

Academic Curriculum Vitae



Personal Information:

Full Name: **Mohammad Mustafa Othman Dzayi**

Academic Title: Assistant Professor

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Education:

- 1996-1999: (Ph.D in Theoretical Physics- Plasma Physics). The title of the thesis is **(Calculation of Transport Parameters of Electrons in Gases Subjected to D.C. Electric Field Using the Boltzmann Equation)**. Department of Physics, College of Science, University of Al-Mustansiriya, IRAQ.
- 1981-1984: (M.Sc. in Nuclear Physics). The title of the thesis is **(γ – Ray Transition Following the Alpha Decay of $\text{Am}^{241} \xrightarrow{\alpha} \text{Np}^{237}$)** Department of Physics, College of Science, University of Salahaddin-IRAQ.
- 1975-1979: (B.Sc. in Physics). Department of Physics, College of Science, University of Sulaimania-IRAQ.

Employment:

- 2002 Assist. Prof. of Plasma Physics, Department of Physics, College of Education/ University of Salahaddin.
- 1993 Lecturer of Nuclear Physics, Department of Physics, College of Education/ University of Salahaddin.
- 1986 Assist. Lecturer of Nuclear Physics, Department of Physics, College of Education/ University of Salahaddin.
- 2000-2004 Dean Assistant, College of Education/ University of Salahaddin, KRG, Iraq
- 2004-2008 Director of Central Library, University of Salahaddin, KRG, Iraq
- 2005-2007 Head of Physics Department, College of Science, University of Salahaddin, KRG, Iraq
- 2007-2008, Director of Center, University of Salahaddin, KRG, Iraq
- 2008- 2011 Director of Import and laboratories, University of Salahaddin, KRG, Iraq
- 2006 – 2008 Director of Computer and Internet Center.
- 2011-2019 Director of Central Library, University of Salahaddin, KRG, Iraq
- 2011 – 2015 Director of Planning University of Salahaddin, KRG, Iraq.
- Supervised of M.Sc. (Three students) and Ph.D. (Two Students).

Qualifications

- Teaching qualifications
- IT qualifications
- Language qualifications such as IELTS or any equivalent
- Any professional qualification

Teaching experience:

- Nuclear Chemistry
- Sound and Vibration
- Mechanics
- Analytical Mechanics
- Linear Algebra
- Image Processing
- Physics for Biology
- Practical Physics
- Plasma Physics
- Differential Equation
- Complex Variable

- Computer Programming
- Numerical Analysis
- Nuclear Medicine
- Student Research

Postgraduate Supervised

- PhD thesis, the title of the thesis is (Effect of mixing ratio of SiH_4 and Si_2H_6 with other gases on transport properties, 2011.
- PhD thesis, the title of the thesis is (Solution of Boltzmann equation using two-term approximation for several SF_6 and other gases mixture), 2007.
- M.Sc. thesis, the title of the thesis is (Theoretical analysis of the electron energy distribution function in a weakly ionized gas using Boltzmann equation), 2002.
- M.Sc. thesis, the title of the thesis is (The effect of the gas density on transport coefficients using the Boltzmann transport equation), 2003.
- M.Sc. thesis, the title of the thesis is (Boltzmann equation analysis of electron swarm behavior in Mercury vapor and its mixtures), 2007.

Research and publications

- **Mohammad Mustafa Othman**, Sherzad Aziz Taha and Jwan Jalal Mohammad. Electron Transport Parameters in Hydrogen–Argon Mixtures, AIP Conference Proceedings, Volume 1888, pp. 020040 (2017); doi: 10.1063/1.5004317, View online: <https://aip.scitation.org/doi/pdf/10.1063/1.5004317> , View Table of Contents: <https://aip.scitation.org/toc/apc/1888/1>, Published by the American Institute of Physics.
- **Muhamad Mustafa Osman**. Transport Coefficients of electron swarms in CO and N_2 at relatively high E/N , Journal Dohuk University, Vol. 2, No 1, 1999, pp 97-112.
- **Muhammad Mustafa Othman** and Dilshad O. A. Rahim. A Boltzmann's equation analysis of electron swarm parameters in He- CO mixtures, ZANCO Journal of Pure and Applied Science, 13(2), 2001, pp.41-46.
- **Muhammed M. Osman** and Ismail M. Murad. Numerical study of Argon discharge, Journal Dohuk University, Vol. 4, No 2, 2001, pp 197-203.
- Saeed O. Ibrahim, Muthafer M. Ameen and **Muhammad M. Osman**. Studying the electrostatic surface waves of toroidal plasma, ZANCO Journal of Pure and Applied Science, 16(2), 2004, pp.4-14.
- **Mohammad M. Othman**. Electron transport coefficients for CHF_3 , International J. of Aquatic Sci., 12(2), 2021, pp. 1394-1404.
- **Mohammad Mustafa Othman**, Gullala Yasen Bakr and Sherzad Aziz Taha. Study of electron transport coefficients and critical field strength in N_2O and $\text{N}_2\text{O-SF}_6$ mixtures using Boltzmann equation analysis, International J. of Aquatic Sci., 12(2), 2021, pp. 1406-1419.

