

## ABDELLATIF M. ALSHARIF

**Professor**  
**Physics of Materials**

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### **PERSONAL:**

**Date of birth:** August 2, 1962 .

**Place of birth:** Irbid – JORDAN.

**Marital status:** Married.

**Residency:** Permanent Residence in USA (Green Card holder)

### **EDUCATION:**

1. Ph. D. degree in physics, Kansas State University – USA, March 1991.
2. M. Sc. Degree in physics, Kansas State University – USA, May 1988.
3. B. Sc. Degree in physics, Yarmouk University – Jordan, July 1984.

### **ACADEMIC EXPERIENCE:**

1. Assistant Prof., Mu'tah University – Jordan, 12 March 1991 – 11 March 1996.
2. Associate Prof., Mu'tah University – Jordan, 12 March 1996 – 15 Sept. 1997.
3. Associate Prof., University of Qatar – Qatar, 20 Sept. 1997 – 17 Sept. 2001 (sabbatical and leave of absence)
4. Associate Prof. Mu'tah university – Jordan, 18 Sept. 2001 – 11 March 2004.
5. Professor, Mu'tah University – Jordan, 12 March 2004 – August 2007.
6. Professor, King Faisal Univ. – SA, August 2007 – August 2008) (Sabbatical leave)
7. Professor, Mu'tah University – Jordan , August 2008 – present).
8. professor, Salman bin Abdelaiziz Univ.-S.A. (August 2012-August 2013) (sabbatical leave)

### **ADMINISTRATIVE EXPERIENCE:**

1. **Director**, science courses Unit- Prep. Year Deanship- Salman Bin AbdelAziz Univ. Saudi Arabia, Aug.2012-aug.2013.
2. **Academic and Administrative Consultant**- Prep. Year Deanship- Salman Bin AbdelAziz Univ. Saudi Arabia, Aug.2012-aug.2013.
3. **Head**, Physics department, Mu'tah University – Jordan, 2 Sept. 2001 – 31 August 2003.
4. **Assistant Dean**, Deanship of student affairs, Mu'tah University – Jordan, 16 Sept. 1995 – 5 July 1997.
5. **Assistant Dean**, Faculty of Science, Mu'tah University – Jordan, 26 January 1994 – 16 Sept. 1995.

### **TEACHING EXPERIENCE:**

I taught the following courses (Text books, language of teaching, Notes and Exams are all in English)

#### **Undergraduate Courses**

1. Eng Phys I and II.
2. Physics for medical students.
3. Vibration and waves.
4. Modern Physics.
5. Semiconductors.
6. Physics of Materials.
7. Quantum Physics.
8. Solid State Physics.
9. Molecular Physics.
10. Atomic Physics.

#### **Graduate Courses:**

1. Solid State Physics.
2. Special Topics in Magnetism.
3. Special topics in Superconductivity.

### **INTERNATIONAL AWARD:**

The Third World Academy of Science (TWAS) Prize in physics, Trieste – ITALY, 1995.

### **SCOLARSHIPS AND RESEARCH GRANTS:**

1. Scholarship from Mu'tah University –Jordan to continue my education in Physics at KSU (MSc and PhD).
2. A research full support from Mu'tah University to visit KSU – USA, to conduct research at Prof. M. J. O'Shea lab. (three months).
3. A research grant by the High Council of Science and Technology (HCST)-Jordan, to investigate and GdSm based permanent magnets.

### **CONFERENCES AND WORKSHOPS:**

1. International Conference on Condensed Matter Physics and applications, BAHRAIN, 13-16 April 1992. (presented a paper).
2. Condensed Matter Workshop, ICTP – ITALY, August 31 – Sept. 21 1992.
3. CTAP First workshop in using computer in theoretical physics, Yarmouk University, JORDAN, 12 – 23 January 1992.
4. First Symp. In Recent Developments in Computational Condensed Matter Physics, Yarmouk University – JORDAN, 16 – 18 Nov. 1992.
5. First National Jordanian Conference on Electrical Engineering, Mu'tah University, JORDAN, 19-21 April 1993 (presented a paper).
6. CTAP First Symp. On Magnetics, Yarmouk University – JORDAN, 22-24 Nov. 1993 (presented a paper).

