Curriculum Vitae

Elsayed Ali Drweesh

Professor of Applied Inorganic Chemistry

Personal Informations

Name: Elsayed Ali Elatrees Solyman Drweesh.

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https://scholar.google.com.eg/citations?user=n_COwIgAAAAJ&hl=en

https://www.scopus.com/authid/detail.uri?authorId=55531003900

	Citations	h-index
Scopus	348	10
Google	433	10

Present Job: Professor Researcher of Applied Inorganic Chemistry, Inorganic Chemistry Department, Advanced Materials Technology and Mineral Resources Research Institute, National Research Centre, P.O. 12622, El Bohoth St., Dokki, Cairo, Egypt. http://www.nrc.sci.eg/nrc/index.php

Academic Qualifications

Doctor of Philosophy (Ph. D.): Inorganic Chemistry, Faculty of Science, Zagazig University, Egypt, **25/9/2011**, Title of Thesis: "Preparation and Characterization of some Transition Metal Complexes with New Benzimidazole Derivatives".

Master of Science (M. Sc.): Inorganic Chemistry, Faculty of Science, Al-Azhar University, Egypt, **16/1/2006**, Title of Thesis: "Studies on Ion Exchange Resins".

Bachelor of Science (B. Sc.): Special Chemistry, Faculty of Science, Al-Azhar University, Egypt, **May 2000**, General Grade (**very good**).

Employment Biography

[I] Professor Researcher of Applied Inorganic Chemistry, Inorganic Chemistry Department, Advanced Materials Technology and Mineral Resources Research Institute, National Research Centre, Ministry of Higher Education and Scientific Research, from 2/6/2025.

[II] Associate Professor Researcher of Applied Inorganic Chemistry, Inorganic Chemistry Department, Advanced Materials Technology and Mineral Resources Research Institute, National Research Centre, Ministry of Higher Education and Scientific Research, from 30/8/2017 to 1/6/2025.

[III] Doctor Researcher of Inorganic Chemistry, Inorganic Chemical Industries and Mineral Resources Division, National Research Centre, Ministry of Higher Education and Scientific Research, from 29/12/2011 to 29/8/2017.

[IV] Assistant Researcher of Inorganic Chemistry, Inorganic Chemical Industries and Mineral Resources Division, National Research Centre, Ministry of Higher Education and Scientific Research, from 7/6/ 2006 to 28/12/2011.

[V] Occupational Health and Safety Specialist, Ministry of Manpower, 10th of Ramadan Branch, from 2004 to 2006.

[VI] Chemist Lab, QA specialist, Internal auditor (Iso 9001), Citro Misr Company for Citric Acid production (Biotechnologically), 10^{th} of Ramadan, Egypt, from 3/2001 to 6/2006.

Research Interests:

-Nano chemistry and its related industrial and biological applications.

-Coordination Chemistry and its industrial and biological applications.

-Beneficiation of some low-cost inorganic materials.

-Separation of some metal ions in binary mixtures and the elution of these ions when adsorbed on ion exchange resins and on some nanocomposites.

-Determination of the concentrations of metal ions complexometry and spectrophotometry using graphite furnace atomic absorption.

-Water Pollution Assessment and Remediation.

Teaching activities:

-Theoretical courses to B. Sc., M.Sc. and Ph. D. students and guiding them practically for synthesis of different types of inorganic materials including multi steps synthesis and provide them with necessary information.

Scientific projects:

1- Nano-materials for agriculture development, 2023-2023, STDF No. 49247, (PI).

2- Production of high purity aluminum based-products from the upgraded Egyptian kaolin via intercalation technique, 13010602, NRC, 2022-2026, (PI).

3- Novel chemical processing for upgrading and beneficiation of Egyptian kaolin, 12010312, NRC, 2020-2021 (PI).

4- Green synthesis of pure and doped mixed quarterly transition metal nanoferrites for high performance supercapacitors, 12020223, NRC, 2020-2021, (Member).

5- Modification of Egyptian Kaolin ore for selective removal of hazardous materials from waste water, AR110903, NRC, 2019, (PI).

6- Preparation and characterization of inorganic nanosized materials for industrial applications, 10070102, NRC, 2016, (Member).

Specializations and Visiting Research:

-From 01/10/2018 to 7-6-2019: visiting assistant professor at Department of Inorganic Chemistry, Institute of Inorganic Chemistry, Technology and Materials, Slovak University of Technology. Grant from the National Scholarship Programme of the Slovak Republic (SAIA).

-From 01/10/2014 to 7-6-2015: visiting researcher: at Pavol Jozef Safarik University in Košice, Faculty of Science, Institute of Chemistry,

-From 01/02/2013 to 29/06/2013: visiting researcher: at Pavol Jozef Safarik University in Košice, Faculty of Science, Institute of Chemistry, project entitled "Square-planar Pd(II) complexes with biologically active ligands exhibiting anticancer activity".

