

# CURRICULUM VITAE

جامعة الأزهر

Al-Azhar University-Gaza



Talaat Moussa hammad

Last Update: 18/12/2015

## PERSONAL DETAILS

Date Of Birth	10/12/1957	Place Of Birth	Gaza
Nationality	palestinian		
Martial Status	married	Gender	Male
Designation	Professor of material science and nanotechnology		
Department	Physics		
Faculty	Science		
Tel. No. (Office)	2876672		
Fax No.	2821120		
Mobile No.	0599-111802		
E-mail Address	talaathammad@gmail.com		
Address(Office)	A2-406		
Address (Home)	Al shanti ground-third street near central		
HURL	<a href="https://www.researchgate.net/profile/Talaat_Hammad">https://www.researchgate.net/profile/Talaat_Hammad</a>		

## ACADEMIC QUALIFICATIONS

(YEAR ,QUALIFICATION ,INSTITUTION ,TITLE)

1988	Doctoral Degree, PHD,Moscow state university (material science)
1983	Master Degree, MSC,Cairo University (Study the effect of doping on the electrical and thermal properties of lithium ammonium sulphate)
1980	Bachelor Degree, BSC,Al Mansoura University (Physics)

## CAREER HISTORY

(START DATE - END DATE, EMPLOYMENT ,ORGANIZATION)

2010 , till now	Full Professor ,Al-Azhar University, Gaza, Palestine
2005 ,	Associate Professor ,Al-Azhar University, Gaza, Palestine
1998 ,	Assistant Professor ,Al-Azhar University, Gaza, Palestine
1995 ,1996	lecturer of physics ,Al-Azhar University, Gaza, Palestine
1985 ,1995	lecturer of physics ,King Saud University, Gassim Branch, Saudi Arabia
1983 ,1984	lecturer of physics ,Physics Department, Faculty of Science, Islamic University, Palestine

---

**ADMINISTRATIVE DUTIES**

(START\_DATE - END\_DATE , ROLE , LEVEL)

2003 ,2005 Head of physics ,Department

---

**AREAS OF EXPERTISE**

(AREA)

Thin films, nanotechnolog, synthesis and characterization of nanoparticles ,

---

**SELECTED PUBLICATIONS**

- (Book \ Chapter in Book)

- 1 Sami Almoqayyad, Jamil Salem, Talat Hammad (2013) . ZnO Nanoparticles: Synthesis,Growth, Lap Lambert Academic Publishing GmbH KG, Germany
- 2 Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2011) . doped ZnO nanoparticles,: synthesis and characterization, Advances in Nanotechnology Research and Application, USA

