

CURRICULUM VITA

1. **Name:** Khalid Mahmoud Hassan Abdel-Rahim
2. **Date of Birth:** 11 / 8 / 1973
3. **Place of Birth:** Kuwait
4. **Marital Status:** Married, three children
5. **Languages:** Arabic, English and French.
6. **Actual Position and Permanent Address:** Associate Professor of Physical Chemistry - Physics and Mathematics Engineering Department - Faculty of Electronic Engineering - Menoufia University - Egypt.

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7. Academic Qualifications

- a) **Associate Professor** of Physical Chemistry (May 2018).
- b) **Post doctor, Universite Joseph Fourier** - Departement de Chimie Moleculaire (DCM), Grenoble, France, in a collaboration with Prof. Sylvie CHARDON, under the title "Study of New Molecular Catalyst for CO₂ Electroreduction" (February - August 2014).
- c) **Ph.D.** in Inorganic Chemistry by the **Scientific Channel** between **Universite de Joseph Fourier de Grenoble, France** and Menoufia University - Egypt in collaboration with Prof. Alain DERNOZIER entitled "Study of Electrochemical Properties and Characterization of Some Conducting Materials" (2010).
- d) **M.Sc.** in Inorganic Chemistry - Menoufia University - Faculty of Science - Chemistry Department entitled "Physicochemical Studies of Electrochemically Modified Electrodes" (2002).
- e) **Bachelor of Science** in Chemistry with "Excellent" grade with honor degree - Menoufia University - Faculty of Science - Chemistry Department (1995).

8. Professional Experiences

- a) Travelling to Germany (three times) – Institute of Physical and Theoretical Chemistry, Bonn University, D-53117 Bonn, Germany joining scientific project during July - August for the years 2016 - 2017 – 2018.
- b) Associate Professor of Physical Chemistry - Physics and Mathematics Engineering Department - Faculty of Electronic Engineering -Menoufia University - Egypt (From May 2018 until now).
- c) Joined again permanent position of Lecturer of Chemistry - Faculty of Electronic Engineering - Menoufia University – Egypt (August 2014).
- d) Post Doctor, Universite Joseph Fourier - Departement de Chimie Moleculaire (DCM), Grenoble - France (February - August 2014).
- e) Lecturer of Chemistry - Faculty of Electronic Engineering - Menoufia University - Egypt (From December 2010).
- f) Member of the Ph.D. Scientific Channel between Menoufia University - Egypt and Universite de Joseph Fourier de Grenoble, France (From March 2008 till October 2009).
- g) Lecturer assistant - Faculty of Electronic Engineering - Menoufia University – Egypt (From August 2002 till March 2008).
- h) Demonstrator - Faculty of Electronic Engineering - Menoufia University – Egypt (From July 1998 till August 2002).
- i) Researcher assistant - Desert Research Center - Cairo – Egypt (From April 1996 till June 1998).

9. Main Research Interests

- a) Electrochemistry
- b) Electropolymerization
- c) Modified Electrodes and Conducting Polymers
- d) Sensors
- e) Fuel Cell

10. Conferences

- a) Journée de printemps - Chambéry - France (June 2014)
Réduction électrochimique du CO₂ sur électrodes à diffusion de gaz modifiées par des catalyseurs moléculaires
 Ziad Bitar (PhD student), Sylvie Chardon, Alain Deronzier, Florian Molton (AI CNRS), **Dr. Khalid M. Hassan** (post-doc).
- b) Globalization of Science: Recent Trends in Chemistry - October 2014 – Ismailia - Egypt.
- c) Kuwait International Nanotechnology Conference and Exhibition, Feb 2016
 Participated by:
- **Present an Oral talk entitled:**
Electrocatalytic oxidation of ascorbic acid, uric acid and glucose at nickel nanoparticles/poly (1-amino-2-methyl-9,10- anthraquinone) modified electrode in basic medium
 - **Co-chair man for the third conference's day.**
 - **BEST POSTER AWARDED:**
Simultaneous determination of ascorbic acid, uric acid and glucose using glassy carbon electrode modified by nickel nanoparticles at poly 1, 8-diaminonaphthalene in basic medium

