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## مجال التدريس:

-الدراسات الاولية والدراسات العليا

الكيمياء التناسقية

الكيمياء اللاعضوية

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عدد رسائل الماجستير واطاريح الدكتوراه المشرف عليها 21

## النشريات :

1. Synthesis, Structural Study and Antibacterial Activity of Zn (II), Cd (II) and Hg (II) Complexes of 4-Phenyl, S (P-Amino Phenyl)-3-Mercapto-1, 2, 4-Triazole. **Iraqi J. Sci, (1996).**
2. Synthesis, Structural Diagnosis and Antibacterial Study of Some Transition Metal Complexes of amino MercaptoTriazole. **Iraqi J. Sci., (1998).**
3. Intermolecular Charge Transfer Complexes between I<sub>2</sub> and DDQ as Electron acceptors and some triazole Derivatives as Electron Donors. **The First Arab Chemistry at Applied Science University, Amman- Jordan, (2001).**
4. Synthesis, Structural and Antibacterial Studied of Silver (I) and Iron (III) Chelates of AminomercaptoTriazole and Palladium (II) Chelate of 2(PropenylMercapto)Triazole. **Ibn Al-Haitham J. for Pure and Appl. Sci, (2002).**
5. Photodecomposition of Molybdenum (II) and Tungsten (II) Carbonyl Complexes with Triazole, Benz-Imidazole, and OxadiazoleAcetylinic Derivatives. **J. Photochemistry and Photobiology A: Chemistry, (2002).**
6. Synthesis and Structural Study of Mo(II) and W(II) Carbonyl Complexes :Part (III) Complexes of S-Propynyl 2-Thio Benzimidazole. **Iraqi Journal of Chemistry, (2002).**
7. Synthesis Study and Antimicrobial Activity of Fe(II) ,Co(II) ,Ni(II) and Cu(II) Complexes of S-PropargelThiobenzaxazole. **J. College of Education for Women, (2002).**
8. Photodecomposition of Molybdenum (II) and Tungsten (II) Carbonyl Complexes with S-Propynyl 2-Thio Benzimidazole. **Iraqi Journal of Chemistry, (2002).**

9. Photodecomposition of Molybdenum (II) and Tungsten (II) Carbonyl Complexes with 2(2-Propynyl -Thio)5-Phenyl)-1,2,4-Oxadiazole. **The Third Jordanian International Conference of Chemistry, Irbid-Jordan (22-26), (2002).**
10. Synthesis and Structural Study of Mo(II) and W(II) Carbonyl Complexes Part(I) Complexes of 3(2-Propynyl) Thio -4,5 Diphenyl 4H -1,2,4 ,Triazole. **The Third Jordanian International Conference of Chemistry, Irbid-Jordan (22-26), (2002)**
11. Formation and Degradation of Some Organometallic Compound Used as Octane Additives in Gasoline. **Refereed Scientific Journal Issued by The Federation of Arab Scientific Research Councils, Selected Research Papers, (2003).**
12. Synthesis Structural Study and Antibacterial Activity of Zn(II) ,Cd(II) and Hg(II) Chelates of 2-Propenyl Mercaptotriazole. **Journal of College of Education for Women, (2003).**
13. Determination of the Ratios of Ligands to Metal Ions of Some Inorganic Metal Complexes by Using Electronic Spectra in Organic Solvents. **The First Arab Chemistry at Applied Science University, 31 October-2 November 2001, Amman-Jordan and Publishing in Journal of Um-Salama for Science, (2004).**
14. Synthesis and Structural Studies of Some Transition Metal Complexes of 5-Phenyl -1,3,4- Oxadiazole -2-Thioethyl Carbonate. **Ibn Al-Haitham J. for Pure and Applied Sciences, (2005).**
15. Charge Transfer Studies of Some Oxadiazole Derivatives With Different Acceptors. **Journal of Um-Salama for Science, (2005).**
16. Extraction and Purification of Zinc from Dross for Iron Sections.

17. Synthesis and Characterization of The Heavy Metals; Au(III), Pd(II), Pt(IV) and Rh(III) Complexes of S-Propynyl 2-Thiopenzimidazole. **Journal of Um- Salama for Science, (2007).**
18. Synthesis and Characterization of Some New Metal Complexes With Bis (4-Phenyl -2- DibutylAminomethyl -1,2,4 -Triazole -3-Thion -5 yl) Methane and Theoretical Study. **Al-Nahrain University Journal for Science, (2007).**
19. Synthesis and Characterization of Some Inorganic Compound and Study Their Effect on Activity of Laccase Produced by Local Isolate *Pleurotus Ostreatus*. **The 4<sup>th</sup> Scientific Research Outlook and Technology Development in the Arab World–Damascus, 368-378, Damascus –Syria 11-14 Dec.(2006), Ibn-Al-Haitham J. for Pure and Applied Sciences, (2008).**
20. Preparation, Characterization and Theoretical Study Metal Complexes of New N [4-Bis (5 – Thion -1,3,4 –Oxadiazole-2 yl) Methane] Methyl] Dibenzyl Amine of Possible Biological Activity. **Journal of Al-Nahrain Univ, (2008).**
21. Preparation, Characterization and Biological Activities of Some Metal Complexes of New N[4-Bis (5-Thion -1,3,4 –Oxadiazole -2yl) Methane] Methyl] Dibutyl Amine and Theoretical Study. **Journal of Al-Nahrain Univ, (2008).**
22. Preparation and Structural Studies of New Metal Complexes With 2-N(4-N,N-Dimethyl Benzyliden (5-(P-Methoxy Phenyl)-1,3,4-Thiodiazole. **Ibn-Al-Haitham J. for Pure and Applied Sciences, (2009).**
23. Some Transition Metal Complexes With A New Tetradentate Ligand Bis[4-Phenyl 2-Dipropyl Amino Methyl 1,2,4 Triazole 3-Thion -5 yl] Methane. **Journal of Al-Nahrain Univ, (2009).**

