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Personal Details

Date of Birth: May 23, 1980

Place of Birth: Kuwait

Sex: Female

Marital Status: Single

Nationality: Jordanian

Passport No.: N608960



Academic Qualifications

- **Ph.D. degree in Physics/ Experimental Atomic Physics (Accelerator-Based), 2010.**

The University of Jordan, Faculty of Graduate Studies, Amman, Jordan, 2002-2010.

With an average of 3.95 out of 4, rating excellent and ranking first of the students of the Department of Physics.

Dissertation Title: Correlation of Backscattered and Recoil Ions in Violent Ion-Atom Collisions by Coincident Rutherford Backscattering Spectrometry.

Dissertation Advisors: Prof. Dr. Dia-Eddin Arafah and Dr. Rami M. Ali.

- **B.Sc. degree in Physics, 2002.**

The University of Jordan, Faculty of Science, Department of Physics, Amman, Jordan, 1999-2002.

With an average of 3.97 out of 4, rating excellent and ranking first of the students of the Department of Physics and the Faculty of Science as well.

- **General Secondary Education Certificate Examination, Scientific Stream, 1999.**

Ministry of Education, Amman, Jordan, 1998-1999.

With an average of 93.0%, rating excellent and scored in the 99th percentile (i.e. the top 1%) of the students of the scientific stream in Jordan.

Teaching Experience

1. From 2013 to Present: Assistant Professor, Department of Physics, Faculty of Science, The University of Jordan, Amman, Jordan.
2. From 2011 to 2013: Assistant Professor and Head of Physics, Females Branch, Physics Department, Rabigh-Faculty of Science and Arts, King Abdulaziz University, Rabigh, Saudi Arabia.
3. From 2010 to 2011: Assistant Professor, Physics Department, Rabigh-Faculty of Science and Arts, King Abdulaziz University, Rabigh, Saudi Arabia.
4. From 2002 to 2010: Part-time Lecturer, Department of Physics, The University of Jordan, Amman, Jordan.
5. 1st semester 2006/2007 and 1st semester 2007/2008: Part-time Lecturer, Islamic Community College, Zarqa, Jordan.
6. From 2004 to 2005: Physics Teacher, Khadija Bent Khuwailed Secondary School, Zarqa, Jordan.

Research Experience

1. From September 2018 to September 2019: Research Fellow (Full-time) in Elettra-Sincrotrone Trieste, Basovizza, Italy, working at GasPhase beamline.
2. From 2015 to 2017: Research Fellow (Short-term visits during summer semesters) in Elettra-Sincrotrone Trieste, Basovizza, Italy, working at GasPhase beamline.
3. From 2013 to Present: Member of the Atomic Physics Group, Department of Physics, The University of Jordan, working at RBS, PIXE, and COLTRIMS beamlines at the University of Jordan Van de Graaff Accelerator (JUVAC).
4. From 2005 to 2010: Building the Coincident Rutherford Backscattering Spectrometry (CRBS) apparatus at JUVAC under the supervision of Dr. Rami M. Ali, during my Ph.D. research.
5. From 2005-2010: A good practice in JUVAC operation and vacuum techniques.

Scholarships, Honors, and Awards

17. **TRIL Fellowship at Elettra Sincrotrone Trieste**, ICTP, Trieste, Italy, 1 September 2018 to 31 August 2019.
16. **TRIL Fellowship at Elettra Sincrotrone Trieste**, ICTP, Trieste, Italy, 21 June to 20 August 2017.
15. **TRIL Fellowship at Elettra Sincrotrone Trieste**, ICTP, Trieste, Italy, 8 July to 7 August 2016.
14. Nominated to attend the **66th Lindau Nobel Laureate Meeting**, The University of Jordan & COMSTECH, December 2015.
13. **TRIL Fellowship at Elettra Sincrotrone Trieste**, ICTP, Trieste, Italy, 1 June to 29 August 2015.
12. **Grant for a Short Scientific Visit to LABEC Laboratory of INFN at Florence, Italy**, IAEA RAS/0/072 Project, February 2015.
11. **The 1st Position in Poster Presentation Contest**, First ICTP-NCP International College on Plasma Physics, NCP, Pakistan, November 2013.
10. **Grant for a Short Scientific Visit to ESRF (European Synchrotron Radiation Facility) at Grenoble, France**, SESAME and LinkSCEEM Project (SCORE Program), October 2013.
9. **Distinguished Poster Award**, Hands-On Research in Complex Systems School, Shanghai Jiao Tong University, China, June 2012.
8. Nominated for the **Ph.D. Dissertation Award in the Scientific Field**, Department of Physics, The University of Jordan, 2010.
7. **Teaching Scholarship**, The University of Jordan, Faculty of Graduate Studies, 2003-2010.
6. **Academic Distinction Scholarship**, The University of Jordan, Faculty of Graduate Studies, 2007.
5. Appeared on the **University's President's Honor List for Academic Distinction**, The University of Jordan, 2003.
4. **Scientific Distinction Award in Science**, The University of Jordan, July 2003.
3. **Scientific Distinction Award in Physics**, The University of Jordan, July 2003.
2. **Higher Education Grant for the Top Students in Physics Department**, Ministry of Higher Education and Scientific Research, Jordan, 2000.
1. **Higher Education Grant for the Top Students in Tawjihi Exam**, Ministry of Higher Education and Scientific Research, Jordan, 1999.

