

CURRICULUM VITAE

September 30th, 2017



Name	Saed Odeh Faraj Dababneh سائد عودة فرج دبابنة	Address	Dean of Scientific Research Al-Balqa Applied University P.O.Box 2587, Amman 11941 Jordan
Date of Birth	February 11, 1963		
Place of Birth	Amman, Jordan		
Nationality	Jordanian	Tel	+962-7-95606613 or +962-7-76075260
Marital status	Married (Two Children)	E-mail	dababneh@bau.edu.jo
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Education

- Ph.D. Nuclear Physics, 2002.
Heidelberg University and Karlsruhe Institute of Technology (KIT), Germany.
- M.Sc. Physics, 1990.
University of Jordan, Faculty of Graduate Studies, Amman, Jordan.
- B.Sc. Physics, 1986.
University of Baghdad, College of Sciences, Baghdad, Iraq.

Current and Recent Positions

- **Dean of Scientific Research.** Al-Balqa Applied University, Salt, Jordan. 2017-.
- **Dean.** Faculty of Graduate Studies, Al-Balqa Applied University, Salt, Jordan. 2016-2017.
- **Professor.** Al-Balqa Applied University, Salt, Jordan.
- **Establishing, managing and supervising the graduate program in nuclear physics.** Al-Balqa Applied University, Salt, Jordan. 2006-.
- **Visiting Professor.** Institute for Applied Physics, Goethe University, Frankfurt am Main, Germany. Summer 2015, 2016 and 2017.
- **Vice Chairman of the Board of Directors.** Jordan Nuclear Regulatory Commission JNRC, Amman, Jordan. 2008-2012.

Positions, research and other activities

- Technical visit to the CTBTO headquarters to discuss and launch technical cooperation related to the radionuclide component of the Verification Regime. The cooperation includes benchmarking the results produced by CTBTO's VGSL with those produced by GEANT4 Monte Carlo simulations, in addition to scientific input for new/modified ideas on radionuclide (beta-gamma coincidence) measurements. May, 2016.
- Granted a fund of 550,000 JD by Scientific Research Support Fund for the project titled: "Improvement and Adaptation of Ultra-Sensitive Coincidence Gamma-Ray Detection Array for Environmental, Energy, Security, Water- and Food-Safety Applications".
- Sabbatical leave at the University of Jordan (2010/2011).
- Writing a group of articles in Arabic on a variety of scientific issues (for the public).
- Managing the King Abdullah II Fund for Development (KAFD) support of a specialized graduate program in Applied Nuclear Physics at Al Balqa Applied University, Salt, Jordan.
- Chairman of the Second International Symposium on Nuclear Energy ISNE-09. Also organized the Third and Fourth International Symposia on Nuclear Energy ISNE-10 and ISNE-11 <http://isne.bau.edu.jo/>.
- Member of SESAME users committee, Amman, Jordan. 2006-2011.
- Member of the Dissi Water Consultative Committee, Amman, Jordan. 2006/2007.
- Researcher. Jordan Atomic Energy Commission. March-August 2005.
- Assistant Professor, Al-Balqa Applied University, Salt, Jordan. 2004-2009.

- Research visits to the European Organization for Nuclear Research CERN, Geneva, Switzerland. 2000–2004.
- Visiting Research Scientist, Institut für Kernphysik, Forschungszentrum Karlsruhe, Germany. 1 July - 15 September 2004.
- Visiting Research Scientist, Institut für Kernphysik, Forschungszentrum Karlsruhe, Germany. December 2003.
- Research Associate, Department of Physics. University of Notre Dame, and at the Joint Institute for Nuclear Astrophysics. USA. July-November 2003.
- Research visit to the Centre de Recherches du Cyclotron, Louvain-La-Neuve, Belgium. May 2003.
- Visiting Research Scientist, Institut für Kernphysik, Forschungszentrum Karlsruhe, Germany. January-July 2003.
- Research visit to the Physikalisch-Technische Bundesanstalt, Braunschweig, Germany. April 2002.
- Research visit to the University of Notre Dame and the Joint Institute for Nuclear Astrophysics, USA. July 2001.
- Lecturer. Faculty of Applied Science, [Al-Balqa Applied University](#), Salt, Jordan. 1997-1999.
- Scientific visit to the Institute of Nuclear Solid State Physics INFP, Forschungszentrum Karlsruhe, Germany. June-August 1997.
- Lecturer. Physics Department, [University of Jordan](#), Amman, Jordan. 1990-1997.
- Interregional Training Course on Interfacing in Nuclear Experiments. The International Atomic Energy Agency. Held in Antananarivo, Madagascar. October-December 1991.
- Research Activities (Accelerator Applications). 1987-.
- Environmental Research Activities. 1995-1999.
- The establishment of the radiation laboratory at Al-Balqa Applied University. 1998-1999.

