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Publications: **62** | *h*-index: **>17** | *i10*-index: **> 23** | Citations: **> 787**

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Google Scholar: <https://scholar.google.com/citations?user=Q4TrHFfAAAAAJ&hl=en>

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Summary Statement

10 years working experience in the field of nanoscale functional materials (low dimensional, nano and 2D materials): preparation of carbon materials including graphene, graphene nanoribbons (GNRs), carbon nanotubes (CNTs), carbon dots (CDs), and advanced carbon-based nanoarchitected materials for energy storage and conversion devices/technologies. Construction of metal-organic frameworks (MOFs) and their derived nanomaterials for functional applications. Designing and preparation of multifunctional nanocomposites for various engineering applications.

Education

PhD in Materials Science and Engineering | 2016-2020

Beijing University of Chemical Technology, Beijing, China

Master in Materials Science and Engineering | 2013-2016

Beijing University of Chemical Technology, Beijing, China

Bachelor in Metallurgy and Materials Engineering | 2008-2012

Institute of Advanced Materials, B.Z. University Multan, Pakistan

Research Interests

- **Nanoscale Functional Materials for Electrochemical Energy Storage and Conversion Devices/Technologies**
- **Advanced Carbon-Based Anodes for Next-Generation Batteries**
- **Nanoarchitected Materials for Energy Storage and Conversion Applications**
- **Construction of Metal-Organic Frameworks (MOFs) Based Nanomaterials**
- **Nanocomposite Materials for Multifunctional Applications**
- **Nanoscience and Nanotechnology-Based Approaches for Superior Mechanical Properties and Corrosion Performance**
- **Basic Simulations and DFT of Electrochemical Energy Conversion and Storage**

Experience

- 2020 - Continued:** Senior Research Fellow (Faculty Member), Institute for Advanced Study, College of Physics and Optoelectronic Engineering, Shenzhen University, Shenzhen, 518060, Guangdong, China.
- 2020:** Worked for 3 months as a Research Assistant at Institute of Nuclear & New Energy Technology, Tsinghua University, Beijing, 100084, China
- 2016 - 2020:** PhD Research Student, BUCT-CWRU International Joint Laboratory, State Key Laboratory of Chemical Resource Engineering, College of Materials Science and Engineering, Beijing University of Chemical Technology, Beijing, 100029, China.
- 2013 - 2016:** Worked as a Research Student at State Key Laboratory of Electrochemical Process and Technology for Materials, College of Materials Science and Engineering, Beijing University of Chemical Technology, Beijing, 100029, China.
- 2012:** 3 Months Internship at Pakistan Foundry Association, Chicago Group of Industries, Multan, Pakistan.

Honors and Awards

- **First Prize in Science and Technology Innovation Award of the Year** from Beijing University of Chemical Technology, Beijing, China – 2019
- Awarded **Chinese Government Outstanding International Student Scholarship Award** from China Scholarship Council, Ministry of Education (MOE), China – 2019
- **Outstanding Academic Achievement Award** of the year from The Embassy of Pakistan, Beijing, China – 2019
- **Outstanding Reviewer Award** from **Journal of Alloys and Compounds**, Elsevier, Amsterdam, The Netherlands – 2018
- **Awarded Research Star** of the Year from Beijing University of Chemical Technology, Beijing, China – 2018
- Awarded Certificate of Appreciation from **Global Competence Forum for Young Elites 2019**, held at Xidian University, Xian, China – 2019
- **Excellent Doctoral Candidate** from International Doctoral Students Forum, Study in China, China Scholarship Council (CSC), Ministry of Education, China – 2018
- **Excellent Presentation and Poster Award** from Global Young Talent Forum & the 2nd Sino-Foreign Postgraduate Exchange Forum, Beijing University of Chemical Technology, Beijing, China – 2018
- **Excellent Graduate Award** from Beijing University of Chemical Technology, Beijing, China – 2016
- **International Talent Award**, Promoted from Master to PhD, CSC Scholarship – 2016
- International **Ambassador** of Beijing University of Chemical Technology, for promoting the Chinese Culture and Exchange of Chinese and Foreign Education – 2016
- **Outstanding Academic Achievement Award** of the year from The Embassy of Pakistan, Beijing, China – 2015
- Excellent Student Award “**Star of Science**” from Beijing University of Chemical Technology, Beijing, China – 2015
- Provincial Government Honorary Award and Laptop prize “**Youth Punjab Talent Award**” to excellent students from Chief Minister of Punjab, Pakistan – 2011

