

Curriculum Vitae



1. Personal Information

- Name in Full: Mohammad Khalil Ali Alqadi.
- Sex: Male.
- Date of Birth: Feb 6, 1969.
- Place of Birth: Amman/ Jordan
- Nationality: Jordanian.
- Material Status: Married with five children.

2. Current Professional Position

- Professor, Jordan University of Science & Technology, Jordan.

3. Official Address

- Department of Physical Sciences, Jordan University of Science & Technology, Irbid - Jordan.
- Phone: (00962)-2-7201000 Ext. 23555 (Office)
- E-Mail: malqadi@just.edu.jo.
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4. Education :

- Ph. D., 2002, Department of Physics, New Mexico state University, U. S. A.
 - (i) *Degree Specialization: nuclear physics*
 - (ii) *Title of **Ph. D.** Thesis:*
Inclusive pion reactions at intermediate energies.
 - (iii) *Thesis Advisor: Dr. William Gibbs*
- M. Sc., 1993, Department of Physics, University of Jordan, Amman – Jordan.
 - (i) *Degree Specialization: X-ray Fluorescence*
 - (ii) *Title of **M. Sc.** Thesis:*
Measurement of X-ray fluorescence cross section for some elements.
 - (iii) *Thesis Advisor: Dr. Nasar Saleh and Dr. Kamal al-saleh.*
- B. Sc., 1990, Department of Physics, Yarmouk University, Irbid - Jordan.

5. Languages:

Arabic (Native) and English

6. Working Experience:

- 2015-present, Professor, Department of Physical Sciences, Jordan University of Science & Technology, Jordan
- 2011 – 2015, Associate Professor, Department of Physical Sciences, Jordan University of Science & Technology, Jordan.
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- 2010-2011, Head, department of physics, Associate Professor, Department of Physics, Taibah University/ Al-Ula branch. Saudi
- 2008 – 2010, Associate Professor, Department of Physical Sciences, Jordan University of Science & Technology, Jordan.
- 2002 – 2008, Assistant Professor, Department of Physical Sciences, Jordan University of Science & Technology, Jordan.
- 1998 – 2000, Teaching and Research Assistant, Department of Physics, New Mexico State University, U. S. A.
- 2000 – 2002, Research Assistant, Department of Physics, New Mexico State University, U. S. A.
- 1993 - 1997, Teaching and Research Assistant, Department of Physical Sciences, Jordan University of Science & Technology, Jordan.
- August 1990 - August 1992, Teaching and Research Assistant, Department of Physics, University of Jordan, Amman-Jordan

7. Research Interests:

- Nuclear physics
- Superconductivity.
- Radiation Measurements.
- Fractional Calculus.
- X-ray fluorescence

8. Teaching Experience

A) Courses Taught at Graduate Level:

1. Nuclear physics (Phys 741).
2. Statistical mechanics (761)

B) Courses Taught at Undergraduate Level:

1. General Physics I (Phys 101) for science and Engineering Students.
2. General Physics (Phys 101A&102A) for Biology Students
3. General Physics II (Phys 102) for science and Engineering Students.
4. General Physics (Phys 103) for Medical and Agriculture Students.
5. General Physics Lab. (Phys 105)
6. General Physics Lab. (Phys 106)
7. Introduction of mathematical physics (Phys 200)
8. Astronomy (Phys 202)
9. Material Properties and Heat (Phys 211)
10. Material Properties and Heat Lab. (Phys 221)
11. Modern Physics Lab. (Phys 253)
12. optics (phys 282)
13. Classical Mechanics I (Phys 311)
14. Classical Mechanics II (Phys 312)
15. Quantum physics II (Phys 352)
16. Quantum physics I (Phys 351)
17. Atomic physics(Phys441)
18. Nuclear physics (Phys 449)
19. Statistical physics (461)

9. Academic Honors and Awards:

- A scholarship from Jordan University of Science & Technology to get a Ph. D. degree in physics from U. S. A. (1998-2002)