- Article in Academic Journal

- 1 Issa M. El-Nahaal,Jamil K. Salem, Sylvia Kuhn , Talaat M. Hammad, Rolf Hempelmann · (2016) . Synthesis & characterization of silica coated and functionalized silica coated zinc oxide nanomaterials ,*Powder Technology*,87(01) ,439–446. (SCOUPS Cited Publication )
- 2 Talaat M. Hammad, Jamil K. Salem, Sylvia Kuhn, Rolf Hempelmann (2016) . Influence of pluronic P123 in modifying the morphological and optical properties of PbS nanocomposite,*Journal of Materials Science Materials in Electronics*,27(5) ,4186–4193. (SCOUPS Cited Publication )
- 3 Jamil K. Salem, Issa M El-Nahhal, Bassam A Najri  
Talaat M. Hammad (2016) . Effect of anionic surfactants on the surface plasmon resonance band of silver nanoparticles: Determination of critical micelle concentration,*Journal of Molecular Liquids* ,223() ,771-774. (SCOUPS Cited Publication )
- 4 Jamil K. Salem, ,Issa M. El-Nahhal, Bassam A. Najri, Talaat M. Hammad  
(2016) . Utilization of surface Plasmon resonance band of silver nanoparticles for determination of critical micelle concentration of cationic surfactants,*Chemical Physics Letters*,664() ,154-158. (SCOUPS Cited Publication )
- 5 Issa M. El-Nahhal, Jamil K. Salem, Sylvia Kuhn, Talaat Hammad, Rolf Hempelmann (2016) . Synthesis and characterization of silica-, meso-silica- and their functionalized silica-coated copper oxide nanomaterials ,*Journal of Sol-Gel Science and Technology* ,10() ,1-11. (SCOUPS Cited Publication )
- 6 Talaat M. Hammad, Jamil K. Salem, S. Kuhn, Nadia M. Abu Shanab, R. Hempelmann (2016) . Influence of pluronic P123 in modifying the morphological and optical properties of PbS nanocomposite,*J Mater Sci: Mater Electron*,16() ,1-8. (SCOUPS Cited Publication )
- 7 Jamil K. Salema, Issa M. El-Nahhal, Talaat M. Hammad, Sylvia Kuhn,Somaya Abu Sharekh, Mohamad El-Askalani, Rolf Hempelmannb (2015) . Optical and fluorescence properties of MgO nanoparticles in micellarsolution of hydroxyethyl laurdimonium chloride,*Chemical Physics Letters*,636() ,26–30. (SCOUPS Cited Publication )
- 8 Talaat M. Hammad, Jamil K. Salem, S. Kuhn, Mohammed Abu Draaz, R. Hempelmann, Fawzi S. Kodeh (2015) . 'Optical properties of Cu<sup>2+</sup> and Fe<sup>2+</sup> doped ZnS semiconductor nanoparticles synthesized by co-precipitation method,*J Mater Sci: Mater Electron*,26() ,5495- 5501. (SCOUPS Cited Publication )
- 9 Talaat M. Hammad, Jamil K. Salem, Nadia Abu Shanab, S. Kuhn, R. Hempelmann (2015) . Surface Morphological and Optical Properties of PVA Passivated PbS Nanoparticles,*Journal of Luminescence* ,157() ,88–92. (SCOUPS Cited Publication )
- 10 Jared M. Hancock, William M. Rankin, Talaat M. Hamad, Jamil S. Salem, Karine Chesnel and Roger G. Harrison (2015) . Optical and Magnetic Properties of ZnO Nanoparticles Doped with Co, No and Mn and synthesized at Low Temperature,*Journal of Nanoscience and Nanotechnology*,15(05) ,3809-3815. (SCOUPS Cited Publication )
- 11 Talaat M. Hammad, Jamil K. Salem, S. Kuhn, Nadia M. Abu Shanab, R. Hempelmann, Naser K. Hejazy (2015) . Synthesis, optical and surface morphological properties of polyethylene glycol capped lead sulphide nanoparticles,*J Mater Sci: Mater Electron* ,26() ,8478-8483. (SCOUPS Cited Publication )
- 12 Jamil K. Salem, Talaat M. Hammad, Mohammed Abu Draaz, S. Kuhn, R. Hempelmann (2014) . Structural, optical and photoluminescence of Co doped alkyl hydroxyl ethyl dimethyl ammonium chloride capped ZnS nanoparticles,*J Mater Sci: Mater Electron*,25() ,2177-2182. (SCOUPS Cited Publication )
- 13 Jamil K. Salem ,Talaat M. Hammad, S. Kuhn, Issan Nahal, Mohammed Abu Draaz, Naser K. Hejazy, R. Hempelmann (2014) . Luminescence properties of Mn and Ni doped ZnS nanoparticles synthesized by capping agent,*J Mater Sci: Mater Electron*,25() ,5188–5194. (SCOUPS Cited Publication )
- 14 Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2013) . Structure, Optical properties and synthesis of Co-doped ZnO Superstructures,*Applied Nanoscience*,3() ,133-139. (SCOUPS Cited Publication )