Selected Peer Reviewed Publications

23. **G. Yasin**, M. Arif, T. Mehtab, X. Lu, D. Yu, N. Muhammad, M.T. Nazir, H. Song, “Understanding and suppression strategies toward stable Li metal anode for safe lithium batteries”, *Energy Storage Materials*, 25 (2020) 644-678. (Elsevier Publishing, Impact Factor: **16.280**).
22. **G. Yasin**, M. Arif, T. Mehtab, M. Shakeel, M.A. Mushtaq, A. Kumar, T.A. Nguyen, Y. Slimani, M.T. Nazir, H. Song, “A Novel Strategy for the Synthesis of Hard Carbon Spheres Encapsulated with Graphene Networks as a Low-Cost and Large-Scalable Anode Material

- for Fast Sodium Storage with an Ultralong Cycle Life”, *Inorganic Chemistry Frontiers*, 2 (2020) 402-410. (RSC Publishing, Impact Factor: **5.958**).
21. D. Yu, A. Kumar, T. A. Nguyen, M. T. Nazir, **G. Yasin***, “High-Voltage and Ultra-Stable Aqueous Zinc-Iodine Battery Enabled by N-Doped Carbon Materials: Revealing the Contributions of Nitrogen Configurations”, *ACS Sustainable Chemistry & Engineering*, 36 (2020) 13769–13776. (ACS Publishing, Impact Factor: **7.632**). ***Corresponding Author.**
20. H. Wang, L. Sheng, **G. Yasin**, L. Wang, H. Xu, X. He, “Reviewing the Current Status and Development of Polymer Electrolytes for Solid-State Lithium Batteries”, *Energy Storage Materials*, 33 (2020) 188-215. (Elsevier Publishing, Impact Factor: **16.280**).
19. **G. Yasin**, M.A. Khan, W.Q. Khan, T. Mehtab, R.M. Korai, X. Lu, M.T. Nazir, M.N. Zahid, “Facile and large-scalable synthesis of low cost hard carbon anode for sodium-ion batteries”, *Results in Physics*, 14 (2019) 102404. (Elsevier Publishing, Impact Factor: **4.019**).
18. T. Mehtab, **G. Yasin***, M. Arif, M. Shakeel, R.M. Korai, M. Nadeem, N. Muhammad, X. Lu, “Metal-organic frameworks for energy storage devices: Batteries and supercapacitors”, *Journal of Energy Storage*, 21 (2019) 632-646. (Elsevier Publishing, Impact Factor: **3.762**). ***Corresponding Author.**
17. S. Ullah, **G. Yasin****, A. Ahmad, Q. Yuan, A.U. Khan, U.A. Khan, A. Rahman, “Construction of well-designed 1D Selenium-Tellurium nanorods anchored on graphene sheets as high storage capacity anode material in Lithium-ion battery” *Inorganic Chemistry Frontiers*, 8 (2020) 1750-1761. (RSC Publishing, Impact Factor: **5.958**). ****Equal to first author.**
16. N. Muhammad, **G. Yasin**, A. Li, Y. Chen, H. M. Saleem, R. Liu, L. Da, S. Yimeng, S. Zheng, Xi. Chen, H. Song, “Volumetric buffering of manganese dioxide nanotubes by employing 'as is' graphene oxide: An approach towards stable metal oxide anode in lithium-ion batteries”, *Journal of Alloys and Compounds*, 25 (2020) 155803. (Elsevier Publishing, Impact Factor: **4.650**).
15. M. Nadeem, **G. Yasin****, M. Arif, M.H. Bhatti, K. Sayin, M. Mehmood, U. Yunus, S. Mehboob, I. Ahmed, U. Flörke, “Pt-Ni@PC900 Hybrid derived from layered structure Cd-

