

Curriculum Vitae

Ghada Mohammed IbrahimBadr

Associate Professor in Solid State Physics

Physics Department, Faculty of Science, Northern Border University,
Saudi Arabia

Physics Department, Faculty of Education, AinShams University, Egypt

Personal Information

Name	Ghada Mohammed Ibrahim Badr
Present Position	Assistant Professor of Experimental Solid-State Physics
Nationality	Egyptian
Date of Birth	23/6/1981
Place of Birth	Cairo, Egypt
Marital Status	Married
Residence	20 El_Badrawy St., Kebaa city, Cairo, Egypt
Work Address	Physics Department, Faculty of Science, Northern Border University, Saudi Arabia Physics Department, Faculty of Education, Ain- Shams University, Egypt
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Academic Degrees

- 1. Academic Degree:** Bachelor of Science and Education
Major Area of Study: Physics
University: Ain Shams University- Faculty of Education
Graduation Grade: very good
Date of Graduation: 2002
- 2. General Diploma in physics**

University: Ain Shams University- Faculty of Education
Graduation Grade: Excellent
Date of Graduation: 2003

3. Special Diploma in physics

University: Ain Shams University- Faculty of Education
Graduation Grade: Good
Date of Graduation: 2004

4. Master Degree in Physics

Major Area of Study: Solid State Physics
University: Ain Shams University-Faculty of Education
Grade: Excellent
Date: 2007

5. Doctor of Philosophy in Physics

Major Area of Study: Solid State Physics
University: Ain Shams University-Faculty of Education
Date: 2011

6. Scientific title: Assistant Professor of Experimental Solid-State Physics, since 2019 until now

Position Progress

1. Demonstrator

University: Ain Shams University-Faculty of Education-Physics Department
Date: 20/5/2003 up to 27/5/2007

2. Assistant Lecturer

University: Ain Shams University-Faculty of Education-Physics Department
Date: 28/5/2007 up to 28/12/2011

3. Solid State Physics Lecturer

University: Ain Shams University-Faculty of Education-Physics Department
Date: 29/12/2011 up tell now

4. Assistant Professor of Experimental Solid-State Physics -

in the Department of Physics, Faculty of Education - Ain Shams University, from September 2019 up to date.

Skills

Language:

Mother Language: Arabic
Excellent in English,

Computer:

ICDL, Excellent experience in Office 2007 (especially Word, Excel and PowerPoint), Origin 8.0, Data Studio

شكر وتقدير:

Faculties of Education Enhancement شكر وتقدير من مشروع تطوير كليات التربية
Project للمبادرة السريعة في الالتحاق بدورة ICDL واجتيازها.

Workshops and training courses at the Northern Border University:

1. I attended the workshop "Program Evaluation (Specifications and Report)" organized by the Deanship of Quality and Academic Accreditation at the Northern Border University on May 6, 2013 from 9:00 a.m. to 3:00 p.m.
2. I attended the workshop "Description of Academic Programs" organized by the Deanship of Quality and Academic Accreditation at Northern Border University on May 13, 2013 from 9:00 am to 3:00 pm
3. I attended the workshop "Field Experience Description and Report" organized by the Deanship of Quality and Academic Accreditation at the Northern Border University on 10/28/2013 from 9:00 am to 3:00 pm
4. The course of creative thinking strategies in the theory of TRIZ organized by the Deanship of University Education Development at the University of the Borders - Conference Hall 20-21/5/1436 AH
5. A course on how to use the e-learning system (black board), which was held by the Deanship of E-Learning and Distance Education in the year 1435/1436
6. She attended the activities of the sixth women's introductory forum for the national project "Nebras" for drug prevention, which was held in the northern border region on 5/7/1437 AH corresponding to 2/16/2016 AD.

