CURRICULUM VITAE

Prof. Dr. Maysoon Faisal Ahmed Alias

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KEY AREAS OF EXPERIENCE

Highly qualified in teaching and academic research at university level with a deep and wide range of experience, knowledge and skill developed throughout various stages of her career, mainly:

- Academic teaching in and/or designing a wide range of undergraduate and postgraduate courses, particularly in:-electricity and magnetism, thin film, solar cells, phase transformation, diagnostic techniques, detectors, semiconductors, optoelectronics and spectroscopy.
- Researches in the field of material science (fabrication of different devices (detectors, solar cells, gas sensors, memory transistors and thin films) and studying physical properties (electrical, optical, structural, morphological and optoelectronic) using semiconductors (organic and inorganic materials), superconducting and insulators materials.
- Field of flexible electronics.
- Nanotechnology Materials (structure and characterization) and their applications.
- Renewable Energy (feasibility studies for low photovoltaic utilization systems).
- Established Advance Lab for Semiconductor characterization also set up a software program incorporate with Perkin Elmer Spectrophotometer Company for optical characterization of thin films using spectrophotometer technique.
- Scientific administration-Managing research grants program.

ACADEMIC QUALIFICATIONS

- 1998 **University of Baghdad**-College of Science,**Ph.D** degree. (Solid State, Thin Film and Material Science) [Thesis title: *Optoelectronic Study of a-Si-Ge-Al (As): H Thin Films*]
- 1987 **University of Baghdad** College of Science, **M.Sc** degree. (Solid State-Thin Film) [Thesis title:Electrical and Optical Properties Dependence on Temperature and Impurity Percentages for Amorphous Silicon Films)
- 1982 Al-Mustansiryah University College of Science, B.Sc degree. Physics and Mathematics

PROFESSIONAL EXPERIENCE

2017-2018	Academic Research Visitor, School of Electronic Engineering, College of Physical and Applied
	Sciences, Bangor University, UK
2013-2013	Sabbatical leave-Exchange Visitor, Western Michigan University, USA
2005-2007	Sabbatical leave – Visiting Researcher, Sharjah University - Research and Studies Center, UAE.
2003-Present	Professor in Physics, University of Baghdad - College of Science
1996-2003	Assistant Professor in Physics, University of Baghdad - College of Science
1995-1996	Lecturer in Physics, University of Baghdad - College of Science
1992-1995	Lecturer in Physics, University of Baghdad - College of Women Education
1990-1992	Assistant Lecturer in Physics, University of Baghdad - College of Women Education

1987-1990 Assistant Researcher, Scientific Research Council - Solar Energy Research Center

1982-1987 Physicist and Lab Supervisor, Scientific Research Council -Solar Energy Research Center

SABBATICALLEAVE

- 1- Academic Research Visitor, School of Electronic Engineering, College of Physical and Applied Sciences, Bangor University, UK, a period 03/2017- 03/2018. The main outcomes:
 - Preparing organic solar cell and DSSC by spin coating and thermal evaporation techniques.
 - Study the optoelectronics properties of prepared devices.
 - Preparing organic transistor and organic memory transistors using different insulators and preparation conditions.
 - Prepare stress sensor based on PDMS with CN's as a conductive material.
 - Co-supervision of two MSc projects in the field of flexible electronics.
 - Publish papers with colleagues at the School of Electronic Engineering in reutable journal.
- 2- Exchange Visitor, Western Michigan University, a period 10/2013- 11/2013. The main outcomes:
 - Preparing thin film for organic solar cell by spin coating and thermal evaporation techniques.
 - Study the structural (XRD), morphological (AFM and SEM) and optical properties of prepared organic material films at different thickness and annealing temperatures.
 - Joint publish paper with colleagues at the department in reutable journal.
- 3- Visiting Researcher/ Sharjah University Research and Studies Center, UAE for a period 3/2005-3/2006.

