

Dr Muhammad Ali Hashmi

Assistant Professor
Department of Chemistry
University of Education Lahore, Attock Campus, Attock, Pakistan
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RESEARCH INTERESTS

Drug Delivery through Ionic Liquids and other Nano-Careers, Hydrogen Evolution Reaction through Single-Atom Catalysis, Oxidation of CO and CO₂, Electrochemical Sensors, conformational analysis of flexible systems and their physical properties, prediction of accurate NMR spectra using computational chemistry tools, mechanistic investigation of organic synthetic pathways.

TEACHING and RESEARCH EXPERIENCE

(March 2019 – present) Assistant Professor, University of Education Lahore, Attock Campus

- Campus Coordinator (HoD) for Chemistry Department
- Teaching chemistry courses to BS and MS Chemistry Students
- Supervising BS Chemistry Labs
- Supervising BS and MS students' theses
- Incharge Student Affairs (2019-21)

(Oct 2018 – March 2019) Assistant Professor, University of Management & Technology, Lahore

- Teaching Principles of Chemistry I (CH-101) to BS students.
- Teaching "Theoretical & Computational Chemistry" to BS Students
- Supervising Principles of Chemistry I (CH-101) labs.
- Supervising Organic Chemistry (CH-206) labs.
- Supervised 3 MS students' theses

(Nov 2017 – Aug 2018) Research Assistant, Victoria University of Wellington, New Zealand

- Big data analysis on Wikipedia edits using Python programming language and high-performance computing.

(2015 – 2017) Lab Demonstrator, Victoria University of Wellington, New Zealand

- Demonstrating and supervising laboratory experiments to university students (CHEM113 and CHEM114) and marking their assignments
- Demonstrating and supervising the computational chemistry lab to 3rd year university students (CHEM306)

(2015 – 2017) Doctoral research, Victoria University of Wellington, New Zealand

- Computational studies for the structure revision and absolute configuration of echivulgarine, a pyrrolizidine alkaloid.

- Development of a tool for accurately mapping of the potential energy surface of a flexible molecule, called *MICE-PES*.
- Structural validation of 3-*epi*-xestoaminol C and meroterphenol C.
- Studies of structure and electronic properties of carbon nano-onions.
- Tracking the source of enantioselectivity in the reaction between the enantiomers of 2-formyl-3-hydroxyl[2.2]paracyclophane (FHPC) with (S)-valyl-(S)-valine using density functional theory (DFT).
- Mechanistic studies of some organic reactions.

(2012 – 2015)

Doctoral research, COMSATS IIT, Abbottabad, Pakistan

- Isolation of chemical constituents of the indigenous medicinal plant, *Olea ferruginea* using silica gel column chromatography and thin layer chromatography.
- Purification of the isolated compounds using semi-preparative HPLC
- Characterization of pure compounds using various spectroscopic techniques including ESI-MS, EI-MS, IR, UV-Vis, ¹H-NMR, ¹³C-NMR, and 2D-NMR techniques.
- Quantum chemical studies of properties of some small sized natural products.

(March-Aug – 2010)

Vice Principal – Base School System, Gujar Khan, Pakistan

- Delivering lectures to secondary school chemistry students.
- Teaching and demonstrating the laboratory experiments to the students.
- Setting up and marking assignments and examination papers.
- Looking into disciplinary matters
- Holding meetings with teachers and students' parents, and resolving the conflicts, if any.

(2009 – 2010)

Chemistry Lecturer – Indus Group of Colleges, Gujar Khan, Pakistan

- Delivering lectures to higher secondary school chemistry students.
- Teaching and demonstrating the laboratory experiments to the students.
- Setting up and marking assignments and examination papers.

Editorial and Reviewer Experience

(Dec 2020 – present)

Academic Editor, Evidence-Based Complementary and Alternative Medicine

- Handling of the manuscripts assigned to me for their initial assessment
- Sending out the manuscripts for peer-review
- Making decisions about the publication of manuscripts after the peer-review process

(Dec 2018 – present)

Reviewer of the following Scientific Journals

- Molecular Catalysis
- RSC Advances
- Computational and Theoretical Chemistry
- International Journal of Quantum Chemistry
- Crystals (MDPI)
- Energy (MDPI)
- Frontiers in Nutrition
- Journal of Taibah University for Science
- Evidence-Based Complementary and Alternative Medicine
- Journal of Traditional and Complementary Medicine
- Biomedicine & Pharmacotherapy

EDUCATION

(2018)

PhD in Chemistry, Victoria University of Wellington, New Zealand

Area of Research: Theoretical and Computational Chemistry

Dissertation: MICE-PES: An Algorithm for Accurate Conformational Analysis and its Implementation to Natural Products.

(2016)

PhD in Chemistry, COMSATS IIT, Abbottabad, Pakistan

Area of Research: Natural Product Chemistry

Dissertation: Phytochemical Investigation of Bioactive Compounds from *Olea ferruginea* and Quantum Chemical Studies of Important Natural Products.

(2012)

MS in Chemistry, COMSATS IIT, Abbottabad, Pakistan

Dissertation: Isolation and Characterization of Chemical Constituents of *Olea ferruginea*.

(2009)

MSc in Chemistry, The University of Azad Jammu & Kashmir, Muzaffarabad, Pakistan

Dissertation: NMR Studies of Isoquinoline Alkaloids.

(2006)

B.Sc. in Chemistry, University of the Punjab, Lahore, Pakistan

HONOURS AND AWARDS

(2014)

Victoria Doctoral Scholarship

(2014)

CAS/TWAS President's PhD Scholarship (Not Availed)

(2014)

COMSATS IIT Research Productivity Award (2013 and 2014)

(2012)

3rd Prize for Poster Presentation at 3rd International Symposium on Biomedical Materials: Advances and Challenges (December 18-19)

(2011)

Higher Education Commission of Pakistan's Indigenous PhD Fellowship

(2010)

COMSATS IIT Merit Scholarship for MS Studies

TECHNICAL SKILLS

- Experienced in high performance computing, use of computational chemistry software including Gaussian, ORCA, GaussView, ChemCraft etc.
- Advanced user of Python programming language.
- Highly experienced in the isolation and characterization of chemical compounds from natural products using different chromatographic techniques (column, size exclusion, thin layer, and high-pressure liquid chromatography (HPLC)) and spectroscopic techniques including mass spectrometry, NMR spectroscopy, UV-Vis, and IR spectroscopy.
- Experience of working with recycling preparative grade HPLC.
- Excellent written and communication skills in English (IELTS band score of 7.5).
- Excellent scientific writing skills (authored >60 research articles in peer-reviewed international journals).
- Experienced in research grants proposal writing.
- Proficient with Windows, MAC, and Linux operating systems. Advanced user of computer applications including Microsoft office suite, ChemBio Office, LaTeX, GNU-Plot, Endnote, and Adobe Photoshop.