Awards

- Georg Forster Fellowship for Advanced Researchers, the Alexander von Humboldt Foundation, Germany.
- Forschungszentrum Karlsruhe INFP. Scientific visit, 1997.

References

- Dr. Franz Käppeler
Karlsruhe Institute of Technology (KIT)
Institut für Kernphysik
Postfach 3640
D-76021 Karlsruhe, Germany
- Prof. Michael Wiescher
The Joint Institute for Nuclear Astrophysics
The University of Notre Dame
225 Nieuwland Science Hall
Notre Dame, IN 46556, USA

Professional membership

- American Physical Society.
- Jordanian Physical Society.
- Jordanian Environmental Society.

Languages

- Arabic (Mother Language).
- English.
- Some German.

Courses Taught

1. Nuclear Reactor Physics (Graduate).
2. Nuclear Physics (Graduate).
3. Experimental Techniques in Nuclear Physics (Graduate).
4. Computational Physics (Graduate).
5. Theoretical Nuclear Physics (Graduate).
6. Radiation Detection and Measurement (Graduate).
7. Advanced Mathematical Physics (Graduate).
8. Advanced Statistical Physics (Graduate).
9. Accelerator Physics (Graduate).
10. Special Topics in Nuclear Physics (Graduate).
11. Undergraduate Nuclear Physics.
12. Undergraduate Reactor Physics.
13. Undergraduate Radiation Physics (1&2).
14. Undergraduate Experimental Techniques in Nuclear Science.
15. Undergraduate Statistical and Thermal Physics.
16. Undergraduate Computational Physics.
17. Undergraduate (first year) general physics courses.

Graduate Student Supervision/Co-supervision and Thesis Examining Committees

1. Monte Carlo simulation of the response of gamma spectrometers.
Mohammad Bqoor, Al-Balqa Applied University, M.Sc. thesis defended on 29/4/2006.
2. An optimized setup for tissue characterization using Compton scatter technique.
Hanan Saleh, The University of Jordan, Ph.D. dissertation defended on 17/12/2008.
3. Correction factors in gamma spectroscopy: A comparative study of different approaches.
Ektimal Nemri, The University of Jordan, M.Sc. thesis defended on 5/8/2008.
4. Solving reactor neutron diffusion equations for different geometries using the Homotopy Perturbation method.
Kafa Khasawneh, Al-Balqa Applied University, M.Sc. thesis defended on 3/8/2009.
5. Evaluation of scatter dose contribution of ^{192}Ir in brachytherapy by Monte Carlo simulation.
Eshraq Ababneh, Al-Balqa Applied University, M.Sc. thesis defended on 6/8/2009.
6. Dosimetry of small radiation beams.
Lina Abu Arida, Al-Balqa Applied University, M.Sc. thesis defended on 7/1/2010.
7. The design and calibration of a prototype for a high-resolution time-of-flight spectrometer of high-energy neutrons.
Omar Nusair, Al-Balqa Applied University, M.Sc. thesis defended on 26/5/2010.
8. ^{125}I Brachytherapy Source: Characterization of Dose Parameters and Medical Applications.
Tahani Aqrabawi, The University of Jordan, Ph.D. dissertation defended in August 2011.
9. The Calibration of *In-Situ* Gamma-Ray Spectrometers: A Comparative Study of Different Approaches.
Ahmad Al-Qararah, Al-Balqa Applied University, M.Sc. thesis defended on 23/12/2010.
10. Bragg-Curve Measurement and Simulation of Heavy-Ion Beams for Hadron Therapy Applications.
Morad Hamad, Al-Balqa Applied University, M.Sc. thesis defended on 28/12/2010.
11. Neutron-nucleus scattering using a velocity-dependent optical potential.
Mohammad Hassan, The University of Jordan, Ph.D. dissertation defended on 8/4/2012.
12. Technical Nuclear Safety Study of Subcritical Assembly at Jordan University of Science and Technology using Monte Carlo Techniques and Probabilistic Risk Analysis.
Mohammad Bqoor, The University of Jordan, Ph.D. dissertation defended on 30/4/2012.
13. Solving Multi-Group Neutron Diffusion Equations in Different Geometries using the Homotopy Perturbation Method.