Publications

6. **Dissociation Kinetics of Excited Ions: PEPICO Measurements of Os₃(CO)₁₂-The 7-35 eV Single Ionization Binding Energy Region.**
O. Schalk, I. Josefsson, T. Geng, R. Richter, H. Sa'adeh, R.D. Thomas, and M. Mucke.
J. Chem. Phys. 148 (2018) 084301.
5. **Communication: "Position" Does Matter: The Photofragmentation of the Nitroimidazole Isomers.**
P. Bolognesi, A. R. Casavola, A. Cartoni, R. Richter, P. Markus, S. Borocci, J. Chiarinelli, S. Tosic, H. Sa'adeh, M. Masic, B. P. Marinkovic, K. C. Prince, and L. Avaldi.
J. Chem. Phys. 145 (19) (2016) 191102.
4. **Evaluation and Mapping of PM_{2.5} Atmospheric Aerosols in ARASIA Region Using PIXE and Gravimetric Measurements.**
M. Roumie, M. Chiari, A. Srour, H. Sa'adeh, A. Reslan, M. Sultan, M. Ahmad, G. Calzolari, S. Nava, Th. Zubaidi, M.S. Rihawy, T. Hussein, D.-E. Arafah, A.G. Karydas, A. Simon, B. Nsouli.
Nucl. Instrum. Methods Phys. Res., Sect. B 371 (2016) 381-386.
3. **Electromagnetic Reduced Transition Properties of the Ground State Band of Even-Even ¹⁰²⁻¹⁰⁶Pd Isotopes by Means of Interacting Boson Model-I.**
I. Hossain, M. A. Saeed, N. N. A. M. B. Ghani, H. Sa'adeh, M. Hussein and H. Y. Abdullah.
Indian Journal of Physics, 88 (1) (2014) 5-9.
2. **Charge-State Distributions of Energetic ⁴He Ions Backscattered from Kr Gas Target.**
H. Sa'adeh, R. Ali, and D.-E. Arafah.
Nucl. Instrum. Methods Phys. Res., Sect. B 271 (2012) 33-38.
1. **Coincident Rutherford Backscattering Spectrometry: A Novel Technique for Measuring Charge State Distributions in Violent Ion-Atom Collisions.**
H. Sa'adeh, R. Ali, and D.-E. Arafah.
Nucl. Instrum. Methods Phys. Res., Sect. B 269 (2011) 2111-2116.

Research Projects

3. Project Counterpart and Main Investigator in RAS0076 Project "**Investigating Atmospheric Particulate Matter and Pollution Source Contributions in Urban Environments Using Nuclear Analytical Techniques (ARASIA)**", coordinated by the International Atomic Energy Agency (IAEA), January 2016-Present.
2. Participant in RAS0072 Project "**Evaluating and Mapping Air Pollutants Using Nuclear Analytical Techniques (ARASIA)**", coordinated by the International Atomic Energy Agency (IAEA), November 2013- December 2015.
1. Participant in the Project of "**Thermoluminescence Response of Doped Materials with Rare Earth Elements**", funded by the University of Jordan (Deanship of Scientific Research), February 2015-February 2016.

