Academic Curriculum Vitae

Personal Information :

Name: Dr. Soad Mohialdin –Khaffaf (PhD, MRSC, Cchem)
Address: 47 Gorse Bank Road, Altrincham, Cheshire WA15 0BB
Mobile: 0447938045530 or (009647508186761
Email: suadnm@gmail.com: or suad.mohiaedin@su.edu.krd
Date of Birth: 22nd Aug. 1955
Nationality: British
References: Available on request

Education:

1983-1987: PhD from Manchester University (Victoria), Manchester UK

1982-1983: MSc Manchester University Institute of Science and Technology (UMIST), Manchester , UK

1972-1976: BSc Baghdad University, Baghdad, IRAQ

1966-1972: Erbil High School, Erbil, KRG, IRAQ

1960-1966: Safin primary School, Erbil, KRG, IRAQ

Employment:

2012-to date: appointed as Senior lecturer at Salahaddin University – Kurdistan Regional Government-Iraq
2012: Science lecturer at Bolton college of higher and further Education**.**
2011: Science lecturer at Stoke on Trent College Burslem campus
2010: Appointed as a biology supply teacher at Pendleton college –Salford. Covering A-level Biology lessons and BETech Science lessons.

2005 to 20010: Chemist: Merck Chemical Ltd, Manchester
Appointed to conduct research involving the formulation and evaluation of organic semi conducting molecules and organic dielectrics used in the fabrication of Field Effect Transistors

Handled a number of concurrent projects wit

2000 to 2005: Chemist: Avecia Research Centre
Appointed for the completion of research involving syntheses of Organic Semi Conducting oligomer for Electro photography and Field Effect Transistors
Formulation and evaluation of organic polymers for application within the Electronic Industry
Completed independent research: troubleshooting, strategy development and optimisation

1999 to 2000: Lecturer (Part Time): North Area College, Stockport
Responsible for teaching Chemistry to GNVQ (advance) students
Gained excellent reputation with students; supporting all students to achieve good results
Adapting teaching and communication style to meet all levels and abilities including basic levels
Created special projects designed to incorporate course content evaluation
Provided 121 tutorial support; to encourage students within their course

1996 to 1998: Chemist: Zeneca Industrial Colours
Responsible for completing research involving syntheses and characterisation of reactive dyes for textiles and the synthesis of Infra-Red absorbing reagents and swtichable polymers for lithographic printing
1993 to 1996: Post Doctoral Research and part time lecture - Department of Instrumentation and Analytical Science, (DIAS), Manchester university and Institute of Science and Technology (UMIST)
1989 to 1993: Post Doctoral Research and part time lecture – Department of Chemistry (UMIST)
1988 to 1989: Post Doctoral Research and part time lecture – Department of Chemistry and Applied Chemistry, University of Salford.
1977 to 1982: Laboratory Manager – Electronics Industries Companies (EIC)

Qualifications:

1987 **Doctor of Philosophy (PhD) in Synthetic Organic Chemistry**
University of Manchester

1983 **Post-Graduate Diploma in Petrochemical and Hydrocarbon Chemistry**
University of Manchester

1976 **BSc (Hon) Degree in Chemistry,** Faculty of Science, University of Baghdad

1972 **Baccalaureate (A-Level equivalent)** -Erbil High School, Kurdistan-Iraq.

Professional qualifications:

2007-2008 **PGCE/Secondary (science) Manchester Metropolitan University.**
1999 **PGCE (Postgraduate Certificate in Education)-** University of Bolton.

1987 Elected Chartered Chemist and Member of Royal Society of Chemistry, (CChem, MRSC)

1986 Elected Graduate Member of the Royal Society of Chemistry (GRSC)

Teaching experience:

2012-to-date: full time lecture at chemistry department, college of Education, Salahaddin University, Erbil-KRG - IRAQ

1993 to 1996: part time lecture - Department of Instrumentation and Analytical Science, (DIAS), Manchester university and Institute of Science and Technology (UMIST)
1989 to 1993: part time lecture – Department of Chemistry (UMIST)-Manchester, UK
1988 to 1989: part time lecture – Department of Chemistry and Applied Chemistry, University of Salford. Salford UK
1977 to 1982: part time tutor at technical institute – Electronics Industries Companies (EIC), Baghdad, IRAQ

Research and publications

1. **Review on Corrosion Inhibitors for Oil and Gas Pipelines in Petroleum Industries; Soad Najmaldin Mohiadi Chema Dilshad Yousif; International Journal of Science and Research (IJSR)** Volume 11(9):754-764. September 2022

2. **Review on Polymers of Intrinsic Microporosity: Their Classification, Synthesis, Properties, and Applications**", Soad Najmaldin Mohialdin, Hawraz Sami, Nabil Fakher: **American Journal of Sciences and Engineering Research**, ISSN: 2348-703X, in Volume 5, Issue 1, January-February, 2022.