CONFERENCES

- (2023) **Muhammad Ali Hashmi**, "A DFT Study of Mn-Corrole as a Single Atom Catalyst for CO Oxidation", 2nd International Conference of Sciences "Revamped Scientific Outlook of 21st Century, 2023", Rawalpindi Women University, (November 15–16, 2023).
- (2020) **Muhammad Ali Hashmi**, "A Computational Study of Single-Atom Catalysis of Hydrogen Evolution Reaction Using Transition Metals on Phosphorene Support", 1st International Conference on Advances in Materials Science - AIMS-2020, University of Education Lahore, Pakistan, (July 23–24).
- (2019) **Muhammad Ali Hashmi**, Matthias Lein, "MICE-PES: An Algorithm for Accurate Conformational Analysis and its Implementation to Natural Products", 30th National & 18th International Chemistry Conference on Recent Trends in Chemistry-CCUMT-2019, Lahore, Pakistan, (November 27–29).
- (2017) **Muhammad Ali Hashmi**, Matthias Lein, "Conformational Analysis and Accurate Prediction of Molecular Properties for Highly Flexible Chiral Natural Products", World Association of Theoretical and Computational Chemists (WATOC) Chemistry Congress, Munich, Germany, (August 26 – September 01, 2017).
- (2016) **Muhammad Ali Hashmi**, Robert A. Keyzers, Matthias Lein, "Accurate prediction of the optical rotation and NMR properties for highly flexible chiral natural products", NZIC International Chemistry Conference, Queenstown, New Zealand, (August 21–24, 2016).
- (2014) **Muhammad Ali Hashmi**, "A New Secoirridoid Glycosidic Lignan Ester from the Leaves of *Olea ferruginea*", 13th International and 25th National Chemistry Conference of the Chemical Society of Pakistan, University of the Punjab, Lahore, Pakistan (October 20–22, 2014).

- (2013) **Muhammad Ali Hashmi**, "Spectroscopic and Density Functional Theory Studies of 5,7,3',5'-Tetrahydroxyflavanone isolated from the Leaves of *Olea ferruginea*", 12th International and 24th National Chemistry Conference, Bahauddin Zakariya University, Multan, Pakistan (October 28-30, 2013).
- (2012) **Muhammad Ali Hashmi**, Aisha Hameed, Afsar Khan, "A New Diarylheptanoid from the Male Flowers of *Alnus nitida*", 3rd International Symposium on Biomedical Materials: Advances and Challenges, Interdisciplinary Research Center for Biomedical Materials, CIIT Lahore, Pakistan (December 18-19, 2012).

MS STUDENTS' THESIS SUPERVISED (11 Thesis)

- (2019) **Adeel Mubarik**, "Computational studies of selected benzothiazole and thiophene sulfonamide derivatives", November 2019 – GC University Faisalabad, Faisalabad, Pakistan – (Co-Supervisor)
- (2020) **Muhammad Hamid Butt**, "A Computational Study of Single-Atom Catalysis of CO Oxidation Using Transition Metal Embedded Phosphorene Support", August 2020 – University of Management & Technology, Lahore, Pakistan
- (2020) **Sonia Iqbal**, "A Computational Study of Single-Atom Catalysis of Hydrogen Evolution Using Transition Metal on Phosphorene Support", March 2020 – University of Management & Technology, Lahore, Pakistan
- (2020) **Kainat Hira**, "Computational Study of Single-Atom Catalysis of Hydrogen Evolution Using Transition Metal Embedded Boron Nitride Support", March 2020 – University of Management & Technology, Lahore, Pakistan
- (2021) **Sahar Ishaq**, "Density Functional Theoretical Study of Octacyclic Naphto [1, 2-b: 5, 6-b] Dithiophene Based Electron Acceptors for Organic Solar Cells", February 2021 – University of Education Lahore, DG Khan Campus, DG Khan, Pakistan – (Co-Supervisor)
- (2023) **Syeda Huda Mehdi Zaidi**, "A C₅N₂ Nanoparticles Based Drug Delivery System for Anticancer Drugs: A DFT Study", July 2023 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2023) **Nisha Asghar**, "Computational Investigation of Carbon Nitride as an Electrochemical Sensor for Toxic Chemicals", July 2023 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2023) **Adeela Naz**, "A DFT Study of Electrocatalytic Properties of Heteroatom Doped Phosphorene for Hydrogen Evolution Reaction", July 2023 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2023) **Rimsha Niaz**, "A DFT Study of Electrocatalytic Properties of Heteroatom Doped Germanene for Hydrogen Evolution Reaction", July 2023 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2023) **Nabeela**, "Computational Investigation of Carbon Nitride as an Electrochemical Sensor for Nitro-Aromatics", July 2023 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2023) **Saleha Asghar**, "Utilization of Different Low-Cost Biosorbents for the Removal of Congo Red Dye from Aqueous Solutions", July 2023 – University of Education Lahore, Attock Campus, Attock, Pakistan

BS STUDENTS' THESIS SUPERVISED (11 Thesis)

- (2022) **Alisha Sultan**, "Investigation of the Binding Affinity of Metal Pollutants Towards Bacillibactin: A DFT Study", July 2022 – University of Education Lahore, Attock Campus, Attock, Pakistan