- 15** Talaat. M . Hammad , Jamil. K . Salem, Roger G. Harrison, Rolf. Hempelmann, Nasser K. Hejazy (2013) . Optical and magnetic properties of Cu-doped ZnO nanoparticles,J Mater Sci: Mater Electron,24() ,2846–2852. (SCOUPS Cited Publication )
- 16** T. M . Hammad , S. Griesing, M. Wotocek, S. Kuhn, R. Hempelmann, U. Hartmann, J. K . Salem (2013) . Optical and magnetic properties of Fe-doped ZnO nanoparticles prepared by the sol- gel method,Int. J. Nanoparticles ,6() ,324-336. (SCOUPS Cited Publication )
- 17** Talaat M. Hammad , Naser K. Hejazy (2012) . Structural, Electrical and Optical Properties of ATO Thin Films Fabricated by Dip Coating Method,International Nano Letters,2() ,2. (SCOUPS Cited Publication )
- 18** T. M . Hammad , S. Griesing, M. Wotocek, S. Kuhn, R. Hempelmann, U. Hartmann, J. K . Salem (2012) . Improvements of the optical and magnetic properties of Mn-doped ZnO nanoparticles prepared by the sol- gel method,Applied Nanoscience,3(2) ,153-159. (SCOUPS Cited Publication )
- 19** Jamil K. Salem. Talaat M. Hammad, Roger G. Harrison (2012) . Synthesis, structural and optical properties of Ni-doped ZnO micro-spheres,J Mater Sci: Mater Electron,24() ,1670-1676. (SCOUPS Cited Publication )
- 20** Talaat M. hammad, Jamil K. Salem (2011) . Synthesis and characterization of Mg-doped ZnO hollow spheres,J. Nanopar. Res,13() ,2205. (SCOUPS Cited Publication )
- 21** Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2010) . Microstructures: New findings from Al-Azhar University describe advances in microstructures,Nanotechnology Weekly,() .. (SCOUPS Cited Publication )
- 22** Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2010) . 'Scientists at Brigham Young University detail research in nanotechnology,Journal of Technology and Science,() .. (SCOUPS Cited Publication )
- 23** Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2010) . The influence of annealing temperature on the structure, morphologies and optical properties of ZnO nanoparticles,Superlattices and Microstructures ,47() ,335-340. (SCOUPS Cited Publication )
- 24** Jamil K. Salem, Talaat M. Hammad (2009) . The effect of surfactants on the particle size and optical properties of precipitated ZnO nanoparticles,Journal of Materials Science and Engineering,3() ,38. (SCOUPS Cited Publication )
- 25** T. M. Hammad (2009) . Effect of annealing on electrical, structural and optical properties of sol- gel ITO thin films,Phys. Status Solidi A ,206() ,2128. (SCOUPS Cited Publication )
- 26** Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2009) . Binding agent affect on the structural and optical properties of ZnO nanoparticles,Rev. Adv. Mater. Sci.,22() ,74-80. (SCOUPS Cited Publication )
- 27** Talaat M. Hammad, Jamil K. Salem, Roger G. Harrison (2009) . Synthesis, characterization, and optical properties of Y-doped ZnO nanoparticles,NANO,225() ,225. (SCOUPS Cited Publication )
- 28** T. Hammad (2009) . Infrared absorption spectra studies in (NaNO<sub>3</sub>-NaNO<sub>2</sub>) system,Annalen Der Physik,11() ,463. (SCOUPS Cited Publication )
- 29** Jamil K. Salem, Talaat M. Hammad, Roger G. Harrison (2009) . ZnO nanoparticles prepared in the presence of additives by thermal decomposition method,International Journal of Nanoscience,8() ,465. (SCOUPS Cited Publication )
- 30** T. Hammad, H. M. Tamous and N. K. Higazy (2007) . Effect of argon- plasma treatment on electrical and optical properties of sol gel Sb:SnO<sub>2</sub> thin films,International Journal of Modern Physics B ,21() ,4399-4406. (SCOUPS Cited Publication )
- 31** T. Hammad (2006) . on the performance of non-cooled (in, as) sb photoelectromagnetic detectors for 10.6 m radiation,Physica status solidi (a),91(2) ,745-751. (SCOUPS Cited Publication )
- 32** T. Hammad, F El-kabbany, Y Badr (2006) . the grain size and flow stress dependence of acoustic emission energy release in polycrystalline aluminum,Physica status solidi (a),55(1) ,189-195. (SCOUPS Cited Publication )