I was engaged for one year as scientific researcher visitor at Research and Studies Center in Sharjah University-Sharjah, United Arab Emirates. Find below the main activities were accomplished during period from March 2005 to March 2006.

- **A-**Establish High Technical Research laboratory for fabricating and characterization of novel semiconductors materials used for fabrication of low cost high efficiency devices, such as solar cell and photodetector.
- **B**-Member of the team belong to Perkin Elmer for develop a software program incorporate with the spectrophotometer technique for measuring the optical properties of thin films deposited on glass substrate (2005-2008).
- **C- Community Services**. This was including:
- Member of Renewable Energy and Environment Research Group at Sharjah University, Sharjah, United Arab Emirates.
- Member of team for curried out research project which is entitled," *Development of solar cell based on CdS/ CdTe system*"

D-Other Activities

- Published many joint papers in international referred journals and conferences.
- Peer evaluation for papers submitted to the conferences and symposiums organized by Research and Studied Center at Sharjah University

E-Administrative activities

- A Booklet of undergraduate research program at the University of Sharjah, were done
- Bulleting scientific research news (editing staff).

TRAINING ACTIVITIES

Many training sessions were delivered to participants from the Public Sector on the following subjects:

- Thin Films (preparation and physical properties).
- Semiconductors (preparation, structural, electrical and optical properties).
- Detectors (types, fabrication and study the optoelectronic properties).
- Solar Cells (fabrication and application).

- Utilization of Solar Energy.
- Applied Thin Films in Industry.
- New Approach for Infrared detectors and its Application.

RECORD OF UNIVERSITY COURSES TAUGHT

Undergraduate

B.Sc.	Ph	vsics

Course Title	Level	Period (from-to)
Electricity and Magnetism	Refreshment year	1990-1993
Electricity and Magnetism Experimental	Refreshment year	1990-1993
Waves	Refreshment year	1998-2002
General Physics	Refreshment year	1999-2000
General Physics Experimental	Refreshment year	1999-2000
Detector	Senior year	2000-2004
Computer Science	Refreshment year	2002-2004
Computer Science Experimental	Refreshment year	2002-2004
Thin Films	Junior year	2003-2010
Thin Films Experimental	Junior year	2003-2010
Solar Energy and Solar Cell	Senior year	2004-2005
Graduate Project (Theoretical and Experimental)	Senior year	2009-2020
Solid State Physics Experimental	Senior year	2010-2015
Solid State Physics Experimental	Refreshment year	2019-2020
Computer Science Experimental	Junior year	2012-2013
Visual Experimental	Junior year	2012-2013
Visual Experimental	Senior year	2018-2018
Solar Cells	Senior year	2014-2017
Optoelectronic Devices	Second year	2014-2015
Modern Physics	Senior year	2015-2017

Post Graduate

For 1	M.Sc	Physics
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Course Title	Level	Period (from-to)	
Diagnostic Techniques	M.Sc	2000-2002	
Spectroscopy	M.Sc	2002-2003	
Semiconductors	M.Sc	2003-2004	
Optoelectronic Devices	M.Sc	2009-2011	

For Ph.D Physics

Course Title	Level	Period (from-to)
Post Graduate Thin Film and	Ph.D	1996-2015
Superconducting Laboratory		2018-2020
Phase Transformation	Ph.D	1998-2003
Phase Transformation	Ph.D	2013-2014
Detectors –Advance	Ph.D	2001-2008
Solar Cells	Ph.D	2004-2005

Optoelectronics-Advance	Ph.D	2002-2013
Optoelectronics-Advance	Ph.D	2014-2020
Spectroscopy-Advance	Ph.D	2002-2003
Semiconductors-Advance	Ph.D	2003-2017
Semiconductors-Advance	Ph.D	2018-2020
Thin Films Technology	Ph.D	2011-2012
Nanotechnology and Application	Ph.D	2012-2013
Solar Cell Technology	Ph.D	2014-2015

