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Curriculum Vitae
Atef Fayez Qasrawi, Ph. D.
Professor of Physics

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Personal Data:

Full Name	: Atef Fayez QASRAWI
Date of Birth	: 03/12/1968
Place of Birth	: Jenin, Palestine
Citizenship	: Palestinian
Sex	: Male
Material Status	: Married

Addresses:

Residence: Maslieh, Jenin, Palestine

Work: Arab-American University, Jenin, West bank, Palestine

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Education:

1990-1994 **B. Sc. in Education Physics,** Middle East Technical University, Ankara, Turkey.

1994-1997 **M.S. in Physics (January 1997),** Middle East Technical University, Ankara, Turkey. Thesis : **"**Growth and Characterization of Ge thin films"Under supervision of Prof. Dr. Ibrahim Günal.

1997-2000 **Ph. D. in Physics (June 2000)** , Middle East Technical University, Ankara, Turkey Thesis: "Structural, Electrical and Photo-Hall Characterization of InSe:Cd and InSe Thin Films". Under supervision of Prof. Dr. Ibrahim Günal , Prof. Dr. Çiğdem Erçelebi.

2000-2006 **Assistant Professor in physics (Sep 2006),** Atilim University, Ankara, Turkey.

2006- 2011 **Associate Professor in physics,** awarded by "Turkish Ministry of High Education**"** and by "Atilim University" Ankara, Turkey.

2011- **Professor in physics,** awarded by Arab-American University, jenin Palestine

Employment History:

1995-1997 **Full time teacher of physics and mathematics,** in Al-Fatih high school, Libyian embassy, Ankara, Turkey.

1997-2000 **Teaching assistant of undergraduate students** at the department of physics, Middle east technical university, Ankara, turkey.

2000-2006 **Assistant Professor in physics** at the department of electric and electronic Engineering (Sep 2006), Atilim University, Ankara, Turkey.

2006- 2007 **Associate Professor in physics,** Awarded by "Turkish Ministry of High Education" and applied by "Atilim University" Ankara, Turkey.

2000-2007 **Chairman of the physics group** at the faculty of Engineering.

2007-(2008) **Associate Professor in physics,** Al-quds Open University, palestine

(2008)- 2011 **Associate Professor in physics,** Department of Physics , Arab-American University, Palestine

2011- **Professor in physics,** Department of Physics , Arab-American University, Palestine

2006-2021 **Assoc. Professor in physics,** Group of Physics , Atilim University, Ankara, Turkey.

2021- **Professor in physics, Dep. of electric and electronics, Istinye University, Istanbul, TR**

Teaching Experience in Physics:

1. General physics I (Mechanics)
2. General physics II (Electricity & Magnetism)
3. Physics for Medical students
4. Physics for Information Technology
5. Modern physics
6. Quantum mechanics I
7. Quantum Mechanics II
8. Classical Mechanics I
9. Classical Mechanics II
10. Electromagnetic theory I
11. Electromagnetic theory II
12. Optics and Waves
13. Astronomy I
14. Semiconductor physics
15. Advanced practical Physics
16. Solid State Physics I
17. Solid State Physics II
18. Optics and lasers
19. Methods of science Education
20. Living with technology
21. Advanced mathematical methods (graduate course)
22. Advanced Research Methods (graduate)
23. Optoelectronic devices (graduate)
24. Nanophysics (graduate)
25. Advanced Quantum Mechanics II (Graduate)

Thesis Advising

1. Ms thesis " Numerical simulation and analysis of current conduction mechanism functions in solids",Abdulfattah H. Niarat, Department of Mathematics, Arab American University, Jenin, 2014.
2. Ms thesis" Analysis and Simulation Of Variable Range Hopping Parameters Under Photoexcitation, Suha Kilany, Department of Mathematics, Arab American University, Jenin, 2014.

3. Ms thesis" Analytical Solution and Simulation of Schrödinger differential equation by the WKB Approximation for tunneling process in Nano-device Structures", Abrar Qadan, Department of Mathematics, Arab American University, Jenin, 2014.