- (2022) **Fatima Yaseen**, "A Computational Study of Hydrogen Evolution Reaction Using Electrocatalysis on Transition Metal-Corrole Complexes", July 2022 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2022) **Qurat Ul Ain**, "A Computational Study on Single-Atom Catalysis of CO Oxidation via Eley Rideal Mechanism Using Mn-Corrole Catalyst", July 2022 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2022) **Muhammad Shaheer Kiani**, "Investigation of the Binding Affinity of Metal Pollutants Towards Chrysobactin: A DFT Study", July 2022 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2022) **Shahab Jilani**, "Computational Study on Single-Atom Catalysis of CO₂ Reduction via Bi-Molecular Mechanism using Cu-adsorbed Phosphorene", July 2022 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2021) **Syeda Huda Mehdi Zaidi**, "A Computational Study of Single-Atom Catalysis of CO Oxidation via Langmuir-Hinshelwood Mechanism Using Cu-Doped Phosphorene", July 2021 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2021) **Nabeela**, "A Computational Study of Single-Atom Catalysis of CO Oxidation via Eley-Rideal Mechanism Using Cu-Doped Phosphorene", July 2021 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2021) **Zainab Rasheed**, "A Computational Investigation of Removal of Toxic Metals (As, Pb, Hg, Cd) from Aqueous Solutions Using Enterobactin", July 2021 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2021) **Tooba Kainat**, "A Computational Investigation of Removal of Toxic Metals (Cr, Ni, Cu, Zn) from Aqueous Solutions Using Enterobactin", July 2021 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2021) **Khursheed Ahmed**, "A Computational Study of Single-Atom Catalysis of Hydrogen Evolution Reaction Using Ni-Doped Phosphorene", July 2021 – University of Education Lahore, Attock Campus, Attock, Pakistan
- (2021) **Saleha Asghar**, "Determination of Absolute Configuration of Ballonigrin lactone A using DFT Calculations", July 2021 – University of Education Lahore, Attock Campus, Attock, Pakistan

PUBLICATIONS

(Based on JCR 2022, cumulative Impact Factor (I. F.) of 66 published & accepted papers: 224.5)

Year 2024

- 1). Fatima Yaseen, **Muhammad Ali Hashmi***, Qurat Ul Ain, Ahmed Lakhani, Khurshid Ayub, "The First Row Transition Metal-Corrole Complexes as a Single Atom Catalyst for Electrochemical Hydrogen Evolution Reaction: A DFT Insight", *International Journal of Hydrogen Energy*, **2024**, 57, 1389-1397 (DOI: [10.1016/j.ijhydene.2024.01.135](https://doi.org/10.1016/j.ijhydene.2024.01.135)). (I.F. 7.2)
- 2). Zubi Sadiq, Ambreen Ghani, **Muhammad A. Hashmi**, A. Dahshan, Shahnaz, Samiah H. Al-Mijalli, Munawar Iqbal, Erum Akbar Hussain, "Green synthesis of novel spiropyrazoline-indolinones in neutral deep eutectic solvents and DFT studies", *Heliyon*, **2024**, 10, e23814 (DOI: [10.1016/j.heliyon.2023.e23814](https://doi.org/10.1016/j.heliyon.2023.e23814)). (I.F. 4.0)

Year 2023

- 3). Amna Ayub, **Muhammad Ali Hashmi***, Haq Nawaz Bhatti, Yasir Jamil, Javed Iqbal, "Effect of Binding Pockets on the Kinetics and Thermodynamics of Diels-Alder Reaction in Cucurbit-Uriil Family", *Journal of Molecular Structure*, **2023**, 1296, 136833 (DOI: [10.1016/j.molstruc.2023.136833](https://doi.org/10.1016/j.molstruc.2023.136833)). (I.F. 3.8)
- 4). Qurat Ul Ain, **Muhammad Ali Hashmi***, Amna Ayub, Ahmed Lakhani; Khurshid Ayub, "Theoretical Investigation of the CO oxidation mechanism over Mn-Corrole as a Single Atom Catalyst", *Materials Science in Semiconductor Processing*, **2024**, 169, 107905 (DOI: [10.1016/j.mssp.2023.107905](https://doi.org/10.1016/j.mssp.2023.107905)). (I.F. 4.1)
- 5). Saeed Anwar, Wajid Rehman, Razaqat Hussain, Shoaib Khan, Mohammed M. Alanazi, Nawaf A. Alsaif, Yousaf Khan, Shahid Iqbal, Adeela Naz, **Muhammad Ali Hashmi**, "Investigation of Novel Benzoxazole-Oxadiazole Derivatives as Effective Anti-Alzheimer's Agents: *In Vitro* and *In Silico* Approaches", *Pharmaceuticals*, **2023**, 16(7), 909 (DOI: [10.3390/ph16070909](https://doi.org/10.3390/ph16070909)). (I.F. 4.6)
- 6). Maria Asghar, Ahmed Lakhani, Misbah Asif, Nadeem S. Sheikh, **Muhammad Ali Hashmi**, Ralf Ludwig, Hassan H. Hammud, Khurshid Ayub, "Chiral Recognition of Amino acids using CC₂ Porous Organic Cage", *Journal of Physical Chemistry A*, **2023**, 127(19), 4245-4258 (DOI: [10.1021/acs.jpca.2c08859](https://doi.org/10.1021/acs.jpca.2c08859)). (I.F. 2.9)
- 7). Muhammad Hamid Butt, Qurat Ul Ain, Ahmed Lakhani; Mirza Arfan Yawer, **Muhammad Ali Hashmi***, "Carboxyl substituted Bambus[6]uril as a Novel Macrocyclic Receptor for Cyanide Anion: A DFT Study", *Computational and Theoretical Chemistry*, **2023**, 1222, 114081 (DOI: [j.comptc.2023.114081](https://doi.org/10.1016/j.comptc.2023.114081)). (I.F. 2.8)
- 8). Misbah Naeem, Saleha Asghar, Umar Farooq, Ahmed Lakhani, Yasir Altaf, **Muhammad Ali Hashmi***, "Determination of Absolute Configuration of Ballonigrin Lactone A Using Density Functional Theory Calculations", *ACS Omega*, **2023**, 8(2), 1923-1928. (DOI: [10.1021/acsomega.2c03858](https://doi.org/10.1021/acsomega.2c03858)). (I.F. 4.1)
- 9). Sonia Iqbal, Khurshid Ahmed, Khurshid Ayub, Muhammad Hamid Butt, Ahmad Nauman Shah Saqib, Ahmed Lakhani, Ch. Muhammad Fahim Ayaz, **Muhammad Ali Hashmi***, "Transition Metals Incorporated on Phosphorene Sheet as Cost-Effective Single Atom Catalysts for Hydrogen Evolution Reaction: A DFT Study", *Computational and Theoretical Chemistry*, **2023**, 1220, 113998-114003 (DOI: [10.1016/j.comptc.2022.113998](https://doi.org/10.1016/j.comptc.2022.113998)). (I.F. 2.8)

