

## C.V

Name: Samir Mahdi Abdul Al- Mohsin

Nationality: Iraqi

Religion: Muslim

Sex: Male

Place and date of Birth: Iraq/Thi-Qar 1/7/1975

Status: Married

University: Thi-Qar College: Science Dep.: Physics

Official E-mail: samer75\_phy@sci.utq.edu.iq

Studies Certification:

| Certification    | Year      | Specialization      | Sequence | Average | University | Country |
|------------------|-----------|---------------------|----------|---------|------------|---------|
| Secondary School | 1993/1994 | Branch Scientific   | 4/45     | 78.129  |            | Iraq    |
| B.Sc             | 1997/1998 | General physics     | 1/25     | 70.549  | Basrah     | Iraq    |
| M.Sc             | 2000/2001 | Solid stat Physics  | 2/4      | 79.125  | Basrah     | Iraq    |
| M.Sc.            | 2012      | Organic Solar cells |          | 91      | UALR       | USA     |
| Ph.D             | 2013      | Applied Physics     |          | 93      | UALR       | USA     |

General Specialization: Physics

Academic Status and Professional position:

| <u>Status</u>       | <u>Date</u> |
|---------------------|-------------|
| Assistant Lecturer  | 24/8/2002   |
| Lecturer            | 9/5/2005    |
| Assistant Professor | 25/3/2014   |
| Ph.D                | 11/1/2015   |
| Professor           | 10/2/2020   |

M.Sc. Thesis: Preparation of Conductive Polymer Blends: PolyPyrrole and Polythiophene Blends with Poly (Vinyle Al Cohol) and study their Conducting and Mechanical Properties.

Ph.D. Dissertation:  
ORGANIC-INORGANIC HYBRID NANOSTRUCTURES FOR SOLAR CELL APPLICATIONS.

### Supervisor

- 1- Anwar Nazar Hussein (2015) Studying the structure and optical properties of CuO Films prepared by Chemical Spray Pyrolysis .
- 2-Ayat Abed Ali Katan(2017) " Fabrication and study on Solid State dye Sensitized Solar Cell based on TiO<sub>2</sub> Nanoparticales and MWCNTS as a counter electrode "

- 3-Tahssein Faleh (2018)(Quantum efficiency of TiO<sub>2</sub>,CdSe,and CdS quantum dotes solar cells.)  
4- Hader Hussain (2019) )(Quantum efficiency of GaN /GaNTa ) quantum dotes solar cells.)

5- AbdulKhalq Mohammed Rashed (2020)(Nanocomposite materials base Microbial fuel cells )

6- Ruanq. H .Sakban (2020)( Glucose Bio Sensor base on nanocomposite TiO<sub>2</sub>/Graphene )

7- Zainb Abdulsada ( Organic perovskites solar cells )

Super visor for Ph.D student

1- Dhuha E.Tareq ( Quantum dotes Perovskits solar cells )(2021).

Member of Discussions

- 1- مناقشة رائد دكتوراه
- 2- مناقشة ايات شرهان طالبة ماستر
- 3- مناقشة بهاء الدين قاسم ؤ
- 4- طالب الماجستير عبد الخالق محمد
- 5- طالبة الماجستير هدير حسن نجر
- 6- مناقشة طالبة الماجستير سمر مزهر مرداس
- 7- الاشراف على رسالة الست زينب عبد السادة

### **Writing and Research**

[1] AbdulMohsin, S.; Mohammed, M.; Li, Z.; Thomas, M.; Wu, K.; Cui, J., Multi-Walled Carbon Nanotubes as a New Counter Electrode for Dye-Sensitized Solar Cells.

*J Nanosci Nanotechno* **2012**, *12* (3), 2374-2379.

[2] AbdulMohsin, S.; Cui, J., Graphene-Enriched P3HT and Porphyrin-Modified ZnO Nanowire Arrays for Hybrid Solar Cell Applications. *The Journal of Physical Chemistry C* **2012**, *116* (17), 9433-9438.

[3] AbdulMohsin, S.; Li, Z.; Mohammed, M.; Wu, K.; Cui, J., Electrodeposited polyaniline/multi-walled carbon nanotube composites for solar cell applications.

*Synthetic Metals* **2012**, *162* (11), 931-935. [4] AbdulMohsin, S.; Armstrong, J.; Cui, J., CdS nanocrystal-sensitized solar cells with polyaniline as counter electrode. *Journal of Renewable and Sustainable Energy Reviews* **2012**, *4*, 043108.

[5] AbdulMohsin, S.; Cui, J. In *Surface modified ZnO nanorod arrays for hybrid solar cell applications*, Photovoltaic Specialists Conference (PVSC), 2012 38th IEEE, IEEE: 2012; pp 002296-002300.