4. Eman O. Nazzal, Impact of indium nanoslabs sandwiching on the properties of Ga2S3 thin films, department of physics, Arab American University, Jenin, 2016 (Graduated).

5. Olfat Omariya, Design and characterization of Ge/InSe/Ga2S3 heterojunction devices, department of physics, Arab American University, Jenin, 2016 (Graduated).

6. Maisam M. Abdullah, Formation and performance of (Au, Yb)/ZnS/Ge/GaSe hybrid devices, department of physics, Arab American University, Jenin, 2016 (r Graduated).

7. Tamara Abed, Effect of Ytterbium Nanosandwiching on The Physical Properties of CdS thin films, Physics department, Arab American University, Jenin, 2017 (Graduated)

8. Maram Taleb, Engineering the optical and electrical conduction parameters of ZnSe thin films via AuY alloy nanosandwiching, Arab American University, Jenin, 2017 (Graduated)

9. Ansam Mustafa Alsabaa, Structural and Optical Properties of Al doped ZnSe thin films, Physics department, Arab American University, Jenin, 2017 (Graduated)

10. Osama Husni, Design and Optical Characterization of Se/(Al, Ag)/Se Interfaces, Physics department, Arab American University, Jenin, 2017 (Graduated)

11. Hadeel Dawwas, Electrical investigations of Se/Ag/Se Interfaces, Physics department, Arab American University, Jenin, 2017(Graduated)

12. Ala Kmail, Thickness and post annealing effects on the structural, optical and dielectric properties of copper oxide thin films, Physics department, Arab American University, Jenin, 2018(Graduated)

13. Reham Kmail, Formation and characterization of the In_2Se_3/CuO heterojunctions, Physics department, Arab American University, Jenin, 2018 (Graduated)

14. Mays Rabaya, Tungsten doping effects on the properties of $Bi_{1.5}Zn_{0.92}Nb_{1.5}O_{6.92}$ (BZN) ceramics, Physics department, Arab American University, Jenin, 2018 (Graduated)

15. Tahani M. Rshaid, Investigation of the Properties of $Tl_2InGaSe_4$ Single Crystals Physics department, Arab American University, Jenin, 2018 (Graduated)

16. Nancy Yaseen, Formation and characterization of MoO_3/(ZnS, InSe) heterojunctions Physics department, Arab American University, Jenin, 2018 (Graduated)

17. Arwa Gannam, effects of In, Pb and La substrates on the structural and optical properties of CuSe films, Physics department, Arab American University, Jenin, 2018 (Graduated)

18. Fatema Abu Alrub, Copper doping effects on the optical properties of InSe thin films, Physics department, Arab American University, Jenin, Sep, 2019 (Graduated).

19. Shatha Nazeeh Abu Alrub, Design and characterization of WO_3/Ga_2S_3 heterojunctions, Physics department, Arab American University, Jenin, Sep, 2019 (Graduated).

20. Hadeel Zyood, Effect of Yb, Mn and Au transparent substrate on the structural and optical properties of phthalocyanine (ZnPC) thin films, Physics department, Arab American University, Jenin, Sep, 2019 (Graduated).

21.Tahani Beni Odeh, Effects of gold nanosandwiching on the structural and optical properties of Copper selenide thin films, Physics department, Arab American University, Jenin, Sep, 2019 (Graduated).

22. Maraim Abu Arra, Thermal annealing effects on the structural and electrical properties of Cupper doped InSe thin films, Physics department, Arab American University, Jenin, Jan 2020 (Graduated).

23. Sarah Al Najar, Growth and characterization of BaSb2 alloys, Physics department, Arab American University, Jenin, Jan 2020 (Graduated).

24. Wafa Zakarneh, : Production of LaAg alloys by high power laser welding, Physics department, Arab American University, Jenin, Jan 2020 (Graduated).