-From 11/2011-12/2011 and from 15/9/2012 to 15/12/2012 visiting researcher: at Rennes University (France), French Institute for Culture and Cooperation grant.

-Visiting researcher: from 11/2011-12/2011 at Rennes University (France), Group "Catalysis and Organometallics" Prof. Pierre. H. Dixneuf and Prof. Christophe darcel, on project entitled *"development of new iron complexes for green catalytic reduction*", French Institute for Culture and Cooperation grant.

-Visiting Researcher: from 1/9/2009 to 28/2/2010 at Bielefeld University (Germany), Faculty of Inorganic Chemistry, Prof. Dr. Dr. h. c. Achim Müller's group, field of Polyoxometalates, project entitled *"Porous, structurally, well-defined anionic nanocapsules with varying charge and density: interactions with their environment and with each other"*.

External Scientific Service Activities

Editorial board of:
Wadi Alshatti University Journal of Pure and Applied Sciences
Reviewer of scientific manuscripts for:-
-Journal of Coordination Chemistry
-Journal of Environmental Chemical Engineering.
-Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry.
-Silicon.
-Journal of Molecular Structure.
-African Journal of Pure and Applied Chemistry.
-Desalination and Water Treatment
-Journal of Cluster Science

Conferences:

-Participation in XXVII. INTERNATIONAL CONFERENCE ON COORDINATION AND BIOINORGANIC CHEMISTRY held on 3 – 7 June, 2019 at Smolenice, Slovakia, (**oral presentation**) Synthesis, crystal structure and biological activity studies of Palladium (II) complexes with hydroxyquinoline derivatives in unusual ionic form, Elsayed A. Drweesh, Ivan Potočňák, Ivana D. Radojević, Ljiljana R. Čomić, Veronika Farkasová.

-Participation in THE ADVANCING COORDINATION, BIOINORGANIC AND APPLIED INORGANIC CHEMISTRY. THE 50th ANNIVERSARY OF ICCBIC held on 31 – June 5, 2015, at Smolenice, Slovakia, (**oral presentation**) Synthesis, crystal structure and biological activities of Pd(II) complexes with quinolin-8-ol derivatives as ligands and 8-hydroxyquinolinium cation, **Sayed A. Drweesh**, Ivan Potočňák, Ivana D. Radojević, Ljiljana R. Čomić, Vladislav Volarevic, Nebojsa Arsenijevic.

-Participation in THE ADVANCING COORDINATION, BIOINORGANIC AND APPLIED INORGANIC CHEMISTRY. THE 50th ANNIVERSARY OF ICCBIC held on 31 – June 5, 2015, at Smolenice, Slovakia,, (**Poster**), Preparation and biological properties of Pd(II) complexes with quinolin-8-ol halogenderivatives and K^+, Cs^+ or 5-chloro-7-iodo-quinolinium cations, Veronika Farkasová, **Sayed A. Drweesh**, Ivan Potočňák, Danica Sabolová, Ivana D. Radojević.

-June 15-17, 2015, Univerzita P. J. Šafárika, Hotel Centrum, Košice, Slovakia, Štruktúra a biologické vlastnosti komplexov s derivátmi 8-Hydroxychinolínu, Ivan Potočňák, Peter Vranec, **Sayed A. Drweesh**.

MY LIST OF PUBLICATIONS

1- **Elsayed A. Drweesh**, Eman A. M. Elzahany, Ahmed Tawfik, Adel I. M. Akarish, Khaled S. Abou-El-Sherbini, Optimizing direct acid leaching of Egyptian kaolin for aluminum extraction and value-added adsorbent production for water treatment applications, Applied Water Science, 2025, (11), 1-14.

2- Khaled S. Abou-El-Sherbini, Reham .M. M. Morsi, Eman A. M. Elzahany, Mohamed A. Nour, **Elsayed A. Drweesh**, Spectral and conductivity measurements insights on loading mechanisms of dmso/water-kaolin complexes, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 324, (2025) 124990.

3- Asmaa R. Hashim,Dina W. Bashir, Eman. Rashad, Mona K. Gala, Maha M. Rashad, Nasrallah M. Deraz, **Elsayed A. Drweesh**, S. M. El‑Gharbawy, Alleviative effect of betaine against copper oxide nanoparticles-induced epatotoxicity in adult male albino rats: Histopathological, biochemical, and molecular studies, Beni-Suef University Journal of Basic and Applied Sciences 13 (2024), 47 (1-20).

4- Drweesh, E.A., Elzahany, E.A.M., Awad, H.M. & Abou-El-Sherbini, K.S. (2024) Starch-stabilized selenium nanoparticles: Synthesis, purification, characterization, in vitro anticancer and apoptosis inducing evaluation. BioNanoScience, (Q3) (Impact factor 3.0).

