

Publication (2020-2025)

2025 Synthesis and anti-cancer evaluation of aminoacetylene maleimide hybrids. Chemical Papers. DOI: 10.1007/s11696-025-04196-0. IF: 2.1, Q3

2025 Imidazole function appended Zn(II)-based complex with acetylsalicylic acid: Synthesis, characterization and its application as photocatalytic agent for degradation of organic dyes. Journal of Molecular Structure. DOI: 10.1016/j.molstruc.2025.142580. IF: 3.8, Q2

2025 Sustainable green synthesis of high-performance Fe₂O₃@CeO₂-pullulan nanocomposite for efficient dye removal, and antifungal applications. International Journal of Biological Macromolecules. DOI: 10.1016/j.ijbiomac.2025.142533. IF: 8.2, Q1

2025 Harnessing Cd(II)-based efficient photocatalyst with nitrogen gas adsorption: A green approach towards environmental remediation. Inorganic Chemistry Communications. DOI: 10.1016/j.inoche.2025.115227. IF: 4.0, Q2

2025 Synthesis, crystal structure, photocatalytic properties and Hirshfeld surface analysis of Co(II)-based complex: An environmental approach for degradation of organic dyes. Journal of Molecular Structure. DOI: 10.1016/j.molstruc.2025.141661. IF: 3.8, Q2

2025 Perchlorate-supported Cu(II)-based 1D polymeric chains containing 1,10-phenanthroline: synthesis, characterization and adsorption of organic dyes and heavy metal ions. CrystEngComm. DOI: 10.1039/d4ce01126k. IF: 2.7, Q2

2025 Cu(II)-based complex with carboxylate moiety: Structure, characterization, Hirshfeld surface analysis and adsorption properties towards methylene blue. Journal of Molecular Structure. DOI: 10.1016/j.molstruc.2025.143074. IF: 3.8, Q2

2025 Synthesis, Structural Aspects, Magnetic, and Adsorption Properties of a Dinuclear Cu (II) Complex Derived From Mixed Ligand Approach. Applied Organometallic Chemistry. DOI: 10.1002/aoc.7891. IF: 3.8, Q2

2025 New Zn(II) diaqua complex with pivalic acid: Synthesis, characterization, DFT calculations, photoluminescence and photocatalytic properties. Journal of Molecular Structure. DOI: 10.1016/j.molstruc.2024.139327. IF: 3.8, Q2

2025 Nanocrystalline iron oxide and sulfide by the thermal decomposition of cyclohexylammonium hexaisothiocyanatoferrate(III) 2.5H₂O. Scientific Reports. DOI: 10.1038/s41598-025-98046-4. IF: 4.6, Q1

2024 An Oxalato-Bridged Cu(II)-Based 1D Polymer Chain: Synthesis, Structure, and Adsorption of Organic Dyes. Polymers. DOI: 10.3390/polym16121742. IF: 4.9, Q1

2024 Green synthesis, characterization, and multifunctional applications of Ag@CeO₂ and Ag@CeO₂-pullulan nanocomposites for dye degradation, antioxidant, and antifungal activities. *International Journal of Biological Macromolecules*. DOI: 10.1016/j.ijbiomac.2024.135862. IF: 8.2, Q1

2024 High nuclearity heterometallic [Fe₇Ln₄] neutral coordination clusters with electrocatalytic activity for water oxidation. *International Journal of Hydrogen Energy*. DOI: 10.1016/j.ijhydene.2023.10.046. IF: 7.2, Q1

2024 A new paddle wheel type Cu(II) complex with photoluminescence and photocatalytic properties. *Inorganic Chemistry Communications*. DOI: 10.1016/j.inoche.2024.112176. IF: 4.0, Q2

2024 Photocatalytic degradation of methylene blue dye and electrocatalytic water oxidation over copper(II) complex with mixed ligands. *Journal of Photochemistry and Photobiology A: Chemistry*. DOI: 10.1016/j.jphotochem.2023.115095. IF: 4.3, Q2

2024 1D Mn coordination polymer derived from sulfanilic acid: Synthesis, structure, adsorption properties and Hirshfeld surfaces analysis. *Journal of Molecular Structure*. DOI: 10.1016/j.molstruc.2023.136581. IF: 3.8, Q2