24. Synthesis, Structural and Biological Activity of Cd(II), Cr(II), Mn(II) and Hg(II) Complexes of 2-N(4,N,N-Dimethyl Benzyliden) 5-(P-Methoxy Phenyl) 1,3,4 -Thiodiazole. **Al-Nahrain University J. for Science, (2009).**
25. Synthesis, Structural Study and Antibacterial Activity of Some New Complexes With 2-N(4-N,N-Dimethyl Benzyliden) -5-(P-Iodophenyl) -1,3,4 -Thiodiazole With Cr(III), Mn (II), and Cd(II) Ions. **Al-Nahrain University J. for Science, (2010).**
26. Synthesis, Structural Study and Theoretical Treatment of New Some Metal Complexes With 2-hydroxy-4-Nitro phenyl 2-N(4-N,N dimethyl benzyliden). **Al- Mustansiriya Journal of Science, (2010).**
27. Synthesis, Structural Study, Antimicrobial and Theoretical Treatment of Cr(III), Ni(II), Pt(IV) and Zn(II) Complexes With 2-hydroxy-4-Nitro phenyl Piperonalidene. **First Conference for Women and Science in Iraq 16 18/march, Baghdad Science Journal, (2010).**
28. Synthesis, Characterization and Antimicrobial Studies of Complexes of some Metal Ions 5-(2-hydroxybenzylidene)-2-thiomethyl-1,3,4-Thiadiazole. **First conference For Women and Science in Iraq 16-18/march/2010, Baghdad Science Journal, (2010).**
29. Synthesis, Characterization, Theoretical Treatment and Antimicrobial Activity Studies of Some Metal Ions Complexes with 2-hydroxy-4-Nitro Phenyl Piperonalidene. **Al-Nahrain University J. for Science, (2010).**
30. Preparation, Structural Study, Theoretical Treatment and Biological Activity of Cr(III), Ni(II), Cd(II) and V(IV) Complexes of Tetradentate Ligand Bis[4-Phenyl-3(2-Propenyl)Thio -1,2,4 -

- Triazole-5 yl] Methane. **Al-Nahrain University J. for Science, (2011).**
- 31.** Preparation, Characterization, and Biological Activity of Some Complexes of Potassium 2-Carbomethoxy amino-5-trithiocarbonato 1,3- thiodiazole. **J. of Baghdad for Science, (2012).**
- 32.** Study of Cytotoxic effect of Aqueous Extract Fenugreek (*TrigonellaFoenumGraecum* L.S) Seeds and the New Complexes of Rh(III) and Pd(II) on Cancer Cell Lines. **J. of Baghdad for Science, (2012).**
- 33.**Synthesis, Spectroscopic Study of Pt(IV), Au(III), Rh(III),Co(II) and V(IV) Complexes with Sodium [5-(nitro phenyl)-4-phenyl - 1,2,4-triazole -3-dithiocarbamato hydrazide] and Cytotoxicity assay on Rhabdomyosarcoma Cell Line of Heavy Metals. **J. of Baghdad for Science, (2012).**
- 34.**Removal of Nickel (II) from Aqueous Solution using Activated Charcoal Derive from the leave of Bitter Orange tree (*Citrus Aurantium*). **J. Chem. Chem. Eng, (2012).**
- 35.**Synthesis, Spectral Study, Theoretical Treatment and Biological Activity of Some Transition Metal Complexes with 2-Amino Acetate Acid-6-Chloro Benzothiazole.**Diyala Journal for Pure Science, (2013).**
- 36.**Synthesis,Structure, Antimicrobial Activity and Theoretical Treatment of 3d-Metal Complexes Involving Schiff Base of Piperonal Derivative. **First Conference of Pharmacologic College AL- MustansiryaUniversity,Al-Mustansiriyah J. for Pharm. Sci.(2013).**
- 37.** Spectroscopic Study, Theoretical Treatment And Evaluation Antimicrobial Activity of Some New Complexes of 5-(2-

- hydroxybenziliden)-2-thioethyl-1,3,4-thiadiazole. **J. of Basic Education, (2013).**
- 38.** Synthesis and Study Some Transition Metals Complexes with (5-(2-hydroxy benzylidene)-2-Mercapto-1,3,4-thiadiazole) and Evaluation of their Biological Activities. **J. of Basic Education,(2013).**
- 39.** Synthesis, Spectral, Thermal and Antibacterial Studies of Cd(II), Mn(II) and Fe(III) Complexes Containing Trithiocarbonate 1,3,4-thiadiazole. **Journal of King Saud University – Science, (2013).**
- 40.** Synthesis, Spectral Studies, and Theoretical Treatment of New Ni(II), and Co(II) Complexes of Bidentate Ligands 2-Benzamido Benzothiazole, and 2-Actamido Benzothiazole Moiety. **The 1<sup>st</sup> National Conference of Chemistry, J. of Baghdad for Science, (2013).**
- 41.** Synthesis and Theoretical Study of 4(2-methyl-4-oxoquinazoline-3(4H)-yl) Benzoic Acid with Some Transition Metal Ions. **The 1<sup>st</sup> National Conference of Chemistry, J. of Baghdad for Science, (2013).**
- 42.** Spectroscopic, Characterization and Antimicrobial Activates of Some Heavy Metals Complexes of 2-hydroxy phenyl piperonalidene. **The 1<sup>st</sup> National Conference of Chemistry, J. of Baghdad for Science, (2013).**
- 43.** Adsorption and Kinetic Study of Nickel (II) Aqueous Solution on Commercial and Activated Charcoal Derived from Leave Bitter Orange Tree. **(Accepted for the 11<sup>th</sup> International Conference on the Fundamentals of Adsorption (FOA 11) may 19-24, 2013, USA).**

