

Asst. Prof. Dr. Najem Al-Rubaiey

Personal Details:

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Current Job: Faculty member- Head of Scientific Affairs and Cultural Relations Division
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Education:

MPh & PhD in Physical Chemistry, Reading University, England, UK: December, 16, 1995
BSc in Chemical Engineering, University of Technology-Iraq, Baghdad, Iraq: June, 29, 1988
Baccalaureate in Science, Albaraa Secondary School, Baghdad, Iraq. August, 1, 1984

Languages:

- **Arabic** (Native)
- **English** (Full professional proficiency)

Recent Training Course Attended:

- The Project for the Establishing of three Multimedia Language Laboratories in Iraq, from 16/5/2010 to 5/6/2010, KOICA in South Korea.
- Fulbright Visiting Scholar Program, Center for English as a Second Language, University of Arizona from 26/6/2011 to 3/9/2011, United State of America.
- Training workshop for English Language Teachers, from 14-16 April 2015 at the British Council Baghdad.
- Specialized training course in "Contemporary trends in quality system and laboratory reliability", from 18-29/12/2016, at University of Technology, Baghdad.
- Specialized training course in "The good strategy for preparing quality guides, instructions and procedures for laboratories of the University of Technology according to the requirements and standards", from 19-22/6/2017, at the University of Technology, Baghdad.
- The Stevens Initiative Faculty Institute, a Cross-Culture STEM Collaboration, 4-6 March 2018, Ball State University, USA, held in Erbil, Kurdistan Iraq.
- Workshop on "Headway Academic Skills Syllabus, Advantages and Disadvantages", 12/3/2018, English Language Center, University of Technology, Baghdad.
- Stevens Initiative Virtual Program, Ball State University, USA, Three Terms (2018-2019).

Recent Awards and Honors:

- Acknowledgment books from the University of Technology for outstanding accomplishments.
- Acknowledgment book from KOICA (Korea International Cooperation Agency) for outstanding achievement in the workshop of operation and using of a multimedia language laboratory.
- Certificate of Participation, Daelim J&S Co., and the Korea International Cooperation Agency, Republic of Korea, May 17, 2010 to June 4, 2010,
- Certificate of Completion of Fulbright Scholarship Program, from June 30 to September 3, 2011, United State Department of State, Washington, USA.
- Certificate of Participation, Center for English as a Second Language, from June 30 to September 3, 2011, the University of Arizona, USA.

- Certificate of Participation, Training workshop for English Language Teachers, from British Council.
- Certificate of Participation, the Stevens Initiative Faculty Institute, a Cross-Culture STEM Collaboration, March 4-6, 2018, from Ball State University, USA.
- Acknowledgment book from Ball State University, USA for outstanding accomplishments in Stevens Initiative Vertical Exchange Program (Feb. 27, 2019).
- Certificate of Participation, Ball State University's Intercultural Virtual Exchange Program, March 2019, from Cultural Affairs Office, USA Embassy, Baghdad.

Professional Memberships:

- Member of the American Chemical Society (ACS)
- Member of the Institute of Electrical and Electronics Engineers (IEEE)
- Member of Iraqi Engineers Union (IEU)

Qualifications:

- Teaching qualification
- IT qualifications
- English Language qualifications
- Chemical Analysis
- Lasers and Applications

Employment:

1988 – 2003

- Engineer and Senior Researcher at the Iraqi Atomic Energy Commission.

2003 – 2015

- Assistant Professor and Director of English Language Center in the University of Technology, Baghdad, Iraq.

2015 - 2018

- Labs division manager in the Department of Petroleum Technology, University of Technology, Baghdad, Iraq.

2018-

- Head of scientific affairs and cultural relations division in the Department of Petroleum Technology, University of Technology, Baghdad, Iraq.

Skills:

- Computational skills,
- Administrative skills,
- Communication skills
- English Proofreading skills

Teaching Activities:

Undergraduate:

Chemistry, Thermodynamics, Statistics and Probabilities and Technical English Language.

Postgraduate:

Professional English Communication

Research Interests:

- Water and wastewater Treatment
- Electrocoagulation
- Photocatalysis with nanomaterials
- Corrosion in oil and gas industry

Recent Attended Conferences:

- 1- IREX/IWPR Conference on Emerging Technologies/Emerging Democracies: Information Technology, Economic Growth and Governance in Iraq, Erbil Convention Center, September 27-28, 2010.
- 2- NANOP 2016 conference, from December 7th to December 9th, 2016, Paris, France.