Funded Research Projects and Research Group

No.	Title of research project	Participants	Duration	Funding Agency
1	New Approach for Fabricating IR	Maysoon F. Alias	2005-	Arab Science and
	Sensor Detecting at Room	M.N. Makadsi	2006	Technology
	Temperature	ZanibJassim		Foundation
2	Development of solar cell based	Ala A. J .Al-Douri	2005-	University of
	on CdS/CdTe system	AbdallaAAlnajjar ,	2008	Sharjah
		Maysoon F. Alias		
		AbdallahShanableh		
3	Research Group:	Ala A. J .Al Douri	2006-	University of
	Titled "Renewable Energy and	Abdalla A Alnajjar	2009	Sharjah
	Environment Research"	AbdallahShanableh		
		Maysoon F. Alias		

RESEARCH PUBLICATIONS

Throughout my career particularly at the Solar Energy Research Center and at the University of Baghdad – College of Science. I have published more than **110 papers** in various reutable international and local journals and refereed proceedings conferences.

(Please refer to publication item for further details).

PRESENTATION AND CONFERENCES ATTENDED

Attended and presented more than one hundred number of International and National Conferences, Forums, Symposiums and Seminars.

ACADIMIC PROFESSIONAL ACTIVITIES

A- Supervising twelve **M.Sc** and ninteen **Ph.D** Students in the fields of: Thin films, Solar cells, Detector, Superconductor, Insulator and Semiconductors. The detail is listed below:

For M.Sc. Degree

	Theses Title	Year
1	The Study of Charging Transport Mechanism of Ge _x Se _{1-x} Thin Films	2001
2	The Effect of Pb and Te Concentration on the Electrical and Optical Properties	2001
	of $(Pb_xGe_{1-x})_y Te_{100-y}$ Films	
3	Mechanism of Optical Transport in Amorphous Germanium Thin Films (a-Ge)	2002
4	Fabrication of Pb _x S _{1-x} Photoconductive Detector and Study the Effect	2002
	of Annealing Temperature on Its Optoelectronic Properties	
5	Optoelectronic Investigation in InSb _x Bi _{1-x} Thin Films	2002
6	Study of Photovoltaic Characteristics of CdS/ CdTe Heterojunction	2006

7	The Impact of Sn Concentration on Some Physical Properties for Cd _{1-x} Sn _x Se Films	2014
8	Preparation and Characterization of Doped ZnO (Cu, Ti)/Si Solar Cell	2014
9	An Improved Doped CdS/Si Heterojunction.	2016
10	Carbon Nanotubes Based Strain Sensor (UK).	2017
11	Embedded Carbon Nanotubes Based Strain Sensor (UK).	2017
12	Characterization of ZnO:Al Thin Films for Sensing Applications	2020

For Ph.D. Degree

	Theses Title	Year
1	Study of Optoelectronic Properties of Amorphous Al _x Ga _{1-x} As Thin Films	2003
2	Evaluation and Measurement of the Insulating Properties of Reinforced Polymer Blend	2004
3	Fabrication of Pb _x S _{1-x} Detector	2005
4	Modeling Design for Interaction of the Electromagnetic Waves with Multilayer Systems	2005
5	Characterization of Hg _{1-x} Cd _x Te Junction	2005
6	Fabrication and studying the Photoconducting Characteristic of InSb Junction with Silicon as a Single Crystal Semiconductor	2005
7	Effect of Ag and In Substitution on T_c and Superconducting Properties of the $Hg_{1-x}(In, Ag)_xBa_{2-y}Sr_yCa_2Cu_3O_{8-\delta}$	2006
8	The Phase Transition of the HTSC Bi _{2-x} Pb _x Sr ₂ (Sb, Ba)Ca ₂ Cu ₃ O ₁₀	2006
9	Fabrication and Characterization of (Hg,Bi)-doped of Tl based superconducting systems	2007
10	Characterization and Properties of the Superconducting	2007
	$Hg_{1-x-y}Tl_xPb_yBa_2Ca_2Cu_3O_{8+\delta}$ System	
11	Investigation of Some Physical Properties of GaAs/Ge Heterojunction	2007
12	Characterization of CdTe-GaAs Heterojunction	2009
13	Microstructure and Optoelectronics Characterization of Ga _x Sb _{1-x} /GaAs Heterojunction	2012
14	Electronic Transport Mechanism of ZnO Junction	2013
15	Synthesis and Characterization of Thin Film Solar Cell Based on CZTS	2014
16	Impact of Deposition Parameters on Thin CTS Films as Absorber Layer in Solar Cell	2015
17	Anticancer Effect of Nano materials on some Cancer Cell Line	2019
18	Sensing and Characterization of (CdO) _{1-x} (In ₂ O ₃) _x Films Prepared by PLD Technique for Sensing Applications	2019
19	Synthesis of Metallic Nanoparticles by Eco-Friendly Method for Cancer Treatment	2019

