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<b>Department</b>	Physics			
<b>Faculty</b>	Faculty of Arts and Basic Sciences			
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<b>Qualification</b>				
Year	Degree/Certificate	Name of the Institute/ University	Field of study	
2012-2015	PhD	Dalian University of technology- China	Material physics & Chemistry	
2004-2006	M. Phil Physics	The Islamia University of Bahawalpur-PK	Spintronic Materials	
2000-2002	M.Sc Physics	The Islamia University of Bahawalpur-PK	Digital Electronics	
<b>Publications in HEC Recognized journals</b>				
S. No	Title of Paper	Name of Journal	National/ International	Publication date
1	Evaluation on electrical resistivity of silicon materials after electron beam melting( 0..925)	Bulletin of Materials Science	International	38(5) (2015) 1429-1433
2	Characterization of InGaN by Means of I-V Measurements of Respective Light-Emitting Diode (LED) by DLTS (1.092)	Arabian Journal for Science and Engineering	International	40(1) (2015): 263-268
3	Formation mechanism of hollow silicon ingot induced by fountain effect(4.900)	Renewable Energy	International	77 (2015) 463-466
4	Segregation and evaporation behaviors of aluminum and calcium in silicon during solidification process induced by electron beam(2.280)	Semiconductor Science and Technology	International	30(3) (2015) 035013
5	Removal of aluminum from silicon by electron beam melting with exponential	Separation and Purification Technology	International	152 (2015) 32-36

	decreasing power(3.927)			
6	Removal of oxygen from silicon by electron beam melting (1.604)	Applied Physics A	International	115(3) (2014) 753-757
7	Characterization of ZnO by mean of I-V measurement of respective schottky diode by DLTS	Journal of Applied and Emerging Sciences	HEC/National	4(2), (2013) pp 147-152
8	Characterization of ZnO by means of C-V measurement of respective schottky diode by DLTS	Journal of applied & Emerging Sciences	HEC/National	4 ( 1) 46-50 (2013)
9	Characterization of SiC by means of C-V measurement of respective schottky diode by DLTS	Journal of applied & Emerging Sciences	HEC/National	3 (1) 25-29 (2012)
10	Synthesis and characterization of strontium hexaferrite by solid state reaction	Journal of applied & Emerging Sciences	HEC/National	3 ( 2) 133-135 (2012)
11	Solid State Synthesis and Characterization of Spintronics Material Cd <sub>0.55</sub> Hg <sub>0.45</sub> Te (0.111)	Applied Mechanics and Materials	International	Vols 44-47(2011) 2299-2306
12	Characterization of InGaN by means of C-V measurement of respective Light Emitting Diode (LED) by DLTS	Journal of applied & Emerging Sciences	HEC/National	2 ( 2) 146-149 (2011)
13	A Diagnosing Case of the Eye and Orbital Tumor through B-Scan (0.75)	Science International	International	28(4),3345-3348, 2016
14	Study of Current-voltage Characteristic Using Deep Level Transient Spectroscopy Technique of Schottky Diode Made of SiC	Journal of applied & Emerging Sciences	HEC/National	6 ( 2) 111-114 (2016)
15	Morphological and magnetic behavior of neodymium doped LiNi <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> nanocrystalline ferrites prepared via micro-emulsion technique (0.673)	Digest Journal of Nanomaterials and Biostructures	International	Vol. 12, No. 1, January - March 2017, p. 223 - 228
16	A Comparative Study of 16-Frame and 8-Frame Gated Spect Imaging for Determination of Left Ventricular Volumes and Ejection Fraction(0.75)	Science International	International	29(4),847-855, 2017
17	Redistribution of Carbon from Silicon by Electron Beam Melting(0.673)	Digest Journal of Nanomaterials and Biostructures	International	Vol. 12, No. 3, July - September 2017, p. 785

