

## CURRICULUM VITAE

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Date of birth 01/01/1978  
Nationality Kurdish, Iraqi  
Sex Male  
Marital status Married

### Education/Qualifications

2000-2004 B.Sc. study in the Physics Dept., College of Science, University of Duhok, Duhok, Kurdistan Region of Iraq.  
2006-2009 M.Sc. study on "Superconductivity" in the Physics Dept., College of Education, University of Duhok, Duhok, Kurdistan Region of Iraq.  
2012-2016 Ph.D. study on "Solar Energy and Solar Cells" at Materials and Engineering Research Institute, Sheffield Hallam University, Sheffield, United Kingdom.

### Employment to Date

2005-2009 Employed at the University of Duhok, College of Science, Physics Department, Duhok, Kurdistan Region of Iraq.  
2010-Present Employed at the University of Zakho, Faculty of Science, Physics Department, Zakho, Kurdistan Region of Iraq.

### Other Experience/Activities

2014-2016 Associate Member of the Institute of Physics (IOP).

### Languages

Kurdish (native speaker), Persian (native speaker), English (Good), and Arabic (Good)

### Professional Experience

- Teaching undergraduate courses in optics, Solid-State, solar energy, and solar cells subjects.
- Supervising undergraduate and M.Sc. students' projects.
- Thin-film deposition (CdS, CdTe, ZnS, SnS) using Electrodeposition (ED) and Chemical Bath deposition (CBD) technique for solar cell applications.
- Work on the thin film Characterization techniques including (XRD, SEM, EDX, AFM, UV-vis spectrophotometry, Raman spectroscopy, PEC measurement, sputtering, PVD, Hall Effect, and thickness measurements).

## Academic Title Attained

2005-2006	Assistant Researcher, Department of Physics, College of Science, University of Duhok, Duhok, Kurdistan Region of Iraq.
2009-2016	Assistant lecturer, Department of Physics, Faculty of Science, University of Zakho, Zakho, Kurdistan Region of Iraq.
2016-2019	Lecturer, Department of Physics, Faculty of Science, University of Zakho, Zakho, Kurdistan Region of Iraq.
2020-present	Assistant Professor, Department of Physics, Faculty of Science, University of Zakho, Zakho, Kurdistan Region of Iraq.

## Training Course

- Training course on “General and Academic English Language course” at Kirklees College and Sheffield Hallam University, United Kingdom.
- Training course on “Methods of teaching, Computer, and English Language”, University of Duhok, Duhok, Kurdistan Region of Iraq.

## Workshop

Attended the following Ph.D. workshops:

- Ethics Approval and Research Governance (Sheffield Hallam University, UK)
- Effective Application (Sheffield Hallam University, UK)
- Title and Abstract (Sheffield Hallam University, UK)
- Doing a Ph.D. (Sheffield Hallam University, UK)
- Sample preparation using forcipol 2020 twin wheel grinding and polishing machine (University of Zakho)
- Fabrication of Gold Probe tips for AFM workshop (University of Zakho)
- Synthesis of graphene oxide by modified hummer method workshop day (University of Zakho)
- A study of the threshold pump power workshop day (University of Zakho)
- Adiabatic nano focusing of surface plasma resonance workshop (University of Zakho)
- Applications of Quantum Dots Workshop (University of Zakho)
- Nanoscale spectroscopy nanomaterials workshop (University of Zakho)

## Publications

2014	I.M. Dharmadasa, P.A. Bingham, O.K. Echendu, <b>H.I. Salim</b> , T. Druffel, R. Dharmadasa, G.U. Sumanasekera, R.R. Dharmasena, M.B. Dergacheva, K.A. Mit, K.A. Urazov, L. Bowen, M. Walls and A. Abbas, <i>Fabrication of CdS/CdTe-based thin film solar cells using an electrochemical technique</i> , <i>Coatings</i> , 4(3) 380-415. (DOI: 10.3390/coatings4030380).
2015	Imyhamy M. Dharmadasa, Ayotunde A. Ojo, <b>Hussein I. Salim</b> , and Ruvini Dharmadasa, <i>Next Generation Solar Cells Based on Graded Bandgap Device Structures Utilising Rod-Type Nano-Materials</i> , <i>Energies</i> , 8(6), 5440-5458. (DOI:10.3390/en8065440).
2015	N.A. bdul-Manaf,, <b>H.I. Salim</b> , M.L. Madugu,, O.I. Olusola, and I.M. Dharmadasa, <i>Electro-Plating and Characterisation of CdTe Thin Films Using CdCl<sub>2</sub> as the Cadmium Source</i> , <i>Energies</i> , 8(10), 10883-10903. (DOI: 10.3390/en81010883).
2015	I.M. Dharmadasa, O.K. Echendu, F. Fauzi, N.A. Abdul-Manaf, <b>H.I. Salim</b> , T. Druffel,