Year 2022

- 10). Amna Ayub, Muhammad Ans, Sehrish Gul, Ahmed M. Shawky, Khurshid Ayub, Javed Iqbal, **Muhammad Ali Hashmi**, Ahmed Lakhani, "Toward High-Performance Quinoxaline Based Non-fullerene Small Molecule Acceptors for Organic Solar Cells", *Electronic Materials Letters*, **2022**, 19, 38-54 (DOI: [10.1007/s13391-022-00378-0](https://doi.org/10.1007/s13391-022-00378-0)). (I.F. 2.4)

- 11). Mohammad Assad, Zahida Perveen, Saira Farman, Beenish Khurshid, **Muhammad Ali Hashmi**, Khalid Mohammed Khan, Akif Khurshid, "In Vitro Screening and MD Simulations of Thiourea Derivatives against SARS-CoV-2 in Association with Multidrug Resistance ABCB1 Transporter", *ACS Omega*, **2022**, 7(51), 47671-47679. (DOI: [10.1021/acsomega.2c04671](https://doi.org/10.1021/acsomega.2c04671)). (I.F. 4.1)
- 12). Amna Ayub, Sehrish Gul, Riffat Ayub, Zeeshana Bibi, **Muhammad Ali Hashmi**, Ahmed Lakhani, A. Dahshan, Khurshid Ayub, Javed Iqbal, "Porphyrin based Channel for Separation of Proton Isotope: A Density Functional Theory Study", *Journal of Physics and Chemistry of Solids*, **2022**, 171, 111032-111038 (DOI: [10.1016/j.jpics.2022.111032](https://doi.org/10.1016/j.jpics.2022.111032)). (I.F. 4.0)
- 13). Sania Bibi, Sehrish Sarfaraz, Muhammad Yar, Muhammad Iqbal Zaman, Abdul Niaz, Ayesha Khan, **Muhammad Ali Hashmi**, Khurshid Ayub, "Structure and electronic characterization of pristine and functionalized single wall carbon nanotube interacting with sulfide ion: A density functional theory approach", *Journal of Molecular Liquids*, **2022**, 366, 120144-120155 (DOI: [j.molliq.2022.120144](https://doi.org/10.1016/j.molliq.2022.120144)). (I.F. 6.0)
- 14). Ali Raza Shah, Nasir Rasool, Muhammad Bilal, Adeel Mubarak, **Muhammad Ali Hashmi**, Muhammad Nadeem Akhtar, Muhammad Imran, Gulraiz Ahmad, Ayesha Siddiq, Syed Adnan Ali Shah, "Efficient Synthesis of 4-Bromo-N-(1-phenylethyl)benzamide, Arylation by Pd(0) Catalyst, Characterization and DFT Study", *ChemistrySelect*, **2022**, 7(29), e202200861 (DOI: [10.1002/slct.202200861](https://doi.org/10.1002/slct.202200861)). (I.F. 2.1)
- 15). Adeel Mubarak, Sajad Mehmood, Nasir Rasool, **Muhammad Ali Hashmi**, Muhammad Ammar, Sadaf Mutahir, Kulsoom Ghulam Ali, Muhammad Bilal, Muhammad Nadeem Akhtar, "Computational Study of Benzothiazole Derivatives for Conformational, Thermodynamic and Spectroscopic Features and Their Potential to Act as Antibacterials", *Crystals*, **2022**, 12(7), 912 (DOI: [10.3390/cryst12070912](https://doi.org/10.3390/cryst12070912)). (I.F. 2.7)
- 16). Amna Ayub, Khurshid Ayub, Sehrish Gul, **Muhammad Ali Hashmi**, Ahmed Lakhani, Saleem Iqbal, Javed Iqbal, "Hetero-Porphyrin based Channel for Separation of Proton Isotope: A Density Functional Theory Study", *Microporous and Mesoporous Materials*, **2022**, 339, 111995. (DOI: [10.1016/j.micromeso.2022.111995](https://doi.org/10.1016/j.micromeso.2022.111995)). (I.F. 5.2)
- 17). Adil Khushal, Amara Mumtaz, Wamda Ahmed Shadoul, Syeda Huda Mehdi Zaidi, Hummera Rafique, Abida Munir, Aneela Maalik, Syed Jawad Ali Shah, Ayesha Baig, Wajiha Khawaja, Mariya al-Rashida, **Muhammad Ali Hashmi**, Jamshed Iqbal, "Synthesis, Carbonic Anhydrase II/IX/XII Inhibition, DFT, and Molecular Docking Studies of Hydrazide-Sulfonamide Hybrids of 4-Methylsalicyl- and Acyl-Substituted Hydrazide", *BioMed Research International*, **2022**, 2022, 1-16. (DOI: [10.1155/2022/5293349](https://doi.org/10.1155/2022/5293349)). (I.F. No IF)
- 18). Sehrish Sarfaraz, Muhammad Yar, Muhammad Ans, Mazhar Amjad Gilani, Ralf Ludwig, **Muhammad Ali Hashmi**, Masroor Hussain, Shabbir Muhammad, Khurshid Ayub, "Computational investigation of a covalent triazine framework (CTF-0) as an efficient electrochemical sensor", *RSC Advances*, **2022**, 12, 3909. (DOI: [10.1039/d1ra08738j](https://doi.org/10.1039/d1ra08738j)). (I.F. 3.9)
- 19). Iram Gul, Muhammad Yar, Arsalan Ahmed, **Muhammad Ali Hashmi**, Khurshid Ayub, "Permeability of Boron and Nitrogen Doped Graphene Nanoflakes for Protium/Deuterium Ions", *RSC Advances*, **2022**, 12, 3883-3891. (DOI: [10.1039/D1RA09398C](https://doi.org/10.1039/D1RA09398C)). (I.F. 3.9)
- 20). Iram Kanwal, Nasir Rasool, Syeda Huda Mehdi Zaidi, Zainul Amiruddin Ahmad, Muhammad Bilal, **Muhammad Ali Hashmi**, Adeel Mubarak, Gulraiz Ahmad, Syed Adnan Ali Shah, "Synthesis of functionalized thiophene based pyrazole amides via various catalytic approaches: Structural features through Computational applications and Non-linear optical properties", *Molecules*, **2022**, 27(2), 360. (DOI: [10.3390/molecules27020360](https://doi.org/10.3390/molecules27020360)). (I.F. 4.6))