Training courses at Ain Shams University

1. English course (TOEFL) at the Faculty of Education - Ain Shams University, with a total of 510, from 1/7/2003 to 31/8/2003
2. The International Computer Driving License (ICDL) course at the National Center for Public Mobilization and Statistics from 1/3/2004 to 6/3/2004
3. Obtained the "Effective Teaching" course within the project to develop the capabilities of faculty members and leaders at Ain Shams University in the period from 5-8/8/2006
4. she attended the "Effective Communication Skills" course within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 26-28/8/2006

5. He attended the course "Teaching for large numbers and micro-teaching" within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 3-5/4/2007
6. Obtained a course on "Thinking Skills" within the project to develop the capabilities of faculty members and leaders at Ain Shams University in the period from 28-30/4/2007
7. Obtained a course on "Using Technology in Teaching" within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 26-28/2/2008
8. Obtained the "Credit Hours System" course within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 6-8/5/2008
9. Obtained a course on "management of the research team" within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 12-14/9/2009
10. Obtained the "International Publication" course within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 26-28/9/2009
11. Obtained a course on "Competitive Research Projects" within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 22-24/1/2011
12. Obtained a course on "Communication Skills in Different Education Styles" within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 12-14/9/2011
13. Obtained a course on "Effective Communication Skills" within the project to develop the capabilities of faculty members and leaders at Ain Shams University in the period from 4-6/8/2012
14. Obtained the "International Publication" course within the project for developing the capabilities of faculty members and leaders at Ain Shams University in the period from 7-9/8/2012

Teaching activities at the Border University - Arar - Saudi Arabia

1. Teaching experimental techniques course 1101602 within the courses of the master's program in the department.
2. Teaching the graduation project course 1101492 to female graduate students in the department
3. Teaching the solid literacy course 1101471 for seventh-level students
4. Teaching Semiconductor Readers 1101472 for eighth-level students

5. Teaching the course of electronic circuit physics 2 for eighth-level students
6. Teaching statistical mechanics course 1101456 for seventh-level students
7. Teaching field course 1101391 for seventh-level students of the Faculty of Science
8. Teaching mathematical physics course 21101353 for fifth-level students
9. Physics General 2 (1101202) for third-level students of the Faculty of Science
10. General 1 (1101101) for first-year students.
11. Teaching the Solid-State Laboratory (1101471) for seventh-level students of the College of Science
12. Teaching the nuclear laboratory (1101461) for seventh-level students of the Faculty of Science
13. Teaching the electronics lab (1101312) for sixth-level students of the College of Science

Teaching activities in Egypt

1. Teaching practical physics to first, second- and fourth-year students.
2. Participation in committees conducting exams and member of the control in the first division.
3. Participate in photographing the experiments with their explanation and presentation in a good way for the laboratory experiments of the second group, to make them available on the college website.
4. Member of the Solid-State Physics Laboratory (Metals) in the Department - Faculty of Education - Ain Shams University .
- 5-Developing the infrastructure and research for the Solid State Physics Laboratory in the Physics Department.

Other activities

Northern Border University - Arar - Kingdom of Saudi Arabia

1. General Coordinator of the Physics Department (female students) - College of Science - Northern Border University in 14331434 - AH.

2. General Coordinator of the academic supervision of female students of the Department of Physics - College of Science - Northern Border University for several years and until now.
3. Responsible for entering the schedules of the students of the Department of Physics and faculty members on the banner system of the Northern Border University in the year 14331434- AH.
4. Conducting research with female students of the Department of Physics and participating in it in the fourth and fifth scientific conference at the level of universities in the Kingdom.
5. Member of the committee for preparing and coordinating the fifth student conference for female students of higher education - Northern Border University - Ministry of Higher Education in the Kingdom of Saudi Arabia 1434-1435 AH.
6. Supervising the various laboratories and following up the progress of their scientific work.
7. Participate in preparing the schedule of the Department of Physics for the distribution of lectures and laboratories.
8. Participate in exam facilitation committees.
9. Member of the Quality and Accreditation Committee 2014-2015.
10. Member of the Schedules Committee 2019-2021
11. Coordinator of student counseling 2017-2023 in the female section
12. Member of the Postgraduate Studies and Scientific Research Unit 2023

Scientific works:

Master's thesis title

Study of Some Tensile Properties of Sn-based Pb-free Solder alloys

PhD thesis title

Study of the effect of heat treatment on the structural and mechanical properties of an aluminum-based solder alloy

List of publications

1. Effect of Bi Addition, Strain Rate and Deformation Temperature on the Tensile Properties of Sn-9 wt. % Zn Solder Alloy

N. Habib, A. Fawzy, Gh. Mohammed and G. Saad

*Arab J. of Nuclear Sciences and applications***41 (1)** (2008) 215-225.