25. Amaal Wishaheh, Post annealing effects and in situ monitoring of the phase transitions in $CdBr_2$ powders, Physics department, Arab American University, Jenin, Jan 2020 (Graduated).

26. Areen Hamarsheh, Effects of SiO_2 nano layers on the performance of $CdBr_2/Ga_2S_3$ heterojunctions, Physics department, Arab American University, Jenin, Jan 2020 (Graduated).

27. Rana Daragmeh, Design and characterization of Se/WO3 Thin film transistors, Physics department, Arab American University, Jenin, March 2021 (Graduated).

28. Ahmad Toubasi, Growth and characterization of iron selenide thin films containing aluminum nanosheets, Arab American University, Jenin, March 2021 (Graduated).
29. Bayan Kmail, Methods of formation of niobium tin oxide compound and some related applications, March 2021 (Running)
30. Wala Ghannam, Design and characterization of CdSe/MoS_2 heterojunction devices, March 2021 (Running)
31. Lara Abu Samin, Formation and characterization of AlSb/CdS heterojunctions, March 2021 (Running)
32. Mayamen Abu AlTayip, Preparation and characterization of AgO-As_2O_3 thin films, March 2021 (Running)
33. Azhar Rabaya, Effect of Au Nano sheets thickness on the optical dynamics of Mn(O2) nano stacked layers , March 2021 (Running)

Reviewer of cited international Journals

1. 2008-Solid State Sciences (Elsevier Science)
2. 2008- Physica B (Elsevier Science)
3. 2008-Cellulose (Springer)
4. 2009-Materials Chemistry and Physics (Elsevier Science)
5. 2010- Solid State Communications (Elsevier Science)
6. 2010-Materials Science and Engineering B (Elsevier Science)
7. 2011-Ceramics International (Elsevier Science)
8. 2011-Materials Chemistry and Physics (Elsevier Science)
9. 2011-Physics B (Elsevier Science)
10. 2012-Materials Science in Semiconductor processing (Elsevier Science)
11. 2012-Journal of alloys and Compounds (Elsevier Science)
12. 2014 Materials Chemistry and Physics (Elsevier Science) Art no MATCHEMPHYS-D-11-01650R1
13. 2014 Materials Science in Semiconductor Processing (Elsevier Science)
14. 2017 IEEE Transactions of Electron Materials (IEEE)
15. 2018 Physica E
16. 2019 Materials Science in Semiconductor Processing
17. 2019 Physcia E
18. 2019 Physica B
19. 2019 Materials Science in Semiconductor Processing
20. 2019 Journal of Applied Physics

21. 2020 Physica B

22. 2021 Materials Science in Semiconductor Processing

23. 2021 Physica Status Solidi (a)

Awards:

1. The best researcher award by Atilim university for the years, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012.

2. Paper Publication and Motivation award by Turkish National Research Institute (1999, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012.

3. The Zuhair Alhijawi Award, for the under graduate project " Design and characterization og Ag/TlInSe2/Ag varactor devices" July **2011**

4. Best poster Award, Haneen Jaradat, A. F. Qasrawi, A. Mergen, Growth of ZnO nano-grains through Bizmuth-Zinc-Niobium Pyrochlore ceramics via Co-doping The first international Palestinian conference on Nanotechnology for advanced materials and devices, An-Najah University, 26-28 March, Palestine, **2012**.

5. Best Poster Award, first group, Eman Nazzal, A. F. Qasrawi, Optical properties of Sm and Y doped BZN pyrochlore ceramics, The first undergraduate poster shop, Arab American University, Jenin, Palestine **2013**.

6. Best Poster Award, second group, Khaleel Abu Mouis, A. F. Qasrawi, Enhancement of BZN Microwave Resonators via Yttrium doping , The first undergraduate poster shop, Arab American University, Jenin, Palestine **2013**.