44. Synthesis, Physical Characterization and Biological Evaluation of Schiff Base M(II) Complexes. **J. of the Association of Arab Universities for Basic and Applied Science, (2014).**
45. Mixed Ligand Complexes of quinolone-2-carboxylic acid and 4,4'-dimethyl-2,2'-bipyridyl with V(IV), Cr(III), Rh(III), Cd(II) and Pt(IV). **J. of Baghdad for Science. (2014)**
46. A Comparative Study of Microwave Assisted and Conventional Synthesis of Mixed Ligand Complexes with Cr(III), Co(II), Ni(II), Cu(II) and Cd(II). **J. of Baghdad for Science (2014).**
47. Cytotoxicity Assay of Nickel and Cobalt (II) Complexes of 5-(4-Nitro Phenyl)-4-Amino-3-Mercapto Propenyl-1,2,4-Triazole on HepG2 Cell Line. **Second Conference of Pharmacologic College AL- Mustansirya University, Int J Pharm (2014).**
48. Synthesis, Spectral Studies, and Theoretical Treatment of New Au(III), and Cu(II) Complexes of bidentate Ligands 2-benzamido benzothiazole, and 2-acetamido benzothiazole. **Al-Nahrain University J. for Science, (2014).**
49. Purification of Aqueous Solution from Ni(II) Ion using Commercial and Bitter Orange Leaves Activated Charcoal. **Al-Nahrain University J. for Science, (2014).**
50. Synthesis, Spectral Study and Theoretical Treatment of Some Transition Metal Complexes of 5-(4-Nitro Phenyl)-4-Amino-3-Mercapto Propenyl-1,2,4-Triazole Ligand. **Al-Nahrain University J. for Science, (2014).**
51. Synthesis of Mixed Ligand Complexes of M(II) Dithiocarbamate Derivative and 2,2'-bipyridyl and Study their Cytotoxic Effect Against HepG2 Cell Line *in vitro*. **J. of Baghdad for Science. (2015).**



52. Synthesis, Characterization and Theoretical Study of Some Mixed-ligand Complexes of 2-Quinoline Carboxylic Acid and 4,4'-Dimethyl,2,2'-Bipyridyl with Some Transition Metal Ions. **Al-Nahrain University J. for Science, (2015).**
53. Microwave Assisted Synthesis, Solution State Spectral Studies and Theoretical Treatment of Pd(II), Pt(IV), and Au(III) ions complexes containing 2-Benzamide Benzothiazole. **J. of Baghdad for Science,(2015)**
54. Synthesis, Characterization of Some Metal Complexes with Their Sulfamethoxazole and 4,4'-Dimethyl,2,2'-Bipyridyl and Study Cytotoxic Effect on Hep-2 Cell Line. **J. of Baghdad for Science.(2015).**
55. Synthesis Mixed Ligands Complexes of Some Light Metals by Microwave Assisted Using 2-Acetamide Benzothiazole and 1,10-Phenanthroline. **International Journal of Pharmacy, (2015).**
56. Synthesis, Characterization, Biological Evaluation of Gold (III) and Cobalt (II) Complexes of 2-Amino Acetic Acid-6-Chlorobenzothiazole. **(Submitted to Publication in Third Conference of Karbla University).**
57. Spectral and Theoretical Studies of Some Metal Complexes of Benzothiazole Derivatives as Single and Mixed Ligand Synthesized by Microwave Radiation. **(Submitted to Publication in Third Conference of Karbla University).**
58. Synthesis, Spectroscopic Study, Theoretical Treatment and Antibacterial Activity of Some Transition Metal Ions with Potassium (Benzothiazole-2-dithiocarbamate hydrate). **International Journal of Pharmacy, (2015).**
59. Synthesis, Structural Diagnosis, Theoretical Treatment and Antibacterial Study of Pd(II), Rh(III), Pt(IV) and Au(III)

complexes containing 2(*p*-Nitro Benzoyl) ThioBenzimidazole.  
**International Journal of Science and Research, (2015).**

60. Study the Electronic transition Behavior of Divalent Transition Metal Cations Co(II), Ni(II) and Cu(II) in Aluminum Nitrate/Urea Room Temperature Ionic Liquid (1:1.2).**International Journal of Science and Research, (2015).**
61. Synthesis, Characterization of Some metal Complexes with Mixed Ligands Derived from Sulfamethoxazole and 4,4'-dimethyl-2,2'-bipyridyl.**International Journal of Science and Research, (2015).**
62. Synthesis and Properties of Some Metal Complexes azo-Compounds. **International Journal of Science and Research, (2015).**
63. Study of the cytotoxic effect of new transition metal complexes: Cobalt(II) and Cadmium(II) on cancer cell line (Hep2) comparison with two anticancer drugs. **International Organization of Scientific Research. (2015).**
64. Synthesis and bacterial evaluation of the V(IV), Cr(III), Fe(III) and Co(II) ions complexes with mixed ligands (2-hydroxy benzaldine)-4-amino antipyrine and 8-hydroxyquinoline. **(Submitted to Publication in 2<sup>nd</sup> National Conference of Chemistry, College of Science for Woman/ University of Baghdad)(Submitted to Publication in Baghdad Journal for Science, College of Science for Woman/ University of Baghdad). (2016)**
65. Synthesis mixed ligand complexes of some light metal ions using 2-benzoyl thiobenzimidazole and 1,10-phenanthroline and study their antibacterial activity. **(Submitted to Publication in 2<sup>nd</sup> National Conference of Chemistry, College of Science for**

