Curriculum Vitae

Dr: Mohammed Musabah Mohammed Al-Hinaai
Sultanat of Oman, Suhar
Contact: 0096899376331
Email: mohammed.alhinaai@gmail.com

Educational Background

- Ph.D. in Chemistry, Sultan Qaboos University, 2015.
- MSc. in Chemistry, Sultan Qaboos University, GPA 3.23, 2007.
- Bridging year (Chemistry, Sultan Qaboos University;2004-2005).
- Bachelor of Education (Major: Chemistry; Minor: Physics), Sultan Qaboos University, 1997.
- Secondary School Certificate, Science Division, Suhar secondary School, Suhar, Oman 1993.

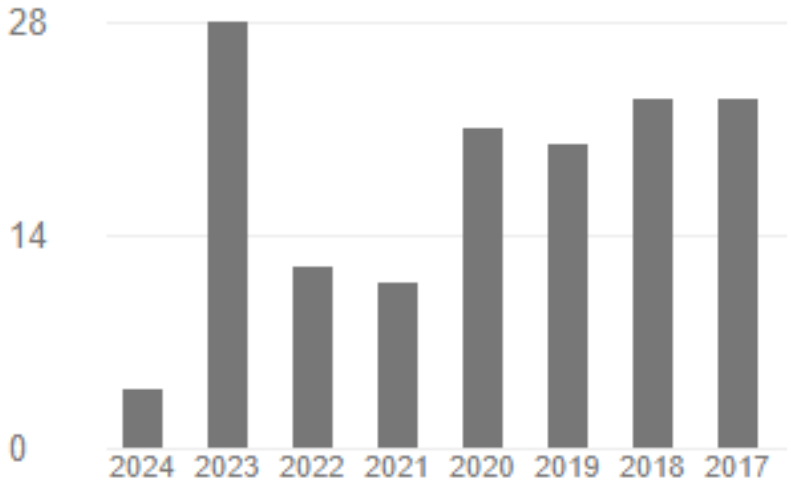
Title of Ph.D. Dissertation: Development of solid-state electrochemiluminescence sensors based on immobilization of tris(2-2'-bipyridyl)Ruthenium(II) onto conducting polymers for pharmaceutical application
Supervisors: Dr. Emad Khudaish (***Sultan Qaboos University***, Oman)

Title of Master's Thesis: Flow injection chemiluminescence determination of some drugs in pharmaceutical preparations using tris(2,2′-bipyridyl)ruthenium(II)-peroxydisulfate system.
Supervisor: Professor Fakhr Eldin O. Suliman (***Sultan Qaboos University***, Oman)

Highlight of Research Profile:

1- Google Scholar:
(**https://scholar.google.com/citations?view_op=list_works&hl=ar&user=I8_J2ZkoAAAAJ**)

Citation Indices	Total
Citations	**208**
h-index	**8**
i10-index	**7**



2- Research gate:
(https://www.researchgate.net/profile/Mohammed_Alhinaai/scores)

RG Score	86.4
Citations	169
h-index	8

3- Research Grants:

As The Principal Investigator (PI): The Research Council (TRC), Sultanate of Oman ,the research grant numbers (RC/SCI/CHEM/11/01).

Curriculum Vitae

Career History

- Assistant professor in chemistry, Ashargyiah university, Ibra, Sultanate of Oman. (Sep. 2020-).
- Visitor lecturer at Oman College of Health Sciences, North AlBatinah (2016-2019) Ministry of Health, Sultanate of Oman
- Chemistry supervisor and trainer (2002-2017) Ministry of Education, Sultanate of Oman
- Worked as a senior teacher of Chemistry in a high school, (2000 – 2002)
- Ministry of Education, Sultanate of Oman
- Worked as a science teacher in intermediate schools for 3 years, (1997-2000).

Brief Synopsis of Research:

- In the present work, novel, efficient and stable solid-state electrochemiluminescence (ECL) sensor were developed base on immobilization of tris(2,2'bipyridine) Ruthenium(II) ($Ru(bpy)_3^{2+}$) onto electropolymerized conducting polymers.
- The selected conducting polymers were electropolymerized onto GCE and used as main base materials for immobilized $Ru(bpy)_3^{2+}$.
- Several approaches were investigated in order to increase the amount of $Ru(bpy)_3^{2+}$ at the outer surface of modified electrode.
- The constructed surfaces were characterized by XPS, AFM, EIS and CV.
- The produced sensors were used for analysis of number of tertiary amines and TPA as model compound

Teaching and training Skills:

- Conduct training sessions and workshops for teachers.
- The Ability to Measure and Assess Staff Training Needs.
- Design papers and scientific presentations along with course materials for students and teachers.
- Supervise teachers work for government and private corporations.
- Supervise teachers in designing and preparation of laboratory work.
- Evaluate teachers in the classrooms and submit reports concerning their performance.
- Member of Americans Association of Science Teachers since 2009.
- Participate in teaching some introductory courses during my PhD study such as CHEM2101, CHEM2201 and CHEM3304.
- Teaching at Oman College of Health Sciences, North Batinah (2016-2018) Ministry of Health, Sultanate of Oman/ (Biochem, Nur102) Fall2016-2018
- Involved in supervising 5 students towards their final year projects (CHEM5000).
- Involved in teaching physical chemistry laboratory (CHEM3335) as a demonstrator.
- Have lead several seminars for undergraduates in the chemistry department.