7. Best project Award, A novel MgO/Ga_4Se_3S Sensor Designed For Giga and Tera -Hertz Applications Maryam M. S. Abd-Alrazq, Renal R. Kmail, Prof. A. F. Qasrawi, Undergraduate project workshop, Arab American University, Jenin, Palestine**, 2013.**

8. Best poster award, Energy band gap and dispersion parameters in Ga2S3 Thin films, PICC 2015 conference, An-Najah National University, New Campus, Nablus, April 21-22, 2015

9. Best Researcher Award by Atilim University for the year 2016

10. Best Article at the AAUJ journal of Scientific Research 2017

11. Best ISI Article award in Palestine AAUJ, 2017

12. Best Researcher Award by Atilim University 2017.

13. Publication motivation Award, Tubitak, Turkey.

Recent Projects:

1. **Atef Qasrawi**: Design and charcterization of In_6S_7 Shottky diodes for photovoltaic applications, Arab American University **, Cycle: 1011-01**(**1st April 2011**)

2. **Atef Qasrawi**, Dielectric and electrical properties of Bi1.5Zn0.92Nb1.5-xCoxO6.92-x-2 (BZN) microwave ceramics. Arab American University, **Cycle: 1112-01 (19 March 2012)**

3. **Atef Qasrawi**, Fabrication of Al/MgO/C and C/MgO/InSe/C tunneling barriers for tunable negative resistance and negative capacitance applications Arab American University **Cycle: 1013-01**(**2013**)

3. **Atef Qasrawi** , H. Khanfar, I. Saadeddin, H. Jaradat, Design and Characterization of MgO/$GaSe_{0.5}S_{0.5}$ Multifunctional Resonant Microwave Optoelectronic Sensors**, Ministry of High education, project # 2/1/2013.**

4. **Atef Qasrawi**, Fabrication of Gallium Selenide nano-layers for optoelectronic device applications, Arab American University **Cycle: 1014-01**(**2014**)

5. **Prof. Dr. Atef Qasrawi, Dr. Sulyman Rabba, Optical dynamics in CdSe/InSe interface Cycle: 1014-02**(**2014**)

6. **Atef Qasrawi**, **Mechanical, optical and electrical properties of $Bi_{1.5-x}La_xZn_{0.92}Nb_{1.5}O_{6.92}$ Pyrochlore Ceramics, Cycle II 1015-02 (2015)**

7. **Sabah Alqarni, A. F. Qasrawi,** Design and Characterization of InSe(n)/ZnSe(p)/InSe(n) thin film transistors , 2014- 2016, King Abdulaziz University, Jeddah- Saudi Arabia

8. **Seham Alharbi, A. F. Qasrawi, :** Post annealing effects on the structural, compositional, optical and electrical properties of Ytterbium doped InSe nano-films, , 2014- 2016, King Abdulaziz University, Jeddah- Saudi Arabia

9. **Seham Alharbi, A. F. Qasrawi** , Characterization of the Ge/Bi2 O3 Interfaces 2018- 2019, King Abdulaziz University, Jeddah- Saudi Arabia

10. **Sabah Alqarni, A. F. Qasrawi, Exploring the optical dynamics in the ITO/As2Se3 interfaces** 2018- 2019, King Abdulaziz University, Jeddah- Saudi Arabia

11. **Sabah Alqarni, A. F. Qasrawi, Electrical performance of MoO3/Li/MoO3 nanolayers,** 2019- 2020, Jeddah University, Jeddah- Saudi Arabia

12. **Sabah Alqarni, A. F. Qasrawi, Optical dynamics at the CdO/Si/CdO interfaces,** 2019- 2020, King Abdulaziz University, Jeddah- Saudi Arabia

13. **Seham Alharbi, A. F. Qasrawi, Impedance spectroscopy in CdO/Si/CdO thin film transistors,** 2019- 2020, King Abdulaziz University, Jeddah- Saudi Arabia

14. **Seham Alharbi, A. F. Qasrawi, effect of ionic Au layers on CdO films,** 2019- 2020, King Abdulaziz University, Jeddah- Saudi Arabia

