

January, 2017

Curriculum Vitae - Ishaq Musa

PERSONAL INFORMATION:

Name: *Ishaq Issa Ahmad Musa*

Citizenship: Palestinian

Mail address: Department of Physics, Palestine Technical University
- Kadoorie, Tulkarm, P.O.Box 7. Palestine

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EDUCATION AND QUALIFICATIONS:

- **Ph.D in physics - Nano-materials science (2008-2011).**

Thesis : Optical properties of ZnO nanostructures and ZnO/polymer composites.

Institut of Materials Jean Rouxel- CNRS, University of Nantes-**France.**

- **M.Sc. in Engineering Physics - Materials Science (2003-2005).**

Thesis: Ultrafast carrier dynamic in self-assembled InGaAs quantum dots exposed to a photonic crystal environment.

Technical University of Munich, Physics Department, **Munich-Germany.**

- **Diploma in Telecommunication (1999-2000).**

Bethlehem University, Bethlehem, **Palestine.**

- **BSc. in Physics, (1992-1997).**

Al-Quds University, College of Science and Technology, Jerusalem, **Palestine.**

Work Experience:

- 1) **Assistant Professor, (1st September, 2015 to present):** Department of Physics, Palestine Technical University kadoorie, Tulkarm, **Palestine**
- 2) **Post-doctoral Fellow, (15th October, 2014 to 30th Aug. 2015):** Department of Physics, United Arab Emirate University, **United Arab Emirate.**
- 3) **Assistant Professor, (1st Jan. 2012 to 1st Sep. 2013),** Department of Physics, Al-Quds University, Jerusalem, **Palestine.**
- 4) **Researcher in Nanotechnology Research Laboratory, (1st Sep. 2006 to 31st Aug. 2008),** Materials' Engineering Department, Al-Quds University, Jerusalem, **Palestine .**
- 5) **Researcher Assistance, (1st October, 2003 to 15th May 2006),** Department of Physics, Technical University of Munich , **Munich-Germany.**
- 6) **Teaching Assistant (1999 – 2001):** Department of Physics, Al-Quds University, Jerusalem, **Palestine.**

Teaching Experience:

#	Courses taught	Level	Semester/Year
1	Physics and Engineering Applications I (PHYS101)	1 st year	Spring 2017, Fall 2016, summer 2016, Spring 2016, Fall 2015
2	Physics and Engineering Applications II (PHYS102)	1 st year	Spring 2017, Fall 2016, summer 2016, Spring 2016, Fall 2015
3	General Physics I	1 st year	Spring 2012, Fall 2013
4	Electronic for Physics	2 nd year	Spring 2017, Spring 2016
5	Electronic Laboratory	2 nd year	Fall 2015, Fall 2016
6	Optics	2 nd year	Fall 2013
7	Thermodynamics	3 rd year	Fall 2015, Fall 2016
8	Introduction to Nanoscience and Nanotechnology	Graduate course	Fall 2013

Technical Skills:

- Laser Spectroscopy, Time resolved PL measurements “Femtosecond pulse lasers.
- Raman Spectroscopy
- Thin films deposition by thermal evaporation , DC and RF magnetron sputtering.
- Scanning Probe Microscopy (AFM, EFM, STM).
- Scanning Electron Microscopy (SEM).
- Transmission Electron Microscopy (TEM).
- X-ray diffraction (XRD).

Research Interest:

- Organic light emitting diodes (OLEDs).
- Organic-inorganic nanocomposites based on nanodevices.
- Photovoltaic solar cells.
- Synthesis inorganic nanoparticles and nanorods.
- Phase change materials (PCM).

Short Research Visits:

- Laboratory of Physics of Interfaces and Thin Films -Ecole Polytechnique-CNRS-Palaiseau, France- Winter 2012. (Fabrication Photovoltaic solar cells device).
- Attocube Systems- Germany – Winter 2008

Awards:

- French consulate scholarship: 2008 - 2011, during my study for the PhD at Institut of Materials Jean Rouxel-CNRS, University of Nantes-France
- AILUN University, Italy, from 27 June till 21 July, 2000, Attends Advanced course on Optical Fibers in Telecommunication.

