

Academic Curriculum Vitae



Personal Information:

Full Name: Dr. Saman Qadir Mawlud
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Education:

From- To	Degree	College-University	Country
2017 to date	PhD in Nanoglass Material Science, Department of Physics	College of Education- University of Salahaddin & UTM.	Iraq & Malaysia
2003-2006	M. Sc. in Laser Physics, Department of Physics	College of Education- University of Salahaddin	Iraq
1997-1998	B.Sc. Physics, Department of Physics	College of Education- University of Salahaddin	Iraq

Employment:

- Demonstrator, (Physics Department, College of Education, Salahaddin University-Erbil, 2000)
- Assistant Lecturer, (Physics Department, College of Education, Salahaddin University-Erbil, 2006)
- Lecturer, (Physics Department, College of Education, Salahaddin University-Erbil, 2012)
- Assistant Professor, (Physics Department, College of Education, Salahaddin University-Erbil, 2019)

Teaching experience:

Subject	Stage-College	University
General Physics	1 st - year students / Mathematics Department- College of Education	Salahaddin University
Laser	3 rd - year students / Physics Department- College of Education	Salahaddin University
Optic	2 nd - year students / Physics Department- College of Education	Salahaddin University
Mechanics & Properties of Matter	1 st - year students / Physics Department- College of Education	Salahaddin University
Academic Skills	1 st - year students / Physics Department- College of Education	Salahaddin University
Quantum Mechanics	4 th - year students / Physics Department- College of Education	Salahaddin University
Nanotechnology	PhD student –Chemistry Department – Physics Department- College of Education	Salahaddin University
Non-Crystalline Solid State Physics	M.Sc student – Physics Department- College of Education	Salahaddin University
Research Methodology	4 th - year students / Physics Department- College of Shaqlawa Education	Salahaddin University
Wave Optic	High Diploma student / Physics Department- College of Science	Raparin University

Research and publications

- 1- **Saman Q. Mawlud** and Muzahim I. Azawi, "Influence of Laser Diode Parameters on the Performance of Mach-Zehnder Modulator", 2nd International Conference on Advanced Optoelectronic and Laser, Yalta, Ukraine, (2005).
- 2- **Saman Q. Mawlud**, "Effect of Temperature on Reliability and Degradation of 0.63 μ m Laser Diode", Baghdad Journal for Science, accepted to be publish, (2010)
- 3- **Saman Q. Mawlud**, "Bias-Voltage Dependence on Thermoelectric Cooler Coefficient for Al_{0.7}Ga_{0.3}As and In_{0.2}Ga_{0.8}As SQW Laser Diode", Tikret Journal for Pure Science, No.4, Vol. 16, pp.165-170, (2011).