3. Review on the Positive and Negative Impact of Covid-19 Pandemic on Environment and Society, Soad Najmaldin Mohialdin, **European Journal of Medicine and Natural Sciences**, (EUJMNS),, Volume 4, Issue 2, p-1-25. July – December 2021--Link (https://revistia.com/index.php/ejmn

4. Sputter protective layer for organic electronic devices, WIPO(world intellectual property organisation, international Bureau.)Patent No. WO 2020/002914A1, International application No.PCT/GB2019/051807, International filling Date27 June 2019(27.06.2019).Priority Data:1810710.2, 29 June 2018 (29.06.2018)GB: joint Inventors: Brown Beverle; Lowman Ian,; Morgan John; Mohialdin-Khaffaf Soad; Watson,collin;

5. Improvements in and relating to organic semi conducting materials EP1579518, patent No. WO 2004057688 (2004/07/08), application No.WO2003/005521 (2003/12/18) Joint inventors: Janos Veres, Simon D. Ogier, Stephen w. Leeming, Paul Brookes, and Soad Mohialdin-Khaffaf.

6. Organic Field Effect Transistor with an organic Dielectric, European Patent, EP 1459392, patent No. WO 2003052841, (2003/06/26), Application No. wo 2002-GB 5248 (2002/11/12) , Joint inventors: Janos veres, Simon Ogier, Soad Mohialdin-Khaffaf,, and Stephen W. Leeming.

7. Gate insulator influencing electronic transport in organic FETs, Janos Veres, Simon Ogier, Stephen Leeming, Domenico Cupertino, Soad Mohialdin-Khaffaf, Giles Lloyd. Proceeding of SPIE-Volume 5217, November 2003, pp.147-158.

8. Low-k Insulator as the choice of Dielectrics in Organic Field-Effect Transistors Janos Veres, Simon D. Ogier, Stephen w. Leeming, Domenico C. Cupertino, and Soad Mohialdin-Khaffaf. Advance Functional Materials, March 2003, 13, No. 3, pp (199-207)

9. 3-Hexyl-1-tosylindole. A Highly Stereospecific Preparation of 3-Alkyl-Substituted Indoles; Soad Mohialdin-Khaffaf, Krishna C. Persaud and Robin Pritchard. Acta Cryst. (996). C52, 2607-2609.

10. Semi conducting Organic for Polymer gas sensors. US patent 6033601, Patent No. WO 9618888 (1996/02/20), Application No. 1995-GB2818 (1995/12/04), Joint inventors; Dr Krishna Chandra Persaud and Dr Soad Mohialdin- Khaffaf. . Patent assignee AromaScan Plc.You can find full details, including the full text, on the US Patent Office web site (http://www.uspto.gov/).

11. Sensor array techniques for mimicking the mammalian olfactory system Krishna C. Persaud, Soad Mohialdin Khaffaf, John S. Payne, Anna Maria Pisanelli, Dong-Hyun-Gibyun , Sensor and Actuation B 35 (1996) 1-7

12. N- Halogeno compounds, part 17. Precursor of NF-TEDA reagents: Quaternary salt of 1,4-diazabicyclooctane containing fluoro-anions, and their Lewis acid-Lewis base adducts with boron trifluoride, phosphorus pentafluoride and sulphur trioxide R.E. Banks, M.K. Besheesh, S.N. Mohialdin-Khaffaf, Iqbal Sherif, J. Fluorine Chemistry, 78, (1996), pp (43-50)

13. Application of Conducting polymer odour sensing Array to Agricultural Malodour Monitoring K.C. Persaud, S. Mohialdin-Khaffaf, P.J. Hobbs, T.H. Misselbrook, R.G. Sneath. Accepted to present in the First International Conference on Air pollution from Agricultural Operations on 7-9 Feb 1996, Kansas, USA

14. Measurement of sensory quality using electronic sensing systems K.C. Persaud, S.M. Khaffaf, A.M. Pisanelli. Measurement + Control, Volume 29, 17-20, 1996