- R. Dharmadasa, and B. Lavery, *Effects of CdCl<sub>2</sub> treatment on deep levels in CdTe and their implications on thin film solar cells: A comprehensive photoluminescence study*, Journal of Materials Science: Materials in Electronics, 26(7), 4571-4583. (DOI: 10.1007/s10854-015-3090-4).
- 2015 **H.I. Salim**, V. Patel, A. Abbas, J.M. Walls, and I.M. Dharmadasa, *Electrodeposition of CdTe thin films using nitrate precursor for applications in solar cells*, Journal of Materials Science: Materials in Electronics, 26(5), 3119-3128. (DOI: 10.1007/s10854-015-2805-x).
- 2016 I.M. Dharmadasa, O.K. Echendu, F. Fauzi, **H.I. Salim**, N.A. Abdul-Manaf, J.B. Jasinski, A. Sherehiy, and G. Sumanasekera, *Study of Fermi level position before and after CdCl<sub>2</sub> treatment of CdTe thin films using ultraviolet photoelectron spectroscopy*, Journal of Materials Science: Materials in Electronics, 1-8. (DOI: 10.1007/s10854-016-4391-y).
- 2016 **H.I. Salim**, O.I. Olusola, A.A. Ojo, K.A. Urasov, M.B. Dergacheva and I.M. Dharmadasa, *Electrodeposition and characterisation of CdS thin films using thiourea precursor for application in solar cells*, Journal of Materials Science: Materials in Electronics, 27(7), 6786–6799. (DOI: 0.1007/s10854-016-4629-8).
- 2016 A.A. Ojo, **H.I. Salim**, O.I. Olusola, M.L. Madugu, I.M. Dharmadasa, Effect of thickness: a case study of electrodeposited CdS in CdS/CdTe based photovoltaic devices, Journal of Materials Science: Materials in Electronics, pp. 1-10. (DOI: 10.1007/s10854-016-5916-0).
- 2016 I.M. Dharmadasa, O.K. Echendu, F. Fauzi, N.A. Abdul-Manaf, O.I. Olusola, **H.I. Salim**, M.L. Madugu, A.A. Ojo, *Improvement of composition of CdTe thin films during heat treatment in the presence of CdCl<sub>2</sub>*, Journal of Materials Science: Materials in Electronics, pp. 1-10. (DOI: 10.1007/s10854-016-5802-9).
- 2016 O.I. Olusola, **H.I. Salim**, and I.M. Dharmadasa, *One-sided rectifying p–n junction diodes fabricated from n-CdS and p-ZnTe:Te semiconductors*, Mater. Res. Express 3, 095904. (DOI: 10.1088/2053-1591/3/9/095904).
- 2016 Kumarasinghe, K. D. M. S. P. K., De Silva, D. S. M., Pathiratne, K. A. S., **Salim, H. I.**, Abdul-Manaf, N. A., & Dharmadasa, I. M., *Electrodeposition and characterization of as-deposited and annealed CdTe thin films*, Ceylon Journal of Science, 45(2), 53–59. (DOI: 10.4038/cjs.v45i2.7388).
- 2018 A.A. Ojo, **H.I. Salim**, I.M. Dharmadasa, *The influence of ZnS crystallinity on all-electroplated ZnS/CdS/CdTe graded bandgap device properties*, Journal of Materials Science: Materials in Electronics, (DOI: 10.1007/s10854-018-9491-4)
- 2020 **H.I. Salim**, *The effect of growth technique on the characteristic properties of CdS layers for solar cell applications*, Journal of Materials Science: Materials in Electronics, 31(5), 4193-4207, 2020, DOI: <https://DOI.org/10.1007/s10854-020-02972-0>.
- 2020 Haveen A Mustafa, Dler A Jameel, **Hussien I Salim**, Sabah M Ahmed, *The Effects Of N-GaAs Substrate Orientations on The Electrical Performance of PANI/N-GaAs Hybrid Solar Cell Devices*, Science Journal of University of Zakho, 8(4),149-153, 2020, DOI: <https://DOI.org/10.25271/sjuoz.2020.8.4.773>

## Conference Proceeding

- 2012 O.K. Echendu, A.R. Weerasinghe, F. Fauzi, **H.I. Salim**, N.A. Abdul Manaf and I. M. Dharmadasa, *Electroplating of semiconductor materials for photovoltaic and*

*optoelectronic device applications*, 4th Association of Professional Sri Lankans Convention, APSL - Research Symposium (APSL-RS), Sheffield, United Kingdom.