15. **Seham Alharbi, A. F. Qasrawi, Thickness effect on the optical condictivty paramters of ZnPC films,** 2019- 2020, Jeddah University, Jeddah- Saudi Arabia
16. **Seham Alharbi, A. F. Qasrawi, characterization of As2Se3/Ag/As2Se3 nanolayers**
17. Tarek Kayed, A. F. Qasrawi, characterization of MoO3/AS2Se3 heterojunction devices, 2019-2020, Aldammam University, Aldammam- Saudi Arabia

Consultations

1. **S. Alqarni, A. F. Qasrawi,** , Design and characterization of MgO/Ge/BN Resonant Electronic devices for Giga Hertz frequency applications 2014-2015, King Abdulaziz University, Jeddah- Saudi Arabia
2. **S. Alqarni, A. F. Qasrawi,** Post annealing effects on the structural, compositional and optical properties of Cd doped GaSe thin films 2014-2015, King Abdulaziz University, Jeddah- Saudi Arabia
3. S. R. Alharbi, **A. F. Qasrawi**, Optical Characterization of The Boron Nitride-Indium Selenide Thin Film Hetrojunctions 2014, King Abdulaziz University, Jeddah- Saudi Arabia
4. T. S. Kayed, KH. Alsayed, **A. F. Qasrawi**, Production of Indium and Gallium Selenide nano layers for optoelectronic device applications 2014-2016, University of Dammam, Saudi Arabia
5. **S. Alqarni, A. F. Qasrawi,** , Properties of Ge/InSe/Ga2S3 heterojunctions 2015-2016, King Abdulaziz University, Jeddah- Saudi Arabia
6. S. R. Alharbi, A. F. Qasrawi, growth and characterization of YbInSe thin films 2015-2016, King Abdulaziz University, Jeddah- Saudi Arabia.

Edited Books:

1. General Physics Laboratory Manual, 1st edition., T. K. Said, **A. F. Qasrawi**, O. Pehlivan., 2001, Remark, Aknara, Turkey. (ISBN 9756707-07-0. Library code QC21.2
2. **A. F. Qasrawi**, Advanced practical physics, (2013), Arab American University, Palestine
3. **A. F. Qasrawi**, Experiments in modern Physics, Arab American University, Palestine

Research Experience:

Experimental:

1. Growth and synthesis of solid materials, like growth of single crystalline layered and chain structures using the Bridgman method. (Could be found in my publications list)

2. Deposition of thin layers (5 A^o-2 □m thick) on various substrate types using the thermal deposition technique, spattering technique, electron beam deposition technique

3. Deposition of chain polymers using electrochemical technique.

4. Designing micro-electronic devices, like heat sensors, Schottky barriers, radiation sensors, photo-detectors, multifunction photo-chips, IR detectors and photo-resistors using the Van der Pauw method, Hall bar technique and Lithography for mask alignment.

5. Materials structural characterization using X-ray diffraction, Transmittance electron microscopy, scanning electron microscopy and X-ray florescence techniques.
6. Materials electrical characterization using the standard I-V, C-V, four point contact, Hall bar contacts and Van Der Pauw techniques.
7. Material Hall effect Characterization using Van Der Pauw and Hall bar techniques.
8. Optoelectronics design and characterization for direct applications using the open circuit and perpendicular and parallel illumination techniques. Namely, spectral analysis , illumination effects, detector –illumination response and time resolution, Temperature dependence photoconductivity, time-illumination dependent photoconductivity, photon energy dependency.
9. Photo-Hall characterizations, Namely, Illumination and temperature dependent Hall mobility, carrier concentration, and photoconductivity.

Theoretical

1. Transport phenomena in solids, like thermionic conduction, hopping of charged carriers and tunneling conduction mechanism. i. e. impurity level identification, Mott parameters evaluation, continuous and discrete (quantized) energy location identification. This part is done using pure mathematical approaches, statistical analysis, and simulating techniques.

