University of Technology
Petroleum Technology Department

Curriculum Vitae

PERSONAL PARTICULARS

Name: Najem A. Al-Rubairy
Date of Birth: 27 June 1966
Sex: male
Marital Status: married
Nationality: Iraqi
Email: nakalrub@yahoo.com and dr.najem@uotechnology.edu.iq
Contact Address: P.O. Box 35109
University of Technology
Alsenaa Street
Baghdad
Republic of Iraq

CURRENT POSITION: Director of English Language Center

EDUCATION

Academic Qualifications

Postgraduate Studies at Department of Chemistry, Reading University, England, UK.
PhD in Chemistry
Date of obtaining degree: December, 16, 1995
Title of Ph.D. Dissertation:
Kinetic Investigation of Some Silylene Reactions Induced by Laser Flash Photolysis

Undergraduate Studies at School of Chemical Engineering, University of Technology, Baghdad, Iraq.
BSc in Chemical Engineering
Date of obtaining degree: June, 29, 1988

Baccalaureate at Al-baraa Secondary School, Baghdad, Iraq.
Averaged 83.3% very good class
Date of obtaining degree: August, 1, 1984

English Course:
English for academic purposes course (EAP) in the department of Language and Linguistic at University of Essex, Cholchester, England, from 9th October to 23rd March 1990.

Languages: *Arabic* (Native language); reading, writing and conversation
English (Excellent); reading, writing and conversation

Recent Training Course:
The Project for the Establishing of three Multimedia Language Laboratories in Iraq, from 16/5/2010 to 5/6/2010, KOICA in South Korea.

EXPERIENCE & HISTORY

Work Experience:

- Chemical Analysis
- Lasers and Applications
- Water Treatment
- Catalysts

EMPLOYMENT

January 11, 1988 – September 10, 1989

- Engineer at the Iraqi Atomic Energy Commission.

October 1989 – September 1995

- Ministry of Higher Education Scholarship (PhD).

October 9, 1995 – July 31, 2003

- Senior Researcher (Chief Engineer) at Iraqi Atomic Energy Commission.

1996 – 1998

- Vesting Lecturer at the School of Chemical Engineering, University of Technology, Baghdad, Iraq.

1998 – 2003

- Vesting Lecturer at the Department of Science, Alrsheed University, Baghdad, Iraq.

2003 – 2010

- Assistant Professor at the Department of Applied Sciences, University of Technology, Baghdad, Iraq.

2010 –

- Assistant Professor at the Department of Petroleum Technology, University of Technology, Baghdad, Iraq.

SKILLS

- Strong Computer Skills
- Chemical Laboratories
- Lasers Laboratories
- Vacuum Laboratories
- Internet
- Multimedia Language Laboratory
- English Translation Skills

Teaching Activities This Year

Undergraduate:

Unit Operation of Wastewater Treatment, Environmental Chemistry, Technical English Language.

Postgraduate:
English Language.

Training Courses:
- How to Prepare for TOEFL Test.
- English Language Learning Series.
- Professional English.

Laboratory Experience:
Undergraduate laboratory in chemistry, laser, and vacuum technology
Postgraduate laboratory in vacuum technology and analytical chemistry

Experimental Technique:
Time resolved spectroscopic technique
UV-VIS-IR spectroscopy
Gas and liquid chromatography
Vacuum technology
High vacuum coating systems
Chemical path deposition technique for thin film growth

SUPERVISION OF POSTGRADUATE

- Eight MSc projects in the field of CO_2 lasers, chemical lasers, applications of lasers, and chemical catalysts.
- Over fifty of graduation (last year) projects in the field of laser and applications, chemical engineering and thin film deposition.

RESEARCH ACTIVITIES

Current Interests:
- Environmental technology in oil industry
- Syllabus improvement in teaching English language in Iraq

RECENT AWARDS AND HONORS

- Acknowledgment book from the University of Technology for outstanding accomplishment in doing so many training courses in the field of English language learning especially in courses such as How to Prepare for TOEFL tests and Professional English.
- Acknowledgment book from KOICA (Korea International Cooperation Agency) for outstanding achievement in the workshop of operation and using of a multimedia language laboratory.

MAJOR CONFERENCES ATTENDED

1- 12th International symposium on gas kinetics (19-24 July,1992), University of Reading, Reading, United kingdom.

2- 1st Scientific conference in physics, college of Science, Baghdad University, Baghdad, 26-28 of March 1996.
3- 1st Scientific conference in physics and material, Iraqi Atomic Energy Commission, Sheraton Hotel, Baghdad, 27-28 April, 1999.
4- 2nd Scientific conference in physics, college of Science, Baghdad University, Baghdad, 22-24 of March 1999.
5- 1st Iraqi conference in glass and ceramic, University of Baghdad, Al-Sadeer Hotel, Baghdad, 29-30 March, 1999.
6- 1st Conference on Analytical Chemistry, Saddam University, Baghdad, 9-10 October, 1999.
7- Meeting on Lasers and its applications in Medicine and Industry, Almajma Alalmee, Baghdad, 27/9/2000.
8- MCE 3rd Engineering and Science Conference, Baghdad, 23-25 April 2000.
9- 11th Conference in Mathematic and Physics, Union of Mathematic and Physics, Mosel, 19-21 September, 2000.
10- 1st National Conference in Application of Lasers in Medicine, Alkindy College of medicine, Baghdad, 2-3 June, 2001.
11- International Plasma College, Islam-Abad, Pakistan, 29/1 to 3/2 2001.
12- 1st National conference in Physics and its Applications, Babylon Hotel, Baghdad, 22-23 December, 2001.
13- 3rd Scientific conference, college of Science, Saddam University, Baghdad, 19-20 of June 2001.
14- The 1st Regional Conference for Engineering Sciences, College of Engineering/ Nahrain University, Baghdad, 5-6 November 2008.
15- IREX/IWPR Conference on Emerging Technologies/Emerging Democracies: Information Technology, Economic Growth and Governance in Iraq, Erbil Convention Center, September 27-28, 2010.

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. Capenter, R. Walsh, R. Becerra, and M. Gordon, "*Direct gas-phase kinetic studies of silylene addition reaction:* $SiH_2+C_3H_6$, $SiH_2+i\text{-}C_4H_8$ *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 Lattic 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 CO_2 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 SiH_2 + C_2D_4 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 CO_2 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 CO_2 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.