- 3- International Conference on Environmental Impacts of the Oil and Gas Industries: Kurdistan Region of Iraq as a Case Study (EIOGI 2017), 17-19 April, 2017, University of Koya, Kurdistan, Iraq.
- 4- The 1st International Scientific Conference of Nanotechnology and Advanced Materials in the Petroleum and Gas Industry , ICNTPG 2017, 3-4 May 2017 / University of Technology, Baghdad, Iraq.
- 5- 3rd Scientific conference on environment and sustainable development, 15-16 November, 2017, University of Technology, Baghdad, Iraq.
- 6- 4th Iraqi Oil and Gas Conference, 13-14 December, 2017, Ministry of Oil, Basra, Iraq
- 7- ECOLOGY 2018, 19-23 June 2018, Kastamonu University, Kastamonu- TURKEY.
- 8- 2nd Scientific Conference of Computer Sciences, 27-28 March, 2019, University of Technology, Baghdad, Iraq.
- 9- 1st International Conference on Petroleum Technology and Petrochemicals, 10-11 April, 2019, University of Technology, Baghdad, Iraq. (Member of the Organizing Committee)

Publications:

- 1- N. Al-Rubaiey, H.M. Frey, B. P. Mason, C. McMahon and R. Walsh, "Similarities and differences in the addition reactions of silylene and methylene to C_2H_4 ", *Chem. Phys. Lett.*, 1993, 204, 301-305.
- 2- N. Al-Rubaiey and R. Walsh, "Gas-phase kinetic study of the prototype silylene addition reaction $SiH_2+C_2H_4$ over the temperature range 298-595K, an example of a third body mediation association", *J. Phys. Chem.*, 1994, 98, 5303-5309.
- 3- N. Al-Rubaiey, I. Carpenter, R. Walsh, R. Becerra, and M. Gordon, "Direct gas-phase kinetic studies of silylene addition reaction: $SiH_2+C_3H_6$, $SiH_2+i-C_4H_8$ and $SiMe_2+C_2H_4$. The effects of methyl substitution on strain energies in siliranes", *J. Phys. Chem. A*, 1998, 102, 8564-8572.
- 4- N. Al-Rubaiey, F. Al-Sharify and S. Al-Ani, "Kinetic studies of silylene($^1A_1 SiH_2$) reaction with propene (C_3H_6) induced by laser flash photolysis", *J. of Col. Of Education, Al-Mustansiriyah University*, Vol. No. 4, 1999, pp. 35-50.
- 5- N. Al-Rubaiey, "Kinetic isotope effects in the reaction of $SiH_2 + C_2D_4$ induced by laser flash photolysis", *Sci. J. Iraqi Atomic Energy Commission*, Vol. 2, No. 2, 2000, pp. 189-199.
- 6- N. Al-Rubaiey, "Mechanism studies of silylene reaction using end product analysis", *Iraqi J. of Chemistry*, Vol. 26, No. 3, 2000, pp. 516-531.
- 7- A. Ibrahim, N. Al-Rubaiey and D. Raof, "Design, construction and operation of CW Carbon Dioxide Laser", *Sci. J. Iraqi Atomic Energy Commission*, Vol. 2, No. 2, 2000, pp.100-106.
- 8- F. Al-Sharify, A. Ibrahim, N. Al-Rubaiey and A. Al-Sudany, "Effect of adding silver to the HTCS (YBCO) ceramic material", *Proc. of the MCE 3rd Eng. Sci. Con.*, No. 23 , April, 2000, pp. 282-289.
- 9- A. Al-Sudany, F. Al-Sharify and N. Al-Rubaiey, "Performance analysis of adsorption unit for a pair of methanol-active carbon cooling purpose", *Proc. of the MCE 3rd Eng. Sci. Con.*, No. 23 , April, 2000, pp. 292-297.
- 10- A. Ibrahim, M. Ibrahim and N. Al-Rubaiey, "Characterization of Magnetron Spattering using Langmore probe", *Proc. of the MCE 3rd Eng. Sci. Con.*, No. 23 , April, 2000, pp. 392-395.
- 11- A. Al-Sudany, F. Al-Sharify and N. Al-Rubaiey, "Effect of operating temperature on the coefficient of preformance (COP) for cooling applications for active carbon-methanol pair", *J. of Col. Of Education, Al-Mustansiriyah University*, Vol. No. 5, 2000, pp. 241-252.
- 12- A. Ibrahim, A. Rahmattalla, S. Aslan, N. Al-Rubaiey and M. Ibrahim, "Construction and operation of thin film coating system for the protection against corrosion using plasma", *Sci. J. Iraqi Atomic Energy Commission*, Vol. 2, No. 2, 2000, pp. 94-99.
- 13- N. Al-Rubaiey, A. Ibrahim, F. Al-Sharify, and A. Al-Sudany, "Theoretical modeling of silylene ($^1A_1 SiH_2$) addition reaction to propene (C_3H_6)", *J. of Col. Of Education, Al-Mustansiriyah University*, Vol. No. 2, 2001, pp. 61-76.
- 14- N. Al-Rubaiey and A. Ibrahim, "Laser flash photolysis of some silicon compounds", *Engineering And Technology J. , Suppl. No.2, Vol.20, 2001*, pp. 11-28.
- 15- N. Al-Rubaiey, A. Ibrahim, and F. Alsharify, "Time-Resolved studies for the reaction of $SiH_2 + D_2$ induced by laser flash photolysis", *Engineering and Technology J.*, Suppl. No.2, Vol.20, 2001, pp. 47-54.
- 16- F. Al-Sharify, J. Al-Neemy and N. Al-Rubaiey, "Dependence of T_c and Lattice Parameter on Oxygen Content for Superconductors ($YBa_2Cu_3O_{6.5+\delta}$)", *J. of Col. Of Education, Al-Mustansiriyah University*, Vol. No. 1, 2001, pp. 39-47.
- 17- N. Al-Rubaiey, "Laser Induced Photolysis of 1,2-Dimethyldisilane", *Sci. J. Iraqi Atomic Energy Commission*, Vol. 3, No. 1, 2001, pp. 138-148.
- 18- A. Ibrahim, A. Al-Sudany, M. Ibrahim, N. Al-Rubaiey and D. Awad, "Design, construction of Ozon generator system by a plasma technology", *Sci. J. Iraqi Atomic Energy Commission*, Vol. 3, No. 2, 2001, pp. 9-16.