2. Deformation characteristics of Al-4043 alloy

G. Saad, S.A. Fayek, A. Fawzy, H.N. Soliman and Gh. Mohammed

Materials Science and Engineering A527 (4-5)(2010) 904-910.

3. Annealing induced softening in deformed Al-4043

G. Saad, S.A. Fayek, A. Fawzy, H.N. Soliman and Gh. Mohammed

*Arab J. of Nuclear Sciences and applications***44**(2011) 313-325.

4. Effects of γ -irradiation and strain rate on the tensile and the electrical properties of Al-4043 alloy

S. El-Gamal and Gh. Mohammed

*Radiat. Phys. Chem.***99**(2014) 68-73.

5. Effect of PVA and copper oxide nanoparticles on the structural, optical, and electrical properties of carboxymethyl cellulose films

A. M. El Sayed, S. El-Gamal, W. M. Morsi and Gh. Mohammed

J Mater. Sci. **50**(2015) 4717–4728.

6. Influence of phase transformation on the work hardening characteristics of Pb-(1-3)wt.%Sb alloys

Gh. Mohammed, S. El-Gamal, A. S. Mahmoud, R. H. Nada and A.M. Abd El-Khalek

*IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)***12 (6)** (2015) 53-65.

7. Study the Precipitation of Sb in Pb Based Alloys Using Stress-Strain Characteristics and Positron Annihilation Technique

S. El-Gamal, Gh. Mohammed, E. E. Abdel-Hady

American Journal of Materials Science 2015, 5(5): 97-105

8. Effects of γ -irradiation and Deformation Temperature on Tensile Properties of Pb-2 mass% Sb Alloy

Gh. Mohammed, S. El-Gamal

*Journal of Iron and Steel Research, International***23(7)** (2016) 733-738.

9. Preparation and characterization of PbO/carboxymethyl cellulose /polyvinylpyrrolidone nanocomposite films

M.S. El-Bana, Gh. Mohammed, A.M. El Sayed, S. El-Gamal

Polymer Composites, **39(10)** (2018) 3712-25.

10. Spectroscopic, thermal, and electrical properties of MgO/ polyvinyl pyrrolidone/ polyvinyl alcohol nanocomposites

Gh. Mohammed, A.M. El Sayed, W.M. Morsi

*Journal of Physics and Chemistry of Solids***115**(2018) 238–247.

11. Influence of SiC nanoparticles addition on the microstructure, thermal and tensile properties of Sn–Zn–Ag solder alloy

Gh. Mohammed, S. El-Gamal

*Materials Research Express***5**(2018) 086508.

12. Structural, morphological, optical and dielectric properties of M³⁺/PVA/PEG SPE Films (M= La, Y, Fe or Ir).

Gh. Mohammed, AM El Sayed.

Polymers for Advanced Technologies. **30(3)** (2019)698-712.

13. Effect of M nitrates on the optical, dielectric relaxation and porosity of PVC/PMMA membranes (M= Cd, Co, Cr or Mg).

Gh. Mohammed, AM El Sayed, S. El-Gamal

Journal of Inorganic and Organometallic Polymers and Materials.**30(4)**(2020)1306-19.

14. The role of MgO nanoparticles addition, and γ -irradiation on the microstructural, and tensile properties of Al-1100 alloy.

Gh. Mohammed, S. El-Gamal

Journal of Composite Materials **55 (16)** (2021) 2135-2149

15- Enhancing the Tensile Properties of Sn-Zn-Ag Lead-Free Solder Alloy by Loading MgO Nanoparticles and Irradiation

Gh. Mohammed F. Alruwaili, S. El-Gamal

Journal of Composite Materials **55(21)** (2022) 3237-3252

16- Synthesis, Structural, Optical, and Electric Characterization of Y₂O₃/ PEG–PVC Based NCSPE

Gh. Mohammed, S. El-Gamal, Adel M. El Sayed, S. Saber

Polymer International **72 (3)** (2022) 342-355