15. Application of odour sensing array technology to dynamic measurement of pig slurry odour T.H. Misselbrook, S. Mohialdin-Khaffaf, P. Hobbs. K.C. Persaud, R.G. Sneath. To be published

16. Application of unsupervised clustering methods to assessment of malodour in agriculture using an array of conducting polymer odour sensors Hyung Gi Byun, S. Mohialdin-Khaffaf, K.C. Persaud. J.Computers and Electronic in Agriculture, 17, (1997), pp 233-247

17. N-Halogeno compounds, part 19, Electrophilic fluorinating agents of the multiple mono -N-fluoro class derived from nitrogen hetrocycles R.E. Banks, M.K. Besheesh, S.N. Mohialdin-Khaffaf, I Sharif, J. Fluorine Chemistry, 81, (1997) 157-161

18. N-Halgeno compounds, part 18, 1-Alkyl-1,4-diazoniabicclo[2,2,2]octane salts: user - friendly site-selective electrophilic fluorinating agents of N-fluoro-ammonium class R.E. Banks, M.K. Besheesh, S.N. Mohialdin-Khaffaf, and I. Sharif, J. Chem. Soc. Perkin Trans.I. 1996, pp 2069-2076

19. Assessment of conducting polymer odour sensors for agricultural malodour measurements K.C. Persaud, S.N. Mohialdin-Khaffaf, R.G. Sneath, P.J. Hobbs. Chem. Senses. 996, 21, pp 495-505

20. Highly Selective Stereo chemically Controlled Five-versus six membered Acetal Ring Cyclisation J.Leonard and S.N. Mohialdin, D. Reed G. Ryan and M.F. Jones, J. Chem. Soc., Chem. Comm., 1993, pp 23-25.

21. 1-Alkyl-4-fluoro-1,4-diazoniabicyclo [2.2.2] octane salts: A novel family of Electrophilic fluorination agents R.E. Banks, and S.N. Mohialdin-Khaffaf, J. Chem. Comm. 1992, 8, p595

22. Selective Conjugate addition of organolithium reagents to gamma, delta- unsaturated beta-oxo esters derived from Glyceraldehyde acetonide J. Leonard, D. Reed, and S.N. Mohialdin-Khaffaf, Synlett.,1992, 9, 741-2

23. Stereoselective Conjugate Addition of Organolithium and Organocopper Reagents to δ-Oxygenated α,β-Unsaturated Carbonyl Systems Derived from Glyceraldehyde Acetonide, March 2010ChemInform 27(11), DOI: 10.1002/chin.199611106, John Leonard, Soad Mohialdin, D. REED, Show all 5 authors, Philip Swain.

24. Synthesis, Characterisation and applications of new Electrophilic Fluorinating agents of the N-F class R.E. Banks, S.N. Mohialdin-Khaffaf, M.K. Besheesh, and I. Sharif, Journal of Fluorine Chemistry, 1991, 54, 207

25. Fluorocarbon derivatives of Nitrogen. Part 199, Synthesis and mass spectroscopic analysis of some pyridinium(tetrafluoro-4-pyridyl)methylides R.E. Banks, W.T. Flowers and S.N. Mohaldin-Khaffaf, Journal of Fluorine Chemistry, 1991, 53, 127-142

26. Fluorocarbon derivatives of Nitrogen. Part 18, Synthesis of fluorinated Indolizines through reactions of pyridinium-ethoxycarbonlmethylide and pyridiniumphenacylide with perfluoropropene, perfluorobut-2-yne and 3,3,3-Trifluorpropyne R.E. Banks, and S.N. Mohialdin-Khaffaf, Journal of Fluorine Chemistry, 1991, 51, 407-418

27. Efficient procedure for insitu trapping of (R)- and (S)-Glyceraldehydeacetonides by stabilized witting reagents J. Leonard, P.A. Swain and S. N. Mohialdin, Syn. Comm., 1989, 19, 3529

28. Ethyl 2,3- bis(trifluoromethyl)-2,3-dihydroindolizine-1-carboxylate R.E. Banks, R.G. Pritchard and S.N. Mohialdin, Acta Cryst., 1989, C45, 4277

29. Synthesis of Indolizines from N-(2,2,2-trifluoroethyl)-pyridinium triflate; Evidence for the generation of pyridinium(trifluoromethyl) methylide R.E. Banks, and S.N. Mohialdin, Journal of Fluorine Chemistry, 1988,38, 289-293.