- MOF for fuel cell ORR activity” *ACS Omega*, 5 (2020) 2123-2132. (ACS Publishing, Impact Factor: **2.870**). ****Equal to first author.**
14. M. Nadeem, **G. Yasin**, M.H. Bhatti, M. Mehmood, M. Arif, L. Dai, “Pt-M bimetallic nanoparticles (M = Ni, Cu, Er) supported on metal organic framework-derived N-doped nanostructured carbon for hydrogen evolution and oxygen evolution reaction” *Journal of Power Sources*, 402 (2018) 34-42. (Elsevier Publishing, Impact Factor: **8.247**).
 13. M. Arif, **G. Yasin**, L. Luo, W. Ye, M. A. Mushtaq, X. Fang, X. Xiang, S. Ji, D. Yan, “Hierarchical hollow nanotubes of NiFeV-layered double hydroxides@CoVP heterostructures towards efficient, pH-universal electrocatalytical nitrogen reduction reaction to ammonia”, *Applied Catalysis B: Environmental*, 265 (2020) 118559. (Elsevier Publishing, Impact Factor: **16.683**).
 12. M. Arif, **G. Yasin**, M. Shakeel, M.A. Mushtaq, W. Ye, X. Fang, S. Ji, D. Yan, “Hierarchical CoFe-layered double hydroxide and g-C₃N₄ heterostructures with enhanced bifunctional photo/electrocatalytic activity towards overall water splitting”, *Materials Chemistry Frontiers*, 3 (2019) 520-531. (RSC Publishing, Impact Factor: **6.788**).
 11. M. Arif, **G. Yasin**, M. Shakeel, X. Fang, R. Gao, S. Ji, D. Yan, “Coupling of Bifunctional CoMn-Layered Double Hydroxide@Graphitic C₃N₄ Nanohybrids towards Efficient Photoelectrochemical Overall Water Splitting”, *Chemistry - An Asian Journal*, 13 (2018) 1045-1052. (Wiley Publishing, Impact Factor: **4.056**).
 10. M. Shakeel, M. Arif, **G. Yasin**, B. Li, H.D. Khan, “Layered by layered Ni-Mn-LDH/g-C₃N₄ nanohybrid for multi-purpose photo/electrocatalysis: Morphology controlled strategy for effective charge carriers separation”, *Applied Catalysis B: Environmental*, 242 (2019) 485-498. (Elsevier Publishing, Impact Factor: **16.683**).
 9. M. Shakeel, **G. Yasin**, M. Arif, X. Zhang, Z. Abbas, S. Khan, W. Rehman, U. Zaman, Z. Ul Haq Khan, B. Li, “A facile band alignment with sharp edge morphology accelerating the charge transportation for visible light photocatalytic degradation: A multiplex synergy”, *Journal of Water Process Engineering*, 32 (2019) 100985. (Elsevier Publishing, Impact Factor: **3.465**).
 8. M. Shakeel, M. Arif, **G. Yasin**, B. Li, A.U. Khan, F.U. Khan, M.K. Baloch, “Hollow mesoporous architecture: A high performance Bi-functional photoelectrocatalyst for