- 4- **Saman Q. Mawlud**, Nabel M. Naser and Mazin S. Othman, "Effect of the Direct Current Modulation on the Relaxation Oscillation and Turn-on Delay for a QWL $\text{In}_{0.2}\text{Ga}_{0.8}\text{As}/\text{GaAs}$ ", Journal of Education College, Mustensria Univ., accepted to be publish, (2011).
- 5- Nabel M. Naser, **Saman Q. Mawlud** and Mazin S. Othman, "Electronic structure and Some optical properties of $\text{GaAs}_{1-x}\text{Sbx}$ semiconductor alloys", Education College Journal, Vol. 28, No. 6, (2012).
- 6- **Saman Q. Mawlud**, Nabel M. Naser and Mazin S. Othman, "Theoretical investigation of strip cavity length effect on threshold current for MQWL $\text{In}_{0.2}\text{Ga}_{0.8}\text{As}/\text{GaAs}$ ", 19th Scientific Conference, Education College Journal, Vol. 4, (2012).
- 7- **Saman Q. Mawlud** and Nahlah Q. Muhamad, "Theoretical and Experimental Study of Numerical Aperture for Multimode PCS Fiber Optics Using Imaging Technique", CHIN. PHYS. LETT. Vol. 29, No. 11, (2012).
- 8- **Saman Q. Mawlud**, "Experimental Study of Laser Beam Analysis Using Image Technique", accepted to be published in IJERD, (2012).
- 9- **Saman Q. Mawlud** and Nabel M. Naser, "Effect of Strip Cavity Length, Width and Thickness on Threshold Current for SQWL $\text{Al}_{0.7}\text{Ga}_{0.3}\text{As}/\text{GaAs}$ ", accepted to be published in IOSR Journal of Engineering, (2013).
- 10- Delshad O. Abdul-Rahim and **Saman Q. Mawlud**, "Optimization of the Geometrical Parameters for the Output Mirror in a He-Ne Laser", J. Univ. of Zakho, Vol 1, No. 1 (2013).
- 11- Nabel M. Naser, Haidar J. Ismail, **Saman Q. Mawlud**, "Theoretical Study Of Influence Of Some Material Parameters On Solar Cell Efficiency, J. Univ. of Zakho, Vol 1, No. 2, (2014).
- 12- Kasim F. Ahmed, Saeed O. Ibrahim, Md. Rahim Sahar and **Saman Q. Mawlud**, "Optical characterization of Nd^{3+} Doped $\text{TeO}_2\text{-ZnCl}_2$ ", Proceedings of 5th International Conference on Solid State Science and Technology (ICSSST), Malaysia, (2015).
- 13- Bestoon T. Mustafa, Hewa Y. Abdulla, **Saman Q. Mawlud**, "Experimental study of charge injection from gold/aluminum into regioregular poly (3-hexylthiophene)", J. of Karbala University, Vol 13, No. 2 Scientific, (2015).
- 14- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar and Kasim F. Ahmed, "Optical Absorption Spectra of Samarium Doped $\text{TeO}_2\text{-Na}_2\text{O}$ Glasses", Proceedings of 5th International Conference on Solid State Science and Technology (ICSSST), Malaysia, (2015).
- 15- Kasim F. Ahmed, Saeed O. Ibrahim, Md. Rahim Sahar and **Saman Q. Mawlud**, "Preparation and characterization of $\text{Nd}^{3+}/\text{Er}^{3+}$ ions co-doped zinc-telluride glass system", ZJPAS 2016 28 (2); s351-355.
- 16- Kasim F. Ahmed, Saeed O. Ibrahim, Md. Rahim Sahar and **Saman Q. Mawlud**, "Effect of rare earth co-dopping on physical and optical characterization of zinc telluride glass embedded silver Nano particle", Proceedings of 3rd international conference on energy, environmental and applied sciences (ICEEAS), (2016).
- 17- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar and Kasim F. Ahmed, "Absorption and Luminescence Spectral Properties Study Of Sm^{3+} Doped $\text{TeO}_2\text{-Na}_2\text{O}$ Glasses", Proceedings of 4th International Science Postgraduate Conference, UTM, Malaysia, (2016).
- 18- **Saman Q. Mawlud**, "Experimental Study of Hollow Beam Formation by Using PCS Multimode Fiber", Proceedings of 4th International Science Postgraduate Conference, UTM, Malaysia, (2016).
- 19- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar, Zahra A. Said Mahraz, Kasim F. Ahmed. Thermal stability and Judd-Ofelt analysis of optical properties of Sm^{3+} -doped sodium tellurite glasses, 6th International Conference and Workshops on Basic and Applied Science (ICOWBAS) 2017.