**Woman/ University of Baghdad)J. of Baghdad for Science.in(2016).**

- 66.**Coordination of Some Heavy Transition Metals Complexes with 2-Amino Acetic Acid-6-Methoxy Benzothiazole Using Microwave and Thermal Methods.**International Journal of Pharmacy. (2016).**
- 67.**Synthesis and Cytotoxic effect on RD Cell Line of Pd(II) and Cu(II). **Journal of Saudi Chemical Society, (2016).**
- 68.**Spectral and Cytotoxic study of complexing mixed ligand formed by sodium [5-(p-nitro phenyl)-4-phenyl-1,2,4-triazole-3-dithiocarbamate hydrazide] and 1,10 phenanthroline with Fe(III) and Mn (II) ions.**International Journal of Pharmacy (2016).**
- 69.**Investigation of New Room Ionic Liquid of  $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$  with Urea  $\text{Co}(\text{NH}_2)_2$ . **J. of Baghdad for Science.(2016).**
- 70.**Synthesis and Bacterial Evaluation of The V(IV), Cr(III), Fe(III) and Co(II) Ions Complexes with Mixed Ligands (2-hydroxybenzaldehyde)-4-Aminoantipyrine and 8-Hydroxyquinoline. [J. of Al-Nahrain University.](#) (2016).
- 71.**Theoretical study of some mixed-ligand complexes of sodium [5-(p-nitro Phenyl)-4-phenyl-1, 2,4-triazole-3-dithiocarbamate hydrazide] and 1,10-phenanthroline with Fe (III) and Mn (II) ions.**International Journal of Humanities,Arts,Medicine and Sciences. (2016).**
- 72.**Synthesis, Structural Study and Computational Treatment of Some Heavy Metals Complexes with Mixed Ligand Using Microwave and Conventional methods. (Submitted to Publication in 3<sup>rd</sup> Women Conference of Sciences,College of Science for Woman/ University of Baghdad). **J. of Baghdad for Science.(2017).**

73. Synthesis of Some Mixed Ligand Complexes of (2-hydroxy benzaldine)-4- amino Antipyrine and 1,10-phenanthroline and Studying their Antibacterial Activity 14(1). **J. of Baghdad for Science. (2017).**
74. Assessment of Heavy Metals in Some Groundwater Wells at Baghdad City/ Iraq. 10(3) 62-70. **Journal of Global Pharma Technology(2018).**
75. Physicochemical, Antibacterial Studies of Some New Transition Metal Complexes of Chelating Active Compound. **Journal of Global Pharma Technology 10(3) 71-77.(2018).**
76. Synthesis, physicochemical and thermal study of some transition metal complexes with chelating ligand and study their theoretical treatments. **Journal of Global Pharma Technology(2018).**
77. Synthesis, Physico-Chemical Characterization, and Cytotoxicity Assay of Mannich Base Derivatives with Heavy Metal Ions on RAW 264.7 Cell Line. **Journal of Global Pharma Technology(2017).**
- 78- Synthesis, Spectroscopic Characterization and in Vitro Cytotoxicity Assay of Morpholine Mannich Base Derivatives of Benzimidazole with Some Heavy Metals, **Journal of Al-Nahrain University 21 (3), 50-60 (2018).**
- 79- Synthesis, Characterization and Computational Studies of Mannich Base Ligands and Their Metal Complexes V<sub>o</sub>(II), Co(II), Ni(II) and Cu(II), **Research Journal of Pharmaceutical, Biological and Chemical Sciences, 9(5), 877-890 (2018).**
- 80- synthesis, spectroscopic characterization, and biological evolution of some transition metal complexes from ligand C<sub>16</sub>H<sub>19</sub>N<sub>3</sub>O<sub>3</sub>S, **J. of Global Pharma Technology, 11(7) (2019).**

# Curriculum Vitae

## Personal Data:-

*Family Name:* Alias

*Name:* Dr. Mahasin Faisal Ahmed Alias

*Specialization:* Inorganic Chemistry

*Scientific Degree:* Professor

*Work Address:* Chemistry Dept., College of Science for Women, University of Baghdad, Jadiriya, P.O. Box 47162

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## Scientific Certification:-

1. **B.Sc.** in Chemistry College of Science, University of Al-Mustansiriyah (1987).
2. **M.Sc.** in Inorganic Chemistry College of Science, University of Baghdad (1996).
3. **Ph.D.** in Inorganic Chemistry College of Education Abn Al-Haitham, University of Baghdad (2000).
4. **Post Doctorate** in Inorganic Chemistry College of Science for Women, University of Baghdad (2003).

## Thesis and Dissertation:-

- ❖ **M. F. Alias**, "Synthesis and Study of Metal Complexes in Solid State and in Solution of Some Mercaptotriazole Derivatives with Some Electron Acceptors". **M.Sc. Thesis, University of Baghdad (1996).**

- ❖ **M. F Alias**, "*Synthesis, Characterization and Photodecomposition of Molybdenum and Tungsten Carbonyl Complexes*". **Ph.D. Thesis, University of Baghdad (2000).**
- ❖ **M. F. Alias**, "*Formation and Degradation of Some Organometallic Compounds Used as Octane Additives in Gasoline*". **Post Doctorate Thesis, University of Baghdad (2003).**

## ✚ Courses Teaching:

### ▣ *Undergraduate and Postgraduate Courses (B.Sc. , M.Sc&Ph.D)*

- ✓ Coordination Chemistry.
- ✓ Inorganic Chemistry.
- ✓ Analytical Chemistry.
- ✓ General Chemistry.
- ✓ Spectroscopy of Transition Metal Complexes.
- ✓ Bio- inorganic Chemistry.
- ✓ Organometallic Compounds.
- ✓ Mechanism Reaction of Inorganic Compounds.
- ✓ Study Chemistry of Aqueous Solutions.
- ✓ Chemical Pollution, Types and Its Effect on Environmental.
- ✓ Green Chemistry.
- ✓ Advanced Inorganic Chemistry.
- ✓ Advanced Coordination Chemistry.
- ✓ Symmetry and Application Group Theory.
- ✓ Structural and Physical Properties of Inorganic Compounds.