- **Mohammad M. Othman**, Idris H. Salih, Sherzad A. Taha. Electron transport properties in Tetramethylsilane vapour, *Solid State Technology*, 63(6), 2020, pp. 10188-10200.
- Ganesh Babu Loganathan, **Mohammad M. Othman** and Elham Tahsin Yasin. An analysis on garbage removal process by WSN through global for mobile communication media, *Revista GEINTEC: Gestao Inovacao e Tecnologias*, 11(3), 2021, pp. 493-605.
- **Mohammad Mustafa Othman**. Electron transport coefficients in SiH₄-Kr mixtures in dc field, 4th International Scientific Conference of Salahaddin University- Erbil, October 18-20, 2011 Volume 3, pp. 833-838.
- **Mohammad M. Othman**, Sherzad Aziz Taha, Idrees Hadi Salih. Analysis of Electron Transport Coefficients in SiH₄ Gas Using Boltzmann Equation in the Presence of Applied Electric Field, *ZANCO Journal of Pure and Applied Sciences, ZJPAS* (2019), 31 (1); 77-88.
<http://dx.doi.org/10.21271/ZJPAS.31.1.10>
<https://zankojournal.su.edu.krd/index.php/JPAS/article/view/2330/1692>
- **Mohammad M. Othman**, Sherzad A. Taha, Juwan J. Mohammad and Ayoub S. Karem. Electron Swarm Parameters in Germane – Argon Mixtures Using Boltzmann equation, *ZANCO Journal of Pure and Applied Sciences, ZJPAS* (2018), 30 (1); 34-43.
<http://dx.doi.org/10.21271/ZJPAS.30.1.4>
<https://zankojournal.su.edu.krd/index.php/JPAS/article/view/1725/1201>
- **Mohammad M. Othman**, Sherzad A. Taha and, Idrees H. Salih. Solving of the Boltzmann transport equation using two - term approximation for pure electronegative gases (SF₆, CCl₂F₂), *ZANCO Journal of Pure and Applied Sciences, ZJPAS* (2019), 31(s4), pp. 7-25.
<http://dx.doi.org/10.21271/ZJPAS.31.s4.2>
<https://zankojournal.su.edu.krd/index.php/JPAS/article/view/3232/1998>
- Idris H. Salih, **Mohammad M. Othman** and Sherzad A. Taha. Calculation of Electron Swarm Parameters in Tetrafluoromethane, *ARO-The Scientific Journal of Koya University*, Vol. VIII, No.2 (2020), Article ID: ARO.10671, 7 pages,
<http://dx.doi.org/10.14500/aro.10671>
<http://aro.koyauniversity.org/index.php/aro/article/view/ARO.10671/185>
- **Mohammad M. Othman**, Sherzad A. Taha and Saeed Rasool Hussein. Boltzmann equation studies on electron swarm parameters for oxygen plasma by using electron collision cross – sections, *ZANCO Journal of Pure and Applied Sciences, ZJPAS* (2020), 32(5), pp. 36-53. <http://dx.doi.org/10.21271/ZJPAS.32.5.4>
<https://zankojournal.su.edu.krd/index.php/JPAS/article/view/3359/2251>
- **Mohammad Mustafa Othman**, Properties of Electron Swarm Parameters in Tetrahydrofuran, *ZANCO Journal of Pure and Applied Sciences, ZJPAS* (2022), 34(5); 1-11.
<http://dx.doi.org/10.21271/ZJPAS.34.5.1>
<https://zankojournal.su.edu.krd/index.php/JPAS/article/view/187/150>
- **Mohammad Mustafa Othman**, Saeed Omer Ibrahim, and Sherzad Aziz Taha. Dielectric breakdown properties of He-H₂ mixtures for high temperature superconducting power devices, *Iraqi Journal of Science*, Vol. 63, Issue 11, 2022. pp. 4705-4720, DOI: 10.24996/ijs.2022.63.11.10,
<https://ijs.uobaghdad.edu.iq/index.php/eijs/article/view/3116/2963>

- Ganesh Babu Loganathan, Qaysar Salih Mahdi, Idris Hadi Saleh, **Mohammad Mustafa Othman**, AGRIBOT: Energetic Agricultural Field Monitoring Robot Based on IoT Enabled Artificial Intelligence Logic, Emerging Technology Trends in Internet of Things and Computing, Springer Nature Switzerland AG 2022, pp. 16-30.
<https://doi.org/10.1007/978-3-030-97255-4>
- ISBN 978-3-030-97254-7; ISBN 978-3-030-97255-4 (eBook).