10. Supervision of Graduate Students:

- **Khaldon** Alazam. (co-advisor)
Title of Thesis: Measurement of Radon Concentration in soil and indoor of Jerash City
- **Yasser** Senjla.(advisor)
Title of Thesis: "Measurement of L X-Ray relative intensities for selected heavy elements".
- **Osama** Abu Nuqtah(co-advisor)
Title of Thesis: "PH effect on the aggregation of the silver nanoparticle synthesized by chemical reduction"
- **Hamza** Thanash .(advisor)
Title of Thesis: L shell X-ray fluorescence cross sections for selected elements
- **Nusayba** Al-Yaseen.(advisor)
Title of Thesis: EFFECT OF FINAL STATE INTERACTION IN $^3\text{He} (-\pi, +\pi) ^3\text{n}$ REACTION
- **Majdi jabr** Title of Thesis: MEASUREMENT OF RADON GAS CONCENTRATION LEVELS IN THE SOIL AND INDOORS IN THE CAPITAL AMMAN AND ITS *SUBURBS*

- **Osama Abo Noghah**
Title of Thesis: PH effect on the aggregation of silver nanoparticles synthesized by chemical reduction
- **Hanan Ababneh**
Title of Thesis: Photo-Induced Aggregation of Colloidal Metal Nanoparticles

I was a committee member of the graduate students:

1. Ala'a Al-Qudah(Jordan university of science and technology)
2. Ayman khtheir (Yarmouk University)
3. Mukhtar Adam
4. Amjad Al-smadi
5. Hajum Al-shboli

11. List of Published Papers:

1. **M. Alqadi**, W. R. Gibbs, *Pion double charge exchange on ^4He* , Physical Review C 65(2002) 044609. USA
2. **M. Alqadi**, W. R. Gibbs, *Final state interactions in pion production from nuclei*, Physical Review C 66(2002) 064604. USA
3. F. Y. Alzoubi, H. M. Al-Khateeb, **M. K. Alqadi** and N. Y. Ayoub. *Angular Dependence of the Levitation Force on a Small Magnet above a Superconducting Cylinder in the Meissner State*. Supercon. Sci. Technol. 18(2005)1329. UK
4. **M. K. Alqadi**, F. Y. Alzoubi, H. M. Al-Khateeb and N. Y. Ayoub. *Levitation Force between a Short Magnetic Bar and a Superconducting Cylinder in the Meissner State*, Mod. Phys. Lett. B 20(2006)1549.
5. A. A. Rousan, N. Y. Ayoub, F. Y. Alzoubi, H. Khateeb, **M. Al-Qadi**, M. K. Hasan (Qaseer), B. A. Albiss. *A fractional LC-RC Circuit*. Fractional Calculus & applied Analysis 9(2006)33.
6. F. Y. Alzoubi, H. M. Al-Khateeb, **M. K. Alqadi** and N. Y. Ayoub. *Vibrations in Magnet/Superconductor Levitation Systems*. Chin. Phys. Lett. 23(2006)1641. CHINA
7. F. Y. Alzoubi, **M. K. Alqadi**, H. M. Al-Khateeb, and N. Y. Ayoub. *The interaction force between a permanent magnet and a superconducting ring*. IEEE Trans. Appl. Supercond. 17(2007)3814. USA