5- Vijayakumar, N., Venkatraman, S.K., Imthiaz, S., **Drweesh, E.A.**, Elnagar, M.M., Koppala, S. & Swamiappan, S. (2023) Synthesis and characterization of calcium and magnesium based oxides and titanates for photocatalytic degradation of rhodamine b: A comparative study. Scientific Reports, (Impact factor 5.0) 13, 3615.

6- **E. Ali Drweesh,** M. Vilková, M.M. Elnagar, I. Potočňák, Low-dimensional compounds containing bioactive ligands. Part XVIII: Design, synthesis and crystal structural investigations of ionic heteroleptic Pd(II) complexes based on halo and nitro 8-hydroxyquinoline derivatives, Polyhedron, 219 (2022) 115800.

7- K.S. Abou-El-Sherbini, M.A. Wahba, **E.A. Drweesh**, A.I.M. Akarish, S.A. Shaban, E.A.M. Elzahany, Zirconia-intercalated kaolinite: Synthesis, characterization, and evaluation of metal-ion removal activity, Clays and Clay Minerals, 69 (2021) 463-476.

8- Z.S.O. Ahmed, M.K. Galal, **E.A. Drweesh**, K.S. Abou-El-Sherbini, E.A.M. Elzahany, M.M. Elnagar, N.A.E. Yasin, Protective effect of starch-stabilized selenium nanoparticles against melamine-induced hepato-renal toxicity in male albino rats, International Journal of Biological Macromolecules, 191 (2021) 792-802.

9- **E.A. Drweesh**, V. Kuchárová, V. Volarevic, D. Miloradovic, A. Ilic, I.D. Radojević, I.R. Raković, R. Smolková, M. Vilková, D. Sabolová, M.M. Elnagar, I. Potočňák, Low-dimensional compounds containing bioactive ligands. Part XVII: Synthesis, structural, spectral and biological properties of hybrid organic-inorganic complexes based on [PdCl4]2− with derivatives of 8-hydroxyquinolinium, Journal of Inorganic Biochemistry, 228 (2022) 111697.

10- M.S. Collin, S.K. Venkatraman, M. Sriramulu, S. Shanmugam, **E.A. Drweesh**, M.M. Elnagar, E.S. Mosa, S. Sasikumar, Solution combustion synthesis of functional diopside, akermanite, and merwinite bioceramics: Excellent biomineralization, mechanical strength, and antibacterial ability, Materials Today Communications, 27 (2021) 102365.

11- D.W. Bashir, M.M. Rashad, Y.H. Ahmed, **E.A. Drweesh**, E.A.M. Elzahany, K.S. Abou-El-Sherbini, E.M.M. El-Leithy, The ameliorative effect of nanoselenium on histopathological and

biochemical alterations induced by melamine toxicity on the brain of adult male albino rats, Neurotoxicology, 86 (2021) 37-51.

12- A. Lüköová, **E.A. Drweesh**, V. Volarevic, D. Miloradovic, B. Simovic Markovic, R. Smolková, E. Samoľová, J. Kuchár, M. Vilková, I. Potočňák, Low-dimensional compounds containing bioactive ligands. Part XIII: Square planar anti-cancer Pd(II) complexes with halogenderivatives of 8-quinolinol and dimethylamine, Polyhedron, 184 (2020) 114535.

13- I. Potočňák, **S. Ali Drweesh**, V. Farkasová, A. Lüköová, D. Sabolová, I.D. Radojević, A. Arsenijevic, D. Djordjevic, V. Volarevic, Low-dimensional compounds containing bioactive ligands. Part IX: Synthesis, structures, spectra, in vitro antimicrobial and anti-tumor activities and DNA binding of Pd(II) complexes with 7-bromo-quinolin-8-ol, Polyhedron, 135 (2017) 195-205.

14- V. Farkasová, **S.A. Drweesh**, A. Lüköová, D. Sabolová, I.D. Radojević, L.R. Čomić, S.M. Vasić, H. Paulíková, S. Fečko, T. Balašková, M. Vilková, J. Imrich, I. Potočňák, Low-dimensional compounds containing bioactive ligands. Part VIII: DNA interaction, antimicrobial and antitumor activities of ionic 5,7-dihalo-8-quinolinolato palladium(II) complexes with K^+ and Cs^+ cations, Journal of Inorganic Biochemistry, 167 (2017) 80-88.

15- K.S. Abou-El-Sherbini, E.A.M. Elzahany, M.A. Wahba, **S.A. Drweesh**, N.S. Youssef, Evaluation of some intercalation methods of dimethylsulphoxide onto HCl-treated and untreated Egyptian kaolinite, Applied Clay Science, 137 (2017) 33-42.