7. The Third Conference on Physics of Condensed Matter, Jordan University – JORDAN, 18-21 April 1994 (presented a paper).
8. 2<sup>nd</sup> International Conference, Lasers in Science and Technology, Jordan University, JORDAN, 13-16 August 1994 (presented a paper).
9. The XVII Conference on Solid State Science and Workshop on Spectrally Selective Thin Films for Solar Applications, Suez – EGYPT, Jan. 22-26 1995 (presented paper)
10. The XIX Conference on Solid State Science and Workshop on Physics of Non-Crystalline Solids, Ismailia – EGYPT, 13-17 March 1996 (presented a paper).
11. CTAP Second Symp. On Magnetism, Yarmouk University – JORDAN, 4-6 Nov. 1996 (presented a paper).
12. 2<sup>nd</sup> National Jordanian Conference on Electrical Engineering, Mu'tah University, JORDAN, 18-20 Nov. 1996 (presented a paper).
13. International Magnetism Conference (INTERMAG 97), New Orleans, USA, 1-4 April 1997 (presented a paper).
14. The fourth international conference on physics of condensed matter University of Jordan, JORDAN, 18-22 April 2000 . (presented a paper)
15. 2<sup>nd</sup> regional conference on magnetic and superconducting materials Yarmouk university, Jordan, 9-13 sept. 2001. (presented a paper).
16. First Symp. On Use of Nuclear Techniques in Environmental Studies, Yarmouk university-Jordan, 24-26 sept. 2001 (presented a paper)
17. The second conference of the Faculty of Science and Arts, AL al-Bayt University, 8-9 May 2002 (presented a paper).
18. The XXIII Conference on solid state science & Workshop on physics and applications potential of functional ceramic thin films, EGYPT, 28 sept. – 2 oct. 2002 (presented a paper).
19. The 3<sup>rd</sup> regional Conference on Magnetic and Superconducting Materials (MSM-03), 1-4/Sept. 2003, TUNISIA (presented a paper).
20. The International Engineering Conference Mutah - Jordan, 26-28 April 2004 (presented a paper).  
The Tenth Jordanian Science Week, Amman- JORDAN, Sept. 2004 (presented a paper).
22. The XXV Conference on Solid State Physics and Materials Science, EGYPT, 6-10 March 2005 (presented a paper).
23. The Synchrotron Users Workshops (2005-2010) .Annual Activity to prepare Jordanian scientist for the use of synchrotron facility in research. Presented a talk about x-ray diffraction in all workshops.
24. The First Uro-medetranian conference in materials, Tunisia 4-9, sept 2011 (presented a paper)

## **PUBLICATIONS:**

- 1. Effect of alloying elements on the double-transition behavior of Gd-rich spin glass Systems**, A. Al-Sharif and M. J. O'Shea, **J. Appl. Phys.** 61, 3613 (1987).
- 2. Effect of microstructure on double-transition behavior**, A. Al-Sharif, G. Hadjipanais and M.J. O'Shea, *Appl Phys. Comm.* 7 (1-2), 98, 1987
- 3. Superconducting and electronic structure of Bi-based compounds**, S. Thomas, P. Sherwood, N. Singh, A. Al-Sharif and M. J. O'shea, **Phys. Rev.B**, 39, No.10, 1989.
- 4. Attempts to prepare Bi-Based superconductors on carbon fiber substrate**, A. Al-Sharif, M. J. O'Shea, S. Thomas and P. Sherwood, **J. Appl. Phys.** 67, 5023 (1990).
- 5. Overview of high  $T_c$  superconductors**, Proc. of 1<sup>st</sup> National Jordanian Conf. On Electrical Engineering, pp 72-87 (1992).
- 6. Inverted hysteresis in magnetic systems with interface exchange**, M. J. O'Shea and Al-Sharif, **J. Appl. Phys.** 75, 6673 (1994).
- 7. Magnetic behavior of Gd-rich spin glass systems**, A. Al-Sharif and M. J. O'Shea, **Mu'tah J. Res. and Stu.** V9 47 (1994).
- 8. Superconducting and magnetic properties of Bi-based superconductors with Fe, Co or Ni**, A. Al-Sharif and M. J. O'Shea, **Mu'tah J. Res. And Stu.** V9, 95 (1994).
- 9. Irradiation effects on the YBaCuO superconducting compound**, A. Al-Sharif and M. J. O'Shea, **Appl. Phys. A** 59, 597 (1994).
- 10. Shifted hysteresis loops in Co/CoO multilayers**, A. Al-Sharif, **Tr. J. Phys.** 18, 1086 (1994).
- 11. Effect of Pr substitution in place of Y in YBaCuO superconducting compound**, A. Al-sharif, **Mu'tah J. Res. And Stu.** V9, 71 (1994).
- 12. Magnetic behavior of YSmBaCuO superconducting compound**, A. Al-Sharif, **Mu'tah J. Res. And Stu.** V9, 83 (1994).
- 13. Magnetic measurements on some rare-earth iron garnets**, M. Iataifeh and A. Al-Sharif, **Appl. Phys. A** 61, 415 (1995).
- 14. Magnetic and XPS measurements of basalt rocks**, A. Al-Sharif, **Mutah J. Res. And Stud.** 12, 79 (1997)
- 15. Magnetic and structural properties of GdYNi**, M. R. Said, I. Abu-Aljarayesh and A. Al-Sharif. **Proceeding of MSM-01, Tehran-Iran**, 783 (1999).
- 16. Factors affecting radon concentration in houses**, A. Al-Sharif and Y. Abdelrahman, **T. J. phys.** 25, 153 (2001).
- 17. Variation of Magnetic Properties During Crystallization of FeXMoBCu (X=Co, Ni) Amorphous alloys with Large Supercooled Liquid Regions**, M. Al-Haj and A. Al-Sharif, **Dirasat** 30, 305 (2003).
- 18. Crystallization and magnetic properties of FeCoNiMoBCu amorphous alloy with large supercooled liquid region**, M. Al-Haj and A. Al-Sharif, **M.J. Res. Stud.** 18, 109 (2003).
- 19. Electromechanical properties of magnetic transducer**, A. Tawfiq and A. Al-Sharif, **J. Mag. Mag. Materials**, 278, 195 (2004).
- 20. Exchange anisotropy in Co/CoO bilayers**, A. Al-Sharif, , **M.J. Res. Stud.** 19, 53 (2004).
- 21. Effect of Gd substitution on the magnetic properties of SmCo<sub>5</sub>**, R. Mobydeen and A. Al-Sharif, **AYJ**, 13, 11 (2004).