8. **M. K. Alqadi**, H. M. Al-Khateeb F. Y. Alzoubi and N. Y. Ayoub *Effects of magnet size and geometry on magnetic levitation force*. Chin. Phys. Lett. 24(2007)2664. CHINA
9. H.M Al-Khateeb, **M. K. Alqadi**, F. Y. Alzoubi, and N. Y. Ayoub, *Angular Dependence of Lateral and Levitation Forces in Asymmetric Small Magnet/Superconducting System*, Chin. Phys. Lett. 24 (2007) 2700
10. H. M.. Al-Khateeb, F. Y. Alzoubi, **M. K. Alqadi**, and N. Y. Ayoub, *Magnetic Levitation of a Small Magnetic Ring above Cylindrical Superconductor Sample in the Meissner State*", Turk. J. Phys 31(2007)271
11. H. M. Al-Khateeb, B. A. Albiss, F. Y. Alzoubi, **M. K. Alqadi**, M. K Hasan (Qaseer) and N.Y. Ayoub. *"Levitation force between Monolayer of magnetic particles and superconducting plane in Meissner state"*, IEEE Trans. Appl. Supercond. 18 (2008)14. USA
12. H. M. Al-Khateeb, **M. K. Alqadi**, F. Y. Alzoubi and N. Y. Ayoub, *Levitation force between a small magnet and superconducting sphere*, J. Supercond. Nov. Magn., Vol. **21**(2008)93.
13. **M. K. Alqadi**, F. Y. Alzoubi, H. M. Al-Khateeb and N. Y. Ayoub, *The levitation force between a magnet and a small superconductor with cylindrical symmetry in the Meissner state*, Physica B, Vol. **403**(2008).
14. **M. K. Alqadi**, F. Y. Alzoubi, H. M. Al-Khateeb and N. Y. Ayoub, *Calculation of levitation force between small superconducting cylinder and magnetic ring in the critical state*, J. Supercond. Nov. Magn., Vol. **21**(2008)415.
15. **M. K. Alqadi**, F. Y. Alzoubi, H. M. Al-Khateeb and N. Y. Ayoub, *Interaction between a point magnetic dipole and a high-temperature superconducting sphere*, Physica B, Vol. **404**(2009)1781
16. F. Y. Alzoubi, **M. K. Alqadi**, H. M. Al-Khateeb and N. Y. Ayoub, *, Size effects on levitation force between a magnet and a superconducting thin film in the Meissner state*, J. Supercond. Nov. Mag., **25**(2012)22.
17. **M. K. Alqadi**, F. Y. Alzoubi, H. M. Al-Khateeb, S. M. Saasdeh and N. Y. Ayoub, *Force analysis of a permanent magnet and a superconducting hollow cylinder*, J. Supercond. Nov. Mag., **25** (2012)1469.
18. F. Y. Alzoubi, H. M. Al-Khateeb, **M. K. Alqadi**, S. M. Saasdeh and N. Y. Ayoub, *The force between a monolayer of magnetic particles and a superconductor in the mixed state*, Modern Physics Letters B, 26(2012) 1250109
19. H .M Al-Khateeb, A. A. Al-Qudah F. Y. Alzoubi, **M. K. Alqadi**, K. M. Aljarrah, *Radon concentration and radon effective dose rate in dwellings of some villages in the district of Ajloun, Jordan*, Applied Radiation and Isotopes **70**(2012)1579

