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Qualification				
Year	Degree/Certificate	Name of the Institute/ University	Field of study	
	Post Doctorate	NA		
	PhD	University Brunei Darussalam, Brunei & University of St Andrews, UK	Materials Science (Solid Oxide Fuel Cells)	
	MS/ Mphil			
	Graduation	University of Peshawar	Physics (M.Sc.)	
Publications in HEC Recognized journals				
S. No	Title of Paper	Name of Journal	National/ International	Publication date
1	Structural, dielectric and electronic properties of Ba _{1-x} Sr _x Zr _{0.3} Ti _{0.7} O ₃ (x = 0.0, 0.1, 0.2, 0.24, 0.27, 0.3) ceramics: Combined experimental and ab-initio study	Materials Science and Engineering B	International	2023 (accepted, in press) will be published in Dec 2023
2	Rapid detection of pork gelatin in ice cream samples by using non-destructive FT-NIR spectroscopy and Partial least squares-discriminant analysis	Food Chemistry Advances	International	October 2023
3	Probing the effect of Pr doping on the magnetic and magnetocaloric properties of Ba _{2-x} Pr _x FeMoO _δ double perovskites	Solid State Communications	International	15 September 2022

4	Dielectric properties of Bi(M-2/3Nb-1/3O ₃ (M = Ni, Mg, Zn) ceramics	Journal of Materials Science: Materials Electronics	International	January 2022
5	Experimental study of neodymium (Nd) doped Mi-Ni based spinel ferrite Mn _{0.5} Ni _{0.5} Nd _x Fe _{2-x} O ₄ nanoparticles using sol-gel method	Journal of Materials and Physical Sciences	National	December 2021
6	Synthesis and Characterization of highly sinterable, chemically stable BaZr _{0.3} Ce _{0.5} Y _{0.1} Yb _{0.1} O _{3-δ} electrolyte material for solid oxide fuel cells	Journal of Applied and Emerging Sciences	National	2021
7	Enhanced sinterability and chemical stability of ZnO-added BaZr _{0.1} Ce _{0.7} Y _{0.1} Yb _{0.1} O _{3-δ} electrolyte material for solid oxide fuel cells	Baluchistan Journal of Engineering and Applied Sciences	National	2021
8	Robust doped BaCeO ₃ – δ electrolyte for IT-SOFCs	IONICS	International	10 April 2017.
9	Wet Chemical synthesis and Characterisation of Ba _{0.5} Sr _{0.5} Ce _{0.6} Zr _{0.2} Gd _{0.1} Y _{0.1} O _{3-δ} proton conductor	Solid State Ionics	International	2017
10	Ce(Mn,Fe)O ₂ (La,Sr)(Fe,Mn)O ₃ composite as an active cathode for electrochemical reduction of CO ₂ in proton conducting solid oxide cells	Solid State Ionics	International	2015
11	Novel Cu-based cermet materials for solid oxide fuel cells	US Patent	International	Nov. 20, 2014
12	The effect of fluxing additive on the sintering temperature, microstructure and properties of BaTiO ₃	Bulletin of Materials Science	International	2012
13	Characterization of Barium Titanate Prepared via Mixed Oxide Sintering Route	Journal of Pak Materials Society	National	2008
Paper Presented				
S. No	Title of Paper	Name of Conference	National/ International	Date
1	Enhanced densification and chemical stability of ZnO-added BaZr _{0.1} Ce _{0.7} Y _{0.1} Yb _{0.1} O _{3-δ} electrolyte material for proton conducting solid oxide fuel cells	Emerging Materials & Nanotechnology Vancouver, BC, Canada	International	25–26 June, 2018

2	The effect of ZnO addition on densification, stability and electrical properties of BaZr _{0.1} Ce _{0.7} Y _{0.1} Yb _{0.1} O _{3-δ}	Pitlochry Workshop, Scotland, UK	International	3rd June 2014
3	Fabrication and characterization of anode-supported proton conducting solid oxide fuel cells based-on La _{0.5} Sr _{0.5} MnO ₃ -BaZr _{0.1} Ce _{0.7} Y _{0.1} Yb _{0.1} O _{3-δ} composite cathode	World Renewable Energy Congress (WREC), Perth, Australia	International	14-18 July, 2013
4	Porous-dense porous composite for impregnation of precursors for cathode and anode for solid oxide fuel cells	International Conference on Materials for Advanced Technologies (ICMAT), Singapore	International	30 th June – 5 th July 2013
5	The thermal-expansion of Cu-cermets for solid oxide fuel cells	Sustainable Future Energy and 10 th SEE Forum Brunei Darussalam	International	21-23 November 2012

Books Authored/ Edited

S. No	Name of book	Publisher	ISBN

Work Experience

S. No	From (year)	To (year)	Name of the Institution/ Organization	Position held
1	2016	To Date	BUIITEMS, Quetta, Pakistan	Assistant Professor
2	2015	2016	International Islamic University, Islamabad, Pakistan	Assistant Professor
3	2013	2014	University of St Andrews, Scotland, UK	Visiting Scholar
4	2010	2015	University Brunei Darussalam, Brunei	PhD Scholar

Area of specialization

Solid Oxide Fuel Cells, Materials Science

Research Interest

Density Functional Theory, Li/Na-ion batteries

Future Research Plans

DFT-based materials simulations due to lack of research infrastructure and remoteness of our university

HEC Approved supervisor

Yes

If Yes, provide HEC URL

Ref. HEC/HRD/ASA/2020/66396

Research grants/ Projects

March 2016 – Sep 2016, Start-up research project (SRGP) titled, “Fabrication and Characterization of tin-based Perovskite Solar Cells”, from Higher Education Commission of Pakistan

Additional Information

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