List of Publications :

- 1. Synthesis, Controlled growth and Optical properties of ZnO Nanorods**
Ishaq Musa, Naser Qamhieh, and Saleh Thaker Mahmoud
Submission to Nanoscale Research Letters, January , 2017.
- 2. Optical and electrical characterization of Co doped Ge-Sb-S films**
I.Musa, N. Qamhieh, Saleh T. Mahmoud, M. El-Shaer , and A. I. Ayesb
(To be submitted)
- 3. Investigation of optical properties of MEH-PPV/ ZnO nanocomposites by photoluminescence spectroscopy**
Ishaq Musa, F. Massuyeau, E. Faulques, T. P. Nguyen
Synthetic Metals, Volume 162, Issues 19–20, November 2012, Pages 1756-1761.
- 4. Structural and photoluminescence characterization of vertically aligned Multi Wall Carbon Nanotubes coated with ZnO by magnetron sputtering.**
N. Ouldhamadouche, A. Achour, I. Musa, K. Ait aissa, F. Massuyeau, P.Y.Jouan,M Kechouane, L. Le Brizoual, E. Faulques, N. Barreau, M.A. Djouadi.
Thin solid Films, Volume 520, Issue 14, 1 May 2012, Pages 4816–4819
- 5. Temperature and size dependence of time-resolved exciton recombination in ZnO quantum dots**
I. Musa, F. Massuyeau, L. Cario, J.L. Duvail, S. Jobic, P. Deniard, E. Faulques
APPLIED PHYSICS LETTERS 99, 243107 (2011).
- 6. Investigation of the optical properties of polyfluorene/ZnO nanocomposites**
J.P. Zou , P. Le Rendu , I. Musa , S.H. Yang , Y. Dan , C. Ton That , T.P. Nguyen
Thin solid Films, Volume 519, Issue 12, 1 April 2011, Pages 3997-4003.

7. Influence of Annealing Treatment of Nano-Hydroxyapatite Bioceramics on the Vibrational Properties

C. S. CIOBANU, E. ANDRONESCU, A. STOICU, O. FLOREA, P. LE COUSTUMER, S. GALAUPd, A.DJOUADI, J.Y. MEVELLEC, **I. MUSA**, F. MASSUYEAU, A. M. PRODAN, KHALID LAFDI, R.TRUSCA, I. PASUK, D. PREDOI.

Digest Journal of Nanomaterials and Biostructures Vol. 6, No 2, April – June 2011, p. 609 –624

8. Study of The Morphology of Polyacrylamide Silica fumed Nanocomposite Thin Films

Mukhles Sowwan ,Maryam Faroun, **Ishaq Musa**, Imad Ibrahim,Sami Makharza, Wadie Sultan,and Hasan Dweik .

International Journal of physical sciences .Vol.3 (6),PP 144-147, June 2008

List of Conferences

1. Second Palestinian International Conference on Material Science and nanotechnology (PICNM 2016) March , 23-24, 2016 Al-Najah University, **Ishaq Musa**

2. Raman investigation of optical phonons of ZnO nanocrods

Ishaq Musa, Naser Qamhieh, and Saleh Thaker Mahmoud

8th International Workshop on Advance Materials (IWAM), Feb 21-24, 2016- Ras Al Khaimah, U.A.E (Keynote speaker).

3. Optical and Electrical Characterization of Co-doped Ge-Sb-S, Saleh Thaker, Naser Qamhieh, **Ishaq Musa**.

26th International conference on Amorphous and Nanocrystalline Semicomductors, 13-18 September, 2015, Achen Germany.

4. Synthesis and characterization of length-controlled ZnO nanorods

I.Musa, N.Qamhieh, and S. T. Mahmoud.

2nd Edition Nanotech Dubai 2015 International Conference & Exhibition

March 16 - 18, 2015, Dubai – UAE.