- Mohammad Shqair, The University of Jordan, Ph.D. dissertation defended on 7/5/2013.
14. Dosimetrical study of output factor of highly conformal photon beams used in stereotactic radiosurgery: Anthropomorphic phantom study.
- Sa'ad J. Al-Atawneh, Al-Balqa Applied University, M.Sc. thesis defended on 7/5/2015.
15. Development of An Applicable Algorithm for Brachytherapy Dose Calculation in Heterogeneous Media.
- Eshraq Ababneh, The University of Jordan, Ph.D. dissertation defended on 15/12/2016.
16. Multidimensional Gamma-Ray Spectroscopy of Neutron Activated Natural Zinc.
- Ala'a Ali Eid Al-Hiyari, The University of Jordan, M.Sc. thesis defended on 3/5/2017.
- Other Thesis Examining Committees (without supervision)**
17. Gamma spectroscopy in ceramics used in Jordan.
- Rana N. Al Faoury, M.Sc. Thesis, Al Balqa Applied University, May 31st, 2005.
18. Thermoluminescence (TL) response of doped alkali sulphates.
- Awwad Mohammad Al Faoury, M.Sc. Thesis, Al Balqa Applied University, April 19th, 2006.
19. Measurement of uranium uptake by agricultural crops at Khan Al-Zabeeb area.
- Samer Jamal Ahmad Al-Kharouf, M.Sc. Thesis, Al Balqa Applied University, June 7th, 2006.
20. Studies of Single and Double Electron Loss in O⁺ on He Collisions Using Cold Target Recoil Ion Momentum Spectroscopy.
- Rajaie Yaser Qasem, M.Sc. Thesis, The University of Jordan, May 7th, 2008.
21. A study of natural radioactivity in drinking water in Amman, Jordan.
- Sajedah M. Al-Amir, M.Sc. Thesis, Al Balqa Applied University, May 27th, 2009.
22. Non-destructive inspection of low and medium atomic number matrices using tomographic techniques.
- Suhad S. Sarhan, M.Sc. Thesis, Al Balqa Applied University, July 14th, 2009.
23. Correlation of backscattered and recoil ions in violent ion-atom collisions by coincident Rutherford backscattering spectrometry.
- Hanan M. Sa'adeh, Ph.D. Dissertation, The University of Jordan, December 28th, 2009.
24. Proton-neutron scattering using realistic velocity-dependent potentials.
- Wafa Abu Al-Nadi, M.Sc. Thesis, The University of Jordan, December 2nd, 2010.
25. Perturbation theory for proton-neutron scattering: Perturbing the energy.
- Mohammad Al-Sayed, Ph.D. Dissertation, The University of Jordan, March 10th, 2011.
26. Transformation kinetics in some selenium-tellurium-tin chalcogenide glasses.
- Nazem Abu-Shaweesh, M.Sc. Thesis, Al Balqa Applied University, March 24th, 2011.
27. Dependence of electrical conductivity on composition in selenium-tellurium-tin semiconducting glasses.
- Fares Al-Kurdi, M.Sc. Thesis, Al Balqa Applied University, April 21st, 2011.
28. Modeling soil radon diffusion using its properties.
- Islam Dalki, M.Sc. Thesis, Yarmouk University, December 29th, 2011.
29. Monte Carlo simulations of the photo-neutron production and related shielding at a medical linear accelerator.
- Emad Farrag, University of Jordan, Ph.D. dissertation defended on May 2nd, 2012.
30. Non-local effects in proton elastic scattering from nuclei.
- Rami Zureikat, University of Jordan, Ph.D. dissertation defended on May 9th, 2013.
31. Processes of fluorine production in stars and analysis of observational data.
- Mohammad Mardini, M.Sc. Thesis, Yarmouk University, June 15th, 2014.
32. Investigation of nonlocalities in the nucleon-nucleus elastic scattering.
- Ibrahim Ghabar, University of Jordan, Ph.D. dissertation defended on August 11th, 2014.
33. Production of secondary radioactive ion beams via few-nucleon transfer reactions.
- Omar Nusair, Goethe University, Frankfurt am Main, Germany, Ph.D. dissertation defended on 11/8/2015.

34. Effect of coupled channels on the energy dependence of the optical potential parameters.
Waleed Al-Rayashi, The University of Jordan, Ph.D. dissertation defended on 15/12/2015.