Year 2021

- 21). Yasir Altaf, Sana Ullah, Farhan A. Khan, Aneela Maalik, Syeda Laila Rubab, **Muhammad Ali Hashmi***, "Finding new precursors for light harvesting materials: A computational study of the fluorescence

- potential of benzanthrone dyes”, *ACS Omega*, **2021**, *6*, 32334-32341. (DOI: [10.1021/acsomega.1c05849](https://doi.org/10.1021/acsomega.1c05849)). (I.F. 4.1)
- 22). Gulraiz Ahmad, Nasir Rasool, Adeel Mubarak, Ameer Fawad Zahoor, **Muhammad Ali Hashmi**, Muhammad Zubair, Muhammad Bilal, Mohamed Hussien, Muhammad Saeed Akhtar, Sajjad Haider, “Facile Synthesis of 5-aryl-N-(pyrazin-2-yl)thiophene-2-carboxamides via Suzuki cross-coupling reactions, their electronic and nonlinear optical properties through DFT calculations”, *Molecules*, **2021**, *26*, 7309. (DOI: [10.3390/molecules26237309](https://doi.org/10.3390/molecules26237309)). (I.F. 4.6)
- 23). Komal Rizwan, Nasir Rasool, **Muhammad Ali Hashmi**, Sadia Noreen, Muhammad Zubair, Mehwish Arshad, Syed Adnan Ali Shah, “Palladium(0) catalyzed synthesis of (E)-4-bromo-N-((3-bromothiophen-2-yl)methylene)-2-methylaniline derivatives via Suzuki cross-coupling reaction: An Exploration of their Non-Linear optical properties, reactivity and structural features”, *Molecules*, **2021**, *26*(18), 5605 (DOI: [10.3390/molecules26185605](https://doi.org/10.3390/molecules26185605)). (I.F. 4.6)
- 24). Muhammad Hamid Butt, Syeda Huda Mehdi Zaidi, Nabeela, Ayesha Khan, Khurshid Ayub, Muhammad Yar, **Muhammad Ali Hashmi***, Mirza Arfan Yawer, Muhammad Abid Zia, “Cu-doped phosphorene as highly efficient single atom catalyst for CO oxidation: A DFT Study”, *Molecular Catalysis*, **2021**, *509*, 111630-111638 (DOI: [10.1016/j.mcat.2021.111630](https://doi.org/10.1016/j.mcat.2021.111630)). (I.F. 4.6)
- 25). Zulqarnain Chughtai, **Muhammad Ali Hashmi**, Muhammad Yar, Khurshid Ayub, “Electronic structure of polypyrrole composited with low percent of graphene nanofiller”, *Physical Chemistry Chemical Physics*, **2021**, *23*, 8557-8570 (DOI: [10.1039/D0CP03258A](https://doi.org/10.1039/D0CP03258A)). (I.F. 3.3)
- 26). Muhammad Waqas Ishaq, Raziq Nawaz, Lianwei Li, Abdul Jalil, **Muhammad Ali Hashmi**, Tao Zheng, “Ligand Exchange Reaction in [Co₄O₄]-Cobalt Cubane: a Versatile Strategy Towards the Preparation of Cobalt Cubane-based Functional Small Molecules and Polymeric Materials”, *Journal of Molecular Structure*, **2021**, *1235*, 130216 (DOI: [10.1016/j.molstruc.2021.130216](https://doi.org/10.1016/j.molstruc.2021.130216)). (I.F. 3.8)
- 27). Adeel Mubarak, Nasir Rasool, **Muhammad Ali Hashmi**, Asim Mansha, Muhammad Zubair, Mohammed R. Shaik, Mohammed A.F. Sharaf, Emad Mahrous Awwad, Abdelatty Abdelgawad, “Computational Study of Structural, Molecular Orbitals, Optical and Thermodynamic Parameters of Thiophene Sulfonamide Derivatives”, *Crystals*, **2021**, *11*(2), 211 (DOI: [10.3390/cryst11020211](https://doi.org/10.3390/cryst11020211)). (I.F. 2.7)
- 28). Faizan Ullah, Sundus Irshad, Saima Khan, **Muhammad Ali Hashmi**, Ralf Ludwig, Tariq Mahmood, Khurshid Ayub, “Nonlinear optical response of first-row transition metal doped Al₁₂P₁₂ nanoclusters; a first-principles study”, *Journal of Physics and Chemistry of Solids*, **2021**, *151*, 109914 (DOI: [10.1016/j.jpcs.2020.109914](https://doi.org/10.1016/j.jpcs.2020.109914)). (I.F. 4.0)

Year 2020

- 29). Muhammad Yar, Ahmed Bilal, **Muhammad Ali Hashmi**, Khurshid Ayub, “Selective detection and removal of picric acid by C₂N surface from a mixture of nitro-explosives”, *New Journal of Chemistry*, **2020**, *44*, 18646-18655 (DOI: [10.1039/D0NJ03752D](https://doi.org/10.1039/D0NJ03752D)). (I.F. 3.3)
- 30). Nasir Rasool, Hafiz Mansoor Ikram, Ammara Rashid, Nazia Afzal, **Muhammad Ali Hashmi**, Muhammad Naeem Khan, Ayesha Khan, Imran Imran, Hafiz Muhammad Abdur Rahman, Syed Adnan Ali Shah, “Design, synthesis and spasmolytic activity of thiophene-based derivatives via Suzuki cross-coupling reaction of 5-bromothiophene-2-carboxylic acid: their structural and computational studies”, *Turkish Journal of Chemistry*, **2020**, *44*, 1410-1422 (DOI: [10.3906/kim-1911-51](https://doi.org/10.3906/kim-1911-51)). (I.F. 1.4)
- 31). Mujahad Abbas, Komal Rizwan, Nasir Rasool, **Muhammad Ali Hashmi**, Gulraiz Ahmad, Umar Rashid, Syed Adnan Ali Shah, “Palladium (0) Catalyzed Synthesis of Thiophene Based 1,3,4-oxadiazoles Their Reactivities and Potential Nonlinear Optical Properties”, *Chiang Mai Journal of Science*, **2020**, *47*(6), 1255-1264 ([Web Link](#)). (I.F. 0.4)