## ✚ Scientific Activities:-

- ❖ **2004-2005:** Coordinator Chairman of Chemistry Department, College of Science for Women, University of Baghdad.
- ❖ **2008-2010:** Member of Journal of Um-Salama for Science, now (Baghdad Science Journal) Board of Editor.
- ❖ **2009-2011:** Chairman of the Committee of Fanatical Support of Scientific Books and Research Papers, Chemistry Department, College of Science for Women University of Baghdad.
- ❖ **2009-2011:** Coordinator of Graduate Studies for Chemistry Department College of Science for Women University of Baghdad.
- ❖ **2016-present:** Coordinator of Scientific Committee Chemistry Department, College of Science for Women, University of Baghdad.

**The number of thesis dissertations supervised by 21**

### **Publications:-**

- 78.** Synthesis, Structural Study and Antibacterial Activity of Zn (II), Cd (II) and Hg (II) Complexes of 4-Phenyl, S (P-Amino Phenyl)-3-Mercapto-1, 2, 4-Triazole. **Iraqi J. Sci, (1996).**
- 79.** Synthesis, Structural Diagnosis and Antibacterial Study of Some Transition Metal Complexes of amino MercaptoTriazole. **Iraqi J. Sci., (1998).**
- 80.** Intermolecular Charge Transfer Complexes between I<sub>2</sub> and DDQ as Electron acceptors and some triazole Derivatives as Electron Donors. **The First Arab Chemistry at Applied Science University, Amman- Jordan, (2001).**
- 81.** Synthesis, Structural and Antibacterial Studied of Silver (I) and Iron (III) Chelates of AminomercaptoTriazole and Palladium (II)

- Chelate of 2(PropenylMercapto)Triazole. **Ibn Al-Haitham J. for Pure and Appl. Sci, (2002).**
- 82.** Photodecomposition of Molybdenum (II) and Tungsten (II) Carbonyl Complexes with Triazole, Benz-Imidazole, and OxadiazoleAcetylinic Derivatives. **J. Photochemistry and Photobiology A: Chemistry, (2002).**
- 83.** Synthesis and Structural Study of Mo(II) and W(II) Carbonyl Complexes :Part (III) Complexes of S-Propynyl 2-Thio Benzimidazole. **Iraqi Journal of Chemistry, (2002).**
- 84.** Synthesis Study and Antimicrobial Activity of Fe(II) ,Co(II) ,Ni(II) and Cu(II) Complexes of S-PropargelThiobenzaxazole. **J. College of Education for Women, (2002).**
- 85.** Photodecomposition of Molybdenum (II) and Tungsten (II) Carbonyl Complexes with S-Propynyl 2-Thio Benzimidazole. **Iraqi Journal of Chemistry, (2002).**
- 86.** Photodecomposition of Molybdenum (II) and Tungsten (II) Carbonyl Complexes with 2(2-Propynyl -Thio)5-Phenyl)-1,2,4-Oxadiazole. **The Third Jordanian International Conference of Chemistry, Irbid-Jordan (22-26), (2002).**
- 87.** Synthesis and Structural Study of Mo(II) and W(II) Carbonyl Complexes Part(I) Complexes of 3(2-Propynyl) Thio -4,5 Diphenyl 4H -1,2,4 ,Triazole. **The Third Jordanian International Conference of Chemistry, Irbid-Jordan (22-26), (2002)**
- 88.** Formation and Degradation of Some Organometallic Compound Used as Octane Additives in Gasoline. **Refereed Scientific Journal Issued by The Federation of Arab Scientific Research Councils, Selected Research Papers, (2003).**
- 89.** Synthesis Structural Study and Antibacterial Activity of Zn(II) ,Cd(II) and Hg(II) Chelates of 2-Propenyl



- Mercaptotriazole. **Journal of College of Education for Women, (2003).**
90. Determination of the Ratios of Ligands to Metal Ions of Some Inorganic Metal Complexes by Using Electronic Spectra in Organic Solvents. **The First Arab Chemistry at Applied Science University, 31 October-2 November 2001, Amman-Jordan and Publishing in Journal of Um-Salama for Science, (2004).**
91. Synthesis and Structural Studies of Some Transition Metal Complexes of 5-Phenyl -1,3,4- Oxadiazole -2-Thioethyl Carbonate. **Ibn Al-Haitham J. for Pure and Applied Sciences, (2005).**
92. Charge Transfer Studies of Some Oxadiazole Derivatives With Different Acceptors. **Journal of Um-Salama for Science, (2005).**
93. Extraction and Purification of Zinc from Dross for Iron Sections.  
مجلة ابحاث البيئة والتنمية المستدامة، المجلد التاسع، العدد الاول، صفحة 5-15، 2006.  
جمهورية السودان / اتحاد مجالس البحث العلمي العربية / الامانة العامة / الرقم 90(01).
94. Synthesis and Characterization of The Heavy Metals; Au(III), Pd(II), Pt(IV) and Rh(III) Complexes of S-Propynyl 2-Thiopenzimidazole. **Journal of Um-Salama for Science, (2007).**
95. Synthesis and Characterization of Some New Metal Complexes With Bis (4-Phenyl -2- DibutylAminomethyl -1,2,4 -Triazole -3-Thion -5 yl) Methane and Theoretical Study. **Al-Nahrain University Journal for Science, (2007).**
96. Synthesis and Characterization of Some Inorganic Compound and Study Their Effect on Activity of Laccase Produced by Local Isolate *Pleurotus Ostreatus*. **The 4<sup>th</sup> Scientific Research Outlook and Technology Development in the Arab Word–Damascus,**