Publications

Refereed Journals

- 1) Excitation function of the nuclear reaction $^{19}\text{F}(p,\alpha\gamma)^{16}\text{O}$ in the proton energy range 0.3-3.0 MeV.
S. Dababneh, K. Toukan and I. Khubeis.
Nuclear Instruments & Methods in Physics Research B 83 (1993) 319-324.
- 2) Characterization of Lead, Mercury and Gold Implanted into Magnesium.
K. Toukan, S. Dababneh, R. AbdelKarim and I. Khubeis.
Radiation Effects and Defects in Solids 143 (1997) 167-178.
- 3) Diffusion Behaviour of Gold and Mercury Implanted into Magnesium.
K. Toukan, I. Khubeis, F. Al-Zubi, M. Al-Sa'adi, S. Dababneh, E. Bakraji and O. Meyer.
Nuclear Instruments & Methods in Physics Research B 127/128 (1997) 747-751.
- 4) Radiological Safety of Food Irradiation with High Energy X-rays: Theoretical Expectations and Experimental Evidence.
O. Grégoire, M.R. Cleland, J. Mittendorfer, S. Dababneh, D.A.E. Ehlermann, X. Fan, F. Käppeler, J. Logar, J. Meissner, B. Mullier, F. Stichelbaut, D.W. Thayer.
Radiat. Phys. Chem. 67 (2003) 169-183.
- 5) Erratum to "Radiological Safety of Medical Devices Sterilized with X-rays at 7.5 MeV."
[Radiat. Phys. Chem. 67 (2003) 149-167]
O. Grégoire, M.R. Cleland, J. Mittendorfer, M. Vander Donckt, J. Meissner, S. Dababneh, F. Käppeler, D.A.E. Ehlermann.
Radiat. Phys. Chem. 68 (2003) 943.
- 6) Nucleosynthesis in TP-AGB Stars and the Production of ^{19}F .
J. Görres, S. Dababneh, A. Couture, M. Heil, F. Käppeler, H. Leiste, M. Lugaro, C. Ugalde and M. Wiescher
Nucl. Phys. A 718 (2003) 155c-158c.
- 7) Stellar He burning of ^{18}O : A measurement of low-energy resonances and their astrophysical implications.
S. Dababneh, M. Heil, F. Käppeler, J. Görres, M. Wiescher, R. Reifarth and H. Leiste
Phys. Rev. C 68 (2003) 025801.
- 8) Neutron capture cross section of ^{139}La .
S. O'Brien, S. Dababneh, M. Heil, F. Käppeler, R. Plag, R. Reifarth, R. Gallino and M. Pignatari
Phys. Rev. C 68 (2003) 035801.
- 9) Relationship between hyperdeformation, fission resonances and clustering in ^{233}Th .
Nenoff N., Beer H., Bringel P., Chmel S., [Csatlós M.](#), Dababneh S., Heil M., Hübel H., Käppeler F., Krasznahorkay A., Mergel E., Plag R., Reifarth R.
Acta Physica Hungarica New Series - Heavy Ion Physics 18 (2003) 331.
- 10) Gamma spectroscopy using two Clover detectors in close geometry.
S. Dababneh, N. Patronis, P.A. Assimakopoulos, J. Görres, M. Heil, F. Käppeler, D. Karamanis, S. O'Brien, R. Reifarth.
Nuclear Instruments and Methods in Physics Research A 517 (2004) 230-239.
- 11) Neutron capture studies on unstable ^{135}Cs for nucleosynthesis and transmutation.
N. Patronis, S. Dababneh, P.A. Assimakopoulos, R. Gallino, M. Heil, F. Käppeler, D. Karamanis, P.E. Koehler, A. Mengoni and R. Plag.
Phys. Rev. C 69 (2004) 025803.
- 12) New experimental validation of the pulse height weighting technique for capture cross-section measurements.
The n_TOF collaboration.
Nuclear Instruments and Methods in Physics Research A 521 (2004) 454-467.

- 13) Production and isobaric separation of ^{63}Ni ions for determination of the $^{62}\text{Ni}(n,\gamma)^{63}\text{Ni}$ reaction cross section at stellar temperatures
H. Nassar, S. Ghelberg, M. Paul, S. Dababneh, M. Heil, F. Käppeler, R. Plag, I. Ahmad, J.P. Greene, D.J. Henderson, C.L. Jiang, R.C. Pardo, T. Pennington, K.E. Rehm, R. Scott, S. Sinha, X. Tang, R. Vondrasek, H. Koivisto, D. Berkovits, M. Bettan, R. Reifarh, P. Collon, S. O'Brien and N. Patronis
Nucl. Phys. A 746 (2004) 613c–616c.
- 14) Stellar (n,γ) cross section of ^{62}Ni .
H. Nassar, M. Paul, I. Ahmad, D. Berkovits, M. Bettan, P. Collon, S. Dababneh, S. Ghelberg, J.P. Greene, A. Heger, M. Heil, D.J. Henderson, C.L. Jiang, F. Käppeler, H. Koivisto, S. O'Brien, R.C. Pardo, N. Patronis, T. Pennington, R. Plag, K.E. Rehm, R. Reifarh, R. Scott, S. Sinha, X. Tang, R. Vondrasek.
Phys. Rev. Lett. 94 (2005) 092504.
- 15) Measurement of the n_TOF beam profile with a micromegas detector.
The n_TOF collaboration.
Nuclear Instruments and Methods in Physics Research A 524 (2004) 102-114.
- 16) Time–energy relation of the n_TOF neutron beam: energy standards revisited.
The n_TOF collaboration.
Nuclear Instruments and Methods in Physics Research A 532 (2004) 622-630.
- 17) A Low-Mass Neutron Flux Monitor for the n_TOF Facility at CERN.
The n_TOF collaboration.
Brazilian Journal of Physics 34 (2004) 914-918.
- 18) Neutron Capture Cross Section Measurement of ^{151}Sm at the CERN Neutron Time of Flight Facility (n_TOF).
The n_TOF collaboration.
Phys. Rev. Lett. 93 (2004) 161103.
- 19) The data acquisition system of the neutron time of flight facility n_TOF at CERN.
The n_TOF collaboration.
Nuclear Instruments and Methods in Physics Research A 538 (2005) 692-702.
- 20) A neutron source to measure stellar neutron capture cross sections at $kT = 5$ keV.
M. Heil, S. Dababneh, F. Käppeler, R. Plag, A. Juseviciute, N. Winckler, R. Reifarh, and S. O'Brien.
Nucl. Phys. A 758 (2005) 529-532.
- 21) Stellar neutron capture rates of ^{14}C
R. Reifarh, M. Heil, R. Plag, U. Besserer, S. Dababneh, L. Dörr, J. Görres, R.C. Haight, F. Käppeler, A. Mengoni, S. O'Brien, N. Patronis, R.S. Rundberg, M. Wiescher, J.B. Wilhelmy.
Nucl. Phys. A 758 (2005) 787-790.
- 22) Measurement of the $^{151}\text{Sm}(n,\gamma)^{152}\text{Sm}$ cross section at n_TOF.
The n_TOF collaboration.
Nucl. Phys. A 758 (2005) 533-536.
- 23) Measurements of the $^{90,91,92,94,96}\text{Zr}(n,\gamma)$ cross sections at n_TOF.
The n_TOF collaboration.
Nucl. Phys. A 758 (2005) 573-576.
- 24) Neutron capture cross section measurements for nuclear astrophysics at CERN n_TOF.
The n_TOF collaboration.
Nucl. Phys. A 758 (2005) 501-504.
- 25) Quasistellar spectrum for neutron activation measurements at $kT = 5$ keV.
M. Heil, S. Dababneh, A. Juseviciute, F. Käppeler, R. Plag, R. Reifarh, S. O'Brien.