- 33** T. Hammad, F El-kabbany, Y Badr (2006) . dc resistivity of doped mnzn polycrystalline ferrites,*Physica status solidi (a)*,46(1) ,373-377. (SCOUPS Cited Publication )
- 34** T. Hammad, F El-kabbany, Y Badr (2006) . the effect of illumination on anomalous ultrasonic attenuation in doped single crystals of bi12geo20,*Physica status solidi (a)*,69(1) ,67-70. (SCOUPS Cited Publication )
- 35** T. Hammad (2006) . ITO Thin Films on Silicon Buffer by Sol Gel Method,*Materials Science Forum*,514-516 () ,514-516 . (SCOUPS Cited Publication )
- 36** T. Hammad (2006) . Electrical and Optical properties of multilayer sol gel ZnO coatings,*International Journal of Modern Physics B*,20() ,3357. (SCOUPS Cited Publication )
- 37** T. Hammad, F El-kabbany, Y Badr (2006) . elastic constants of a stressed crystal: iv. sound propagation matrix†,*Physica status solidi (a)*,94(2) ,515-521. (SCOUPS Cited Publication )
- 38** T.M.Hammad (2006) . PART 2-V Nano and microstructured materials-ITO thin films on silicon buffer by sol gel method,*Materials Science Forum* ,514516(), 1155-1160. (SCOUPS Cited Publication )
- 39** T. Hammad, F. El-kabbany, Y Badr (2006) . electrical properties of junctions between sputter deposited silicon films and monocrystalline silicon,*Physica status solidi (a)*,79(1) ,K21-K24. (SCOUPS Cited Publication )
- 40** T. Hammad, F El-kabbany, Y Badr (2006) . nucleation controlled ignition of explosive crystallization in soi structures†,*Physica status solidi (a)*,112(2) ,727-732. (SCOUPS Cited Publication )
- 41** T. Hammad, F El-kabbany, Y Badr (2006) . on the performance of non-cooled (in, as) sb photoelectromagnetic detectors for 10.6 m radiation†,*Physica status solidi (a)*,91(2) ,745-751. (SCOUPS Cited Publication )
- 42** T. Hammad, F El-kabbany, Y Badr (2004) . solution of atomic and molecular schrodinger equation described by hyperspherical coordinates,*International Journal of Quantum Chemistry*,() .. (SCOUPS Cited Publication )
- 43** T. Hammad (2003) . The effect of Argon plasma post treatment on the electrical conductivity of sol gel AZO thin films,*Rajistan Acad. Phys. Sci.*,2() ,83. (SCOUPS Cited Publication )
- 44** T. Hammad and H. Tamous (2002) . The effect of different plasma treatments on the sheet resistance of sol-gel ITO and ATO thin films,*Chinese Journal of Physics*,40() ,532. (SCOUPS Cited Publication )
- 45** T. Hammad (2002) . Ferroelectricity in mixed thin NaxK1-xNO<sub>2</sub> layers,*Chinese Journal of Physics*,41() ,6. (SCOUPS Cited Publication )
- 46** T. Hammad (2001) . Detection of Incommensurate Phase Transition in NaNO<sub>2</sub> Thin Layers,*Physica status solidi (a)*,188() ,1141. (SCOUPS Cited Publication )
- 47** F. El-Kabbany, Y. Badr and T. Hammad (1992) . Electrical Properties of Carbon-Doped NaNO<sub>2</sub> Thin Layers,*Al-Azhar Bull.Sci.*,3() ,447. (SCOUPS Cited Publication )
- 48** Y. BADR S. EL-GIZIRI, T. M. HAMMAD (1989) . PE TOMASZEWSKI,*Physica status solidi (a)*,112() ,46. (SCOUPS Cited Publication )
- 49** Y. Badr, S. B. El-Giziri and T. Hammad (1987) . On the Effect of Doping on The Mechanism of Phase Transition of Some Ionic Inorganic Compounds,*Physica status solidi (a)*,100() ,467. (SCOUPS Cited Publication )
- 50** T. Hammad, F. El-Kabbany and Y. Badr (1986) . Ferroelectric Properties of Pure and Doped NaNO<sub>2</sub> Thin Layers,*Solid State Phys*,1375() ,20. (SCOUPS Cited Publication )
- 51** T. Hammad, F. El-Kabbany and Y. Badr (1986) . Ferroelectric and Dielectric Properties of NaNO<sub>2</sub> thin layers,*Physica status solidi (a)*,94() ,121. (SCOUPS Cited Publication )

## - Proceedings

- 1 Jared M. Hacock, William M. Rankin, Talaat M. Hammad, Jamil K. Salem, Roger G. Harrison (2012) . Transition metal doped ZnO nanoparticles and their optical and magnetic properties,243th ACS National Meeting, San Diego, California,25 - 29, 2012,. (ISI Cited Publication )
  - 2 Talaat M. Hammad, Jamil K. Salem and Roger G. Harrison (2009) . Structural changes to ZnO nanoparticles due to metal doping,237 th ACS National Meeting ,Salt Lake, USA,March 22-26,. (ISI Cited Publication )
  - 3 T. Hammad and B. A. Strukov (1999) . Ferroelectric and Dielectric Properties of  $(\text{NaNO}_3)_x-(\text{NaNO}_2)_{1-x}$  Mixed Thin Layers, Proc. of Moscow Univ., Moscow, Russia, June 22-26,67. (ISI Cited Publication )

## **RESEARCH PROJECTS**

(FROM - TO , PROJECT TITLE , ROLE , SOURCE , LEVEL)

**2004 ,2005** Electrical and Optical properties of ITO thin films fabricated by sol gel method  
. The Ministry of Higher Education .National

## **AWARDS AND RECOGNITIONS**

(YEAR , NAME , INSTITUTION, LEVEL)

2011 ,DAAD Study Visit scholarship ,Physics Department, Saarland University, Saarbrucken ,University