[6] AbdulAmohsin, S.; Cui,J;Mohammed,M., Study on ZnO/P3HT: PCBM Nanowire Solar Cells. Photovoltaic Specialists Conference (PVSC), 2013 39th IEEE, IEEE: 2013; pp 003366-003371.

[7] S.AbdulAlmohsin , ,and S.Mohammed,M.Mohammed Nanowire/N719 dye/PolyThiophene-SWNT nanocomposite Solid State Dye Sensitized Solar Cells,Automation ,Control and intelligent systems January 23,2015

[8] S.AbdulAlmohsin ,S.M.Al-Mutoki,and Z.Li,Electrochemical Polymerization of PPy-MWNTs composite as a counter electrode for Dye Sensitive Solar Cells . Journal of Arkansas Academy of science, Vol.66, 2012.Page31-35.

[10] S.AbdulAlmohsin ,S.M.Al-Mutoki,and Z.Li,Fabrication and Characteerization of Aluminum –doped ZnO/PANI Hybrid Solar Cells Journal of Arkansas Academy of science, Vol.66, 2012.Page26-30.

[11] S.AbdulAlmohsin ,S.M.Al-Mutoki,and Z.Li Al/PANI-MWNT/Au-Plastic Schottky Diode Solar Cells . Journal of Arkansas Academy of science, Vol.66, 2012.Page36-40.

[12] S.AbdulAlmohsin , ,and Z.Li ZnO Nanowire/N719 dye/Polypyrrole-SWNT nanocomposite Solid State Dye Sensitized Solar Cells,IEEE 40

[13] ANWAR NAZAR HUSSEIN1, SHAWKI KHALAF MUHAMMAD1, SAMIR ABDAUL MOHSIN1 AND FOUAD NIMR AJEEL1, STUDY ON STRUCTURE AND OPTICAL PROPERTIES OF CuO THIN FILMS PREPARED BY CHEMICAL SPRAY PYROLYSIS,Journal of applied physical science international 25 August 2015 4(3) 178-184.

[14] FABRICATION AND STUDY ON SOLID STATE DYE SENSITIZED SOLAR CELL BASED ON TiO<sub>2</sub> NANOPARTICALE AND MWCNTS AS A COUNTER ELECTRODE

AYAAT ABD-ALI<sup>1</sup> AND SAMIR MAHDI ABDULALMOHSIN<sup>2\*</sup>  
Journal of applied physical science international 2016

[15] Raman shift of silicon rubber-Nano titania PMNC .Sabah M.AIMotoki,and Samir M.AbdulAlmohsin Journal of Silicate and Composite Materials V.69,No.1.2017

[18] Tunable mechanisms of quantum efficiencies in CdSe and TiO<sub>2</sub> quantum dot solar cells Tahseen Dakhil, Samir M. Abdulalmohsin, and Amin Habbeb AL-Khursan

<https://doi.org/10.1364/AO.57.000612> ,

[19] Adjustable Quantum Efficiency Mechanisms in CdS/MgZnO Heterostructures Quantum Dot Solar Cells

Samir M.AbdulAlmohsin <sup>b\*</sup>,

, Alaa Ayad Khedhair Al-mebir <sup>a,\*</sup>, and Sadeq Kh-Ajeel <sup>b</sup>.

[20] QE of cadmium sulphide QD photo detectors  
ahseen Dakhil, Samir M. AbdulMohsin  
Dr. Amin Habbe Al Khursan  
IET Digital Library 2018, **Source: Volume 13, Issue 8**, August 2018, p. 1185 – 1187  
**DOI: 10.1049/mnl.2017.0777** , **Online ISSN 1750-0443**

- [22] Quantum Efficiency of Tigan/Gan Quantum Dot Solar Cells with Varying of Environment Temperature (Test Engineering and mangment)
- [23] AbdulMohsin, S. M., & Tareq, D. E. (2020). Fabrication and simulation of perovskite solar cells comparable study of CuO and Nano composite PANI/SWCNTS as HTM. *AIMS Energy*, 8(2), 169.
- [24] Hassan, Hadeer, Samir M. Abdulmuhsin, and Amin Habbe Al-Khursan. "Thallium quantum dot photodetectors." *Optical and Quantum Electronics* 52.2 (2020): 55.
- [25] Enhanced photovoltaic conversion of ZnO/PANI/NiOx heterostructure devices with ZnO nanorod array M Mohammed, S AbdulAmohsin, Z Li, L Zheng  
*Nano Express* 1 (3), 030016
- [26] Efficiency of TiO<sub>2</sub>/Perovskites/Cu<sub>2</sub>O Solar Cells with Optimal Thickness at Varying of Environment Temperature  
DE Tareq, SM AbdulMohsin, HH Waried
- [27] High Efficiency (41.85) of Br Perovskites base solar cells with ZnO and TiO<sub>2</sub> comparable study as ETM DE Tareq, SM AbdulMohsin, HH Waried  
*IOP Conference Series: Materials Science and Engineering* 928 (7), 072091,2020
- [28] Perovskite solar cells based on CH<sub>3</sub>NH<sub>3</sub>SnI<sub>3</sub> Structure  
DE Tareq, SM AbdulMohsin, HH Waried  
*IOP Conference Series: Materials Science and Engineering* 928 (7), 072148