- 20- Zahra Ashur Mahraza, M.R. Sahar, S.K. Ghoshal, **Saman Q. Mawlud**. Impact of heat treatment on optical response of silver nanoparticles embedded Er³⁺- doped boro-tellurite glasses, 6th International Conference and Workshops on Basic and Applied Science (ICOWBAS) 2017, Page 250.
- 21- Kasim Fawzy Ahmed, Saeed Omer Ibrahim, Md. Rahim Sahar, **Saman Qadir Mawlud**. Thermal Analysis, Spectral Characterization and Structural Interpretation of Nd³⁺/Er³⁺ ions Co-doped TeO₂-ZnCl₂ Glasses System, 6th International Conference and Workshops on Basic and Applied Science (ICOWBAS) 2017, Page 117.
- 22- Kasim Fawzy Ahmed, Saeed Omer Ibrahim, Md. Rahim Sahar, **Saman Qadir Mawlud**, 2017. Physical and Optical Properties of Zinc Tellurite Glass Embedded Silver Nanoparticles Co-doped with Nd³⁺/Er³⁺ ions, Journal of Zankoi Sulaimani-Part A (JZS-A), Vol.(19), No.(1).
- 23- Kasim Fawzy Ahmed, Saeed Omer Ibrahim, Md. Rahim Sahar, **Saman Qadir Mawlud**, Herish A. Thermal analyses, spectral characterization and structural interpretation of Nd³⁺/Er³⁺ ions co-doped TeO₂-ZnCl₂ glasses system, AIP Conference Proceedings 1888, 020008 (2017); doi: 10.1063/1.5004285.
- 24- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar, Zahra A. Said Mahraz, Kasim F. Ahmed. Thermal stability and Judd-Ofelt analysis of optical properties of Sm³⁺-doped sodium tellurite glasses, AIP Conference Proceedings 1888, 020032 (2017); doi: 10.1063/1.5004309.
- 25- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar and Kasim F. Ahmed, 2017. Structural characterization and Thermal Behavior of Sm³⁺ Ions Doped Sodium Tellurite Glasses, ZJPAS (2017), 29 (2); 32-42, <http://dx.doi.org/10.21271/ZJPAS.29.2.4>.
- 26- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar, Kasim F. Ahmed. Plasmon-enhanced luminescence of samarium doped sodium tellurite glasses embedded with gold nanoparticles: Judd-Ofelt parameter, Journal of Luminescence 190 (2017) 468–475.
- 27- **Saman Q. Mawlud**. 2019. A comparative enhancement of Au and Ag NPs role on radiative properties in Sm³⁺ doped zinc-sodium tellurite glass: Judd-Ofelt parameter. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Vol. 209, 15, Pages 78-84
- 28- Zahra Ashur Said Mahraz, E.S. Sazali, M.R. Sahar, Nur Ulfah Amran, S.N.S. Yaacob, Siti Maisarah Aziz, S.Q. Mawlud, F.M. Noor, A.N. Harun, 2019, Spectroscopic investigations of near-infrared emission from Nd³⁺-doped zinc-phosphate glasses: Judd-Ofelt evaluation, Journal of Non-Crystalline Solids 509 (2019) 106–114.
- 29- **S.Q. Mawlud**, Physical and thermal properties of gold nanoparticles embedded Nd³⁺- doped borophosphate glasses: Spectroscopic parameters, Journal of Luminescence, Vol 236 (2021).
- 30- Yaacob, S.S., Mohd-Noor, F., **Mawlud, S.Q.**, Aziz, S.M., Yusoff, N.M., Yusof, N.N. and Safaai, S.S., 2023. Correlation between structural and mechano-optical response of modified europium in magnesium borotellurite glass. *Journal of Non-Crystalline Solids*, 600, p.122010.
- 31- Wasman, K.M. and MAWLUD, S., The Determination of Eigenvalues and Eigenvectors of the Orbital Angular Momentum. *Journal of Physical Chemistry and Functional Materials*, 5(1), pp.22-29.
- 32- H.S.K. Mawlud S.Q. and Fakhre, N.A., Characterizations and Environmental Applications of Various Synthesized Aluminum Oxide Nanoparticles Using Sol-Gel Technique: A Review. *Science and Engineering*, 8(3), pp.74-94.

Published Book:

1. Raouf El-Mallawany and **Saman Q. Mawlud**. Tellurite Glass Smart Materials Applications in Optics and Beyond, Springer, 2018.