- 32). Ayesha Malik, Nasir Rasool, Iram Kanwal, **Muhammad Ali Hashmi**, Ameer Fawad Zahoor, Gulraiz Ahmad, Ataf Ali Altaf, Syed Adnan Ali Shah, Sadia Sultan, Zailul Amiruddin Zakaria, "Suzuki-Miyaura Reactions of (4-bromophenyl)-4,6-dichloropyrimidine through commercially available Palladium Catalyst: Synthesis, Optimization and their Structural Aspects Identification through Computational Studies", *Processes*, **2020**, 8(11), 1342-1353 (DOI: [10.3390/pr8111342](https://doi.org/10.3390/pr8111342)). (I.F. 3.5)
- 33). Saira Sajjad, **Muhammad Ali Hashmi**, Tariq Mahmood, Khurshid Ayub, "Permeation of second row neutral elements through $Al_{12}P_{12}$ and $B_{12}P_{12}$ nanocages; a first-principles study", *Journal of Molecular Graphics & Modelling*, **2020**, 101, 107748-107757 (DOI: [10.1016/j.jmgm.2020.107748](https://doi.org/10.1016/j.jmgm.2020.107748)). (I.F. 2.9)
- 34). Muhammad Yar, **Muhammad Ali Hashmi**, Khurshid Ayub, " C_2N surface as high selective sensor for the detection of nitrogen iodide from a mixture of NX_3 (X= Cl, Br, I) explosives", *RSC Advances*, **2020**, 10, 31997-32010 (DOI: [10.1039/D0RA04930A](https://doi.org/10.1039/D0RA04930A)). (I.F. 3.9)
- 35). Yasir Altaf, Muhammad Yar, **Muhammad Ali Hashmi***, "Main-group metal cyclophane complexes with high coordination numbers", *RSC Advances*, **2020**, 10, 30796-30805 (DOI: [10.1039/d0ra05303a](https://doi.org/10.1039/d0ra05303a)). (I.F. 3.9)
- 36). Hafiz Muhammad Imran, Nasir Rasool, Iram Kanwal, **Muhammad Ali Hashmi**, Ataf Ali Altaf, Gulraiz Ahmed, Ayesha Malik, Sami Kausar, Salah Ud-Din Khan, Ashfaq Ahmad, Syed Adnan Ali Shah, "Synthesis of halogenated [1,1'-biphenyl]-4-yl benzoate and [1,1':3',1"-terphenyl]-4'-yl benzoate by palladium catalyzed cascade C-C coupling and structural analysis through computational approach", *Journal of Molecular Structure*, **2020**, 1222, 128839-128848 (DOI: [10.1016/j.molstruc.2020.128839](https://doi.org/10.1016/j.molstruc.2020.128839)). (I.F. 3.8)
- 37). Muhammad Yar, **Muhammad Ali Hashmi**, Ayesha Khan, Khurshid Ayub, "Carbon nitride 2-D surface as highly selective electrochemical sensor for V-series nerve agent", *Journal of Molecular Liquids*, **2020**, 311, 113357-113367 (DOI: [j.molliq.2020.113357](https://doi.org/j.molliq.2020.113357)). (I.F. 6.0)
- 38). Sajida Munsif, Naveen Kosar, **Muhammad Ali Hashmi**, Tariq Mahmood, Mazhar Amjad Gilani, Khurshid Ayub, "Synergic effect of pore size engineering and applied electric field on the controlled permeation of alkali metal atoms and ions across pristine and defected h-BN sheet", *New Journal of Chemistry*, **2020**, 44, 7891-7901 (DOI: [10.1039/c9nj03962g](https://doi.org/10.1039/c9nj03962g)). (I.F. 3.3)
- 39). Arsalan Ahmed, **Muhammad Ali Hashmi**, Khurshid Ayub, "Permeation Selectivity of Alkali Metal Ions Through Crown Ether Based Ion Channels", *Journal of Molecular Liquids*, **2020**, 302, 112577-112585 (DOI: [j.molliq.2020.112577](https://doi.org/j.molliq.2020.112577)). (I.F. 6.0)

Year 2019

- 40). Muhammad Yar, **Muhammad Ali Hashmi**, Khurshid Ayub, "Nitrogenated holey graphene (C_2N) surface as highly selective electrochemical sensor for ammonia", *Journal of Molecular Liquids*, **2019**, 296, 111929-111941 (DOI: [10.1016/j.molliq.2019.111929](https://doi.org/10.1016/j.molliq.2019.111929)). (I.F. 6.0)
- 41). **Muhammad Ali Hashmi**, Umar Farooq, Syeda Sidra Bibi, Sadia Naz, Hong-Guang Xu, Basim H. Asghar, Yahia Nasser Mabkhot, Abdulrhman Alsayari, Abdullatif Bin Muhsinah, Ayesha Khan, "A profound DFT Study to Unravel the Spectroscopic and Molecular Properties of Two Flavanols differing in α -pyrone ring Position", *Journal of the Chinese Chemical Society*, **2019**, 2019, 1-9 (DOI: [10.1002/jccs.201900334](https://doi.org/10.1002/jccs.201900334)). (I.F. 1.8)
- 42). Hafiz Mansoor Ikram, Nasir Rasool, **Muhammad Ali Hashmi**, Muhammad Arfan Anjum, Kulsoom Ghulam Ali, Muhammad Zubair, Gulraiz Ahmad, Tariq Mahmood, "Density functional theory supported studies of structural and electronic properties of substituted-phenol derivatives synthesized by efficient O- or C-arylation via Chan-Lam or Suzuki cross-coupling reactions", *Turkish Journal of Chemistry*, **2019**, 43, 1306-1321 (DOI: [10.3906/kim-1901-41](https://doi.org/10.3906/kim-1901-41)). (I.F. 1.4)