**368-378, Damascus –Syria 11-14 Dec.(2006), Ibn-Al-Haitham J. for Pure and Applied Sciences, (2008).**

- 97.**Preparation, Characterization and Theoretical Study Metal Complexes of New N [4-Bis (5 – Thion -1,3,4 –Oxadiazole-2 yl) Methane] Methyl] Dibenzyl Amine of Possible Biological Activity.**Journal of Al-NahrainUniv, (2008).**
- 98.**Preparation, Characterization and Biological Activities of Some Metal Complexes of New N[4-Bis (5-Thion -1,3,4 –Oxadiazole -2yl) Methane] Methyl] Dibutyl Amine and Theoretical Study. **Journal of Al-NahrainUniv, (2008).**
- 99.**Preparation and Structural Studies of New Metal Complexes With 2-N(4-N,N-Dimethyl Benzyliden (5-(P-Methoxy Phenyl)-1,3,4-Thiodiazole. **Ibn-Al-Haitham J. for Pure and Applied Sciences, (2009).**
- 100.** Some Transition Metal Complexes With A New Tetradendate Ligand Bis[4-Phenyl 2-Dipropyl Amino Methyl 1,2,4 Triazole 3- Thion -5 yl] Methane. **Journal of Al-NahrainUniv, (2009).**
- 101.** Synthesis ,Structural and Biological Activity of Cd(II) ,Cr(II) Mn(II) and Hg(II) Complexes of 2-N(4,N,N-Dimethyl Benzyliden) 5(P-Methoxy Phenyl) 1,3,4 –Thiodiazole.**Al-Nahrain University J. for Science, (2009).**
- 102.** Synthesis ,Structural Study and Antibacterial Activity of Some New Complexes With 2-N(4-N,N-Dimethyl Benzyliden ) -5-(P-Iodophenyl) -1,3,4 –Thiodiazole With Cr(III) , Mn (II) ,and Cd(II) Ions. **Al-Nahrain University J. for Science, (2010).**
- 103.** Synthesis, Structural Study and Theoretical Treatment of New Some Metal Complexes With 2-hydroxy-4-Nitro phenyl 2-

- N(4-N,N dimethyl benzyliden ). **Al- Mustansiriya Journal of Science, (2010).**
- 104.** Synthesis, Structural Study, Antimicrobial and Theoretical Treatment of Cr(III), Ni(II), Pt(IV) and Zn(II) Complexes With 2-hydroxy-4-Nitro phenyl Piperonalidene. **First Conference for Women and Science in Iraq 16 18/march,Baghdad Science Journal, (2010).**
- 105.** Synthesis, Characterization and Antimicrobial Studies of Complexes of some Metal Ions(2-hydroxybenzylidene)-2-thiomethyl-1,3,4Thiadiazole. **First conference For Women and Science in Iraq 16-18/march/2010, Baghdad Science Journal, (2010).**
- 106.** Synthesis, Characterization, Theoretical Treatment and Antimicrobial Activity Studies of Some Metal Ions Complexes with 2-hydroxy-4-Nitro Phenyl Piperonalidene.**Al-Nahrain University J. for Science, (2010).**
- 107.** Preparation, Structural Study, Theoretical Treatment and Biological Activity of Cr(III) ,Ni(II) ,Cd(II) and V(IV) Complexes of Tetradentate Ligand Bis[4-Phenyl-3(2-Propenyl)Thio -1,2,4 – Triazole-5 yl] Methane. **Al-Nahrain University J. for Science, (2011).**
- 108.** Preparation, Characterization, and Biological Activity of Some Complexes of Potassium 2-Carbomethoxy amino-5-trithiocarbonato 1,3- thiodiazole. **J. of Baghdad for Science, (2012).**
- 109.** Study of Cytotoxic effect of Aqueous Extract Fenugreek (TrigonellaFoenumGraecum L.S) Seeds and the New Complexes of Rh(III) and Pd(II) on Cancer Cell Lines. **J. of Baghdad for Science, (2012).**

110. Synthesis, Spectroscopic Study of Pt(IV), Au(III), Rh(III), Co(II) and V(IV) Complexes with Sodium [5-(nitrophenyl)-4-phenyl-1,2,4-triazole-3-dithiocarbamate hydrazide] and Cytotoxicity assay on Rhabdomyosarcoma Cell Line of Heavy Metals. **J. of Baghdad for Science, (2012).**
111. Removal of Nickel (II) from Aqueous Solution using Activated Charcoal Derive from the leave of Bitter Orange tree (Citrus Aurantium). **J. Chem. Chem. Eng, (2012).**
112. Synthesis, Spectral Study, Theoretical Treatment and Biological Activity of Some Transition Metal Complexes with 2-Amino Acetate Acid-6-Chloro Benzothiazole. **Diyala Journal for Pure Science, (2013).**
113. Synthesis, Structure, Antimicrobial Activity and Theoretical Treatment of 3d-Metal Complexes Involving Schiff Base of Piperonal Derivative. **First Conference of Pharmacologic College AL- Mustansirya University, Al-Mustansiriyah J. for Pharm. Sci. (2013).**
114. Spectroscopic Study, Theoretical Treatment And Evaluation Antimicrobial Activity of Some New Complexes of 5-(2-hydroxybenzyliden)-2-thioethyl-1,3,4-thiadiazole. **J. of Basic Education, (2013).**
115. Synthesis and Study Some Transition Metals Complexes with (5-(2-hydroxy benzylidene)-2-Mercapto-1,3,4-thiadiazole) and Evaluation of their Biological Activities. **J. of Basic Education, (2013).**
116. Synthesis, Spectral, Thermal and Antibacterial Studies of Cd(II), Mn(II) and Fe(III) Complexes Containing Trithiocarbonate 1,3,4-thiadiazole. **Journal of King Saud University – Science, (2013).**