Conferences and Courses Attended

- 1- 2nd International Conference on Advanced Optoelectronic and Laser, Yalta, Ukraine, (12-17 September 2005)
- 2- 3rd International Olympiad Project, Fazaler Educational Institution, Erbil-Iraq, (2008).
- 3- 4th International Olympiad Project, Fazaler Educational Institution, Erbil - Iraq, (2009).
- 4- 19th Scientific Conference, University of Al-Mustenseria, Baghdad, Iraq, (2011).
- 5- 1st Scientific Conference Research project of 4th class student, College of Education/Scientific Dept., (2011).
- 6- 2nd Scientific Conference Research project of 4th class student, College of Education/Scientific Dept., (2012).
- 7- 1st International scientific conference / University of Zakho, (2013).
- 8- 1st INTERNATIONAL CONFERENCE on ECOLOGY, ENVIRONMENT, and ENERGY “Green Approaches to Ecology, Environment and Energy” 12-13 APRIL 2010.
- 9- 5th International Conference on Solid State Science and Technology (ICSSST), Malaysia, Lingkawi, 13–15 Dec 2015.
- 10- 1st INTERNATIONAL CONFERENCE on ECOLOGY, ENVIRONMENT, and ENERGY “Green Approaches to Ecology, Environment and Energy” 12-13 APRIL 2014.
- 11- 4th INTERNATIONAL SCIENCE POSTGRADUATE CONFERENCE, UNIVERSITI TEKNOLOGI MALAYSIA, Malaysia, Johor, 22 – 24 Feb 2016.
- 12- 1st International Conference on Engineering and Innovative Technology, University of Salahaddin, Erbil, Iraq, 12–14 April 2016.
- 13- 3rd International Conference on Energy, Environment and Applied Sciences (ICEEAS), Ishik University Campus, in collaboration with Salahaddin University, Apr 10-11, 2016.
- 14- Workshop on “Material Characterization by Thermal and Chemical Analysis”, University Technology Malaysia, IBN SINA Institute for Fundamental Science Studied, 2015.
- 15- Workshop on “Plagiarism, Paraphrasing and Turnitin”, University Technology Malaysia, Faculty of Science, 2015.
- 16- Workshop on “LaTex”, University Technology Malaysia, Faculty of Science, UTM Center for Industrial and Applied Mathematics, 2015.

- 17- **Saman Q. Mawlud**, Mudhafar M. Ameen, Md. Rahim Sahar, Zahra A. Said Mahraz, Kasim F. Ahmed. Thermal stability and Judd-Ofelt analysis of optical properties of Sm^{3+} -doped sodium tellurite glasses, 6th International Conference and Workshops on Basic and Applied Science (ICOWBAS) 2017.
- 18- Zahra Ashur Mahraza, M.R. Sahar, S.K. Ghoshal, **Saman Q. Mawlud**. Impact of heat treatment on optical response of silver nanoparticles embedded Er^{3+} - doped boro-tellurite glasses, 6th International Conference and Workshops on Basic and Applied Science (ICOWBAS) 2017, Page 250.
- 19- Kasim Fawzy Ahmed, Saeed Omer Ibrahim, Md. Rahim Sahar, **Saman Qadir Mawlud**. Thermal Analysis, Spectral Characterization and Structural Interpretation of $\text{Nd}^{3+}/\text{Er}^{3+}$ ions Co-doped $\text{TeO}_2\text{-ZnCl}_2$ Glasses System, 6th International Conference and Workshops on Basic and Applied Science (ICOWBAS) 2017, Page 117.
- 20- 5th International Conference on Energy, Environment and Applied Sciences (ICEEAS), Ishik University Campus, in collaboration with Salahaddin University, 07-04-2018.
- 21- 1st Student Research Project and Academic Poster Conference, Salahaddin University, 15-05-2018.
- 22- 8th Student Research Project and Academic Poster Conference, Salahaddin University, College of Education, 14-05-2018.
- 23- 1st Nanotechnology Workshop (NW1-2017), Physics Education Department, Ishik University, 24-12-2017.
- 24- Ranking of Kurdistan Universities Workshop, University of Salahaddin, 2018.
- 25- Workshop About Training Course of Moodle Program, University of Salahaddin, Research Center, 2018.
- 26- A Training Course on the Methods of Teaching, Salahaddin University-Erbil (2006).
- 27- A Training Course for English Language, Salahaddin University-Erbil (2001).
- 28- A Training Course on Computer (ICDL) Skills, Salahaddin University-Erbil (2012).
- 29- Learning Management Systems (LMS) Moodle, Salahaddin University-Erbil (2018).
- 30- Iraq E-Learning Professional Training Program (IREX), May-June, 2020.