- 43). Joe Bracegirdle, Zaineb Sohail, Michael J. Fairhurst, Monica L. Gerth, Giuseppe C. Zuccarello, **Muhammad Ali Hashmi**, Robert A. Keyzers, "Costatone C – a New Halogenated Monoterpene from the New Zealand Red Alga *Plocamium angustum*", *Marine Drugs*, **2019**, 17(7), 418-429 (DOI: [10.3390/md17070418](https://doi.org/10.3390/md17070418)). (I.F. 5.4)
- 44). Saira Sajjad, **Muhammad Ali Hashmi**, Tariq Mahmood, Khurshid Ayub, "Density functional theory study of structural, electronic and CO adsorption properties of anionic Sc_n^- ($n = 2-13$) clusters", *Computational and Theoretical Chemistry*, **2019**, 1163, 112511 (DOI: [10.1016/j.comptc.2019.112511](https://doi.org/10.1016/j.comptc.2019.112511)). (I.F. 2.8)
- 45). Taitusi Taufa, Rose M. A. Gordon, **Muhammad Ali Hashmi**, Kainat Hira, John H. Miller, Matthias Lein, Jane Fromont, Peter T. Northcote, Robert A. Keyzers, "Pyrroloquinoline derivatives from a Tongan specimen of the marine sponge *Strongyloides tongaensis*", *Tetrahedron Letters*, **2019**, 60(28), 1825-1829 (DOI: [10.1016/j.tetlet.2019.06.014](https://doi.org/10.1016/j.tetlet.2019.06.014)). (I.F. 1.8)
- 46). Nadeem Sadiq Sheikh, **Muhammad Ali Hashmi**, Sajida Munsif, Mohammed A. Alkhalifah, Afsar Khan, Khurshid Ayub, "Synthesis, Dihydroazulene-Vinylheptafulvene Based Photoswitchable Lewis Pairs for Tunable H_2 Activation", *International Journal of Hydrogen Energy*, 2019, 44(29), 14780-14795 (DOI: [10.1016/j.ijhydene.2019.03.251](https://doi.org/10.1016/j.ijhydene.2019.03.251)). (I.F. 7.2)
- 47). Hira Israr, Nasir Rasool, Komal Rizwan, **Muhammad Ali Hashmi**, Tariq Mahmood, Umer Rashid, Mohd Zobir Hussein, Muhammad Nadeem Akhtar, "Synthesis and Reactivities of Triphenyl acetamide Analogs for Potential Nonlinear Optical Material Uses", *Symmetry*, **2019**, 11(5), 622 (DOI: [10.3390/sym11050622](https://doi.org/10.3390/sym11050622)). (I.F. 2.7)

Year 2018

- 48). Nasir Mahmood, Nasir Rasool, Hafiz Mansoor Ikram, **Muhammad Ali Hashmi**, Tariq Mahmood, Muhammad Zubair, Gulraiz Ahmad, Komal Rizwan, Tahir Rashid, Umer Rashid, "Synthesis of 3,4-Biaryl-2,5-Dichlorothiophene through Suzuki Cross-Coupling and Theoretical Exploration of Their Potential Applications as Nonlinear Optical Materials", *Symmetry*, **2018**, 10(12), 766 (DOI: [10.3390/sym10120766](https://doi.org/10.3390/sym10120766)). (I.F. 2.7)
- 49). Yasir Arshad, Saima Khan, **Muhammad Ali Hashmi**, Khurshid Ayub, "Transition metal doping: a new and effective approach for remarkably high nonlinear optical response in aluminum nitride nanocages", *New Journal of Chemistry*, **2018**, 42, 6976-6989 (DOI: [10.1039/C7NJ04971D](https://doi.org/10.1039/C7NJ04971D)). (I.F. 3.3)
- 50). **Muhammad Ali Hashmi**, Matthias Lein, "Carbon Nano-Onions as Photo-Sensitizers: Stacking Induced Red-Shift", *Journal of Physical Chemistry C*, **2018**, 122, 2422-2431 (DOI: [10.1021/acs.jpcc.7b11421](https://doi.org/10.1021/acs.jpcc.7b11421)). (I.F. 3.7)

Year 2017

- 51). **Muhammad Ali Hashmi**, Afsar Khan, Umar Farooq, Sehroon Khan, "Alkaloids as Cyclooxygenase Inhibitors in Anticancer Drug Discovery", *Current Protein & Peptide Science*, **2017**, 19, 292-301 (DOI: [10.2174/1389203718666170106103031](https://doi.org/10.2174/1389203718666170106103031)). (I.F. 2.8)
- 52). Muhammad Sharif, Khurram Shoaib, Shahzad Ahmed, Sebastian Reimann, Jamshed Iqbal, **Muhammad Ali Hashmi**, Khurshid Ayub, Nazym Yelibayeva, Meirambek Ospanov, Mirgul Zh. Turmukhanova, Zharylkasyn A. Abilov, Peter Langer, "Synthesis of functionalised fluorinated pyridine derivatives by site-selective Suzuki-Miyaura cross-coupling reactions of halogenated pyridines", *Zeitschrift für Naturforschung B*, **2017**, 72(04), 263-279. (DOI: [10.1515/znb-2016-0213](https://doi.org/10.1515/znb-2016-0213)). (I.F. 0.8)
- 53). Attiq Ur Rehman, **Muhammad Ali Hashmi**, Yildiz Tehseen, Afsar Khan, Saleha Suleman Khan, Jamshed Iqbal, Shagufta Perveen, Sehroon Khan, Umar Farooq, Viqar Uddin Ahmad, "Antidiabetic Flavonol Glycosides from *Eryngium caeruleum*", *Records of Natural Products*, **2017**, 11(2), 229-234. (I.F. 1.9)