11. Projects

- a) Member of the project entitled “Electrosynthesis, Study and Molecular Device Applications”, in collaboration with Prof. Alain Deronzier, Grenoble, **France** financed by Egypt-France Scientific and Technological Cooperation Program “**IMHOTEP**” (2008).
- b) Member of the project entitled “**Electrochemical and Differential Electrochemical Mass Spectrometry Studies of Novel Biofuel Cell Based on Nano-Metal Dispersed in Conducting polymers**” (Project No. 30260067) financially supported from **Alexander von Humboldt, Germany**, in the period from 2016 until 2018.
- c) Member of the extension of the project entitled “**Electrochemical and Differential Electrochemical Mass Spectrometry Studies of Novel Biofuel Cell Based on Nano-Metal Dispersed in Conducting polymers**” (Project No. 30260067) financially supported from **Alexander von Humboldt, Germany**, in the period from 2018 until 2020.

12. Supervisions

1) M.Sc. Project Supervision: seven thesis (four awarded)

- a) Ghada Mahmoud Elhaddad (2011 – 2015) (**Awarded**)
"Preparation of Poly(1,8-diaminonaphthalene) Film Electrode Loaded with Dispersed Metal Particles as Effective Electrocatalyst and Sensor"
- b) Waganat Fakhr El-Den Ashour (2011 – 2015) (**Awarded**)
"Electrocatalytic Behavior of Some Modified Electrodes and Their Applications as Sensors for Some Biological Compounds"
- c) Mohammed Fathy Abo Qura (2016-2018) (**Awarded**)
" Simultaneous Electrochemical Detection for Some Phenolic Compounds Environmentally Pollutants at Modified Glassy Carbon Electrode "
- d) Mahmoud Fatehy Eltahan (2017 – 2018) (**Awarded**)
" Heavy Metals Sensor Based on Modified Electrode"
- e) Reham Maher Abdelhamid (2016-2018) (**Awarded**)
" Performance of Some Nanoparticles Loaded at Poly "1,8-diaminonaphthalene" as an Effective Modified Electrode for Fuel Cells"
- f) Asmaa Galal Ali (2016-2019) (**Awarded**)
" Metals Nano Particles Loaded on Poly 1,2-Diaminoanthraquinon Film for Electrocatalytic Oxidation of Small Organic Molecules"
- g) Asmaa Basiouny Mohammed Sallam (2018)
"Synthesis, Biological Evaluation and Electrochemical Studies of Some Acridine Derivatives"
- h) Sameha Hassan Mohammed Sabry Shokair (2018)
"Electrochemical Studies of Some New Biologically Active Heterocyclic Compounds"

2) Ph.D. Project Supervision: one thesis**a) Ghada Mahmoud Elhaddad (2016) (Awarded)**

" Electrochemical Sensors Based on Modified Electrodes for Environmental Applications"

13. Teaching Experience

- a) Fundamentals of Physical chemistry, Chemistry I & II - Applied Sciences Department, Higher College of Technology, University of Technology and Applied Sciences – Oman , 2019 – 2020 / 2020-2021.
- b) Engineering Chemistry - Faculty of Electronic Engineering - Menoufia University - Egypt - Since 2011/2012 till now.
- c) Biochemistry Chemistry - Organic Chemistry - Medical Engineering Department - Faculty of Electronic Engineering - Menoufia University - Egypt since 2016/2017 till now.
- d) Environmental Engineering - Faculty of Electronic Engineering - Menoufia University - Egypt since 2014/2015 till now.
- e) General Chemistry and Engineering Chemistry - High Institute of Engineering & Textile Technology - Ministry of Higher Education - Egypt since 2014/2015 till now.
- f) Fibers' Chemistry - High Institute of Engineering & Textile Technology - Ministry of Higher Education - Egypt since 2014/2015 till now.
- g) General Chemistry - Inorganic Chemistry - Physical Chemistry - Organic Chemistry - Faculty of Education - Sadat City University - Egypt since 2016/2017 till now.