2024 Development of pivalic acid conjugated Nafion modified glassy carbon electrode for sensitive detection of Cu(II) by electrochemical approach. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2024.122309. IF: 2.6, Q3

2024 New cobalt(II) coordination complex for adsorption of Rhodamine B dye and its mechanistic pathway. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2024.122251. IF: 2.6, Q3

2024 A coordination polymer of Na-Fe(III) with EDTA: synthesis, characterization, electrical conductivity, adsorption properties and Hirshfeld surface analysis. *Adsorption*. DOI: 10.1007/s10450-024-00504-4. IF: 3.3, Q2

2024 A Zn-based Zig-Zag 1D chain type coordination polymer for removal of methylene blue dye from an aqueous solution. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2023.121756. IF: 2.6, Q3

2023 Green Synthesis of Ni/Fe₃O₄/rGO Nanocomposites for Desulfurization of Fuel. *ACS Applied Nano Materials*. DOI: 10.1021/acsanm.3c03270. IF: 5.9, Q1

2023 Synthesis, Molecular Docking Study, and Molecular Dynamics Simulation of New 1,3-Dimethyl-5-methylidenearbituric Acid Derivatives Prepared by Cyclobutane Cleavage. *Russian Journal of General Chemistry*. DOI: 10.1134/S1070428023030120. IF: 1.0, Q4

2023 Exploring electrochemical and magnetic properties of Fe(III) coordination cluster: An efficient electrocatalyst for water oxidation. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2023.121726. IF: 2.6, Q3

2023 Unusual oxygen...oxygen dichalcogen bond in an oxo-centered trinuclear iron coordination cluster. *Journal of Molecular Structure*. DOI: 10.1016/j.molstruc.2022.134318. IF: 3.8, Q2

2022 Butterfly-like Heteronuclear 3d–4f Metal Clusters: Synthesis, Structures, Magnetic Properties, and Magnetocaloric Effect. *Crystal Growth & Design*. DOI: 10.1021/acs.cgd.1c01149. IF: 3.2, Q2

2022 Synthesis, structures, and magnetic properties of Fe₄-Ln₂ (Ln = Tb, Ho, and Er) clusters with N, N, N', N'-tetrakis-(2-hydroxyethyl)ethylenediamine. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2022.120920. IF: 2.6, Q3

2022 Heterometallic decanuclear [Fe₆-Ln₄] coordination clusters with enzymatic mimic activity: Synthesis, structures, magnetic properties, and evaluation of catecholase activity. *Applied Organometallic Chemistry*. DOI: 10.1002/aoc.6707. IF: 3.8, Q2

2022 A new hexanuclear Fe(III) nanocluster: synthesis, structure, magnetic properties, and efficient activity as a precatalyst in water oxidation. *Dalton Transactions*. DOI: 10.1039/d2dt01822e. IF: 4.0, Q2

2022 A new {Cu₃-Gd₂} cluster as a two-in-one functional material with unique topology acting as a refrigerant and adsorbent for cationic dye. *CrystEngComm*. DOI: 10.1039/d2ce00795a. IF: 2.7, Q2

2022 Structure, DFT studies and evaluation of catechol oxidase (CO) mimic activity of mononuclear Co(II) complexes derived from aminoalcohols: an experimental and theoretical approach. *Journal of Biomolecular Structure and Dynamics*. DOI: 10.1080/07391102.2021.1916598. IF: 4.4, Q3

2022 Inclusion and release of cytosine in mesoporous silicate materials: an agent for smoking cessation. *Journal of Porous Materials*. DOI: 10.1007/s10934-021-01185-y. IF: 2.6, Q3

2021 Exploring the Role of Intramolecular Interactions in the Suppression of Quantum Tunneling of the Magnetization in a 3d-4f Single-Molecule Magnet. *Inorganic Chemistry*. DOI: 10.1021/acs.inorgchem.0c03682. IF: 4.6, Q2

2021 Cationic dye adsorption and separation at discrete molecular level: First example of an iron cluster with rapid and selective adsorption of methylene blue from aqueous system. *New Journal of Chemistry*. DOI: 10.1039/d0nj05242f. IF: 3.3, Q2