				- 795
18	Kinetics of volatile impurities removal from silicon by electron beam melting for photovoltaic applications (4.2)	Physical Chemistry Chemical Physics	International	V. 19, Issue. 38, 28, September 2017, p. 25837-25850
19	Improvement of solar cell performance after oxygen removal by electron beam melting (1.246)	Silicon	International	Silicon (2018) 10:1887–1891 <a href="https://doi.org/10.1007/s12633-017-9694-y">https://doi.org/10.1007/s12633-017-9694-y</a>
20	Removal of SiC from Silicon after Electron Beam Melting Technique on Industrial Scale(1.246)	Silicon	international	12 June 2018 <a href="https://doi.org/10.1007/s12633-018-9859-3">https://doi.org/10.1007/s12633-018-9859-3</a>
21	New LiCo <sub>0.5</sub> PrxFe <sub>2-x</sub> O <sub>4</sub> Nano ferrites: Prepared via low cost technique for high density storage application (3.057)	Ceramics International	International	DOI: <a href="https://doi.org/10.1016/j.ceramint.2017.10.126">https://doi.org/10.1016/j.ceramint.2017.10.126</a>
22	Evaluation and comparison of dc resistivity of NiZrxCoxFe <sub>2-2x</sub> O <sub>4</sub> , Ni <sub>0.5</sub> Sn <sub>0.5</sub> CoxMnxFe <sub>2-2x</sub> O <sub>4</sub> , Mg <sub>1-x</sub> CaxNiyFe <sub>2-y</sub> O <sub>4</sub> and Mg <sub>1-x</sub> NixCoyFe <sub>2-y</sub> O <sub>4</sub> nanocrystalline materials (1.151)	Materials Research Express	International	Volume 4 Issue 11 (2017) 115009
23	Separation of boron from silicon by steam-added electron beam melting for photovoltaic applications (5.976)	Journal of Materials Chemistry C	International	TC-ART-10-2017-004744 Under review
24	Developmental and Reproductive Toxicity of Hydrothermally Synthesized Zirconium dioxide Nanoparticles(0.258)	Interciencia	International	2017 42(11) 16-34
25	Measurement of ambient gamma radiation levels at different localities of Quetta, Pakistan (0.258)	Interciencia	International	2017 42(11) 63-78
26	Thermogravimetric analysis, optical and dielectric properties of newly developed LiNi <sub>0.5</sub> PrxFe <sub>2-x</sub> O <sub>4</sub> monocrystalline ferrites(1.151)	Materials Research Express	International	MRX-106225

27	Evaluations of Secondary Cancer Risk in Head and Neck Radiotherapy using 3DCRT, IMRT and VMAT: A Phantom Study(0.76)	Journal of Medical Physics	International	J Med Phys 2018;43:129-35 DOI:10.4103/jmp.JMP_106_17
28	Characterization of Continuous Laser Treated Human Enamel	Optics and Lasers in Engineering	International	under review (2019)
29	Quality Assurance of VMAT Head and Neck cancer treatment using PRESAGE® Dosimeter	Journal of Radiotherapy in Practice	International	doi: 10.1017/S146039691800016X, 2018
30	Impacts of praseodymium on structural and magnetic properties of lithium nanocrystalline ferrites fabricated via micro-emulsion technique	journal applied physics	International	under review (2019)
31	Morphological, spectral and dielectric properties of Pr-doped lithium–Nickel nanoferrites for high frequency device applications	Applied Physics A	International	under review (2019)
32	Structural and magnetic behavior evaluation of $\text{LiCo}_{0.5}\text{Fe}_2\text{O}_4$ nanocrystalline ferrites for high density magnetic media application	Silicon	International	under review (2019)
33	Solid State Synthesis and Characterization of Spintronics Material $\text{Hg}_{0.8}\text{Cd}_{0.2}\text{Te}$	Journal of applied & Emerging Sciences	HEC/National	7 ( 2) 178-182 (2017)
34	Solid State Synthesis and Characterization of Spintronics Material $\text{Cd}_{0.525}\text{Zn}_{0.225}\text{Hg}_{0.25}\text{Te}$	Opto electronics rapid communication	International	under review (2019)
35	New dielectric material: $\text{CoEr}_x\text{Fe}_{2-x}\text{O}_4$ nanoferrites for high frequency device fabrication	Journal of Alloys and Compounds (IF 3.13)	International	(Under review)2019
36	Role of Praseodymium and Neodymium on lithium ferrites and smart technological application	Ceramics International(IF 2.99)	International	(Under review)2019
37	Effect Mechanism of Electron Beam on Carbon in Silicon during Melting(0.67)	International Journal of material research	International	DOI 10.3139/146.111736
38	Intensity modulated radiation therapy: a review of current practice and future outlooks	Journal of Radiation Research and	International	<a href="https://doi.org/10.1016/j.jrras.2018.07.0">https://doi.org/10.1016/j.jrras.2018.07.0</a>