- Phys. Rev. C 71 (2005) 025803.
- 26) Measurement of the $^{151}\text{Sm}(n,\gamma)$ cross section from 0.6 eV to 1 MeV via the neutron time-of-flight technique at the CERN n_TOF facility.
The n_TOF collaboration.
Phys. Rev. C 73 (2006) 034604.
- 27) A new approach to the ^{176}Lu puzzle.
F. Käppeler, N. Winckler, S. Dababneh, M. Heil, S. Bisterzo, and R. Gallino.
Memorie della Società Astronomica Italiana 77 (2006) n. 3.
- 28) Lanthanum: an *s*- and *r*-process indicator.
N. Winckler, S. Dababneh, M. Heil, F. Käppeler, R. Gallino, M. Pignatari.
The Astrophysical Journal 647 (2006) 685.
- 29) Stellar (*n*, γ) cross sections of ^{174}Hf and radioactive ^{182}Hf .
C. Vockenhuber, I. Dillmann, M. Heil, F. Käppeler, N. Winckler, W. Kutschera, A. Wallner, M. Bichler, S. Dababneh, S. Bisterzo, R. Gallino.
Phys. Rev. C 75 (2007) 015804.
- 30) Indication for hyperdeformed cluster states in ^{233}Th .
N. Nenoff, P. Bringel, A. Bürger, S. Chmel, S. Dababneh, M. Heil, H. Hübel, F. Käppeler, A. Neußer-Neffgen, R. Plag.
European Physical Journal A 32, (2007) 165.
- 31) $^{176}\text{Lu}/^{176}\text{Hf}$: A sensitive test of *s*-process temperature and neutron density in AGB stars.
M. Heil, N. Winckler, S. Dababneh, F. Käppeler, K. Wisshak, S. Bisterzo, R. Gallino, A.M. Davis, T. Rauscher.
The Astrophysical Journal 673 (2008) 434.
- 32) The $^{14}\text{C}(n,\gamma)$ cross section between 10 keV and 1 MeV.
R. Reifarh, M. Heil, C. Forssén, U. Besserer, A. Couture, S. Dababneh, L. Dörr, J. Görres, R.C. Haight, F. Käppeler, A. Mengoni, S. O'Brien, N. Patronis, R. Plag, R.S. Rundberg, M. Wiescher and J.B. Wilhelmy.
Phys. Rev. C 77 (2008) 015804.
- 33) A solution of the neutron diffusion equation in hemispherical symmetry using the homotopy perturbation method.
Kafa Khasawneh, Saed Dababneh, Zaid Odibat.
Annals of Nuclear Energy 36 (2009) 1711.
- 34) Stellar (*n*, γ) cross sections of *p*-process isotopes Part I: ^{102}Pd , ^{120}Te , $^{130,132}\text{Ba}$, and ^{156}Dy .
I. Dillmann, C. Domingo-Pardo, M. Heil, F. Käppeler, S. Walter, S. Dababneh, T. Rauscher and F.-K. Thielemann.
Phys. Rev. C 81 (2010) 015801.
- 35) [An alternative solution of the neutron diffusion equation in cylindrical symmetry.](#)
Saed Dababneh, Kafa Khasawneh, Zaid Odibat.
Annals of Nuclear Energy 38 (2011) 1140.
- 36) Neutron activation of natural zinc samples at $kT = 25$ keV.
R. Reifarh, S. Dababneh, M. Heil, F. Käppeler, R. Plag, K. Sonnabend, and E. Überseder.
Phys. Rev. C 85 (2012) 035802.
- 37) A compact Ge-BGO coincidence array for ultra-sensitive in-beam gamma spectroscopy.
S. Dababneh, J. Görres, M. Heil, F. Käppeler, R. Reifarh and M. Wiescher.
[Nuclear Instruments and Methods in Physics Research A](#) 737 (2014) 135–141.
- 38) Application of Geant4 in routine close geometry gamma spectroscopy for environmental samples.
[Saed Dababneh, Ektimal Al-Nemri and Jamal Sharaf.](#)
[Journal of Environmental Radioactivity](#) 134 (2014) 27–34.