- **B-**Evaluation of the Papers submitted for Paper Publications, Scientific Promotions and Funded Scientific Research Projects from various Universities and Research Centers in Iraq and abroad (1996- present).
- C- Peer Evaluation for Ph. D and M.Sc. Theses Submitted for Postgraduate Degree from various Ministries and Universities in Iraq and abroad (1996-present).
- **D-**Member of the Team for Evaluation in Gulf Cooperation Council Countries Youth's Scientific Forum in Sharjah-United Arab Emirates, during the period 31 Jan- till fifth Feb.2009.

SCIENTIFIC ADMINSTRATIVE ACTIVITIES

- **A-** Member of Scientific committee of 2nd International Conference in Physical Science &Advances Materials (PAM2020).
- **B-** Member of Organization committee 2nd International Conference in Physical Science &Advances Materials (PAM2020).
- C- Member of Scientific committee of 1st International Conference in Physical Science &Advances Materials (PAM2019).
- **D-** Member of Organization committee 1st International Conference in Physical Science &Advances Materials (PAM2019).
- **E-** Guest Editor in IOP.2019
- **F-** Chairman of Scientific Committee of Promotion , Physics Department, College of Science, University of Baghdad (2010-2012 and 2018-2020).
- **G-** Member of Scientific committee, Physics Department, College of Science, University of Baghdad (2018-2020).
- **H-** Chairman of the Committee of the Assessment of Faculty Performance Year for Physics Department, College of Science, University of Baghdad (2014-2017).
- **I-** Chairman and Member of Curriculum of Undergraduate for Physics Department, College of Science, University of Baghdad (2009-present).
- **J-** Member of Curriculum of Postgraduate Thin Films Group for Physics Department, College of Science, University of Baghdad (2011-present).
- **K-** Chairman of Documentation of Conferences, Forums, Seminars for Physics Department, College of Science, University of Baghdad (2010- 2017).
- **L-** Chairman of Community Education for Physics Department, College of Science, University of Baghdad (2011- 2015).
- **M-** Member of Examination Committee of Undergraduate Students, Women Education College, University of Baghdad, Baghdad, Iraq (1990-1993).
- N- Member of Examination Committee of Undergraduate Students, Science College, University of Baghdad, Baghdad, Iraq (2001-present).
- **O-** Member of the Team Responsible for Preparing of more than twenty Conferences in Physics and their Applications at:-
 - College of Women Education, University of Baghdad, Baghdad, Iraq (1990-1995).
 - College of Science, University of Baghdad, Baghdad, Iraq (1995-present).
 - Solar Energy Research Center, Scientific Research Council, Iraq (1982-1990).
 - Applied Physics Department, Technology University, Iraq (2002).
- **P-** Chairman and Member of Comprehensive Examination Committee of Graduate Students, Science College, University of Baghdad, Baghdad, Iraq (2002-present).
- **Q-** Member of Renewable Energy and Environment Research Group at the Sharjah University, Sharjah, United Arab Emirates (2005-2008).
- **R-** Member of Team for curried out Research Project which is entitled" *Development of solar cell based on CdS/CdTe system*" funded by the Sharjah University Sharjah, United Arab Emirates (2005-2006).
- **S-** Member of Committee for preparing fourth year curriculum in Physics Department, College of Science, University of Baghdad, Iraq (2011-present).
- **T-** Member of Committee for preparing postgraduate for Thin Films group in Physics Department, College of Science, University of Baghdad, Iraq (2011-present).
- **U-** Member of Committee for preparing Renewable Energy and Medical Physics curriculum in Physics Department, Science College, University of Baghdad, Baghdad, Iraq (2012-present).