		Applied Sciences		06
39	Microstructure and conversion efficiency of multicrystalline silicon ingot prepared by upgraded metallurgical grade silicon Solar Energy Materials and Solar Cells (5.018)	Solar Energy Materials and Solar Cells	International	Volume 186, November 2018, Pages 50–56
40	Separation of boron from silicon melt surface by steam-added electron beam melting (4.439)	Applied Surface Science	International	Accepted
41	Optimization of silicon refining process for energy saving by using industrial-scale electron beam melting equipment (6.207)	Journal of Cleaner Production	International	Accepted
42	Separation of SiC from silicon by aluminum addition during electromagnetic induction melting process (3.927)	Separation and Purification Technology	International	Accepted
43	Kinetics of evaporation under vacuum: application to molten silicon in electron beam melting (3.771)	Applied Thermal Engineering	International	ATE_2018_3 686
44	Structural, morphological and optical investigations Of silver nanoparticles synthesized by sol-gel autocombustion Method	Digest Journal of Nanomaterials and Biostructures	International	Vol. 13, No. 3, July - September 2018, p. 679 - 683
45	Distribution of Phosphorus in N-type Multicrystalline Silicon Produced by Directional Solidification	IEEE Journal of Photovoltaics	International	DOI: 10.1109/JPHOTOV.2018.2866182 ( Volume: 8 , Issue: 6 , Nov. 2018 ) Page(s): 1486 – 1493
46	Morphological, Structural and Hardness Changes on Human Dental Enamel Irradiated with Nd: YAG Laser <b>IF= 1.158</b>	Laser Physics	International	Accepted 2018
47	Thermogravimetric Analysis, Optical and Dielectric Properties of Newly Developed LiNi <sub>0.5</sub> PrxFe <sub>2-x</sub> O <sub>4</sub> Nano Crystalline Ferrites <b>IF=.83</b>	Digest Journal of Nanomaterials and Biostructures	International	Vol. 13, No. 3, July - September 2018, p. 809 - 816
48	A simulation model approach to analysis of high breakdown voltage in normallyoff 4h-sic vertical	Journal of Ovonic Research	International	Volume 14, Number 6, November - December

	junction field effect transistor”			2018
49	Solid State Synthesis and Characterization of Spintronics Material Hg <sub>0.8</sub> Cd <sub>0.2</sub> Te	Journal of applied & Emerging Sciences		7 (2) 178-182(2018)
50	Separation of boron from silicon by steam-added electron beam melting	Separation and Purification Technology	International	<a href="https://doi.org/10.1016/j.seppur.2018.12.080">https://doi.org/10.1016/j.seppur.2018.12.080</a>
51	Structural, optical and magnetic elucidation of co-doped of Nd <sup>+3</sup> and Pr <sup>+3</sup> on lithium nanoferrites and its smart technological application	Results in Physics	International	12 (2019) 1334–1339
52	Impacts of bismuth on the structural and dielectric properties of cobalt-cadmium spinel ferrites fabricated via micro-emulsion route	Chin. Phys. B	International	Vol. 28, No. 8 (2019) 088701
53	Energy efficiency improvement in electron beam melting of solar-grade silicon by using graphite substrate	Energy	International	Volume 185, 15 October 2019, Pages 102-110
54	Exploration on the removal of arsenic in silicon under electron beam melting condition	Vacuum,	International	Volume 166, August 2019, Pages 191-195
55	Kinetics of Evaporation Under vacuum: Application to Molten Silicon in Electron Beam Melting	Materials Science in Semiconductor Processing	International	Volume 96, 15 June 2019, Pages 53-58, <a href="https://doi.org/10.1016/j">https://doi.org/10.1016/j</a>

				.mssp.2019. 02.015
56	Transmissivity of optomechanical system containing a two level system	International Journal of Modern Physics B	International	DOI: 10.1142/S0217979219502527
57	Dielectric, Impedance and Modulus spectroscopic studies of Co <sub>0.3</sub> Cd <sub>0.7</sub> Zn <sub>1.5</sub> Fe <sub>2-x</sub> O <sub>4</sub> nanoparticles	Applied Physics A Materials Science & Processing	International	DOI: 10.1007/s00339-019-3029-3
58	Characterization Of Zirconium Substituted Cobalt Zinc Ferrites Synthesized Via Co-Precipitation Technique,	Digest Journal of Nanomaterials and Biostructures	International	Vol. 14, No. 3, July - Septembre 2019, p 607-616.
59	Design and Analysis of Normally-on 4h-Sic Vertical Junction Field Effect Transistor (VJFET) using Sentaurus TCAD Simulation”	Journal of Ovonic Research	International	Vol. 15, No. 5 September – October 2019, p. 335 - 343
60	Dose verification of volumetric-modulated arc therapy using one-dimensional and two-dimensional dosimeters. Journal of Radiotherapy in Practice	Journal of Radiotherapy in Practice	International	18 (3):304-308