22. **Superconducting materials and some of its electrical applications**, A. Al-Sharif, **Proceeding of the Int. Eng. Conf. Mu'tah – Jordan**, **34**, 26-29/4/2004.
23. **Effect of Sintering Time on Some Physical Properties of Zinc Ferrite**, A. Tawfiq and A. Al-Sharif, *Latv. J. Phys. And Tech.Sc.* N3, 63 (2004).
24. **Structural and Magnetic properties of  $BaZn_xFe_{12-x}O_{19}$  Ferrites**, A. Al-Sharif, M. Al-Saadi and H. Al-Jumaili (CIMTEC 2006).
25. **Effect of Co substitution on the structural and magnetic properties of Zn-w hexaferrites**, D. Hemeda, A. Al-Sharif and O. Hemeda, *JMMM* 315 (L1-L7) 2007.
26. **Structural and magnetic properties of  $(Ni_{1-x}Mg_x)Fe_2O_4$  Ferrites**, M. Abu-ALSondos and A. Al-Sharif, *JJP*, V2 No 1 (2009).
27. **The structural and magnetic properties of  $Bi_{1-x}A_xFe_{1-y}B_yO_3$  multiferroic compounds**. A. Al-Sharif and A. Muqri, *EPJ* 29,40 (2012) 29.
28. **The dc conductivity and magnetic properties of piezoelectric and piezomagnetic composite system**, O. Hemeda, A. Tawfik, A. Al-Sharif, M Amer, And D. ElRefaay, *JMMM* 324(2012)4118.
29. **The structural and high magnetic permeability of NiCuZnMg ferrite**, O. Hemeda, A. Tawfik, A. Al-Sharif and A. Elsheekh (accepted, *JMP*)
30. **The Electrical properties of NiCuZnMg Ferrite**, O. Hemeda, Tawfik, A. Al-Sharif and A. Elsheekh (submitted)
31. **Effect of Ca substitution on the structural and magnetic properties of Ni-Ferrites**, O. Zarnoon and A. Al-Sharif, (under preparation).
32. **Effect of Sm and Sr substitution on the structural and magnetic property of  $BiFeO_3$  ferrites**, A Muqri and A. Al-Sharif (submitted)

### **RESEARCH EXPERIENCE:**

#### **Advanced Materials ( fabrication and characterization)**

1. **Magnetism** (Magnetic and Structural properties of bulk and thin films materials).
2. **Superconductivity** (Magnetic, Structural and electronic properties)

#### **Some of the Masters Theses I supervised:**

The magnetic behavior of Sm-Co based systems .

By: R. Moubydeen (2003)

Preparation and evaluation of structural and magnetic properties of Barium Ferrite substituted by Zn and Ti

By: M. A. Al-Saadi (2004)

Magnetic and structural studies of  $(Ni_{1-x}Ca_x)Fe_2O_4$  ferrites

O. Zannon (2006)

Some Magnetic and Structural Properties of  $(\text{Ni}_{1-x}\text{Mg}_x)\text{Fe}_2\text{O}_4$  Ferrites  
M. Abu-Sondos(2006)

The effect of elemental Substitution in  $\text{BiFeO}_3$  Multiferroic  
A. Muqri (2010)

**REFERENCES:**

Dr. Amer Oqeli, Head of Physics Department, Mu'tah University, JORDAN (email: [ameroqali@gmail.com](mailto:ameroqali@gmail.com), Tel:962-796511380)

Dr. Emad Jaradat, Former Head of Physics Department, Mu'tah University- Jordan (email: [ejaradat@mutah.edu.jo](mailto:ejaradat@mutah.edu.jo), Tel: 962-799298976)

Prof. Raed S. Hijjawi, Former Head of Physics, Department of Physics, Mu'tah University – Jordan (email: [hijjawi@mutah.edu.jo](mailto:hijjawi@mutah.edu.jo), Tel:962-795574597)

Prof. M. J. O'Shea, Associate Head of Physics and My PhD Advisor, KSU –USA, (email: [mjoshea@phys.ksu.edu](mailto:mjoshea@phys.ksu.edu), Tel:785-532-1622)