4. Particle scattering mechanisms: using perturbation theory like carrier -phonon and phonon-phonon interactions, carrier-phonon coupling, polar and non-polar scattering, acoustic phonon scattering, ionized impurity scattering, neutral scattering and carrier-carrier scattering.
5. Band theory of solids: tight –binding calculations with extended

Hamiltonian approach, bonding and anti-bonding structures, structure deformation analysis and identification of the energy bands in materials.

6. Recombination Mechanisms: linear, sublinear, and supralinear recombination mathematical and statistical estimations. Trapping levels calculations, current storage locations …etc.
7. Particle response and spontaneous emission calculations: using numerical methods and statistical analysis through the analysis of photonic emission and absorption.
8. Single donor-single acceptor model calculations: identification of effective mass and acceptor to donor emission ratio using computational analysis methods.

List of Publications:

1. Gunal I, **Qasrawi AF ,** Temperature effects on the properties of Ge thin films JOURNAL OF MATERIALS SCIENCE 34 (20): 5033-5037 OCT (1999)
2. **Qasrawi AF**, Gunal I, Ercelebi C, Structural and electrical properties of Cd doped InSe thin films , Crystal Research And Technology 35 (9): 1077-1086 (2000)
3. **Qasrawi AF**, Gasanly NM, Crystal data, electrical resistivity, and Hall mobility of n-type AgIn5S8 single crystals, Crystal Research And Technology 36 (4-5): 457-464 (2001)
4. **Qasrawi AF**, Parlak M, Ercelebi C, et al., Characterization of p-In2Se3 thin films Journal Of Materials Science-Materials In Electronics 12 (8): 473-476 (2001)
5. **Qasrawi AF**, Gasanly NM, Crystal data, photoconductivity and carrier scattering mechanisms in CuIn5S8 single crystals, Crystal Research And Technology 36 (12): 1399-1410 (2001)
6. **Qasrawi AF,** Cd-doping effects on the properties of polycrystalline alpha-In2Se3 thin films, Crystal Research And Technology 37 (4): 378-390 (2002)
7. **Qasrawi AF**, Gasanly NM, Carrier scattering mechanisms in GaS0.5Se0.5 layered crystals, Crystal Research And Technology 37 (6): 587-594 (2002)
8. **Qasrawi AF**, Gasanly NM, Carrier transport properties of InS single crystals Crystal Research And Technology 37 (10): 1104-1112 (2002)
9. **Qasrawi AF**, Gasanly NM, Investigation of localized levels in GaS0.5Se0.5 layered crystals by means of electrical, space-charge limited current and photoconductivity measurements, Physica Status Solidi A-Applied Research 194 (1): 81-88 NOV 16 (2002)
10. **Qasrawi AF**, Gasanly NM, Photoelectronic and electrical properties of InS crystals Semiconductor Science And Technology 17 (12): 1288-1292 (2002)
11. Parlak M, **Qasrawi AF**, Ercelebi C, Growth, electrical and structural, characterization of beta-GaSe thin films, Journal Of Materials Science 38 (7): 1507-1511 APR 1 (2003)