- 39) Enhancement and Validation of Geant4 Brachytherapy Application on Clinical HDR ^{192}Ir Source.
Eshraq Ababneh, Saed Dababneh, Sharif Qatarnah and Shada Wadi-Ramahi.
Radiation Physics and Chemistry 103 (2014) 57–66.
- 40) Comment on “High Naturally Occurring Radioactivity in Fossil Groundwater from the Middle East.”
S. Dababneh.
Journal of Environmental Science and Technology 48 (2014) 9943-9945.
- 41) Evaluation of Loading Pattern Characteristics Influence on VVER 1000 Nuclear Reactor Pressure Vessel Neutron Fluence.
Hasan Abou Faour, Baida Achkar, Saed Dababneh, Saadou Aldawahra.
Jordan Journal of Mechanical and Industrial Engineering 8 (2014) 177-186.
- 42) Dose from Naturally Occurring Radium Radioactivity in Abstracted Disi Fossil Groundwater.
S. Dababneh.
Jordan Journal of Physics 8 (2015) 17-27.

Conference Proceedings and Abstracts

- 43) Studies of the nuclear reaction $^{19}\text{F}(p,\alpha\gamma)^{16}\text{O}$ in the proton energy range 0.3-3.0 MeV.
S.O.F. Dababneh, F. Taffal, F.M. Safi, K. Toukan, H. Fakhoury and I. Khubeis.
Proceedings of the Second International Symposium on Nuclear Astrophysics, Karlsruhe, Germany, 6-10 July (1992).
Edited by F. Käppeler and K. Wisshak. Bristol: IOP Publishing (1993) p. 155-160.
- 44) Angular distribution and yield studies of the $^{19}\text{F}(p,\alpha_0)^{16}\text{O}$ and $^7\text{Li}(p,\alpha)^4\text{He}$ nuclear reactions in the proton energy range 0.3-3.0 MeV.
F. Safi, F. Taffal, K. Toukan, S.O.F. Dababneh, H. Fakhoury and I. Khubeis.
Proceedings of the Second International Symposium on Nuclear Astrophysics, Karlsruhe, Germany, 6-10 July (1992).
Edited by F. Käppeler and K. Wisshak. Bristol: IOP Publishing (1993) p. 161-168.
- 45) α -capture on ^{18}O and its astrophysical implications.
J. Görres, M. Wiescher, S. Dababneh, M. Heil, R. Reifarth and F. Käppeler.
1st Joint Meeting of the Nuclear Physics Divisions of the American Physical Society and the Japanese Physical Society, Wailea, Maui, Hawaii, October 17-20, 2001.
- 46) Reaction rates for helium burning.
J. Görres, S. Dababneh, C. Ugalde, F. Käppeler and M. Wiescher
Proceedings of the 11th Workshop on "Nuclear Astrophysics", Ringberg Castle, Tegernsee, Germany, February 11-16, 2002.
Wolfgang Hillebrandt and Ewald Müller (Eds.). MPA/P13, Garching b. München, Germany: Max-Planck-Institut für Astrophysik, 2002, p.75–78.
- 47) The $^{18}\text{O}(\alpha,\gamma)$ rate during stellar He burning.
S. Dababneh, J. Görres, M. Heil, F. Käppeler, R. Reifarth and M. Wiescher
Spring Meeting of the German Physical Society, Münster, Germany, March 11-15 2002.
- 48) Relationship between hyperdeformation, fission resonances and clustering in ^{233}Th .
N. Nenoff, H. Beer, P. Bringel, S. Chmel, M. Csatos, S. Dababneh, M. Heil, H. Hübel, F. Käppeler, A. Krasznahorkay, E. Mergel, R. Plag and R. Reifarth.
Proceedings of the Symposium on Nuclear Clusters, Schloss Rauischholzhausen, August 5-9, 2002.
- 49) Neutron capture measurements at the CERN n_TOF facility for ADS applications.
The n_TOF collaboration.