2008 Fulbright scholarship, Brigham Young University, Provo, Utah, USA, University

2004 ,DAAD Study Visit scholarship ,Universit?t Konstanz, Fakultat Fur Physics, Konstanz ,University

2001 DAAD Study Visit scholarship, Institute of New Material, Saarland University, Saarbrücken  
University

---

## **PRESENTATIONS**

(TITLE , EVENT , DATE , ORGANISER , LEVELL)

- Pleenary/Keynote Speaker**
- \* Ferroelectric Properties of Carbon- doped NaNO<sub>2</sub> thin layers ,9th European Meeting on Ferroelectricity ,July 13, 1999 ,Praha, Czech Republic (University ).
  - \* ferroelectric properties of mixed K<sub>x</sub>Na<sub>1-x</sub>NO<sub>2</sub> layers ,4th International Conference in Physics of Condensed Matter ,April 18-22, 2000 ,Jordan University (University ).
  - \* 'Detection of incommensurate phase transition in NaNO<sub>2</sub> thin layers ,Fourth International Conference in Physics of Condensed Matter ,2000 ,An-Najah National University, Palestine (University ).
  - \* Deposition of Sol Gel ITO Thin Films on Silicon Buffer by Dip coating ,Materias 2005, III International Materials Symposium and XII Portugues Society Meeting ,2005 ,Portugues Society (University ).
  - \* Effect of Argon- plasma treatment on electrical and optical properties of sol gel Sb:SnO<sub>2</sub> thin films ,Second Physics Conference 2007 ,2007 ,An-Najah National University, Palestine (University ).
  - \* Effect of annealing on electrical, structural and optical properties of sol gel ITO thin films ,E-MRS 2008 - Fall Meeting ,2008 ,Warsaw University of Technology, Poland. (University ).
  - \* Synthesis and Characterization of Mg-doped ZnO nanoparticles ,The First International Conference On Basic & Applied Sciences ICBAS ,2010 ,Al Azhar University-Gaza, Palestine (University ).
  - \* Synthesis and characterization of Mn-doped ZnO nanoparticles ,Palestinian Symposium on Nanoscience and Nanotechnology ,December 10th 2011 ,Birzeit University (University ).
  - \* Synthesis and characterization of Cu doped ZnO microspheres ,The Fourth International Conference of Science & Development ,2011 ,Islamic University, Gaza, Palestine (University ).
- 

## **SUPERVISION**

(DEGREE , CANDIDATES , THESIS , SESSION , YEAR)

- Completed**
- \* Master ,Ayman Abu Amsha ,Synthesis and characterization of nanosized metal oxides ,2015 ,
  - \* Master ,Nadia Abu Shanab ,Preparation and Optical Properties of Lead Sulfide Nanoparticles in Polymer Matrix ,2015 ,
  - \* Master ,Mohammed Abu Draaz ,Optical studies on transition metal doped ZnS nanoparticle ,2014 ,
  - \* Master ,Sami Almoqayyad ,Study of synthesis and growth of ZnO nanoparticles ,2010 ,
  - \* PHD ,Nase K. Hejazi ,Study the electrical, structural, optical and electrochemical properties of ITO and ATO thin films fabricated by sol gel method ,2009 ,
- 

## **EVALUATION ACTIVITIES**

(DESCRIPTION , EVALUTION , YEAR)

- Examiner PhD /Msc Thesis**
- \* Msc thesis in chemistry ,2015
  - \* Msc thesis ,2014
  - \* Msc thesis in chemistry ,2013

---

**TEACHING**

(LEVEL , COURSE )

- |                      |   |
|----------------------|---|
| <b>First Degree</b>  | * Thermodynamics, Wave and optics, solid state electronics<br>* General Physics<br>* Stastical Mechanics<br>* Solid Staee Physics, Thin Films physics, Nanoscience and Nanotechnology |
| <b>Post Graduate</b> | * Solid Staee Physics   |
- 

**CONTRIBUTION TO SOCIETY**

(START DATE - END DATE , CONTRIBUTION , LEVEL)

- 15-17 May 2006 - 18 May 200** \* organizing committee of the first international conference on mathematical science ICMS ,University
- 

**SKILLS**

(SKILL , PROFICIENCY )

- computer microsoft application. excel, originlab, power point ,Excellent  
Sound knowledge on the characterization techniques ,Excellent  
experimental skills in the preparation of nanostructured materials and nano composites using both physical and chemical techniques viz. ,Very Good  
Expertise in the preparation of syllabus for any other course in an academic field and expertise in synthesizing the nanocomposites and nanomaterials in the research area ,Excellent
-