117. Synthesis, Spectral Studies, and Theoretical Treatment of New Ni(II), and Co(II) Complexes of Bidentate Ligands 2-Benzamido Benzothiazole, and 2-Actamido Benzothiazole Moiety. **The 1<sup>st</sup> National Conference of Chemistry, J. of Baghdad for Science, (2013).**
118. Synthesis and Theoretical Study of 4(2-methyl-4-oxoquinazoline-3(4H)-yl) Benzoic Acid with Some Transition Metal Ions. **The 1<sup>st</sup> National Conference of Chemistry, J. of Baghdad for Science, (2013).**
119. Spectroscopic, Characterization and Antimicrobial Activities of Some Heavy Metals Complexes of 2-hydroxy phenyl piperonalidene. **The 1<sup>st</sup> National Conference of Chemistry, J. of Baghdad for Science, (2013).**
120. Adsorption and Kinetic Study of Nickel (II) Aqueous Solution on Commercial and Activated Charcoal Derived from Leave Bitter Orange Tree. **(Accepted for the 11<sup>th</sup> International Conference on the Fundamentals of Adsorption (FOA 11) may 19-24, 2013, USA).**
121. Synthesis, Physical Characterization and Biological Evaluation of Schiff Base M(II) Complexes. **J. of the Association of Arab Universities for Basic and Applied Science, (2014).**
122. Mixed Ligand Complexes of quinolone-2-carboxylic acid and 4,4'-dimethyl-2,2'-bipyridyl with V(IV), Cr(III), Rh(III), Cd(II) and Pt(IV). **J. of Baghdad for Science. (2014)**
123. A Comparative Study of Microwave Assisted and Conventional Synthesis of Mixed Ligand Complexes with Cr(III), Co(II), Ni(II), Cu(II) and Cd(II). **J. of Baghdad for Science (2014).**
124. Cytotoxicity Assay of Nickel and Cobalt (II) Complexes of 5-(4-Nitro Phenyl)-4-Amino-3-Mercapto Propenyl-1,2,4-Triazole

on HepG2 Cell Line. **Second Conference of Pharmacologic College AL- Mustansirya University, Int J Pharm (2014).**

125. Synthesis ,Spectral Studies, and Theoretical Treatment of New Au(III),and Cu(II) Complexes of bidenatate Ligands 2-benzamido benzothiazole , and 2-actamido benzothiazole. **Al-Nahrain University J. for Science, (2014).**
126. Purification of Aqueous Solution from Ni(II) Ion using Commercial and Bitter Orange Leaves Activated Charcoal. **Al-Nahrain University J. for Science, (2014).**
127. Synthesis, Spectral Study and Theoretical Treatment of Some Transition Metal Complexes of 5-(4-Nitro Phenyl)-4-Amino-3-Mercapto Propenyl-1,2,4-Triazole Ligand. **Al-Nahrain University J. for Science, (2014).**
128. Synthesis of Mixed Ligand Complexes of M(II) Dithiocarbamate Derivative and 2,2'-bipyridyl and Study their Cytotoxic Effect Against HepG2 Cell Line *in vitro*. **J. of Baghdad for Science.(2015).**
129. Synthesis, Characterization and Theoretical Study of Some Mixed-ligand Complexes of 2-Quinoline Carboxylic Acid and 4,4'-Dimethyl,2,2'-Bipyridyl with Some Transition Metal Ions. **Al-Nahrain University J. for Science, (2015).**
130. Microwave Assisted Synthesis, Solution State Spectral Studies and Theoretical Treatment of Pd(II), Pt(IV), and Au(III) ions complexes containing 2-Benzamide Benzothiazole. **J. of Baghdad for Science,(2015)**
131. Synthesis, Characterization of Some Metal Complexes with Their Salfamethoxazole and 4,4'-Dimethyl,2,2'-Bipyridyl and Study Cytotoxic Effect on Hep-2 Cell Line. **J. of Baghdad for Science.(2015).**

132. Synthesis Mixed Ligands Complexes of Some Light Metals by Microwave Assisted Using 2-Acetamide Benzothiazole and 1,10-Phenanthroline. **International Journal of Pharmacy, (2015).**
133. Synthesis, Characterization, Biological Evaluation of Gold (III) and Cobalt (II) Complexes of 2-Amino Acetic Acid-6-Chlorobenzothiazole. **(Submitted to Publication in Third Conference of Karbla University).**
134. Spectral and Theoretical Studies of Some Metal Complexes of Benzothiazole Derivatives as Single and Mixed Ligand Synthesized by Microwave Radiation. **(Submitted to Publication in Third Conference of Karbla University).**
135. Synthesis, Spectroscopic Study, Theoretical Treatment and Antibacterial Activity of Some Transition Metal Ions with Potassium (Benzothiazole-2-dithiocarbamate hydrazide). **International Journal of Pharmacy, (2015).**
136. Synthesis, Structural Diagnosis, Theoretical Treatment and Antibacterial Study of Pd(II), Rh(III), Pt(IV) and Au(III) complexes containing 2(*p*-Nitro Benzoyl) ThioBenzimidazole. **International Journal of Science and Research, (2015).**
137. Study the Electronic transition Behavior of Divalent Transition Metal Cations Co(II), Ni(II) and Cu(II) in Aluminum Nitrate/Urea Room Temperature Ionic Liquid (1:1.2). **International Journal of Science and Research, (2015).**
138. Synthesis, Characterization of Some metal Complexes with Mixed Ligands Derived from Sulfamethoxazole and 4,4'-dimethyl-2,2'-bipyridyl. **International Journal of Science and Research, (2015).**