- V- Chairman of Physics Committee for Reward of Science in Ministry of Higher Education and Scientific Research, Baghdad, Iraq, 2013
- W-Member of Central Committee for Reward of Science in Ministry of Higher Education and Scientific Research, Baghdad, Iraq, 2013
- **X-** Member of Physics Department Council and Scientific committee, Physic Department, College of Science, University of Baghdad, (2000-2017, 2018-present).
- **Y-** Chairman and membership of Examining Panels more than one hundred Candidates for M.Sc. and Ph.D. Degrees from various Universities in Iraq for the Period of 1998- present. Find below brief for these Examining Panels Committees.

OTHER ACHIEVEMENTS

a-Administrative and other Academic Experience

1-Responsibilities:

- Solar Cells and Material Laboratories at Solar Energy Research Center, Scientific Research Council, Baghdad, Iraq (1988-1990).
- Summer Training for Undergraduate Student and Staff of Universities at Solar Energy Research Center, Scientific Research Council, Baghdad, Iraq (1988-1990).
- Cultural and Media Committee at Solar Energy Research Center, Scientific Research Council, Baghdad, Iraq (1988-1990).
- Cultural and Media Committee in Women Education College, University of Baghdad, Baghdad, Iraq (1991-1993).
- Post Graduate Thin Film and Superconducting Laboratory in Science College, University of Baghdad, Baghdad, Iraq (1998-2007 and 2017-present).
- Council of Physics Department in College of Science, University of Baghdad, Baghdad, Iraq (2000-2008).
- Archive and Documentations and Media in Arab Science and Technology Foundation, Sharjah, UAE (2005-2006).

2-Repporter

- Photovoltaic Application Department in Solar Energy Research Center, Scientific Research Council, Baghdad, Iraq (1988-1990).
- Physics Department in College of Science, University of Baghdad, Iraq (1999-2001).
- 3- Development the Electrical Laboratory for Second Year Students in Woman Education College, University of Baghdad (1992).
- 4-Prepare of Two Experimental Laboratory Manuals in Electricity for Second Year student's in Women Education College University of Baghdad, Baghdad, Iraq (1992).

b- Community Services

Providing scientific consultation and techniques and advisor to various ministries in the field of material science, thin film fabrication and characterization and the various kind of detectors and solar cells at Baghdad, Iraq (1990-present) and at Sharjah, United Arab Emirates (2005-2010). Some of these activities are listed below:

- Utilization of PV for Producing Electricity for Marsh Area in South of Iraq (1987-1989).
- Science and Technology Project in Solar and Wind Energy A project carried out in cooperation with the Royal Jordanian Scientific Society (1988-1990).
- Consultants in Solid State Physics, Baghdad, Iraq (2000-2003).
- Member of the Team of Testing Detectors Applied for detecting Signals in Various Wavelength Band, Baghdad, Iraq (2000-2003).

- Chairman and Member of Abdul Latiff Jameel Grants Program in Arab Science and Technology Foundation, Sharjah, UAE (2008).
- Scientific Adviser at Arab Science and Technology Foundation, Sharjah, UAE (2008-present).