Paper Presented

S. No	Title of Paper	Name of Conference	National/ International	Date
1	Solid State Synthesis and Characterization of Spintronic Material Cd <sub>0.55</sub> Hg <sub>0.45</sub> Te	ICFMD 2010 International	International	2010
2	The Role of spintronic Materials	Materials Science progress	International	2012
3	Removal of Impurities from silicon through EBM	Innovations in energy sector	International	2014
4	INCONAL 740 alloys	Future of Alloys	International	2015
5	Impurities behavior in Si	FICT BUIITEMS,	International	2016
6	SiC removal via EBM	BUIITEMS ,FOE	International	2018
7	Effect mechanism of O <sub>2</sub> during Si melt via EBM	AIOU, Islamabad	International	2018
8	SiC removal by EBM and energy crises	UET Lahore	International	2017
9	Green energy building discussion panel	UET Lahore	International	2017

10	Mechanism of the Effect of Electron Beam Melting on the Distribution of Oxygen, Nitrogen, and Carbon in Silicon	Nano technology, GoC Faisalabad	International	2018
11	Oxygen removal and cell efficiency on industrial scale	Materials science UoB	International	2018
<b>Books Authored/ Edited</b>				
S. No	Name of book		Publisher	ISBN
<b>Work Experience :Total Experience Sep- 2003-September 2019 (16 Y)</b>				
S. No	From (year)	To (year)	Name of the Institution/ Organization	Position held
1	Sep-2003	Aug-2005	National College of Science and Technology	Lecturer
2	Aug-2005	Oct-2009	FG colleges Pakistan	Lecturer
3	Oct-2009	Nov-2010	BUIITEMS	Lecturer
4	Nov-2010	June 2016	BUIITEMS	Assistant Professor
5	Jun-2016	To Date	BUIITEMS	Associate Professor
<b>Area of specialization</b>		Materials science and Engineering		
<b>Expertise</b>		Materials Physics, spintronic Materials, Ferrites, Super Capacitors, Photovoltaic industries , super alloys.....etc		
<b>HEC Approved supervisor</b>		Yes , HEC approved supervisor		
<b>If Yes, provide HEC URL</b>		http://www.hec.gov.pk/english/scholarshipsgrants/ASA/Pages/eportal-APS.aspx?Paged=TRUE&p_ID=210&PageFirstRow=211&&View={BB4654FE-A4B3-4894-BC0B-38231AD177DD}		
<b>Research grants/ Projects</b>		3 projects submitted and one National level project is under Process		
<b>Additional Information: Vice President of new energy materials and Technology institute Co. LTD. Of Dalian University of Technology (Qingdao). to be responsible for construction of China-Pakistan International Science and Technology Corridor</b>				
Making it to the top through professional competence and hard work in growing dynamic and reputable organization, where my knowledge, skill and experience of Physics, in materials Science, solar grade silicon refining and spintronic physics can be applied to the potential.				
<a href="https://www.researchgate.net/profile/Muhammad_Khan65">https://www.researchgate.net/profile/Muhammad_Khan65</a>				



**Supervisor of MS Student**

- 1 Noor ul Haque Khan
- 2 Talal Usman
- 3 Ziaurrahman
- 4 Muhammad Hussain
- 5 Ayesha
- 6 Sulaiman
- 7 Saira Yasmeen
- 8 Siraj ul Islam
- 9 Muhibullah
- 10 Saifullah
- 11 Muhamamd Hafiz

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- 8 Muhammad Khalid
- 9 Sunila Bakhsh
- 10 Sameen Aslam
- 11 Furhaj
- 12 Waseemullah
- 13 Awais Ahmad
- 14 WAqas Ahmad
- 15 Shahzaib
- 16 Habib ur Rahman

**Supervisor of student BS level**

- 17 Muhibbullah
- 18 Suleman
- 19 Saifullah
- 20 Siraj ul Islam

**Currently supervising PhD Student**

- 21 Noor ul Haq

**Co-supervisor of PhD Student**

- 22 Furhaj Ahmad Shaikh

23 Abdul Qayoom