14. Academic Skills

- a) Participation in Cultural Relations Committee - Faculty of Electronic Engineering – Menoufia University (2010/2011 - 2011/2012).
- b) Participation in the Committee of Student Affairs - Faculty of Electronic Engineering – Menoufia University (2012/2013 - 2013/2014 - 2014/2015 - 2015/2016).
- c) Chairman of a committee overseeing the elections and the counting of the Student Union - Faculty of Electronic Engineering – Menoufia University (2012/2013 - 2015/2016 – 2017/2018).
- d) Student Leadership - Faculty of Electronic Engineering – Menoufia University since 2010 till now.

- e) Member of the Commission of Inquiry with the students - Faculty of Electronic Engineering – Menoufia University (2012/2013 - 2013/2014 - 2014/2015 - 2015/2016).
- f) Member of Committees purchases and tenders for many of the tenders - Faculty of Electronic Engineering – Menoufia University.
- g) Permanent member of the controls committees for students - Faculty of Electronic Engineering – Menoufia University since 2002 till now.

15. Publications

- 1- **"Anodic polymerization of 1-amino-2-methyl-9,10-anthraquinone in mixed solvent"**
M.M. Ramiz, **K.M. Hassan**, E.A. Khudaish, A. Deronzier, S. Chardon-Noblat, M. Abdel Azzem, Journal of Electroanalytical Chemistry, 647 (2010) 35 - 42.
- 2- **"Simultaneous determination of ascorbic acid, uric acid and glucose using glassy carbon electrode modified by nickel nano particles at poly 1, 8-diaminonaphthalene in basic medium"**
K.M. Hassan (corresponding author), G.M. Elhaddad, M. Abdel Azzem, Journal of Electroanalytical Chemistry, 728 (2014) 123–129.
- 3- **"Electrochemical and analytical applications for NADH detection at glassy carbon electrode modified with nickel nanoparticles dispersed on poly 1,5-diaminonaphthalene"**
K. M. Hassan (corresponding author), A. A. Hathoot, W. F-D. Ashour and M. Abdel-Azzem, Journal of Solid State Electrochemistry, 19 (2015) 1063-1072.
- 4- **"Electrocatalytic oxidation of ascorbic acid, uric acid and glucose at nickel nanoparticles/poly (1-amino-2-methyl-9,10- anthraquinone) modified electrode in basic medium"**
K.M. Hassan (corresponding author) and M. Abdel Azzem, Journal of Applied Electrochemistry, 45 (2015) 567-575.
- 5- **"Simultaneous determination of ascorbic acid, uric acid and dopamine at modified electrode based on hybrid nickel hexacyanoferrate/poly(1,5-diaminonaphthalene"**

- A. A. Hathoot, **K. M. Hassan (corresponding author)**, W. A. Essa and M. Abdel- Azzem, Journal of the Iranian Chemical Society, 14 (2017) 1789-1799.
- 6- " **Aspartic acid grafting on cellulose and chitosan for enhanced Nd(III) sorption**"
Ahmed A. Galhoum, **Khalid M. Hassan**, Osman A. Desouky, Ahmed M. Masoud, Takaya Akashi, Yuka Sakai and Eric Guibal, Journal of Reactive and Functional Polymers, 113 (2017) 13-22.
- 7- " **Electrochemical sensing and simultaneous determination of ascorbic acid, dopamine and uric acid at nickel nanoparticles/poly (1,2-diaminoanthraquinone) modified electrode**"
K.M. Hassan (corresponding author), Journal of the Iranian Chemical Society, 15 (5) (2018) 1007–1014.
- 8- " **Simultaneous and selective electrochemical determination of hydroquinone, catechol and resorcinol at poly (1,5-diaminonaphthalene) / glassy carbon modified electrode in different media**"
K.M. Hassan (corresponding author), A.A. Hathoot, M.F. Abo oura and M. Abdel Azzem, RSC Advances, 8 (2018) 6346-9355.
- 9- " **Novel sensor based on poly (1, 2-diaminoanthraquinone) for individual and simultaneous anodic stripping voltammetry of Cd²⁺, Pb²⁺, Cu²⁺ and Hg²⁺**"
Khalid Mahmoud Hassan (corresponding author), Seleem Elsaid Gaber, Mahmoud Fathy Altahan, and Magdi Abdel Azzem, Journal of electroanalysis, 30 (6) (2018) 1155-1162.
- 10- " **Electro-catalytic oxidation of ethanol at Pd, Pt, Pd/Pt and Pt/Pd nano particles supported on poly 1,8-diaminonaphthalene film in alkaline medium**"
K. M. Hassan (corresponding author), A. A. Hathoot, R. Maher, and M. Abdel Azzem, RSC Advances, 8 (2018) 15417-15426.
- 11- " **Poly 1,5 diaminonaphthalene supported Pt, Pd, Pt/Pd and Pd/Pt nanoparticles for direct formic acid oxidation**"
A. S. Shatla, **K. M. Hassan**, A. A. Abd-El-Latif, A.A. Hathoot, H. Baltruschat and M. Abdel-Azzem, Journal of Electroanalytical Chemistry, 833, (2019) 231-241.