Eleventh International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics.

Prague, Czech Republic, September 2 - 6, 2002.

50) The $^{135}\text{Cs}(n,\gamma)$ cross section at 30 and 500 keV.

N. Patronis, P.A. Assimakopoulos, D. Karamanis, F. Käppeler, S. Dababneh, M. Heil, R. Plag and P.E. Koehler.

n_TOF Winter School on Astrophysics, ADS, and First Results. Les Houches, France, February 24-28 2003.

51) The (n,γ) cross section of ^{139}La at 30 keV.

S. Dababneh, S. O'Brien, M. Heil, F. Käppeler, R. Plag and R. Reifarth.

n_TOF Winter School on Astrophysics, ADS, and First Results. Les Houches, France, February 24-28 2003.

52) The $^{135}\text{Cs}(n,\gamma)$ cross section at 30, 200 and 500 keV.

S. Dababneh, P.A. Assimakopoulos, S. Harisopoulos, M. Heil, F. Käppeler, D. Karamanis, N. Patronis and R. Plag.

Spring Meeting of the German Physical Society, Tübingen, Germany, March 17-21 2003.

53) Production and isobaric separation of ^{63}Ni ions for determination of the $^{62}\text{Ni}(n,\gamma)^{63}\text{Ni}$ reaction cross section at stellar temperatures.

H. Nasar, M. Paul, S. Dababneh, M. Heil, F. Käppeler, R. Plag, I. Ahmad, J.P. Greene, D.J. Henderson, C.L. Jiang, R.C. Pardo, T. Pennington, K.E. Rehm, R. Scott, R. Vondrasek, H. Koivisto, S. O'Brien, N. Patronis, R. Reifarth.

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65) Solving neutron diffusion equations for different geometries using the homotopy perturbation method.

[Kafa Khasawneh, Saed Dababneh, Zaid Odibat.](#)

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66) Characterization of biological matrices using X-ray Compton scattering technique.

[Hanan Saleh, Saed Dababneh, Jamal Sharaf, Shada Ramahi.](#)

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67) Evaluation of scatter dose contribution of ^{192}Ir in brachytherapy by Monte Carlo simulation.

[Eshraq Ababneh, Saed Dababneh, Sharif Qatarneh, Shada Ramahi.](#)

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68) The calibration of *In-Situ* gamma-ray spectrometers: A comparative study of different approaches.

[Ahmad Al-Qararah, Saed Dababneh, Ibrahim F. Al-Hamarneh.](#)

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69) Bragg-Curve Measurement and Simulation of Heavy-Ion Beams for Hadron Therapy Applications.

Morad K. Hamad, Saed Dababneh, Shada Wadi-Ramahi, Majd Hawari, Marco Durante. The third international symposium on nuclear energy ISNE-10, Amman, Jordan, 15-17 December, 2010.

70) Alternative Solutions to Neutron Diffusion Problems in Different Geometries.

[Kafa Khasawneh, Saed Dababneh, Zaid Odibat.](#)

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71) Analytical Formalism for the Output Factors of Small MLC-Shaped Beams.
[L. Abu Arida](#), [S. Wadi-Ramahi](#) and [S. Dababneh](#).
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Reports and Proposals

72) Reports on the measurements of radionuclide activities in soil samples in Jordan.
K. Toukan, S. Dababneh, J. Sharaf and I. Khubeis.
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73) Laboratory studies of stellar neutron reactions.
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Forschungszentrum Karlsruhe Nachrichten, Jahrgang 33-2/2001, p.189.

74) Study of the Background in the Measuring Station at the n_TOF Facility at CERN:
Sources and Solutions.
The n_TOF collaboration.
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CERN, 10 December 2001.

75) A Detailed Study of the Hyperdeformed States of Uranium in the $^{234}\text{U}(n,f)$ Reaction.
The n_TOF collaboration.
CERN/INTC 2002-022, INTC/P145 Add. 1,
CERN, 11 April 2002.

76) Neutron Capture Cross Section of Zr and La: Probing Neutron Exposure and Neutron
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Proposal to the INTC Committee.
The n_TOF collaboration.
CERN/INTC, CERN, September 2002.

77) Alpha capture on ^{18}O during stellar He burning.
Saed Dababneh.
Wissenschaftliche Berichte FZKA 6782, Forschungszentrum Karlsruhe (2002).

78) Measurements of Fission Cross Sections of Actinides.
Proposal to the ISOLDE and Neutron time-of-flight Experiments Committee.
The n_TOF collaboration.
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79) CERN n_TOF Facility: Performance Report.
The n_TOF collaboration.
CERN-SL-2002-053 ECT.
Geneva, 31 January, 2003.