2021 Elucidating the contribution of solvent on the catecholase activity in a mononuclear Cu(II) system: An experimental and theoretical approach. *Journal of Molecular Structure*. DOI: 10.1016/j.molstruc.2021.130878. IF: 3.8, Q2

2021 Understanding the Formation of 5-(Diethylammoniothio)-1,3-dimethylbarbituric Acid: Crystal Structure and DFT Studies. *Journal of Chemical Crystallography*. DOI: 10.1007/s10870-020-00846-1. IF: 1.2, Q4

2020 Heterometallic (3d-4f) Coordination Clusters with Unique Topology: Self-Assembly Synthesis, Structural Features, and Magnetic Properties. *Crystal Growth & Design*. DOI: 10.1021/acs.cgd.0c00737. IF: 3.2, Q2

2020 Structural and dft study of 1-(3-amino-1,4-dioxo-1,4-dihydronaphthalen-2-yl)-3,4-dichloro-1h-pyrrole-2,5-dione: Hypothesis for the ring closure. *Heterocyclic Communications*. DOI: 10.3987/COM-20-14293. IF: 0.8, Q4

2020 Design, Synthesis and Characterization of Novel Isoxazole Tagged Indole Hybrid Compounds. *Open Chemistry*. DOI: 10.1515/chem-2020-0017. IF: 2.1, Q3

2020 Synthesis, characterization and biological evaluation of metal adamantyl 2-pyridylhydrazone complexes. *Molecules*. DOI: 10.3390/molecules25112530. IF: 4.2, Q2

2020 Crystal Structure and Magnetic Properties of a New Wells-Dawson [β -P₂CoW₁₇O₆₂]¹⁰⁻ Polyoxoanion. *Journal of Structural Chemistry*. DOI: 10.1134/S0022476620040083. IF: 1.0, Q4

2020 Synthesis, crystal structure, DFT calculations, molecular docking study and Hirshfeld surface analysis of alkoxido-bridged dinuclear iron(III) complex. *Research on Chemical Intermediates*. DOI: 10.1007/s11164-020-04198-5. IF: 3.0, Q3

2020 A two dimensional Co(II) metal–organic framework with bey topology for excellent dye adsorption and separation: Exploring kinetics and mechanism of adsorption. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2020.119900. IF: 2.6, Q3

2020 Exploring solvent dependent catecholase activity in transition metal complexes: An experimental and theoretical approach. *New Journal of Chemistry*. DOI: 10.1039/c9nj04374h. IF: 3.3, Q2

Publication (>2020)

2019 A paddle wheel dinuclear Copper(II) carboxylate: Crystal structure, thermokinetic and magnetic properties. Journal of Molecular Structure. DOI: 10.1016/j.molstruc.2019.06.095. IF: 3.8, Q2

2019 The crystal structure of 3-(1H-benzo[d]imidazol-2-yl)-7-chloro-1-cyclopropyl-6-fluoro-1,4-dihydroquinolin - Dimethylsulfoxide (1/1), C₂₁H₁₉ClFN₃O₂S. Zeitschrift für Kristallographie - New Crystal Structures. DOI: 10.1515/ncrs-2018-0599. IF: 0.5, Q4

2019 The role of hydrogen bonding in $\pi\cdots\pi$ stacking interactions in Ni(II) complex derived from triethanolamine: synthesis, crystal structure, antimicrobial, and DFT studies. Research on Chemical Intermediates. DOI: 10.1007/s11164-019-03927-9. IF: 3.0, Q3

2018 Synthesis, characterization, crystal structure, and DFT study of a new square planar Cu(II) complex containing bulky adamantane ligand. Molecules. DOI: 10.3390/molecules23030701. IF: 4.2, Q2

2018 Supertetrahedral T₂ clusters in 3d-4f {Fe₄Ln₆}: Synthesis, crystal structure, magnetic and photoluminescent properties. Inorganica Chimica Acta. DOI: 10.1016/j.ica.2018.06.009. IF: 2.6, Q3

2018 Effect of ligand substitution on the SMM properties of three isostructural families of double-cubane Mn₄Ln₂ coordination clusters. Dalton Transactions. DOI: 10.1039/c7dt04304j. IF: 4.0, Q2