- overall water splitting’, *Electrochimica Acta*, 268 (2018) 163-172. (Elsevier Publishing, Impact Factor: **6.215**).
7. M. Shakeel, B. Li, **G. Yasin**, M. Arif, W. Rehman, H.D. Khan, “In Situ Fabrication of Foamed Titania Carbon Nitride Nanocomposite and Its Synergetic Visible-Light Photocatalytic Performance”, *Industrial & Engineering Chemistry Research*, 57 (2018) 8152-8159. (ACS Publishing, Impact Factor: **3.573**).
 6. M. Shakeel, B. Li, M. Arif, **G. Yasin**, W. Rehman, A.U. Khan, S. Khan, A. Khan, J. Ali, “Controlled Synthesis of highly proficient and durable hollow hierarchical heterostructured (Ag-AgBr/HHST): A UV and Visible light active photocatalyst in degradation of organic pollutants”, *Applied Catalysis B: Environmental*, 227 (2018) 433-445. (Elsevier Publishing, Impact Factor: **16.683**).
 5. **G. Yasin**, M.J. Anjum, M.U. Malik, M.A. Khan, W. Q. Khan, M. Arif, T. Mehtab, T. A. Nguyen, Y. Slimani, M. Tabish, D. Ali, Y. Zuo , “Revealing the erosion-corrosion performance of sphere-shaped morphology of nickel matrix nanocomposite strengthened with reduced graphene oxide nanoplatelets”, *Diamond and Related Materials*, 104 (2020) 107763. (Elsevier Publishing, Impact Factor: **2.650**).
 4. **G. Yasin**, M.A. Khan, M. Arif, M. Shakeel, T.M. Hassan, W.Q. Khan, R.M. Korai, Z. Abbas, Y. Zuo, “Synthesis of spheres-like Ni/graphene nanocomposite as an efficient anti-corrosive coating; effect of graphene content on its morphology and mechanical properties”, *Journal of Alloys and Compounds*, 755 (2018) 79-88. (Elsevier Publishing, Impact Factor: **4.650**).
 3. **G. Yasin**, M. Arif, M. Shakeel, Y. Dun, Y. Zuo, W.Q. Khan, Y. Tang, A. Khan, M. Nadeem, “ Exploring the Nickel-Graphene Nanocomposite Coatings for Superior Corrosion Resistance: Manipulating the Effect of Deposition Current Density on its Morphology, Mechanical Properties, and Erosion-Corrosion Performance”, *Advanced Engineering Materials*, 20 (2018) 1701166. (Wiley Publishing, Impact Factor: **3.217**).
 2. **G. Yasin**, M. Arif, M.N. Nizam, M. Shakeel, M.A. Khan, W.Q. Khan, T.M. Hassan, Z. Abbas, I. Farahbakhsh, Y. Zuo, “Effect of surfactant concentration in electrolyte on the fabrication and properties of nickel-graphene nanocomposite coating synthesized by electrochemical co-deposition”, *RSC Advances*, 8 (2018) 20039-20047. (RSC Publishing, Impact Factor: **3.119**).

1. A. Jabbar, **G. Yasin***, W.Q. Khan, M.Y. Anwar, R.M. Korai, M.N. Nizam, G. Muhyodin, “Electrochemical deposition of nickel graphene composite coatings: effect of deposition temperature on its surface morphology and corrosion resistance”, **RSC Advances**, 7 (2017) 31100-31109. (RSC Publishing, Impact Factor: **3.119**). *Equal to first author.

Book Chapters

1. **G. Yasin**, et al., Nanobattery: An Introduction, In Book “Nanobatteries and Nanogenerators: Fundamentals and Applications” (**Accepted, In Production**), Elsevier: USA, Publication Date: December 2020.
2. **G. Yasin**, et al., Battery-Nanogenerator Hybrid Systems, In Book “Nanobatteries and Nanogenerators: Fundamentals and Applications” (**Accepted, In Production**), Elsevier: USA, Publication Date: December 2020.
3. **G. Yasin**, et al., Nanostructured Anode Materials in Rechargeable Batteries, In Book “Nanobatteries and Nanogenerators: Fundamentals and Applications” (**Accepted, In Production**), Elsevier: USA, Publication Date: December 2020.
4. **G. Yasin**, et al., Nanostructured Cathode Materials in Rechargeable Batteries, In Book “Nanobatteries and Nanogenerators: Fundamentals and Applications” (**Accepted, In Production**), Elsevier: USA, Publication Date: December 2020.
5. **G. Yasin**, M. Arif, et al. Metallic Nanocomposite Coatings, In Book “Corrosion Protection at the Nanoscale”, (2020), Pages 245-274, Elsevier, USA, (ISBN: 978-0-12-819359-4). <https://doi.org/10.1016/B978-0-12-819359-4.00014-3>
6. M.J. Anjum, **G. Yasin ***, et al. Metal/Metal Oxide Nanoparticles as Corrosion Inhibitors, In Book “Corrosion Protection at the Nanoscale”, (2020), Pages 181-201, Elsevier, USA (ISBN: 978-0-12-819359-4). <https://doi.org/10.1016/B978-0-12-819359-4.00011-8> (*Corresponding author).
7. M. Irfan, **G. Yasin ***, et al. Corrosion Resistance of Nanostructured Metals and Alloys, In Book “Corrosion Protection at the Nanoscale”, (2020), Pages 63-87, Elsevier: USA (ISBN: 978-0-12-819359-4). <https://doi.org/10.1016/B978-0-12-819359-4.00005-2> (*Corresponding author).