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- * Educational Society, Baghdad, Iraq.
- * Physics and Mathematics Society, Baghdad, Iraq.
- * Association of University Lecturers .Baghdad, Iraq.
- * Iraqi Forum for Intellectuals and Academics.
- * Uruk Journal.
- *Iraqi Journal of Physics.

RESEARCH INTEREST

- Fabricating and characterization of optoelectronic devices (Solar cells, Detectors in all ranges, Memory transistors) and gas sensors.
- Preparing alloys from 2,3,4 and 5 elements from IV-IV,II-V and III-V semiconductors
- Preparing inorganic thin films from crystalline, polycrystalline and amorphous from different semiconductors, elements, binary, ternary and quaternary.
- Studying physical properties of thin films (electrical, optical, structural, morphological and optoelectronic).
- Nanotechnology material for medical and industrial applications.
- Renewable energy application.

BOOKS

Microstructure and Optoelectronics Characterizations of Ga_xSb_{1-x}/GaAs LAP LAMBERT Academic Publishing 2015

PUBLICATIONS

The research results have been published in over than 110 scientific issues including papers in international and national scientific journals, refereed conference proceedings, etc list of publications is given as follows:

- 1. N.A AL-Rawi, S.I.salih, **M.F.A.Alias** & D.H.Hamo, "Effect of Natural Light Intensity and Temperature on Mono crystalline and Polycrystalline Solar Cell Characteristics", J. Solar Energy Research, 3, 33-43, 1985.
- 2. N.A.Al-Rawi & M.F.Alias, "Effect of Thermal Annealing on the Characteristics of Cu₂/CdS Solar Cells", J. Solar Energy Research, 4, 51-67, 1986.
- 3. M.N.Makadsi& **M.F.A. Alias**, "The Role of Impurity and Thermal History on the Electrical Conductivity,, Hall Mobility and Energy Gap of a-Si", Proceedings of the 3rdArabInternational Solar Energy Conference, Baghdad,6-23-6-28, 1988.
- 4. F.S.Hasoon, A.A.Al-Douri, A.H.Al-Foadi, **M.F.A.Alias**, R.GDhere, S.E.Ashre & .L.Kazmeski, "Evaluation and Characterization of (ZnSiAs)_{1-x}(2GaAs)_x and (CulnSe)_{1-x}(2lnAs)_x for Photovoltaic Devices Application", 20th IEEE, Photovoltaic Specialists Conference, las Vegas, Nevada, 1988.

