ashiq, Noorddin Ibrahim, M Shahid, BA Tahir, MA Saeed	Novel nanophotolysis technique for breast cancer therapy	Modern Physics Letters B Vol 26
37	BASHIR AHMED Tahir, MA Saeed, R Ahmed, M Ahmed, M Gul Bahar Ashiq	Long period grating as strain sensor	J.Ovonic Research , Vol 8
38	Bashir Ahmed Tahir, Rashid Ahmed, MGB Ashiq, Afaq Ahmed, MA Saeed	Cutting of nonmetallic materials using Nd: YAG laser beam	Chinese Physics B Vol 21
39	MGB Ashiq, MA Saeed, Noorddin Ibrahim, M Shahid	Laser induced Coulomb explosion of gold nanoparticles: application of nanophotolysis for Breast cancer	J Int Pulse laser Appl Adv Phys Vol 2



40	Bashir Ahmed Tahir, MA Saeed, Afaq Ahmed, SM Zafar Iqba, Rashid Ahmed, M Gul Bahar Ashiq, Hewa Yaseen Abdullah, Rosly Abdul Rahman	Effect of sensor gauge length on strain sensitivity of a fiber Bragg grating system	Chinese Journal of Physics Vol 49
41	MA Ghauri, SA Siddiqi, WA Shah, MGB Ashiq, M Iqbal	Optical properties of zinc molybdenum phosphate glasses	Journal of Non-Crystalline Solids

#### Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1			
2			
3			

#### Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1			
2			



## Current Researches

#	Research Title	Name of Investigator(s)
1		
2		
3		
4		

## Teaching Activities

### Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Electricity and Magnetism		
2	Nanotechnology and Nanoscience		
3	Thermodynamics		
4	Quantum Mechanics		
5	Electronics		
6	Biomaterials		
7	Physics Technique and instrumentation		
8			
9			
10			
11			
12			