Ass. Prof. in molecular and structural physical chemistry
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Born: September 16, 1977-Qalaat Suker, Thi-Qar, Iraq.
Nationality: Iraqi

Education

2018-Present: **Ass. Prof. Dr. in molecular and structural physical chemistry** at Department of Chemistry, College of Science, University of Thi-Qar.

2014-2018: **Ph.D Student in Chemistry** at Redox Inorganic Chemistry Laboratory, Department of molecular chemistry, Grenoble Alpes University, Grenoble, France (defense date 14th February 2018).

2004-2013: **Senior Lecturer in physical chemistry** at Chemistry Department, College of Science, University of Thi-Qar. **Ass. Prof. in physical chemistry** since 29/11/2012.

2003: **Master degree in Physical/Inorganic Chemistry** from Chemistry Department, College of Education for Pure Science, Basra University, Basra, Iraq.

1999: **Bachelor degree in Chemistry** from Chemistry Department, College of Education for Pure Science, Basra University, Basra, Iraq.

Research Activity

Molecular and structural physical chemistry (Molecular machines, Molecular switches, redox-responsive coordination polymers, electrochemistry….voltammetry, spectroelectrochemistry, photochemistry, viscosity, column and TLC chromatographies, transition metal complexes, DC conductivity, solution conductivity, NMR, ESR, Mass , UV-Visible and IR spectroscopies, elemental analysis, Kinetics, thermodynamics, organic and inorganic syntheses).

2018-Present: Design new molecular machines based on multi-responsive coordination polymers incorporating viologen units and beta-diketone derivatives.

2014-2018: Ph.D at Redox Inorganic Chemistry Laboratory, Department of molecular chemistry, Grenoble Alpes University, Grenoble, France (Electron-responsive molecular materials and organized assemblies based on elementary pi-dimer bricks).

- Ability to generate Intramolecular π-dimers for cyclophanes containing two viologen units.
- Redox-activated inclusion complexes.
- Redox-responsive coordination polymers based on π-dimers of viologen radicals.

Supervisors: Prof. Eric Saint-Aman and Prof. Guy Royal
Eric.saint-aman@univ-grenoble-alpes.fr and guy.royal@univ-grenoble-alpes.fr

2004-2014: Research at Chemistry Department, College of Science, University of Thi-Qar, Nasiriya, Iraq (Preparation and spectroscopic, thermal and electrical studies of some copper, nickel and cobalt complexes by using tetradentate chelates).

2000-2002: Master degree research at Chemistry Department, College of Education for Pure Science, University of Basra, Basrah, Iraq (Preparation and spectroscopic, thermal and electrical studies of some copper, nickel and cobalt complexes by using tetradentate chelates).

Supervisors: Prof. Nazar A. Hussein and Prof. Bahjat A. Saeed
naz_hus140@yahoo.com and bahjat.saeed@yahoo.com

Teaching Experience

2004-2006: Teaching at Chemistry Department, College of Science, University of Thi-Qar for:

- Second year-class in theoretical and practical physical chemistry.
- Third year-class in theoretical and practical physical chemistry.
- Fourth-year class in quantum chemistry.

2004-2005: Teaching at Chemistry Department, College of Science, University of Thi-Qar for:

- Fourth year-class in practical organic characterization.

2006: Teaching at Chemistry Department, College of Science, University of Thi-Qar for:

- Third year-class in radiation and nuclear chemistry.

2007-2013: Teaching at Chemistry Department, College of Science, University of Thi-Qar for:

- Second year-class in practical physical chemistry.
- Third year-class in practical physical chemistry.

2018-Present: Teaching at Chemistry Department, College of Science, University of Thi-Qar for:

- Second year-class in practical physical chemistry.
- Third year-class in theoretical and practical physical chemistry.
- Fourth-year class in quantum chemistry.
- Higher studies (Master) in quantum chemistry.
- Higher studies (Master) in molecular electrochemistry.
- Supervision on four master and two doctoral students.

Languages

Arabic (native), English (good), French (primary)

Publications

Novel Redox-Triggered Molecular Switches of Bis (acetylacetone) ethylenediimine-functionalized Viologen
Hussein Oudah Jghebil and Wathiq Sattar Abdul-Hassan
It has been accepted for publishing as a full-length paper in the forthcoming issue of Indian Journal of Heterocyclic Chemistry-Vol.31 # 01 (March 2021).