Year 2016

- 54). **Muhammad Ali Hashmi**, Sarah K. Andreassend, Robert A. Keyzers, Matthias Lein, "Accurate Prediction of the Optical Rotation and NMR Properties for Highly Flexible Chiral Natural Products", *Physical Chemistry Chemical Physics*, **2016**, 18, 24506-24510. (DOI: [10.1039/C6CP04828E](https://doi.org/10.1039/C6CP04828E)) (I.F. 3.3)
- 55). Nighat Fatima, Syed Aun Muhammad, Ibrar Khan, Muneer Ahmed Qazi, Irum Shahzadi, Amara Mumtaz, **Muhammad Ali Hashmi**, Abida Kalsoom Khan, Tariq Ismail, "Chaetomium Endophytes: A Repository of Pharmacologically Active Metabolites", *Acta Physiologiae Plantarum*, **2016**, 38, 136. (DOI: [10.1007/s11738-016-2138-2](https://doi.org/10.1007/s11738-016-2138-2)) (I.F. 2.6)
- 56). Riffat Un Nisa, Zanib Sugheer, **Muhammad Ali Hashmi**, Muhammad Sharif, Mazhar Amjad Gilani, Ralf Ludwig, Tariq Mahmood, Javed Iqbal, Khurshid Ayub, "Theoretical mechanistic investigation of Zinc(II) catalyzed oxidative amidation of benzyl alcohols with amines", *Polyhedron*, **2016**, 112, 34-42 (DOI: [10.1016/j.poly.2016.03.047](https://doi.org/10.1016/j.poly.2016.03.047)) (I.F. 2.6).
- 57). Riffat Un Nisa, **Muhammad Ali Hashmi**, Saira Sajjad, Tariq Mahmood, Javed Iqbal, Khurshid Ayub, "Quantum Mechanical Investigation on Acceleration of Electrocyclic Reactions through Transition Metal Catalysis", *Journal of Organometallic Chemistry*, **2016**, 808, 78-86. (DOI: [10.1016/j.jorgchem.2016.02.017](https://doi.org/10.1016/j.jorgchem.2016.02.017)) (I.F. 2.3).

Year 2015

- 58). Eric R. Cairns, **Muhammad Ali Hashmi**, Ameet Jonathan Singh, Galen L. Eakins, Matthias Lein, Robert A. Keyzers, "The structure of echivulgarine, a pyrrolizidine alkaloid isolated from the pollen of *Echium vulgare*", *Journal of Agricultural and Food Chemistry*, **2015**, 63(33), 7421-7427. (DOI: [10.1021/acs.jafc.5b02402](https://doi.org/10.1021/acs.jafc.5b02402)) (I.F. 6.1).
- 59). **Muhammad A. Hashmi**, Rabia Hameed, Afsar Khan, Umar Farooq, Viqar Uddin Ahmad, Shagufta Perveen, "A New Dimeric Secoiridoid Glycoside from the Leaves of *Olea ferruginea* Royle", *Helvetica Chimica Acta*, **2015**, 98, 668-673. (DOI: [10.1002/hlca.201400281](https://doi.org/10.1002/hlca.201400281)) (I.F. 1.8).
- 60). Umar Farooq, Khurshid Ayub, **Muhammad Ali Hashmi**, Rizwana Sarwar, Afsar Khan, Saleha Suleman Khan, Ajmal Khan, Mumtaz Ahmad, "Spectroscopic and Density Functional Theory Studies of a new rosane type diterpenoid from *Stachys parviflora*", *Records of Natural Products*, **2015**, 9, 329-335. (I.F. 1.9)
- 61). Umar Farooq, Khurshid Ayub, **Muhammad Ali Hashmi**, Rizwana Sarwar, Afsar Khan, Mumtaz Ali, Manzoor Ahmad, Ajmal Khan, "A new rosane-type diterpenoid from *Stachys parviflora* and its density functional theory studies", *Natural Product Research*, **2015**, 29, 813-819. (DOI: [10.1080/14786419.2014.987775](https://doi.org/10.1080/14786419.2014.987775)). (I.F. 2.2)
- 62). **Muhammad Ali Hashmi**, Afsar Khan, Muhammad Hanif, Umar Farooq, Shagufta Perveen, "Traditional Uses, Phytochemistry, and Pharmacology of *Olea europaea* (Olive)", *Evidence-Based Complementary and Alternative Medicine*, **2015**, 2015, 1-29. (DOI: [10.1155/2015/541591](https://doi.org/10.1155/2015/541591)). (I.F. No IF)
- 63). **Muhammad Ali Hashmi**, Hamid Saeed Shah, Afsar Khan, Umar Farooq, Jamshed Iqbal, Viqar Uddin Ahmad, Shagufta Perveen, "Anticancer and Alkaline Phosphatase Inhibitory Effects of Compounds Isolated from the Leaves of *Olea ferruginea* Royle", *Records of Natural Products*, **2015**, 9, 164-168. (I.F. 1.9)
- 64). **Muhammad Ali Hashmi**, Afsar Khan, Umar Farooq, Mubeen Rani, Viqar Uddin Ahmad, Abdur Rahman Khan, "A New Secoiridoid Glycosidic Lignan Ester from the Leaves of *Olea ferruginea*", *Magnetic Resonance in Chemistry*, **2015**, 53, 163-166. (DOI: [10.1002/mrc.4134](https://doi.org/10.1002/mrc.4134)). (I.F. 2.0)

Year 2014

- 65). **Muhammad Ali Hashmi**, Afsar Khan, Khurshid Ayub, Umar Farooq, "Spectroscopic and Density Functional Theory Studies of 5,7,3',5'-Tetrahydroxyflavanone from the Leaves of *Olea ferruginea*", *Spectrochimica Acta*

A: *Molecular and Biomolecular Spectroscopy*, **2014**, 128, 225-230. (DOI: [10.1016/j.saa.2014.02.163](https://doi.org/10.1016/j.saa.2014.02.163)). (I.F. 4.4)

Year 2013

66) Huma Khalid, Muhammad Hanif, **Muhammad Ali Hashmi**, Tariq Mahmood, Khurshid Ayub, Muhammad Monim-ul-Mehboob, "Copper Complexes of Bioactive Ligands with Superoxide Dismutase Activity", *Mini-Reviews in Medicinal Chemistry*, **2013**, 13, 1944-1956. (DOI: [10.2174/13895575113136660092](https://doi.org/10.2174/13895575113136660092)). (I.F. 3.8)

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