- 5. M.N.Makadsi & **M.F.A.Alias**, "Effect of Doping Percentages on the Conductivity and Energy Gap of a-Si Thin Film", Phys. Rev. B, 38,9, 6143-6146, 15Sept1988.DOI: 10.1103/physrevb.38.6143
- 6. **M.F.A.Alias**, A.A.J.Al-Douri, F.S.Hasoon, I.A.Al-Naimi& L.L Kazmerski, "*The Effect of Substrate Temperature and Dopant Concentration on the Optical Energy Levels for p-type a-Si Films*", The Fifth Scientific Conference of the Scientific Research Council, Baghdad, 11-20, 1989.
- 7. F.S.Hasoon, M.F.A.Alias, A.A.J.Al-Douri, I.A.Al-Naimi & L.L Kazmerski, "The Influence of the Deposition Parameter on the Optical Properties of n-type Amorphous Silicon Films", The Fifth Scientific Conference of the Scientific Research Council, Baghdad, 33-39,1989.
- 8. **M.F.A.Alias**, A.H.Al-Foadi, A.AJ.Al-Douri, F.S.Hasoon & L.L Kazmerski, "Optical Properties of a-Si:BFilms", Solar and Wind Technology, 6, 5,537-540,1989.doi.org/10.1016/0741-983X(89)90088-X
- 9. A.A.J.Al-Baali, A.A.J.Al-Abbasi, A.A.J.Al-Douri, **M.F.A.Alias** & S.I.Salih, "Use of the Passive Heat Transfer and Fluorescence to Improve Performance of Photovoltaic Solar Panel", Solar and Wind Technology, 7,2-3, 213-218, Dec 1990.DOI: 10.1016/0741-983X(90)90089-K
- 10. **M.F.A.Alias**, M.N.Makadsi & A.A.J.Al-Douri, "Properties of a-Si Thin Films Prepared by Thermal Evaporation", J. Iraq Society of Physics and Mathematics, 12, 12-20,1991.
- 11. **M.F.A.Alias** & A.A.J.Al-Douri, "*Electronic Properties for unhydrogenated a-Si Thin Films*", Proceeding of the International Seminar on the Commercialization of Solar and Wind Energy Technologies, Amman, Jordan, 361-357, 1992.
- 12. M.N.Makadsi, **M.F.A.Alias** & S.K.J.Al-Ani, "Variation of Conductivity and Optical Energy Gap of Pure and Doped Amorphous Silicon Thin Films versus Temperature", J. Dirasat (Pure and Applied Science), 20B, 3, 56-83, 1993.
- 13. **M.F.A.Alias** & A.A.J. Al-Douri, "Estimation of Various Energy Level of Unhydrogenated Amorphous Silicon Thin Films Prepared by Thermal Evaporation Technique", Proceedings of the 4th International Solar Energy Conference, Amman, Jordan, 507-513, 20-25/11/1993.
- 14. **M.F.A.Alias**, F.Y.Al-Shaikly & A.A.J.Al-Douri, "The Effect of Preparation Condition on the Optical Properties of Unhydrogenated Doped Amorphous Silicon Thin Films", J.Women Education College, 6, 2, 66-71, 1995.
- 15. M.N.Makadsi, M.F.A.Alias & A.A.J. Al-Douri, "Optical Properties of a-Si_{1-x}Ge_x Alloy Thin Films", Iraqi J. Science, 37, 1443-1456, 1996.
- 16. **M.F.A.Alias**, "The Influence of the Deposition Parameters on the Conductivity of a-Si:P Thin Films", J. Women Education College, 8, 1, 127-132, 1997.
- 17. **M.F.A.Alias** & M.N.Makadsi, "The Effect of Deposition Temperature, Ge Content and Dopant Concentration on Properties of a-Si_{1-x}Ge_x: Thin Films", Proceedings of the 3rd Jordan Mechanical and Industrial Engineering Conference(JMIEC 99), Amman, Jordan, 233-246, 9-12/5/1999.
- 18. M.N .Makadsi & **M.F.A.Alias**, "Amorphous Si_{1-x}Ge_x is a Good Candidate for Efficient Solar Cells" Proceedings of the World Renewable Energy Congress VI, Brighton, United Kingdom, 1948-1951, 1-7/7/2000.
- 19. **M.F.A.Alias** & M.N.Makadsi, "Hydrogenated a-Si_{1-x}Ge_x: A Potential Solar Cell Material", Proceedings of the International Conference on Energy System, Amman, Jordan, 301-307, 25-28/9/2000.
- 20. A.H.Al-Foadi, **M.F.A.Alias** & M.M.Abbas, "Some of Electrical Properties Dependence on Annealing Temperature for Pure and Doped Amorphous Germanium Thin films", J. Education College, 6, 6, 323-338, 2000.
- 21. E.H.Khdayer, **M.F.A.Alias** & M.N.Makadsi, "The Variation of IR spectra with Temperature of a-Ge_{1-x}Se_x (x=0.5 & 0.6", J. Education College, 2, 2,335-348, 2000.
- 22. **M.F.A.Alias**, "Determination of the Optical Energy Level of Unhydrogenated a-Si Films Properties at Optimum Conditions", J. Iraqi Society of Physics and Mathematics, 16(1), 50-58, 2001.