- 12- **“Mono and dual hetero-structured M@ poly-1,2 diaminoanthraquinone (M = Pt, Pd and Pt-Pd) catalysts for the electrooxidation of small organic molecules in alkaline medium”**

Abla Ahmed Hathoot, Khalid Mahmoud Hassan (corresponding author), Asmaa Galal Ali, Ahmed Said Shatla, Helmut Baltruschat and Magdi Abdel Azzem, RSC Advances, 9 (2019) 1849–1858.

- 13- **“Voltammetric determination of cadmium (II), lead (II) and copper (II) with a glassy carbon electrode modified with silver nanoparticles deposited on poly(1,8-diaminonaphthalene)”**

K.M. Hassan (corresponding author), G.M. Elhaddad, M. Abdel Azzem. Microchimica Acta, 186 (2019) 440-449.

- 14- **“Single and simultaneous voltammetric sensing of lead(II), cadmium(II) and zinc(II) using a bimetallic Hg-Bi supported on poly(1,2-diaminoanthraquinone)/glassy carbon modified electrode”**

Khalid Mahmoud Hassan (corresponding author), Seleem Elsaid Gaber, Mahmoud Fathy Altahan, and Magdi Abdel Azzem. Sensing and Bio-Sensing Research, 29 (2020) 100369

- 15- **“Individual and Simultaneous Voltammetric Determination of Ultra-Trace Environmental Contaminant Dihydroxybenzene Isomers Based on a Composite Electrode Sandwich-like Structure”**

Ziad Khalifa, Khalid Mahmoud Hassan, Mohamed Fathi Abo Oura, Abla Hathoot, and Magdi Abdel Azzem. ACS Omega, 5 (2020), 18950 – 18957.

- 16- **“The role of electrolytically deposited palladium and platinum metal nanoparticles dispersed onto poly(1,8-diaminonaphthalene) for enhanced glucose electrooxidation in biofuel cells”**

K.M. Hassan (corresponding author), G.M. Elhaddad, M. Abdel Azzem, Electrochimica Acta, 355 (2020), 136781

- 17- **“Comparative studies of ethylene glycol electrooxidation by Pt and Pd nanoparticles supported on different conducting polymers – A DEMS study”**

Khalid Mahmoud Hassan (corresponding author), Ahmed Said Shatla, Abdel-Aziz. Abd-El-Latif, H. Helmut Baltruschat and Magdi Abdel Azzem, Journal of Electroanalytical Chemistry 878 (2020) 114624.

18- “Synthesis, Printing Applications and Electrochemical Removal of CQAPDN Disperse Dye Incorporating Quinoline Moiety”

Khalid Mahmoud Hassan (corresponding author), Shaban Abdel Sattar El Khabieri, Ghada Mahmoud ElHaddad, Sameha Hassan Shokair, Emad Mohamed Eed, Ibrahim El Tantawy El Sayed, Submitted.

19- “Synthesis and Applications of Some New Nitrogen-Containing Heterocyclic Azo-Disperse Dyes Bearing Quinoline Chromophore”

Khalid Mahmoud Hassan (corresponding author), Shaban Abdel Sattar El Khabieri, Ghada Mahmoud ElHaddad, Sameha Hassan Shokair, Ibrahim El Tantawy El Sayed, Submitted.