- 2013 I.M. Dharmadasa, D.G. Diso, O.K. Echendu, **H.I. Salim**, N.A. Abdul Manaf, M. B. Dergacheva, K.A. Mit and K.A. Urazov, *Thin film photovoltaic solar cells with nano- and micro-rod type II-VI semiconducting materials grown by electroplating*, *Proceedings of the 9th Photovoltaic Science, Applications and Technology Conference C95 (PVSAT 9)*, Swansea, United Kingdom, 79-82.
- 2013 I. M. Dharmadasa, D.G. Diso, O.K. Echendu, **H.I. Salim**, N.A. Abdul Manaf, M.B. Dergacheva, K.A. Mit and K.A. Urazov, *Thin film photovoltaic solar cells with nano- and micro-rod type II-VI semiconducting materials grown by electroplating*, 39th IEEE Photovoltaic Specialist Conference, Florida, USA.
- 2013 N.A. Abdul-manaf, O.K. Echendu, **H.I. Salim**, L. Bowen and I.M. Dharmadasa, *Electrodeposition and characterization of polyaniline for development of organic/inorganic hybrid solar cells*, 2nd International Conference on Solar Energy Materials, Solar Cells and Solar Energy Applications (SOLAR ASIA), Willayah Persekutuan, Malaysia, 105-110.
- 2013 N.A. Abdul-Manaf, O.K. Echendu, F. Fauzi, **H.I. Salim**, I.M. Dharmadasa, *Development of Polyaniline as a pinhole plugging layer in CdS/CdTe solar cells*, UK Semiconductors & UK Nitrides Consortium Summer Meeting, Sheffield, United Kingdom.
- 2014 **H.I. Salim**, A. Abdul Manaf and I.M. Dharmadasa, *Electrodeposition of CdTe Thin Film Solar Cells Using Cadmium Nitrate Precursor*, *Proceeding of the 10th Photovoltaic Science, Application and Technology (PVSAT-10)*, Loughborough University, Loughborough, UK, 149-152.
- 2014 **H.I. Salim**, A. Abdul-Manaf, I.M. Dharmadasa, *Grwoth of CdTe thin film by electrodeposition method using cadmium nitrate precursor*, UK Semiconductors & UK Nitrides Consortium Summer Meeting, Sheffield, United Kingdom.
- 2014 M.L. Madugu, P.A. Bingham, **H.I. Salim**, O.I. Olusola, and I.M. Dharmadasa, *Development of In<sub>x</sub>Se<sub>y</sub> Buffer Layers for Application in CdTe Based Thin Film Solar Cells*, Conference: 29th European Photovoltaic Solar Energy Conference and Exhibition (EU PVSEC), Amsterdam, Netherlands, 1847-1851.
- 2015 I.M. Dharmadasa, A. Ojo, **H.I. Salim** and R. Dharmadasa, *Next Generation Solar Cells Based on Graded Bandgap Devices Utilising Rod-type Electroplated Nano-Materials*, Conference: Photovoltaic Science Applications and Technology (PVSAT-11), Conference C97 of the SOLAR ENERGY SOCIETY, University of Leeds, Leeds, UK, 169.
- 2015 **H.I. Salim**, O.I. Olusola and I.M. Dharmadasa, *Cathodic electrodeposition of CdS thin films from thiourea precursor for solar cell applications*, Conference: Photovoltaic Science Applications and Technology, Photovoltaic Science Applications and Technology (PVSAT-11), Conference C97 of the SOLAR ENERGY SOCIETY, University of Leeds, Leeds, UK, 149-150.
- 2015 **H.I. Salim**, A. Ojo, I.M. Dharmadasa, *Effect of CdCl<sub>2</sub> and CdCl<sub>2</sub>+CdF<sub>2</sub> treatment on the structural, morphological and optical properties of electrodeposited CdTe thin films*, UK Semiconductors & UK Nitrides Consortium Summer Meeting, Sheffield, United Kingdom.
- 2015 N.A. Abdul-Manaf, **H.I. Salim**, M.L. Madugu and I.M. Dharmadasa, *Electrodeposition of CdTe thin films using chloride precursor for the application in solar cells*, Conference: Photovoltaic Science Applications and Technology (PVSAT-11), Conference proceeding C97 of the SOLAR ENERGY SOCIETY,

University of Leeds, Leeds, UK, 137-140.

- 2015 KDMSPK Kumarasinghe, DSM De Silva, KAS Pathiratne, IM Dharmadasa, **HI Salim**, NA Abdul-Manaf, P Ravirajan, K Balashangar, *Growth of CdS and CdTe thin film semiconductors and fabrication of CdS/CdTe solar cells*, In: Proceedings of the International Postgraduate Research Conference 2015 University of Kelaniya, Kelaniya, Sri Lanka, 194.

## References

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