- **محمد مصطفى عثمان** ازاد محمد كريم دلشاد عمر عبدالرحيم محمد هلال بكر، خطوط الكامية للاكتنيوم -228 في طيف الخلفية الاشعاعية لمدينة اربيل، مجلة كلية التربية، مجلد 2، العدد 4، 1990، جامعة صلاح الدين.
- **محمد مصطفى عثمان** ظاهر علي امين دلشاد عمر عبدالرحيم ، اضمحلال النواة 192-IR. مجلة كلية التربية، مجلد 4، العدد 1، 1992، جامعة صلاح الدين.
- **محمد مصطفى عثمان**، تعيين شداد خطوط الكامية ل Bi-214 في طيف الخلفية الاشعاعية. مجلة كلية التربية، مجلد 4، العدد 1، 1992، جامعة صلاح الدين.

Patents

- **Mohammad Mustafa Othman Dzayi**, Idris Haddi Salih, Ganesh Babu Loganathan, DUAL-TONE MULTI-FREQUENCY CONTROLLED ROBOT.
Publication date: 2021/11/5, Patent office: IN, Patent number: 202141042451, Application number: 202141042451.
- Sonya A, S. Hariprasath, S. Kother Mohideen, **Mohammad M. Othman**, B. Prakash, G Babu, SECURING PATIENTS HEALTH INFORMATION USING ATTRIBUTE BASED ENCRYPTION.
Publication date: 2021/7/16, Patent office: IN, Patent number: 202141029278, Application number: 202141029278.

Authored Books

- Relativity Theory and Cosmic (in Kurdish Language)
- Nuclear Physics (in Arabic Language)
- Activation Analysis (in Arabic Language)

Conferences and courses attended

- Iraqi Virtual Science Library Workshop and Training Sponsored by the U.S. Civilian Research & Development Foundation, held at the Royal Scientific Society of Jordan, August 17-21, 2008.

- Project: Transferring a successful mentoring for setting-up learning networks of SMEs, 10 working meetings in 2018 and 2019, place: Chamber of Commerce and Industry, Erbil, KRG, Iraq.
- Two days' workshop on Online Databases and their Role in Advancing Scientific Research in Higher Education, Presented by Elsevier, Netherlands, in Cooperation with Dar Alburhan, Iraq at Erbil International Hotel, 19-21 May, 2017.
- Course on Strategic Choices in Education Reform, The World Bank Support for the Implementation of Iraq National Education Strategy, October 12-16, 2014, Amman, Jordan.
- Workshop on Library Support and E-Library, Place: Tishk International University, January 15, 2019.
- International Conference entitled "Fundamentals of Social Peace: An Islamic Perspective in the Light of Contemporary Conjuncture" College of Islamic Sciences – Salahaddin University, KRG, Iraq. 1-3 April, 2014.
- Workshop on Library and Classification number with dewy decimal classification, Cairo, Ejept, 28 January -2 February, 2012.
- Workshop on Participating in and contributing to the success of MEPI IRAQ NETWORKING EVENT –Erbil Branch, in U.S. Consulate-Erbil on September 7, 2013.
- For successful completion of the American Corner Director's Workshop, Build a Better Corner, U.S. Consulate-Erbil on Saturday, May 25, 2013, Erbil, Iraq, corporation with Cultural Affairs Alumni Coordinator, Embassy of the United State of America.
- Register of Iraqi Virtual Science library –Salahaddin University, from 2010 to 2016.
- Training in Erbil Teaching Hospital, Department of Nuclear Medicine and CT Scan for 12 months, at the request of Salahaddin University from 1986 to 1987.

Professional memberships

- 1986-1991 member of Iraqi Physical Society.
- 2003- till now member of Kurdistan physical Society.
- 1987- till now member of Teachers union.

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Scholar Account: <https://scholar.google.com/citations?user=vUcrM0AAAAJ&hl=en>

ResearchGate : <https://www.researchgate.net/profile/Muhammad-Mustafa-Othman-2>