16- N.S. Youssef, E.A.M. El-Zahany, **S.A. Drweesh**, H.M. Awad, N.A. Hassan, M.M. Tarek, I. Potočňák, Synthesis, characterization, in vitro anticancer activity and docking studies of some transition metal complexes with 3-Amino-2-thioxo-1,2,3,5,6,7-hexahydro-4H-cyclopenta[4,5]thieno[2,3-d]pyrimidin-4-one, Ponte, 72 (2016) 263-288.

17- **S.A. Drweesh**, N.A. Fathy, M.A. Wahba, A.A. Hanna, A.I.M. Akarish, E.A.M. Elzahany, I.Y. El-Sherif, K.S. Abou-El-Sherbini, Equilibrium, kinetic and thermodynamic studies of Pb(II) adsorption from aqueous solutions on HCl-treated Egyptian kaolin, Journal of Environmental Chemical Engineering, 4 (2016) 1674-1684.

18- N.S. Youssef, **S.A. Drweesh**, E.A.M. El-Zahany, M.M. Ali, B.F. Abdel-Wahab, Synthesis and characterization of some metal complexes with a ligand derived from novel 1,2,3-triazole derivative and evaluation of their anticancer activities and the percent of uPA inhibition in vitro, Research and Reviews in Materials Science and Chemistry, 5 (2015) 1-27.

19- N.S. Youssef, E.A.M. El-Zahany, **S.A. Drweesh**, B.F. Abdel-Wahab, M.M. Ali, Synthesis, Characterization and Anticancer Activity of Some Transition Metal Complexes of New Schiff Base Triazole Derivatives, Smart Nanocomposites, 5 (2015).

20- E.A. El-Zahany, M.M. Ali, **S.A. Drweesh**, A.M.A. El-Seidy, B.F. Abdel-Wahab, N.S. Youssef, Synthesis, Characterization, and Antiproliferative Activity of Cu^{2+}, $V(IV)O^{2+}$, Co^{2+}, Mn^{2+}, and Ni^{2+} Complexes with 3-(2-(4-Methoxyphenylcarbamothioyl)Hydrazinyl)-3-OXO-N-(Thiazol-2-yl)Propanamide against Human Breast Adenocarcinoma Cells, Phosphorus, Sulfur, and Silicon and the Related Elements, 189 (2014) 762-777.

21- E.A.M. El-Zahany, A.M.A. El-Seidy, **S.A. Drweesh**, N.S. Youssef, B.F. Abdel-Wahab, A.A. El-Beih, Synthesis, characterization and biological activity of some transition metal complexes of Pyrrolidine derivatives Journal of Applied Sciences Research, 9 (2013) 2268-2278.

22- A.M.A. El-Seidy, E. El-Zahany, A.S. Barakat, N.S. Youssef, S.A. Galal, **S.A. Drweesh**, Synthesis, Characterization, and Cytotoxic Activity on MCF-7 Cell Line of Some Novel Metal Complexes With Substituted Benzimidazole Ligands, Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry, 43 (2012) 46-56.

23 N.S. Youssef, E.A. El-Zahany, A.M.A. El-Seidy, S.A. Galal, A.S. Barakat, **S.A. Drweesh**, Synthesis and Characterization of Some Novel Schiff Base Metal Complexes and the investigation of their Cytotoxic Activity on MCF-7 Cell Line Journal of Biotechnology Research, 12 (2012) 1-15.

24- A.M.A. El-Seidy, S.A. Galal, E.A. El-Zahany, K.H. Hegab, A.S. Barakat, **S.A. Drweesh**, Synthesis and Cytotoxic Activity on MCF-7 Cell Line of Some Transition Metal Complexes of Schiff Base Ligands Derived From 2-Aminomethylbenzimidazole and 4,6-Diacetylresorcinol Smart Nanocomposites, 2 (2012) 145-165.

Submitted Patents:

1. Khaled Salah Elsaid Ahmed Abou-El-Sherbini, Mohammed Ahmed Mohammad Wahba, Elsayed Ali Elatrees Solyman Drweesh and Eman Aly Mohammad Elzahany, Modification of Egyptian kaolin with highly selective properties for different new applications, submitted to the Egyptian Patent Office with the number **2019/623**.

2. Khaled Salah Elsaid Ahmed Abou-El-Sherbini, Elsayed Ali Elatrees Solyman Drweesh, Adel I. Akarish, Eman Aly Mohammad Elzahany and Ahmed Tawfik A. Omar Method for selective

removal of iron from kaolin ore in one pot, submitted to the Egyptian Patent Office with the number **EG/P/2022/1299**.

3. Khaled Salah Elsaid Ahmed Abou-El-Sherbini, NasrAllah Mohamed Mahmoud Deraz, Elsayed Ali Elatrees Solyman Drweesh, A rapid and scalable one-pot synthesis method of nano-nickel nitride composites, submitted recently to the Egyptian Patent Office.

Thanks for kind attention