2018 Synthesis Characterization, Crystal Structure, and Fluorescence of a New Samarium Schiff Base Complex. Journal of Structural Chemistry. DOI: 10.1134/S0022476618080243. IF: 1.0, Q4

2018 Structure and Magnetic Properties of a New Lattice System of the Heterometallic Decanuclear Ce₆Mn₄ Aggregate. Journal of Structural Chemistry. DOI: 10.1134/S0022476618030113. IF: 1.0, Q4

2018 Structure-based design: Synthesis, X-ray crystallography, and biological evaluation of N-substituted-4-hydroxy-2-quinolone-3-carboxamides as potential cytotoxic agents. Anti-Cancer Agents in Medicinal Chemistry. DOI: 10.2174/1871520617666170911171152. IF: 2.3, Q4

2017 1D cerium(III) coordination polymer with pivalate bridges: Synthesis, structure and magnetic properties. Journal of Molecular Structure. DOI: 10.1016/j.molstruc.2017.03.068. IF: 3.8, Q2

2017 An azide-bridged copper(II) 1D-chain with ferromagnetic interactions: synthesis, structure and magnetic studies. *Transition Metal Chemistry*. DOI: 10.1007/s11243-017-0169-1. IF: 1.2, Q4

2017 The crystal structure of ethyl 4-((2-hydroxybenzyl)amino)benzoate, a Schiff base, C₁₆H₁₇NO₃. *Zeitschrift für Kristallographie - New Crystal Structures*. DOI: 10.1515/ncrs-2016-0383. IF: 0.5, Q4

2017 Ring opening of cyclobutane in 1,3-dimethyl-5-methylenearbituric acid dimer by various nucleophiles. *Zeitschrift für Naturforschung B*. DOI: 10.1515/znb-2017-0016. IF: 0.9, Q4

2017 Na₁₄[(H₂P₄W₆O₃₄)₂Co₂Na₂(H₂O)₂]₂·26H₂O: A New, Carbon-Free, Polyoxometalate Catalyst for Water Oxidation. *Journal of Cluster Science*. DOI: 10.1007/s10876-017-1278-x. IF: 3.5, Q2

2017 Alkoxo- and carboxylato-bridged hexanuclear copper(II) complex: Synthesis, structure and magnetic properties. *Inorganic Chemistry Communications*. DOI: 10.1016/j.inoche.2017.06.012. IF: 4.0, Q2

2017 3D oxalato-bridged lanthanide(III) MOFs with magnetocaloric, magnetic and photoluminescence properties. *Dalton Transactions*. DOI: 10.1039/c6dt03843c. IF: 4.0, Q2

2017 Synthesis, characterization, X-ray structure, computational studies, and bioassay of novel compounds combining thiophene and benzimidazole or 1,2,4-triazole moieties. *Chemistry Central Journal*. DOI: 10.1186/s13065-017-0280-6. IF: 2.5, Q3

2017 Hydrothermal Synthesis, Crystal Structure, and Photoluminescent Properties of Li[UO₂(CH₃COO)₃]₃[Co(H₂O)₆]. *Crystallography Reports*. DOI: 10.1134/S1063774517070021. IF: 0.6, Q4

2017 Synthesis and characterization of a mixed-valent Mn^{II}–La^{III} aggregate with benzoate. *Monatshefte für Chemie - Chemical Monthly*. DOI: 10.1007/s00706-016-1820-9. IF: 1.8, Q4

2016 Crystal Structures, Optical Properties, and TD-DFT Study of a Zinc(II) Schiff-Base Complex Derived from Salicylaldehyde and N¹-(3-aminopropyl)Propane-1,3-Diamine. *Journal of Chemical Crystallography*. DOI: 10.1007/s10870-016-0670-y. IF: 1.2, Q4

2016 Inorganic architecture based on a {[Ca(H₂O)]₆[P₄W₆O₃₄]₂}₁₂– building block: Counteraction effect on the lattice symmetry. *Journal of Structural Chemistry*. DOI: 10.1134/S0022476616040132. IF: 1.0, Q4