12. Kiralp S, Kucukyavuz Z, **Qasrawi AF,** Preparation and characterization of conducting polybutadiene/polythiophene composites, Turkish Journal Of Chemistry 27 (4): 417-422 (2003)
13. **Qasrawi AF**, Gasanly NM, Photoelectronic, optical and electrical properties of TlInS2 single crystals, Physica Status Solidi A-Applied Research 199 (2): 277-283 SEP (2003)
14. **Qasrawi AF**, Gasanly NM, Photoelectronic and electrical properties of CuIn5S8 single crystals, Crystal Research And Technology 38 (12): 1063-1070 (2003)
15. **Qasrawi AF**, Cihaner A, Onal AM, Electrical, optical and photoconductive properties of poly(dibenzo-18-crown-6), Crystal Research And Technology 39 (1): 56-62 JAN (2004)
16. **Qasrawi AF**, Gasanly NM, Hall effect, space-charge limited current and photoconductivity measurements on TlGaSe2 layered crystals, Semiconductor Science And Technology 19 (3): 505-509 MAR (2004)
17. **Qasrawi AF**, Gasanly NM, Investigation of carrier scattering mechanisms in TIInS2 single crystals by Hall effect measurements, Crystal Research And Technology 39 (5): 439-447 MAY (2004)
18. **Qasrawi AF**, Gasanly NM, Electrical conductivity and Hall mobility in p-type TlGaSe2 crystals, Materials Research Bulletin 39 (9) 1353-1359 (2004)
19. Mergen A, Kayed TS, Bilen M, **Qasrawi AF**, Production of anorthite from kaolinite and CaCO3 via colemanite, Key Engineering Materials 264-268: 1475-1478 Part 1-3 (2004)
20. **Qasrawi AF**, Kayed TS, Ercan I, Fabrication and some physical properties of AgIn5S8 thin films, Materials Science And Engineering B-Solid State Materials For Advanced Technology 113 (1): 73-78 (2004)
21. **Qasrawi AF**, Kayed TS, Mergen A, et al., Synthesis and characterization of Mg2B2O5, Materials Research Bulletin 40 (4): 583-589 APR 20 (2005)
22. **Qasrawi AF**, Refractive index, band gap and oscillator parameters of amorphous GaSe thin films, Crystal Research And Technology 40 (6): 610-614 JUN (2005)
23. **Qasrawi AF**, Gasanly NM, Temperature effect on dark electrical conductivity, Hall coefficient, space charge limited current and photoconductivity of TlGaS2 single crystals, Semiconductor Science And Technology 20 (5): 446-452 MAY (2005)
24. **Qasrawi AF,** Dispersive optical constants and temperature-dependent band gap of cadmium-doped indium selenide thin films
Semiconductor Science And Technology 20 (8): 765-769 (2005)
25. **Qasrawi AF**, Gasanly NM, Optoelectronic and electrical properties of TlGaS2 single crystal, Physica Status Solidi A-Applications And, Materials Science 202 (13): 2501-2507 OCT (2005)

26. **Qasrawi AF**, Gasanly NM, Etectron-phonon short-range interactions mobility and p- to n-type conversion in TlGaS2 crystal , Crystal Research And Technology 41 (2): 174-179 FEB (2006)
27. **Qasrawi AF**, Ahmad MMS, Optoelectronical properties of polycrystalline beta-GaSe thin films, Crystal Research And Technology 41 (4): 364-370 (2006)
28. **Qasrawi AF**, Gasanly NM, Light illumination effect on the electrical and photovoltaic properties of In6S7 crystals, Journal Of Physics-Condensed Matter 18 (19): 4609-4614 MAY 17 (2006)
29. **Qasrawi AF**, Fabrication and characterization of TO/GaSe/(Ag, Au) Schottky diodes, Semiconductor Science And Technology 21 (6): 794-798 JUN (2006)
30. **Qasrawi AF**, Gasanly NM, Optical properties of TlInS2 layered single crystals near the absorption edge, Journal Of Materials Science 41 (11): 3569-3572 JUN (2006)
31. **Qasrawi AF,** Temperature dependence of the direct allowed transitions band gap and optical constants of polycrystalline alpha-In2Se3 thin films, Thin Solid Films 514 (1-2): 267-271 AUG 30 (2006)
32. **Qasrawi AF**, Gasanly NM, Acoustic phonons scattering mobility and carrier effective mass in In6S7 crystals, Journal Of Alloys And Compounds 426 (1-2): 64-66 DEC 21 (2006)
33. **Qasrawi AF**, Gasanly NM, Photoelectronic and electrical properties of Tl2InGaS4 layered crystals, Solid State Communications 141 (3): 117-121 (2007)
34. **Qasrawi AF**, Gasanly NM, Thermal lattice scattering mobility and carrier effective mass in intrinsic Tl2InGaTe4 crystals, Journal Of Physics-Condensed Matter 19 621-626 MAY 17 (2007)
35. **Qasrawi AF**, Gasanly NM, Energy band gap and oscillator paramters of Ga4Se3S single crystals, Solid State Communications 142 566-568 (2007)
36. **Qasrawi AF**, Gasanly NM, Crystal data and some physical properties of Tl2InGaTe4 crystals, Crystal Research And Technology 42 (8): 807-811 (2007)
37. **Qasrawi AF**, Gasanly NM, Refractive index, static dielectric constant, energy band gap and oscillator parameters of Ga2SeS single crystals, Physica Status Solidi A-Applications And Materials, 204, No. 9, 3165–3169 (2007)
38. Qasrawi AF, Temperature dependence of the band gap, refractive index and single- oscillator parameters of amorphous indium selenide thin films Optical Materials Optical Materials 29 (2007) 1751–1755
39. **Qasrawi AF**, Gasanly NM, Optical properties of Tl2InGaS4 layered single crystal Optical Materials 29 (2007) 1763–1767
40. **Qasrawi AF**, Gasanly NM, Dispersive optical constants of Tl2InGaSe4 single crystals, Phys. Scr. **76** (2007) 249–252