Supervision of Undergraduate Research Project:

- 1- Saman Q. Mawlud, Karzan M., "Effect of Temperature on LD Characteristics", 2007.
- 2- Saman Q. Mawlud, Hanan F., "Designing a Simple Spectrometer", 2007.
- 3- Saman Q. Mawlud, Shahla A. Aliass "Reliability Test for Commercial Laser Diode", 2008.
- 4- Saman Q. Mawlud, Sirwa Q. "دراسة الزوجة لبعض زيوت السيارات المستخدمة في إقليم كردستان العراق", 2009.
- 5- Saman Q. Mawlud, Zena F., "Loss Mechanism in Fiber Optics", 2010.
- 6- Saman Q. Mawlud, Gazang M. Abdullah, "Experimental Study on Purity of Groundwater and Mineral Water in Erbil City by Using Colorimeter", 2011.
- 7- Saman Q. Mawlud, Rebin Said Dilshad, "Experimental Study on Effect of Macro-Bending Diameter on the Power Loss in SM Fiber Optics", 2011.
- 8- Saman Q. Mawlud, Nawras N. Salman, "Study of Laser Output Gaussian Beam Profile Using Near field and Far field Pattern", 2012.
- 9- Saman Q. Mawlud, Shayma F. Othman, "Study of Numerical Aperture for Multimode Fiber Optics Using a Gaussian Beam Distribution", 2012.
- 10- Saman Q. Mawlud, Avan H. Farhan, "Theoretical and Experimental Study of Mirascope using a Ray Trace and Matrix Method", 2012.
- 11- Saman Q. Mawlud and Sara S. "Effects of Indoor Light Intensity on Human eye receptors sensitivity", 2018.
- 12- Saman Q. Mawlud and Zhean A., "Effects of Angle and Distance of Smart Screen Blue Light Intensity on Nearsightedness", 2018.
- 13- Saman Q. Mawlud and Dezhwar N., "Impact of Light-Emitting eReaders on Sleep and Alertness", 2018.
- 14- Saman Q. Mawlud and Kani Babakir, "Optical Properties of the Glass", 2019.
- 15- Saman Q. Mawlud and Sara Qasim, "Thermal Properties of the Glass", 2019.
- 16- Saman Q. Mawlud and Ahmed Azad Mohammad, "Optical, Structural and Durability Properties of Commercial Soda Lime Silica Glass", 2020.
- 17- Saman Q. Mawlud and Rezan Fage, "Measuring the Absorption Coefficient Parameter for different commercial Soda-Lime glass by using Jasco V770 UV-Vis-NIR Spectrometer", 2021.
- 18- Saman Q. Mawlud and Rezhen Nameq, "Measuring the Reflection Coefficient Parameter for different commercial Soda-Lime glass by using Jasco V770 UV-Vis-NIR Spectrometer", 2021.

Funding and academic awards

SINGLE DISCIPLINARY PROJECT

APPLICATION FORM
FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)

Application ID	402175-425497
Reference Code	FRGS/1/2021/STG07/UTM/03/1
A(i). Selected Grant Scheme	FRGS 2021-1
A(ii). Title of Proposed Research Project	Controlling crystallisation kinetics in borotellurite glass-ceramics for optimum dielectric response in X-band frequencies.

My grant:

<https://mygrants.gov.my/csp/sys/bi/%25cspapp.bi.work.mygrant.custom.applicationform.cls?applid=425497&comment=1>

Professional memberships

- Member of Physics Society, Kurdistan Region-Iraq (January 2005).
- Member of Kurdistan Teachers Union, Erbil (November 2000).
- Member of Kurdistan Physicists' Syndicate (May 2006).
- Member of Undergraduate Examining Committee in the College of Education/Salahaddin University-Erbil.
- Member of Advanced Optical Material Research Group (AOMRG)
- Member of Solid State Science and Technology (ICSSST)
- Moodle Administrator

Professional Social Network Accounts:

ORCID ID: <https://orcid.org/my-orcid?orcid=0000-0001-8409-2931>

Academic Profile: <https://academics.su.edu.krd/saman.mawlud/>

LinkedIn: <https://www.linkedin.com/in/saman-mawlud-b12379174/>

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

Research gate: <https://www.researchgate.net/profile/Saman-Mawlud>