139. Synthesis and Properties of Some Metal Complexes azo-Compounds. **International Journal of Science and Research, (2015).**
140. Study of the cytotoxic effect of new transition metal complexes: Cobalt(II) and Cadmium(II) on cancer cell line (Hep2) comparison with two anticancer drugs. **International Organization of Scientific Research. (2015).**
141. Synthesis and bacterial evaluation of the V(IV),Cr(III), Fe(III) and Co(II) ions complexes with mixed ligands (2-hydroxy benzaldine)-4-amino antipyrine and 8-hydroxyquinoline.(Submitted to Publication in 2<sup>nd</sup> National Conference of Chemistry,College of Science for Woman/ University of Baghdad)(Submitted to Publication in Baghdad Journal for Science,College of Science for Woman/ University of Baghdad). (2016)
142. Synthesis mixed ligand complexes of some light metal ions using 2-benzoyl thiobenzimidazole and 1,10-phenanthroline and study their antibacterial activity.(Submitted to Publication in 2<sup>nd</sup> National Conference of Chemistry,College of Science for Woman/ University of Baghdad)J. of Baghdad for Science.in(2016).
143. Coordination of Some Heavy Transition Metals Complexes with 2-Amino Acetic Acid-6-Methoxy Benzothiazole Using Microwave and Thermal Methods.**International Journal of Pharmacy. (2016).**
144. Synthesis and Cytotoxic effect on RD Cell Line of Pd(II) and Cu(II). **Journal of Saudi Chemical Society, (2016).**
145. Spectral and Cytotoxic study of complexing mixed ligand formed by sodium [5-(p-nitro phenyl)-4-phenyl-1,2,4-triazole-3-



- dithiocarbamate hydrazide] and 1,10-phenanthroline with Fe(III) and Mn(II) ions. **International Journal of Pharmacy (2016).**
- 146.** Investigation of New Room Ionic Liquid of  $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$  with Urea  $\text{Co}(\text{NH}_2)_2$ . **J. of Baghdad for Science. (2016).**
- 147.** Synthesis and Bacterial Evaluation of The V(IV), Cr(III), Fe(III) and Co(II) Ions Complexes with Mixed Ligands (2-hydroxybenzaldehyde)-4-Aminoantipyrine and 8-Hydroxyquinoline. **[J. of Al-Nahrain University.](#) (2016).**
- 148.** Theoretical study of some mixed-ligand complexes of sodium [5-(p-nitro Phenyl)-4-phenyl-1, 2,4-triazole-3-dithiocarbamate hydrazide] and 1,10-phenanthroline with Fe(III) and Mn(II) ions. **International Journal of Humanities, Arts, Medicine and Sciences. (2016).**
- 149.** Synthesis, Structural Study and Computational Treatment of Some Heavy Metals Complexes with Mixed Ligand Using Microwave and Conventional methods. (Submitted to Publication in 3<sup>rd</sup> Women Conference of Sciences, College of Science for Woman/ University of Baghdad). **J. of Baghdad for Science. (2017).**
- 150.** Synthesis of Some Mixed Ligand Complexes of (2-hydroxybenzaldehyde)-4-amino Antipyrine and 1,10-phenanthroline and Studying their Antibacterial Activity 14(1). **J. of Baghdad for Science. (2017).**
- 151.** Assessment of Heavy Metals in Some Groundwater Wells at Baghdad City/ Iraq. 10(3) 62-70. **Journal of Global Pharma Technology (2018).**
- 152.** Physicochemical, Antibacterial Studies of Some New Transition Metal Complexes of Chelating Active Compound. **Journal of Global Pharma Technology 10(3) 71-77. (2018).**

**153.** Synthesis, physiochemical and thermal study of some transition metal complexes with chelating ligand and study their theoretical treatments. **Journal of Global Pharma Technology(2018).**

**154.** Synthesis, Physico-Chemical Characterization, and Cytotoxicity Assay of Mannich Base Derivatives with Heavy Metal Ions on RAW 264.7 Cell Line. **Journal of Global Pharma Technology(2017).**

**78-** Synthesis, Spectroscopic Characterization and in Vitro Cytotoxicity Assay of Morpholine Mannich Base Derivatives of Benzimidazole with Some Heavy Metals, **Journal of Al-Nahrain University** 21 (3), 50-60 **(2018).**

**79-**Synthesis, Characterization and Computational Studies of Mannich Base Ligands and Their Metal Complexes V<sub>o</sub>(II),Co(II),Ni(II) and Cu(II), **Research Journal of Pharmaceutical, Biological and Chemical Sciences**, 9(5),877-890 **(2018).**

**80-**synthesis, spectroscopic characterization, and biological evolution of some transition metal complexes from ligand C<sub>16</sub>H<sub>19</sub>N<sub>3</sub>O<sub>3</sub>S, **J.of Global Pharma Technology,11(7) (2019).**