- 2015 Synthesis, characterization, X-ray structures, and biological activity of some metal complexes of the Schiff base 2,2'-(((azanediylbis(propane-3,1-diyl))bis(azanylylidene))bis(methanylylidene))diphenol. *Polyhedron*. DOI: 10.1016/j.poly.2014.09.006. IF: 2.3, Q3
- 2015 Synthesis, characterization, and antimicrobial activity of Schiff bases derived from benzaldehydes and 3,3'-diaminodipropylamine. *Arabian Journal of Chemistry*. DOI: 10.1016/j.arabjc.2012.12.039. IF: 6.0, Q1
- 2015 Synthesis and Crystal Structure of New Lacunary Wells–Dawson with an Unprecedented Eu-Substituted Sandwiched Cluster. *Journal of Cluster Science*. DOI: 10.1007/s10876-015-0867-9. IF: 3.5, Q2
- 2014 Crystallographic and theoretical studies of 1-(1-naphthyl)-2-thiourea with intermolecular N-H...S heteroatom interaction and N-H... π interaction. *Journal of Structural Chemistry*. DOI: 10.1134/S0022476614010089. IF: 1.0, Q4
- 2014 Microwave-assisted synthesis of new adamantyltriazine derivatives. *Letters in Organic Chemistry*. DOI: 10.2174/15701786113106660063. IF: 0.8, Q4
- 2013 New catalysts for the chemoselective reduction of α,β -unsaturated ketones: Synthesis, spectral, structural and DFT characterizations of mixed ruthenium(II) complexes containing 2-ethene-1,3-bis(diphenylphosphino) propane and diamine ligands. *Polyhedron*. DOI: 10.1016/j.poly.2013.07.024. IF: 2.3, Q3
- 2013 Theoretical and experimental study of lone pair interactions in THF/chloranilic acid system. *Structural Chemistry*. DOI: 10.1007/s11224-012-0067-2. IF: 2.1, Q3
- 2013 4-Chlorobutyl 7-chloro-1-cyclopropyl-4-(1,3-diethyl-4,6-dioxo-2-sulfanylidene-1,3-diazinan-5-ylidene)-6-fluoro-1,4-dihydroquinoline-3-carboxylate. *Acta Crystallographica Section E: Structure Reports Online*. DOI: 10.1107/S1600536813016024. IF: 0.5, Q4
- 2013 Effects of molybdenum concentration and valence state on the structural and magnetic properties of BaFe_{11.6}MoxZn_{0.4-x}O₁₉ hexaferrites. *Acta Metallurgica Sinica (English Letters)*. DOI: 10.1007/s40195-013-0075-2. IF: 2.0, Q3
- 2012 Ruthenium complexes incorporating azoimine and α -diamine based ligands: Synthesis, crystal structure, electrochemistry and DFT calculation. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2011.12.050. IF: 2.6, Q3
- 2012 Cis-trans Isomerism in mixed-ligand ruthenium(II) complexes containing bis(phosphine) and azoimine ligands. *Polyhedron*. DOI: 10.1016/j.poly.2012.04.044. IF: 2.3, Q3