5. Structural and Optical Properties of Length-Controlled ZnO Nanorods

Ishaq Musa, Naser Qamhieh, and Saleh Thaker

7th International Workshop on Advance Materials (IWAM), Feb 22-24, 2015-

Ras Al Khaimah, U.A.E

6. Chemistry Research and the Palestinian industry Conference

Hebron university, Hebron, Palestine, 4-5, April, 2012

7. Nanotechnology for advanced Material and Devices

An-Najah National University, Nablus, Palestine, March 26-28, 2012

8. Palestinian Symposium on Nanoscience and nanotechnology

Birzeit university, Palestine, December, 2011

9. Synthesis and optical investigation of ZnO nanocrystals

I. Musa, S. Jobic, F. Massuyeau, E. Faulques .

European Materials Research Society (EMRS) Spring meeting 2011,

from 09 May to 13 May, 2011, Nice

10. Zinc oxide coated carbon nanotubes composites and their photoluminescence properties

N. Ouldhamadouche, A. Achour, **M. ishaq**, F. Massuyeau, K. Ait aissa, P.Y. Jouan, L. Le Brizoual, E.Faulques, N. Barreau, M.A. Djouad.

European Materials Research Society (EMRS) Spring meeting 2011,

from 09 May to 13 May, 2011, Nice

11. Surface characterization of europium doped nano-hydroxyapatite.

C.S. Ciobanu, E. Andronescu, I. Pasuk, F. Ungureanu, S. Iconaru, **I. Musa**,

F. Massuyeau, A. M.Djouadi , P. Le Coustum.

European Materials Research Society (EMRS) Spring meeting 2011,

from 09 May to 13 May, 2011, Nice.

12. Surface bioactivity of nano-hydroxyapatite doped with europium

A. Costescu, S.L. Iconaru, C.S. Ciobanu, L.V. Constantin, I. Pasuk, **I. Musa**, F.

Massuyeau, A. M. Prodan, D. Predoi

International Symposium on Advanced Complex Inorganic Nanomaterials ,

September 11-14, 2011, Namur, Belgium

13. Surface bioactivity and vibrational studys of powder nano-hydroxyapatite

C.S. Ciobanu, S. L. Iconaru, A.Costescu, C. P. Le Coustumer, S. Galaup, **I.Musa**,

F. Massuyeau, L.V. Constantin, G.A.C. Simion, D. Predoi

International Symposium on Advanced Complex Inorganic Nanomaterials ,

September 11-14, 2011, Namur, Belgium

14. Investigations of optical properties of MEH-PPV/ ZnO nanocomposites by photoluminescence spectroscopy

Ishaq Musa, F. Massuyeau, E. Faulques, T. P. Nguyen

International conference on conducting materials, November 3-7, 2010

Sousse-Tunisia, (Oral Communication)

15. Investigation of optical properties of polyfluorene/ZnO nanocomposites

J. P. Zou, P. Le Rendu, **I. Musa**, S. H. Yang, Y. Dan, T. P. Nguyen

European Materials Research Society (EMRS) Spring meeting 2010,

from 07 June to 11 June, 2010 – Strasbourg, (Oral Communication)

16. ZnO nanocrystals for biosensors

Ishaq Musa, E. Faulques, , B. Chavillon, F. Massuyeau, J. Wéry, L. Cario, S. Jobic

International Conference "Nanobiophysics: Fundamental and Applied Aspects"

5-8 Octobre 2009, Kharkov, Ukraine.

References

1. Prof. Naser Qamhie, United Arab Emirate University, Physics department,
Tel:(+971) 3-7136327, **E-mail:** nqamhie@uaeu.ac.ae

2. Dr. Jamal Ghabboun, Coordinator for the Physics department, Bethlehem University ,
Tel: +970-2-2741241, ext. 2387, **E-mail:** jamalg@bethlehem.edu

3. Dr. Rabab Jarar, Dean of Faculty of Arts and sciences, Palestine Technical University
Tel: +970- 599801629, **E-mail:** rabab_jarrar@yahoo.com