Elsevier Books

1. Nanomaterials for Electrocatalysis, *Elsevier Micro & Nano Technologies Book Series*; Editors: T. Maiyalagan, Mahima Khandelwal, Ashok Kumar, Tuan Anh Nguyen, Ghulam Yasin, July, 2021, Elsevier, USA.
2. Nanotechnology in Fuel Cells, *Elsevier Micro & Nano Technologies Book Series*; Editors: Huaihe Song, Tuan Anh Nguyen, Ghulam Yasin, July 2021, Elsevier, USA.
3. Nanomaterials for Bio-Catalysis, *Elsevier Micro & Nano Technologies Book Series*; Editors: Guillermo R. Castro, Ashok Kumar, Tuan Anh Nguyen, Xianghui Qi, Ghulam Yasin, March 2021, Elsevier, USA.
4. Plasma at the Nanoscale: Fundamentals and Applications, *Elsevier Micro & Nano Technologies Book Series*; Editors: Huaihe Song, Tuan Anh Nguyen, Ghulam Yasin, August 2021, Elsevier, USA.
5. Nanosensors for Smart Manufacturing, *Elsevier Micro & Nano Technologies Book Series*; Editors: Sabu Thomas, Tuan Anh Nguyen, Ali Farmani, Mazaher Ahmadi, Ghulam Yasin, December 2020, Elsevier, USA.
6. Biodegradation and Biodeterioration at the Nanoscale, *Elsevier Micro & Nano Technologies Book Series*; Editors: Hafiz M. N. Iqbal, Muhammad Bilal, Tuan Anh Nguyen, Ghulam Yasin, March 2021, Elsevier, USA.
7. Nanomaterials for Soil Remediation, *Elsevier Micro & Nano Technologies Book Series*; Editors: Amrane Abdeltif, Dinesh Mohan, Tuan Anh Nguyen, Aymen Amine Assadi, Ghulam Yasin, December 2020, Elsevier, USA.
8. Silicon-Based Hybrid Nanoparticles: Fundamentals, Properties, and Applications, *Elsevier Micro & Nano Technologies Book Series*; Editors: Sabu Thomas, Tuan Anh Nguyen, Mazaher Ahmadi, Ghulam Yasin, Nirav Joshi, July 2021, Elsevier, USA.

Professional Affiliations and Services

- Assistant Editor of the Journal “*Materials International*”, AMG Transcend Association, 2019 – To date
https://materials.international/?page_id=20
- Editor of the “*Journal of Chemical Science and Chemical Engineering*”, Helics Group Scientific Publisher, 2020 – To date
https://journalofchemistry.net/journal/editorial_board_description/174
- Member of the Editorial Board of the SCIREA *Journal of Materials*, 2018 – To date

(<http://www.scirea.org/journal/EditorialBoard?JournalID=43000>)

- Regular Reviewer for *Small*, 2020 – To date
- Regular Reviewer for *ACS Applied Materials & Interfaces*, 2020 – To date
- Regular Reviewer for *ACS Sustainable Chemistry & Engineering*, 2020 – To date
- Regular Reviewer for *ACS Applied Nano Materials*, 2020 – To date
- Regular Reviewer for *Advanced Materials Interfaces*, 2019 – To date
- Regular Reviewer for *Journal of Alloys and Compounds*, 2018 – To date
- Regular Reviewer for more than 15 Scientific Journals, including Energy Technology, Advanced Engineering Materials, Applied Nanoscience, Philosophical Magazine, Philosophical Magazine Letter, RSC Advances, Surface and Coatings Technology, Materials Chemistry and Physics, Materials Research Express, Science of Advanced Materials, International Journal of Materials Research, *World Journal of Engineering*, *IEEE Access*, etc.

Memberships and Affiliations

- Executive Membership of Alumni Association of Beijing University of Chemical Technology.
- Representative of International Students of Beijing University of Chemical Technology to Beijing Municipal Government.
- Representative of International Students for Curriculum and Extra Curriculum Activities of Beijing University of Chemical Technology.
- International Member of Cultural Society of Peking University, “Chinese Economy and Ancient Culture”.
- Membership of Pakistan Engineering Council (PEC).