- 2012 Synthesis, crystal structure and thermodynamic calculations of 1,3-diethyl-5-(diethylaminium)methylene-2-thiobarbituric acid adduct. *Journal of Chemical Crystallography*. DOI: 10.1007/s10870-011-0263-8. IF: 1.2, Q4
- 2012 2-(4-Methylphenyl)quinoline-4-carboxylic acid. *Acta Crystallographica Section E: Structure Reports Online*. DOI: 10.1107/S160053681203797X. IF: 0.5, Q4
- 2012 Bis{(E)-3-[(2-hydroxybenzylidene)amino]propyl}ammonium chloride. *Acta Crystallographica Section E: Structure Reports Online*. DOI: 10.1107/S1600536812045424. IF: 0.5, Q4
- 2011 Ruthenium(II) complexes with tetradentate pyridylthioazoimine [N,S,N,N] ligands: Synthesis, crystal structure and spectroscopy. *Polyhedron*. DOI: 10.1016/j.poly.2011.05.026. IF: 2.3, Q3
- 2011 A new mixed multi-metallic calcium-cobalt-phosphotungstate with nano wheel-like polyanion: $\text{Na}_6\text{Ca}_3[\text{Ca}_2(\text{H}_2\text{O})_6\text{Co}_9(\text{OH})_3(\text{H}_2\text{O})_6(\text{HPO}_4)_2(\text{PW}_9\text{O}_{34})_3]$. *Journal of Coordination Chemistry*. DOI: 10.1080/00958972.2011.638377. IF: 2.1, Q3
- 2011 The nonclassical noncovalent interactions control: A case study of the crystal structure of 3,5-dibromo-2-amino-4,6-dimethylpyridinium tetrahalocuprate [3,5-DBr-2-A-4,6-DMPH] $_2\text{CuX}_4$ (X = Cl, and Br). *Journal of Molecular Structure*. DOI: 10.1016/j.molstruc.2010.09.052. IF: 3.8, Q2
- 2010 Trans-Dichlorido(2,2-dimethyl-propane-1,3-diamine)-bis-(triphenyl-phosphane)ruthenium(II). *Acta Crystallographica Section E: Structure Reports Online*. DOI: 10.1107/S1600536810019276. IF: 0.5, Q4
- 2009 Mononuclear lanthanide single molecule magnets based on the polyoxometalates $[\text{Ln}(\text{W}_5\text{O}_{18})_2]^{9-}$ and $[\text{Ln}(\beta_2\text{-SiW}_{11}\text{O}_{39})_2]^{13-}$ (Ln(III) = Tb, Dy, Ho, Er, Tm, and Yb). *Inorganic Chemistry*. DOI: 10.1021/ic801630z. IF: 4.6, Q2
- 2008 Mononuclear lanthanide single-molecule magnets based on polyoxometalates. *Journal of the American Chemical Society*. DOI: 10.1021/ja801659m. IF: 15.0, Q1
- 2006 The role of non-classical supramolecular interactions in the structures of 2-amino-4,6-dimethylpyridinium tetrahalocuprate (II) salts. *Inorganica Chimica Acta*. DOI: 10.1016/j.ica.2005.05.039. IF: 2.6, Q3
- 2005 Effects of variable docking conditions and scoring functions on corresponding protein-aligned comparative molecular field analysis models constructed from diverse human protein tyrosine phosphatase 1B inhibitors. *Journal of Medicinal Chemistry*. DOI: 10.1021/jm058047o. IF: 7.3, Q1

2005 Ligand-based assessment of factor Xa binding site flexibility via elaborate pharmacophore exploration and genetic algorithm-based QSAR modeling. European Journal of Medicinal Chemistry. DOI: 10.1016/j.ejmech.2004.10.014. IF: 6.7, Q1

2004 3-Armonio-2,6-dibromopyridine bromide hemihydrate. Acta Crystallographica Section E: Structure Reports Online. DOI: 10.1107/S1600536804018793. IF: 0.5, Q4

2004 A copper(I) iodide chain with the 2-amino-4,6-dimethylpyridine cation. Acta Crystallographica Section E: Structure Reports Online. DOI: 10.1107/S1600536803027715. IF: 0.5, Q4

Teaching Experience

The University of Jordan: Teaching Assistant

General and Inorganic chemistry courses, Research methods in chemistry, Crystallography and X-Ray Diffraction (Master).

Conferences

2017 1st International Conference of TWAS Young Affiliates Network, Rio de Janeiro, Brazil (Oral Presentation)

2017 Chemistry and Biological Sciences conference in Al al-Bayt University (PhD student participation)

2016 Sustainability in Food and Water: An Arab Viewpoint (TWAS-ARO) (Participant)

2012 11th Jordanian conference on Chemistry, Mafrq, Jordan (Poster participation)

2011 7th SESAME JORDANIAN WORKSHOP, Amman, Jordan (Speaker)

2010 EuAsC2S-11, Dead sea, Jordan, (Poster)

2010 60th Meeting of Nobel Laureates in Lindau, COMSTECH (Organization of Islamic Conference Standing Committee on Scientific and Technological Cooperation) fellowship

2007 COST meeting D37-DeciQ, Toulouse, France (Oral Presentation)

2005 International Symposium on Nano-structures and Physicochemical Properties of Polyoxometalates, Superclusters and Related Colloid Particles, Lyon, France.

2004 VII Escuela Nacional De Materiales Moleculares, Boí Taull, Spain (Oral Participation)