20. F. Y. Alzoubi, **M. K. Alqadi**, H. M. Al-Khateeb, S. M. Saasdeh and N. Y. Ayoub, Solution to fractional un-damped forced oscillator, Jordan Journal of Physics, **5** (2012) 129
21. F.Y. Alzoubi K.M. Al-Azzam , **M.K. Alqadi**, H.M. Al-Khateeb, Z.Q. Ababneh, A.M. Ababneh, Radon concentration levels in the historical city of Jerash, Jordan, Radiation Measurements, **49** (2013) 35
22. **M.K. Alqadi**, Y. Alsenjilawi F. Y. Alzoubi, Measurement of L X-ray relative intensities for selected heavy elements, Radiation Physics and Chemistry, **87** (2013) 31.
23. **M. K. Alqadi**, F. Y. Alzoubi, H. M. Al-Khateeb , and N. Ayoub. Interaction force between a magnetic tip and a high temperature superconducting cylinder, J Supercond Nov Magn 27 (2014) 73–76
24. **M.K.Alqadi** , O. A. Abo noqtah, F.Y.Alzoubi , J. Alzoubi , K. Aljarrah, pH effect on the aggregation of the silver nanoparticles synthesized by chemical reduction, Material science –Poland 32(1), 2014, pp. 107-111.
25. . **M. K. Alqadi** and F. Y. Alzoubi , The magnetic interaction in the metamaterial/ magnet system, Chin. Phys. B. **23**, No. 8 (2014) 087506.
26. **M. K. Alqadi** , Stability of magnetic tip/ superconductor levitation systems, Chin. Phys. B., **24**(11)(2015) 118404
27. F. Y. Alzoubi , J. Y. Alzoubi, **M. K. Alqadi**, H. A. Alshboul, K. M. Aljarrah , Synthesis and characterization of colloidal gold nanoparticles controlled by the pH and ionic strength., Chinese Journal of Physics. VOL. 53, NO. 5(2015) 100801-1- 100801-9
28. **M. K. Alqadi**, F. Y. Alzoubi , N. Al-Yaseen, Effect of final state interaction in $^3\text{He}(\pi^-, \pi^+)n$ reaction, Chinese Journal of Physics. 54 (2016), pp. 12-19
29. H. M. Al-Khateeb, **M. K. Alqadi**, F. Y. Alzoubi, B. Albiss, M. K. Hasan (Qaseer), and N. Y. Ayoub, Levitation and lateral forces between a point magnetic dipole and a superconducting sphere, Chin. Phys. B **25**, 58402 (2016).
30. M.K. Alqadi*, F.Y. Alzoubi, M.A. Jaber, Assessment of radon gas using passive dosimeter in Amman and Al-Rusaifa cities, Jordan, Int. J. Radiat. Res., Vol. 14 No. 4, October 2016
31. H.M. Al-Khateeb, K.M. Aljarrah, F.Y. Alzoubi, **M.K. Alqadi**, A.A. Ahmad, The correlation between indoor and in soil radon concentrations in a desert climate, Radiat. Phys. Chem. **130**, 142 (2017).

12. Educational Workshops

- 1- The Workshop on Educational Technology (Measurements and Evaluation), Jordan University of Science and Technology, (2003)
- 2- The Workshop of Educational Technology (E-Learning), Jordan University of Science and Technology, (2007)
- 3- Workshop on computational physics using WIEN2K package, Center for theoretical and applied physical science, Yarmouk University August 2009,
- 4-The workshop of Modern Teaching Strategies, Jordan University of Science and Technology, (2013)
- 5-The workshop of Statistical analysis using SPSS , Jordan University of Science and Technology, (2013)

13. Computer Skills

- 1- Programming Language: Fortran, Mathematica.
- 2- Operating Systems: linux , Windows

14. Academic and Local Community Activities

1. Fourth Symposium on use of Nuclear Techniques in Environmental studies" (2004), Yarmouk University, Irbid, JORDAN.
2. "Angular Dependence of Levitation Force on a Small Magnet above a Superconducting Cylinder in the Meissner State", Scientific Day (2006), Jordan University of Science and Technology, Irbid, JORDAN. (This talk was presented by Dr. fedda alzoubi).
3. "Sixth Symposium on use of Nuclear Techniques in Environmental studies" (2006), Yarmouk University, Irbid, JORDAN.
4. "Lateral and Levitation Forces between Small Magnet and Superconductor Sample in the Meissner State", Scientific Day (2007), Jordan University of Science and Technology, Irbid, JORDAN. (This talk was presented by Dr H. M. Al-Khateeb,
5. "Seventh Symposium on use of Nuclear Techniques in Environmental studies" (2007), Yarmouk University, Irbid, JORDAN.
6. Measurement of Radon Concentration in soil and indoor of Jerash City (master thesis)
7. The annual meeting of the Four Corners' Section of the American Physical Society. Las Cruces, New Mexico on November 2, 3 2001 "Pion double charge exchange on He-4"
8. 7th International Advances in Applied Physics and Materials Science Congress & Exhibition from 22 to 26 April 2017 Fethiye- Mugla, Turkey
9. SESAME Users Meetings", (2007-2017), Amman, JORDAN.