Conferences, Workshops, and Meetings

41. 25th Conference on Application of Accelerators in Research and Industry (CAARI 2018), 12-17 August 2018, Grapevine, Texas, USA.
40. Palestinian Conference on Modern Trends in Mathematics and Physics VI (PCMTMP-VI), 5-9 August 2018, Palestine Technical University-Khadoorei, Tulkarm, Palestine.
39. Second Coordination Meeting of the Regional Project RAS/0/076, 2-6 July 2018, IAEA, Vienna, Austria.
38. European Conference on X-Ray Spectrometry (EXRS 2018), 24-29 June 2018, Ljubljana, Slovenia.
37. 15th SESAME Users' Meeting, 18-19 December 2017, Gerasa Hotel, Amman, Jordan.
36. The World Science Forum 2017 JORDAN, 7-11 November 2017, King Hussein Bin Talal Convention Centre, Dead Sea, Jordan.
35. The 23rd International Conference on Ion Beam Analysis (IBA 2017), 8-13 October 2017, Fudan University, Shanghai, China.
34. Opening of SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) under the patronage of His Majesty King Abdullah II, 16 May 2017, Allan, Jordan.
33. Regional Workshop on Project Review Progress and Database Development, under IAEA TC Project RAS/0/076, 24-28 April 2017, IAEA, Vienna, Austria.
32. The 15th International Conference on Particle Induced X-ray Emission (PIXE 2017), 2-7 April 2017, Split, Croatia.
31. Fourth Regional Lab Immersion Program (RLIP 2016), 17-22 December 2016, LUMS, Lahore, Pakistan.
30. 14th SESAME Users' Meeting, 3-4 December 2016, Days Inn. Hotel and Suites, Amman, Jordan.
29. Regional Meeting to Review/Update Procedures and Strategy for Atmospheric Aerosol Sampling and Analyses & Interpretation, 4-8 April 2016, LAEC, Beirut, Lebanon.
28. 13th SESAME Users' Meeting, 25-26 November 2015, Days Inn. Hotel and Suites, Amman, Jordan.
27. The 22nd International Conference on Ion Beam Analysis (IBA 2015), 14-19 June 2015, Opatija, Croatia.
26. Regional-Coordination-Review Meeting and Workshop on Evaluating and Mapping Air Pollutants Using Nuclear Analytical Techniques, 19-23 April 2015, AUS, Sharjah, United Arab Emirates.
25. First Swedish-Jordanian Workshop on Science and Research Using Synchrotron Radiation, 25-29 January 2015, The Hashemite University, Zarqa, Jordan.
24. ICTP-NCP School on LHC Physics, 17-28 November 2014, NCP, Islamabad, Pakistan.
23. Fourth Palestinian Conference on Modern Trends in Mathematics and Physics III (PCMTMP-IV), 11-13 August 2014, Al-Quds University, Jerusalem, Palestine.
22. Fourth SESAME-LinkSCEEM Summer School on Synchrotron Radiation and High Performance Computing Applications, 15-17 June 2014, Ibis Hotel, Amman, Jordan.
21. Regional Workshop to Establish Strategy and Procedures for Atmospheric Aerosol Sampling, Analyses and Interpretation of the Results, 7-10 April 2014, IAEA, Vienna, Austria.
20. International Scientific Spring (ISS-2014), 10-14 March 2014, NCP, Islamabad, Pakistan.
19. 11th SESAME Users' Meeting, 20-22 November 2013, Days Inn. Hotel and Suites, Amman, Jordan.
18. First ICTP-NCP International College on Plasma Physics, 11-15 November 2013, NCP, Islamabad, Pakistan.
17. Advanced X-Ray Tomography Workshop: Experiment, Modelling, and Algorithms Jointed the Scientific Kick-off Meeting of the EXTREMA COST Action, 10-11 October 2013, ESRF, Grenoble, France.
16. Third SESAME-LinkSCEEM Summer School on Synchrotron Radiation and High Performance Computing Applications, 8-10 September 2013, SESAME, Allan, Jordan.
15. 2nd International Henry Moseley School and Workshop on X-Ray Science, 13-22 June 2013, ITAP, Turunç/Marmaris, Turkey.