41. Qasrawi AF, Gasanly NM, Study of trapping and recombination centres in Tl2InGaTe4 chain crystals by dark electrical conductivity and photoconductivity measurements, Philosophical Magazine,Vol. 87, No. 36, 21 December, 5741– 5747 (2007)

42. Qasrawi AF, Gasanly NM : Space-charge-limited currents and photoconductive properties of Tl2InGaSe4 layered Crystals PHILOSOPHICAL MAGAZINE Volume: 88 Issue: 22 Pages: 2899-2906 (2008)

43. Qasrawi AF, Gasanly NM, Dark electrical conductivity and photoconductivity of Ga4Se3S layered single crystals JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS Volume: 69 Issue: 11 Pages: 2719-2722 NOV (2008)

44. Qasrawi AF, Gasanly NM, Hopping conduction in Ga4Se3S layered single crystals SOLID STATE COMMUNICATIONS Volume: 148 Issue: 5-6 Pages: 190-193 NOV (2008)

45. **Qasrawi AF**, Gasanly NM, Ilaiwi KF, Optoelectronic properties of Ga4Se3S-layered single crystals Physica Scripta Volume: 78 Issue: 1 Article Number: 015701 JUL (2008)

46. Qasrawi AF, Gasanly NM, : Determination of carrier effective mass, impurity energy levels, and compensation ratio in Ga4Se3S layered crystals by Hall effect measurements Physica Status Solidi A-Applications And Materials Science Volume: 205 Issue: 7 Pages: 1662-1665 JUL (2008)

47. Qasrawi AF, Saleh AA, Structural, compositional and optical properties of gallium selenide thin films doped with cadmium Crystal Research And Technology Volume: 43 Issue: 7 Pages: 769-772 JUL (2008)

48. **Qasrawi AF**, Gasanly NM, Crystal data and indirect optical transitions in Tl2InGaSe4 crystals Materials Research Bulletin Volume: 43 Issue: 6 Pages: 1497-1501 JUN 3 (2008)

49. **Qasrawi AF**, Annealing effects on the structural and optical properties of AgIn5S8 thin films Journal of Alloys and Compounds Volume: 455 Issue: 1-2 Pages: 295-297 MAY 8 (2008)

50. **Qasrawi AF**, Gasanly NM, : Electron-lattice interaction scattering mobility inTl2InGaSe4 single crystals, Journal Of Physics-Condensed Matter Volume: 20 Issue: 15 Article Number: 155204 APR 16 (2008)

51. **Qasrawi AF**, Dispersive optical constants of thermally deposited AgIn5S8 thin films, Thin Solid Films Volume: 516 Issue: 6 Pages: 1116-1119 JAN 30 (2008)

52. **Qasrawi AF**, Gasanly NM, Temperature- and photo-excitation effects on the electrical properties of Tl4Se3S crystals, Journal Of Physics-Condensed Matter Volume: 21Issue: 11 Article Number: 115801 Published: MAR 18 (2009)

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