Redox-Responsive Colloidal Particles based on metallopolymers incorporating Viologen Units
Jérémie Courtois, Bin Wang, Wathiq Sattar Abdul-Hassan, László Almásy, Minhao Yan and Guy Royal
Inorganic Chemistry **2020**, 59 (6), 3856-3873.

Synthesis of the (4, 4′-bipyridine)(5, 10, 15, 20-tetratolylphenylporphyrinato) zinc (II) bis (4, 4-bipyridine) disolvate dehydrate and evaluation of its interaction with organic dyes
Raoudha Soury, Mahjoub Jabli, Tawfik A Saleh, Wathiq Sattar Abdul-Hassan, Frédérique Loiseau, Christian Philouze, Anna Bujacz, Habib Nasri
Journal of Molecular Liquids **2018**, 264, 134-142.

Redox-Triggered Folding of Self-Assembled Coordination Polymers incorporating Viologen Units.
Wathiq Sattar Abdul-Hassan, Denis Roux, Christophe Bucher, Saioa Cobo, Florian Molton, Eric Saint-Aman, Guy Royal
Chemistry–A European Journal **2018**, 24 (49), 12961-12969.

Tetrakis (ethyl-4 (4-butyryl) oxyphenyl) porphyrinato zinc complexes with 4, 4′-bpyridin: synthesis, characterization, and its catalytic degradation of Calmagite.
Raoudha Soury, Mahjoub Jabli, Tawfik A Saleh, Wathiq Sattar Abdul-Hassan, Eric Saint-Aman, Frédérique Loiseau, Christian Philouze, Habib Nasri
RSC advances **2018**, 8 (36), 20143-20156.

Electron-responsive molecular materials and organized assemblies based on Pi-radicals as building blocks.
Wathiq Sattar Abdul-Hassan
Thesis 2018, Université Grenoble Alpes.

Molécules et Matériaux Moléculaires Rédox- et Photo-Stimulables
Wathiq Sattar ABDUL-HASSAN, Éric SAINTAMAN, Guy ROYAL, Christophe KAHLFUSS
L'ACTUALITÉ CHIMIQUE **2018**, N° 430-431 79-84.

Redox responsive coordination polymers based on the viologen units
Guy ROYAL Wathiq Sattar ABDUL-HASSAN, Denis ROUX, Saioa COBO, Eric SAINT-AMAN, Christophe BUCHER, Florian MOLTON
ISMEC 2017 International Symposium on Metal Complexes 7, Symposium Edition: XXVIII, page 55.

Molecular Structures and Spectral Properties of some Substituted (pyrazol-1-yl)phenylmethanone Derivatives and their Palladium Complexes Derived from Quantum Calculations
WS Abdul-Hassan
Journal of College of Education for Pure Science **2013**, 3 (1), 130-158.

Ab initio calculations and structure of three acyclic bis (acetyl acetone) imine derivatives
Wathiq Sattar Abdul-Hassan, Huda Majid Hasan, Athraa Hameed Mekky
JOURNAL OF THI-QAR SCIENCE **2012**, 3 (3), 149-157.

Synthesis and characterization of 4'-nitro-4-(-2-hydroxy-3-methoxy benzillidene-1-naphthylamino) azobenzene and its complexes with Cu (II), Ni (II) and Co (II) metal ions
Saher A Ali, Sajed H Gzar, Wathiq S Abdul-Hassan
JOURNAL OF THI-QAR SCIENCE **2012**, 3 (3), 117-128.

Study the anticancer activity of plant phenolic compounds
Haider R. Maleh Ali I. Obied, Raad M. Hanaon, Nahi Y. Yaseen, Wathq S. Abdul-Hassan
Iraqi Journal of Cancer and Medical Genetics **2011**, 4 (2), 66-71.

Preliminary Biochemical study of Aqueous, Ethanolic and Alkaloids Extracts of Xanthium spinosum L.
Wathiq Sattar Abdul-Hassan
Journal of Thi-Qar Science **2009**, 1 (3), 46-63.

Preliminary Biochemical Study of Hot Aqueous and Ethanolic Extracts of Phoenix Dactylifera
Wathiq Sattar Abdul-Hassan
University of Thi-Qar **2008**, 3 (4), 31-44.

Isolation and Identification of two active components from Calendula officinalis L. and Apium graveolens L. and tested their activity against some of human pathogenic fungi.

Wathiq Sattar Abdul-Hassan and Najaw Mohammed Jameel Ali Abu-Mejdad Abdul-Ridha Akbar Alwan Al-Meyah, Abdullah Hmoud Al-Saadoon

Basrah Journal of Science **2006**, 24 (1), 70-87