14. Joint ICTP-TWAS Workshop on Portable X-ray Analytical Instruments for Cultural Heritage, 29 April-3 May 2013, ICTP, Trieste, Italy.
13. Third LinkSCEEM Cross-sectional HPC Workshop, 11-15 November 2012, Cairo University and the American University in Cairo, Cairo, Egypt.
12. 10th SESAME Users' Meeting, 7-9 November 2012, Days Inn. Hotel and Suites, Amman, Jordan.
11. Second SESAME-LinkSCEEM Summer School on Synchrotron Radiation and High Performance Computing Applications, 11-13 September 2012, SESAME, Allan, Jordan.
10. Palestinian Conference on Modern Trends in Mathematics and Physics III (PCMTMP-III), 16-18 July 2012, Palestine Polytechnic University, Hebron, Palestine.
9. Hands-On Research in Complex Systems School, 17-29 June 2012, Shanghai Jiao Tong University, Shanghai, China.
8. Fifth Saudi Science Conference, 16-18 April 2012, Umm Al Qura University, Makkah, Saudi Arabia.
7. Workshop on Nanotechnology-Based Renewable Energy, 18-19 February 2012, Center of Nanotechnology, King Abdulaziz University, Jeddah, Saudi Arabia.
6. SESAME-JSPS School Jointed 9th SESAME Users' Meeting, 12-16 November 2011, Days Inn. Hotel and Suites, Amman, Jordan.
5. Third International Symposiums on Nuclear Energy (ISNE-10), 15-17 December 2010, Le Royal Amman Hotel, Amman, Jordan.
4. Joint ICTP/IAEA Workshop on Nuclear Data for Science and Technology: Analytical Applications, 8-12 November 2010, ICTP, Trieste, Italy.
3. Palestinian Conference on Modern Trends in Mathematics and Physics II (PCMTMP-II), 2-4 August 2010, An-Najah National University, Nablus, Palestine.
2. Joint ICTP/IAEA Workshop on Advanced Simulation and Modeling for Ion Beam Analysis, 23-27 February 2009, ICTP, Trieste, Italy.
1. Attended many of the SESAME Jordanian National Committee workshops, organized in Amman, Jordan.

Professional Memberships

- American Physical Society, Division of Atomic, Molecular and Optical Physics: 2017-Present.
- Friends of ICTP: 2017-Present
- Aerosol Association in the Middle East and North Africa (AAMENA): 2016-Present.
- SESAME Users Committee (SUC): 2016-2020.
- SESAME Jordanian Users Committee: 2006-Present.

Thesis/Dissertation Examination Committees

2. Hamed Ali Abrass, Ph.D. Dissertation "Cobalt Silicide Formation Through a Diffusion Barrier", The University of Pretoria, South Africa, September 22nd, 2015.
1. Sana'a Al-rajoub, M.Sc. Thesis "Theoretical Investigations of the Structural, Electronic, and Optical Properties of HgX (X= S, Se, Te) Binary and Ternary Alloys: First Principles Calculations", The University of Jordan, Jordan, May 7th, 2015.

Academic Committees

Physics Departmental Committees

- Scientific Research Committee: 2013/2014, 2014/2015, 2015/2016, 2016/2017, & 2017/2018.
- Committee of Studying the Appointment Requests of Faculty Members: 2014/2015, 2015/2016, & 2017/2018.
- Committee of Preparing the Annual Report for the Academic Programs at the Department of Physics: 2015/2016.
- Coordinating Committees for Freshmen Physics Courses: 2013-Present.
- Study Plan Committee: 2015/2016, 2016/2017, & 2017/2018.

College Committees

- Committee of Inquiry for Students Violations: 2013/2014 & 2014/2015.
- Committee of Evaluating Students' Presentations in the 3rd workshop of Science Students Research Club (SSRC): 02/09/2015.
- Board of the Faculty of Science, Representative of the Department of Physics: 2016/2017.
- Academic Quality and Development Committee: 2016/2017.

Other Committees

- Academic Adviser for Undergraduate Students, Department of Physics: 2014/2015-Present.
- Founding Supervisor of LAMBDA Physics Group (<http://science.ju.edu.jo/en/lambda>): 2015-Present.
- Judgment Committee for Physics Projects, Jordan Science Fair 2018, Innovation for Creativity Development Association (ICDA): 28/04/2018.

Computer Skills

Microsoft Office, Adobe Photoshop, Mathematica, Maple, MatLab, Origin, Igor Pro, Kmax, KeyCAD, PeakFit, GUIXWIN, and WebPage Design.

Languages

Arabic: Mother tongue

English: Excellent, both written and spoken.

Italian: Absolute beginner.

References

1. Dr. Dia-Eddin Arafah

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3. Dr. Saed O. Dababneh

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5. Dr. Kevin C. Prince

Senior Principal Scientist
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6. Dr. Talat S. Rahman

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