30. Synthesis of indolizines from pyridinium(trifluoroacetyl)-methylide and fluorinated dipolarophiles R.E. Banks and
S.N. Mohialdin, Journal of Fluorine Chemistry, 1986, 34, pp 275-9

PATENTS

1. Sputter protective layer for organic electronic devices, WIPO(world intellectual property organisation, international Bureau.)Patent No. WO 2020/002914A1, International application No.PCT/GB2019/051807, International filling Date27 June 2019(27.06.2019).Priority Data:1810710.2, 29 June 2018 (29.06.2018)GB: joint Inventors: Brown Beverle; Lowman Ian,; Morgan John; **Mohialdin-Khaffaf Soad;** Watson,collin**;**

2. Improvements in and relating to organic semi conducting materials EP1579518, patent No. WO 2004057688 (2004/07/08) , application No.WO2003/005521 (2003/12/18) Joint inventors: Janos Veres, Simon D. Ogier, Stephen w. Leeming, Paul Brookes, and **Soad Mohialdin-Khaffaf**.

3. . Organic Field Effect Transistor with an organic Dielectric, European Patent, EP 1459392, patent No. WO 2003052841, (2003/06/26), Application No. wo 2002-GB 5248 (2002/11/12) , Joint inventors: Janos veres, Simon Ogier, **Soad Mohialdin-Khaffaf**,, and StephenW. Leeming.

4. Semi conducting Organic for Polymer gas sensors. US patent 6033601, Patent No. WO 9618888 (1996/02/20), Application No. 1995-GB2818 (1995/12/04), Joint inventors; Dr Krishna Chandra Persaud and **Dr Soad Mohialdin- Khaffaf**. . Patent assignee AromaScan Plc.You can find full details, including the full text, on the US Patent Office web site (http://www.uspto.gov/).

Conferences and courses attended

1. **Nano 2020 international conference on nano technology and its applications-by Iraqi ministry of industry at Salahaddin University-Erbil, 22 Jan 2020.**
2. **Importance Stereo chemistry in science symposium at Tishk International university 13-17 October 2019**
3. **First international conference AGRI-sciences, 2019 by Agricultural engineering college collage at Salahaddin university 6-7 November 2019**
4. **Cancer and oncology research Endeavour symposium at Salahuddin university-Erbil 5 Jan 2020 .**
5. **COR -Cancer and oncology research endeavour symposium by Salahaddin University at Sheraton hotel-Erbil, 20th Feb2020.**
6. **Fifth International Conference on Materials Chemistry University of Wales, Bangor, UK 24-27 July 2001**
7. **SAC 95, An International Symposium on Analytical Chemistry Organised by the Analytical Division of the Royal Society of Chemistry, University of Hull, Hull 11-15 July 1995.**

8. **Research & Development Topics Meeting in Analytical Chemistry Organised by Analytical Division of the Royal Society of Chemistry, University of Hull, Hull 10-11 July 1995**

9. **Fluoropolymers 92, Synthesis Properties and Commercial Applications UMIST, Manchester, 6-8 January 1992**

Funding and academic awards.

Ministry of Iraqi higher Education Grant-ACAdemic award office Baghdad-IRAQ, to Study for PhD degree.

Professional membership.

2020-2023- member American Chemical Society (ACS**)**

2022-2023: member of Academia.

1987: Elected Chartered Chemist and Member of Royal Society of Chemistry, (CChem, MRSC)

1986: Elected Graduate Member of the Royal Society of Chemistry (GRSC)

Chemistry and Technical training courses attended:

Presentation skills – organised by **RSC, London, UK**

Glass handling (updated on a regular bases) - **Avecia/Merck**, Blackley, Manchester, UK

Manual handling - **Avecia/Merck, Blackley, Manchester, UK**

COSHH training (updated on a regular bases) - **Avecia/Merck, Blackley, Manchester, UK**

Firefighting training (refresher course updated on a regular basis) - **Avecia/Merck, Blackley, Manchester, UK**

Report writing – **Avecia, Blackley, Manchester, UK**

Patent awareness – **Avecia, Blackley, Manchester, UK**

Formulation Science and Technology - **Avecia, Blackley, Manchester, UK**

Introductory course in Organofluorine Chemistry, the building block approach - Chemserve, Introductory course on Organofluorine Chemistry – **Chemserve, UMIST, Manchester University, Manchester, UK**