## List of Publications in IRAQ

- 16-Conductive polymer Blends: poly aniline blends with poly (vinyle chloride) and their Redox Properties. Published in Thi-Qar Journal University.
- 17-Electrochemical preparations of conductive polymer of polyaniline blend with poly (vinyle chlorid) and study of mechanical properties. Published in thi-qar journal university.
- 18- Environment Radiological Pollution from the Use of Depleted Uranium Weaponry Against Thi qar Governorate during 2003 War Published in Thi-qar Journal University
- 19-Electrochemical preparations of conductive polymer of polyaniline blend with poly (vinyle al-cohol) and study of conducting properties. Published in basrah Journal University
- 20- Electrochemical preparation of conductive polymer of polypyrrole blends with poly (carbonate) and study of electrical properties, published in Al- Qadisiya Journal/putrescence.
- 21- Environment Radiological Pollution from the Use of Depleted Uranium Weaponry on Graph River during The War Published in Thi-qar Journal University
- 23- "Multi-Walled Carbon Nanotubes as a New Counter Electrode for Dye-Sensitized Solar Cells " S. AbdulMohsin, M. Mohammed, Z. Li, M. A. Thomas, K. Y. Wu, and J. B. Cui *J. Nanoscience. Nanotechnology.* 12, (2012), 2374-2379

## 24 Al/PANI-MWNT/Au-Plastic Schottky Diode Solar Cells

Samir AbdulMohsin<sup>1</sup>, Sabah Mohammed AL-Mutoki, and Zhongrui Li

Journal of Arkansas Academy of Science, Vol 67,PP.107, 2012

25- Electrochemical Polymerization of PPy-MWCNT composite as a Counter Electrode for Dye-sensitized Solar Cells Samir AbdulMohsin<sup>1</sup>, Sabah Mohammed AL-Mutoki<sup>2</sup>, and Zhongrui Li Journal of Arkansas Academy of Science, Vol 66,PP78, 2012

## 26 - Fabrication and Characterization of Aluminum-doped ZnO/PANI Hybrid Solar Cells

Samir AbdulMohsin<sup>1</sup>, Sabah Mohammed AL-Mutoki, and Zhongrui Li Journal of Arkansas Academy of Science, Vol 67,PP.130, 2012

[27] Study on Dye-sensitized Solar Cells based on ZnO Nanorods and Graphene Enhanced P3HT as HTM

Samir Mahdi AbdulMohsin<sup>1</sup>, Fouad Nimr Ajeel<sup>2</sup>, and Shakir Abdul-Hussein Al-Saidi<sup>3</sup>

<sup>1, 2, 3</sup>College of Science, Department of Physics, Thi Qar University, Thi Qar, IRAQ (مجلة كلية العلوم)

[28] The Radiological Survey of the River Sediment Passing in Dhi Qar Governorate

Samir Mahdi Abdulmuhsen, Journal of Babylon University/Pure and Applied Sciences/ No.(4)/ Vol.(23): 2015.

[29] Modeling of electron localization in a quasi-one-dimensional tight-binding chain

S. A. Al-Seadi<sup>1</sup>, S.M.AbdulMohsin, and S.K.Ageel, Journal of ThiQar University, volume 17, N19

[30] Ramman Shift of silicon rubber-nano titania PMNC

Samir AbdulMohsin, EPTOAN YAG, 2017

### **Education: Has Certification experience in the following subjects**

1.Computer Science

2.Teaching Methods

3- English Language

### ***The materials that teaching them in Physics Department***

*Thermodynamic/ General physics/modeling and simulation computer/digital electronics/ deferential equitations/ laser/electromagnetic waves /classical mechanic /Polymer/ physics atom/word and excel/ Quick Basic/ Nuclear physics /Electricity and Magnetism/nanotechnology /English Language*

### **Google Scholar**

Citation: 222

H-index: 8

### ***Linguistic and scientific evaluation of Dissertations and thesis***

Number of dissertations are 8

Numbers of thesis are 23