- 23. M.N.Makadsi, **M.F.A.Alias** & A.A.J.Al-Douri, "The Role of the Deposition Parameter on the Density of the State, Photoconductivity and Energy Gap of Doped Amorphous Silicon", J. Dirasat, Pure Science, 28. 1, 107-113, 2001.
- 24. **M.F.A.Alias**, N.N.Ramo & M.N.Makadsi, "Lattice Parameter and Density of Ge-Si Solid Solution", J. Renewable Energy, 24, 347-351, 2001.
- 25. M.N.Makadsi, H.Kh.Al-Lamy & M.F.A.Alias, "Compositional and Temperature Dependence of The Mobility and Carrier Concentration of a-Al_xGa_{1-x}As: H Film", J. Renewable Energy, 24, 353-356, 2001.doi.org/10.1016/S0960-1481(01)00016-7
- 26. **M.F.A.Alias**, H.Kh.Alamy & M.N.Makadsi, "*Optoelectronic Properties of a-Si*_{1-x}*Ge*_x: *H Thin Films*", J. Renewable Energy, 24, 341-346, 2001. doi.org/10.1016/S0960-1481(01)00014-3
- 27. **M.F.A.Alias**, A.H.Al-Foadi & M.N.Makadsi, "The Mechanism of a.c Conduction for Doped Amorphous Germanium Thin Films", Mathematics and Physics J., 17,2, 89-111, 2002.
- 28. **M.F.A.Alias**, M.N.Makadsi & Z.M.Al-Ajeli, "*Photo–Conductivity and Sensitivity of Thin Ge_xSe_{1-x}Film*", Word Renewable Energy Congress VII, Cologne, Germany 29 June to 5 July 2002.
- 29. F.A.Aune, **M.F.A.Alias** & A.M.Rahema, "The Effect of Te and Pb Concentration and Annealing Temperature on the Electrical Properties of $(Ge_{1-x}Pb_x)_{1-y}Te_y$ Thin Films", J. Iraqi Society of Physics and Mathematics, 17, 5, 1-16, 2002.
- 30. S.A.Twfiq, F.H. Al-Berkdar, **M.F.A.Alias**, A.H.Elwan & H.Hasen, "Preparation of CdSnO₂ Thin Films and the Study of the Effect of Annealing Temperature and Irradiation on their Optical Properties", Science J. Iraqi Atomic Energy Commission, 4, 2, 40-46, 2002.
- 31. **M.F.A.Alias**, M.N.Makadsi & Z.M.Al-Ajeli, "The Influence of Ge Content and Annealing Temperature on the D.C and A.C Conductivity", Turkish J. Phys., 27,133-143, 2003.
- 32. M..N.Makadsi, **M.F.A.Alias**, A.A.Essa & H.R.Al-Azawi, " *FT-IR and XPS Analysis of a-Si*_{1-x}*Ge*_x:*H Thin Films*", J.Renewable Energy, 28, 975-984, 2003. doi.org/10.1016/S0960-1481(02)00061-7
- 33. **M.F.A.Alias,** "Optoelectronic Parameters of Flash Evaporated Amorphous and Crystalline Selenium Thin Films", Iraqi J. Phys., 2, 1, 49-57, 2003.
- 34. F.Y.M.Al-Shaikly, **M.F.A.Alias** & E.M.N.Al-Fawadi, "Optical Properties of Undoped and Phosphours Doped Amorphous Germanium Thin Films", J. of College Education, 3, 195-205, 2005.
- 35. A.A.Al-Ajaj, **M.F.A.Alias** & A.S.Elsammani, "Dielectric Relaxation Study on Epoxy Matrix/Polyurethane Polymer Blend", Damascus University Journal for Basic Sciences, 21, 2, 21-36,2005.
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Awards and Certificates of Appreciation:

I have about 98 awards and certificates of appreciation from various Ministries, Universities and Colleges and other scientific establishment.