- 19- N. Al-Rubaiey, U. Humadi and D. Raouf, "Effect of gas mixture on the output characteristics of CW CO₂ laser", Iraqi J. of Laser, Part A, Vol. 1, No.1,2002, pp.1-6.
- 20- N. Al-Rubaiey, R. Becerra and R. Walsh, "A gas-phase kinetic study of the silylene addition reaction SiH₂ + C₂D₄ as a function of temperature and pressure: isotope effects and mechanistic complexities" Phys, Chem. Chem. Phys.,4, 2002, 5072-5078.
- 21- N. Al-Rubaiey, D. Raouf and U. Hamadi, "Construction of 60W CW Carbon Dioxide Laser", Engineering and Technology J., No.1, Vol.22, 2003, pp. 1-7.
- 22- D. N. Raouf, N. A. Al-Rubaiey and S. I. Abdultif, "Design, Construction and Operation of Multi-Stage Large-Bore CW CO₂ Laser", Iraqi J. of Applied Physics, Vol.1, Issue(1), January 2005, pp.10-14.
- 23- M. S. Mahdi, N. A-K Al-Rubaiey and S. A. Daood, "Construction and Operating CO₂ Laser System with Heat Distribution Technique" Engineering and Technology J., No.6, Vol.25, 2007, pp. 217-225.
- 24- N. Al-Rubaiey, "A Study on the Effect of Using Various Reflectivities of Output Couplers on CW Carbon Dioxide Laser Performance", Engineering and Technology J., No.10, Vol.25, 2007, pp. 305.
- 25- Khalid Z. Yahya, Ammar H. Jraiz and Najem Al-Rubaiey, "Properties of Inclined Silicon Carbide Thin Films Deposited by Vacuum Thermal Evaporation", Engineering and Technology J., No.8, Vol.26, 2008, pp. 938.
- 26- Abdulhadi k.Judran , Najem A. Al-Rubaiey and Haithim T.Hussein, "Study of the influence of surface roughness, Sample heat and Sample shape on Wear rate measurements", Engineering and Technology Journal, ISSN: 16816900 24120758, Volume: 31 Issue: 2 Part (B) 2013, pp. 252-260.
- 27- Najem A. Al-Rubaiey, Robin Walsh, "Time resolved spectroscopic investigation of SiD₂ + D₂: kinetic study", EPJ Web of Conferences, 139, 2017, 00004, pp. 1-8.
- 28- Najem A Al-Rubaiey, Mohammed G Al-Barazanji, Study the efficiency of electrocoagulation system using conductivity measurements for the removal of zinc heavy metal, IEEE, 2017 International Conference on Environmental Impacts of the Oil and Gas Industries: Kurdistan Region of Iraq as a Case Study (EIOGI), pp. 42-47.
- 29- Najem Al-Rubaiey, Fadhil Sarhan and Ali Ati, "Nano Ferrites as Corrosion Inhibitors for Carbon Steel in Local Iraqi Bentonite Mud", Engineering and Technology Journal, 2018, Vol. 35 part A, No. 8, pp.849.
- 30- Najem Al-Rubaiey, and Robin Walsh, "Time-Resolved Gas-Phase Kinetic Study of SiD₂ + C₂H₄", The Journal of Physical Chemistry A, 122, 21, 2018, pp. 4785-4789.
- 31- Najem A Al-Rubaiey, Mohammed G AlBarazanji, Ultrasonic Technique in Treating Wastewater by Electrocoagulation, Engineering and Technology Journal, 2018, 36, 1 Part (C), 54-62.
32. Najem Al-Rubaiey, Ultraviolet photolysis of 1, 2-Dimethyldisilane in the gas phase, Journal of Photochemistry and Photobiology A: Chemistry, 360, 2018, pp. 145-151.
33. Najem A. Al-Rubaiey, Mohammed G. Al-Barazanji, Electrocoagulation Treatment of Oily Wastewater in the Oil Industry, *Journal of Petroleum Research & Studies*, 20, 2018, pp. 274-289.
- 34- Najem A Al-Rubaiey, Fadhil S Kadhim, and Mohamed G Albrazanji, "The Effect of Adding Carboxymethyl Cellulose and Zinc Sulfate on the Corrosion Characteristics of the Drilling Fluid", Al-Khwarizmi Engineering Journal, 15, 1, 2019, pp. 125-133.