Other Skills:

- Design and perform experiments.
- Excellent databases used and involved in research work.
- High safety skills.
- Collect data and analyze it.
- Make required change in project plane according to the obtained results.
- Write short or full reports and manuscripts**.**
- Develop new analytical methods based on surface materials synthesis
- Fabrication of active and robust sensors for pharmaceutical applications.
- Experts in electrochemiluminescence (ECL) technique in terms operation and controlling various experimental conditions for smooth performance.
- Interested in research of drug delivery mechanisms and renewable energy.
- Develop new teaching protocols and concepts.
- Participate actively in the social-media concerning the development of education in Oman.
- I have a great interest in the construction of chemical and biochemical ECL solid-state sensors and looking forward to developing renewable energy, catalysis surface and capacitors.

Publications/Conference Papers

- Mohammed Alhinaai - Google الباحث العلمي من All published articles.
- **M. M. Al-Hinaai**, JA Rather, EA Khudaish, Electrochemiluminescence Quantification of Amine Functionalized Drugs at Ru (bpy) 32+/poly (4-amino-diphenylamine) Sensor Incorporated with AuNPs: Potential Analysis of Ephedrine, Journal of The Electrochemical Society (2018) 165 (11), H681-H687

- EA Khudaish, F Al-Nofli, JA Rather, **M. M. Al-Hinaai**, K Laxman,and HH Kyaw, Sensitive and selective dopamine sensor based on novel conjugated polymer decorated with gold nanoparticles,Journal of Electroanalytical Chemistry(2016) 761, 80-88

- E. A. Khudaish**, M. M. Al-Hinaai** and S. H. Al-Harthi, A solid-state sensor based on tris(2,2-bipyridyl)ruthenium(II)/poly(4-aminodiphenylamine) modified electrode: Characterization and applications, **Sensors and Actuators, B:** (2013),185, 478-487 (**IF=3.84**)
- E. A. Khudaish, **M. M. Al-Hinaai**, S. H. Al-Harthi and K.Laxman, Electrochemical

  oxidation of chlorpheniramine at polytyramine film doped with ruthenium (II) complex: Measurement, kinetic and thermodynamic studies, **Electrochimica Acta** 135 (2014) 319–326 (**IF = 4.08**)

- **Alhinaai, Mohammed M**., and Emad A. Khudaish, Electrochemiluminescence sensor based on tris(2,2‘-bipyridyl)ruthenium(II)/poly(AHNSA) for chlorpheniramine maleate analysis, **LUMINESCENCE** (2014), 29, 111. (**IF = 1.67**)
- **M. M. Al-Hinaai** , E. A. Khudaish, S. H. Al-Harthi, Fabrication and Surface

Characterization of Poly(4-aminodiphenylamine) Film Modified Electrode and its Application for Lead and Cadmium Determination, **SQUJS** (2014), 19(1), 43-53.

- **M.M. Al-Hinaai**, E.A. Khudaish, S.H. Al-Harthi and F.O. Suliman, A solid-state electrochemiluminescence sensor based on $Ru(bpy)_3^{2+}$/PAHNSA composite modified electrode: Characterization and applications, **Electrochimica Acta** 176 (2015) 179–187 (**IF = 4.08**)
- F.E. Suliman, **M.M. Al-Hinai**, S.M. Al-Kindy and S.B. Salama, chemiluminescence determination of chlorpheniramine using tris(1'10-phenanthroline)- ruthenium(II) perpxydisulphate system and sequential injection analysis., **Luminescence** (2009), 24, 2-9.
- F. E. O. Suliman, **M. M. Al-Hinai**, S. M. Z. Al-Kindy and S. B. Salama, Enhancement of the chemiluminescence of penicillamine and ephedrine after derivatization with aldehydes using tris(bipyridyl)ruthenium(II) peroxydisulfate system and its analytical application, **Talanta** (2008), 74, 1256-1264.

(A) Conferences/Presentations

(1) The 18th International Symposium on Bioluminescence and Chemiluminescence, ISBC 2014, June 23-28, 2014, Uppsala, Sweden
   - Oral: "Electrochemiluminescence sensor based on $Ru(bpy)_3^{2+}$/P(AHNSA) for Chlorpheniramine maleate analysis**.**

(2) Pure and Applied Chemistry International Conference, January 8-10, 2014, Khon Kaen, Thailand
   - Poster: "Solid-State Sensor based on Tris(2,2'bipyridyl)ruthenium(II)/ polytyramine Modified Electrode: Characterization and application for chlorpheniramine maleate electroanalysis"

(3) Chemicals & Materials for Emergent Technologies (CheMET), November 15-17, Doha, Qatar, e-conference (poster secession)

(B) References

(1) Dr. Emad Khudaish (PhD Supervisor)
Associate Professor
Department of Chemistry
Sultan Qaboos University
Email: ejoudi@squ.edu.om

(2) Professor Fakhr Eldin Suliman
Professor
Department of Chemistry
Sultan Qaboos University
Email: suliman@squ.edu.om