80) Notre Dame Clover Detector(s): GEANT4 Monte Carlo Simulations.
A report prepared for the Nuclear Structure Laboratory at the University of Notre Dame and
the Joint Institute for Nuclear Astrophysics, USA.
Amman, 31 March, 2005.

81) The Qafqafa, Tafileh and Karama Monitoring Stations: Status and Recommendations.
A report presented to the board of Jordan Atomic Energy Commission.
September 4th, 2005.

82) Dissi Water Quality Assessment (Radiological Aspects).
A report presented to the Ministry of Water and Irrigation, Amman, Jordan.
December 11th, 2006.

- 83) Draft Proposal for the establishment of a Center of Excellence in Nuclear Science and Technology.
Saed Dababneh, Khaled Toukan, Omar Rimawi, Munir Dababneh, Dia-Eddin Arafah, Rami Ali, Jamal Sharaf, Ibrahim Hamarneh, Mohammed Awadallah, Mousa Imran, Eyad Abu Nameh, Nabil Ayoub and Omar Al-Khashman.
Submitted to the Mohammed Bin Rashid Al Maktoum Foundation.
June 1st, 2007.
- 84) Assessment report on the available data concerning uranium mining in the Hashemite Kingdom of Jordan.
Saed Dababneh.
August 29th, 2009.

Invited Talks

- 1) Fusion Reactions during Stellar He Burning.
Institut für Kernphysik, Forschungszentrum Karlsruhe, Germany. January 29, 2002.
- 2) Alpha Capture on ¹⁸O during Stellar He-Burning.
Nuclear Structure Laboratory, Department of Physics, University of Notre Dame, USA.
September 8, 2003.
- 3) Some Improved Methodologies in Gamma Spectroscopy.
Jordan Atomic Energy Commission, Amman, Jordan. August 23, 2005.
- 4) The Environmental Monitoring Stations in Jordan.
Meeting of the board of Jordan Atomic Energy Commission, Ministry of Energy and Mineral Resources, Amman, Jordan. December 31, 2005.
- 5) Monte Carlo Techniques in Radiation Detection and Measurement.
Sixth Symposium on Use of Nuclear Techniques in Environmental Studies.
Yarmouk University, Jordan. September 4-6, 2006.
- 6) Radionuclides in Dissi Water.
Ministerial meeting, the Ministry of Water and Irrigation, Amman, Jordan.
December 20th, 2006.
- 7) Manipulated Gamma Spectroscopy: Methodologies and Applications.
Seventh Symposium on Use of Nuclear Techniques in Environmental Studies.
Yarmouk University, Jordan. September 3-5, 2007.
- 8) Dissi Water and Jordanian Guidelines (Radiological Aspects).
Jordanian Geologists Association, Workshop on Dissi Water, Amman, Jordan.
April 14th, 2009.
- 9) Nuclear Power Reactors, General Concepts and Future Horizons.
Mutah University, Karak, Jordan. May 4th, 2009.
- 10) Some Modern Trends in Radiation Measurement: Relevance to Radiation Measurements
Cross Calibration RMCC
Meeting of the RMCC Advisory Council, Middle East Scientific Institute for Security
MESIS, Amman, Jordan. June 12th, 2011.
- 11) Pillars of Jordan's Nuclear Energy Program: Strength or Weakness?
Workshop on Nuclear Energy in Jordan, Al-Balqa Applied University, Salt, Jordan. July 5th, 2011.
- 12) JNRC perspective on Jordan's nuclear workforce.
Workshop on Ensuring a Secure and Safe Nuclear Infrastructure in Jordan, Partnership for Nuclear Security, Amman, Jordan, January 15th, 2012.
- 13) Perspective on the National Nuclear Debate.

Yarmouk University, Jordan, March 14th, 2012. Also given at the Jordanian Astronomical Society JAS, March 22nd, 2012.

14) Experimental Techniques in Nuclear Astrophysics.

The Jordanian Astronomical Society JAS, Amman, Jordan, September 27th, 2012.

15) The Higgs: Experiment vs. Theory vs. Philosophy!

The Jordanian Astronomical Society JAS, Amman, Jordan, March 21st, 2013.

16) Peaceful Nuclear Option in the Arab World – The Jordan Model.

Annual Conference of the Arab Forum for Environment and Development.

Sustainable Energy. Sharjah, UAE, 28 -29 October 2013.

17) Dose from Naturally Occurring Radium Radioactivity in Abstracted Disi Fossil Groundwater.

The Euro-Arab Organization for Environment, Water and Desert Research, Fifth International Conference on the Geomatics of the Middle East and North Africa, The University of Jordan, March 23-27, 2014. Also given at Jordan University of Science and Technology, Jordan, March 31st, 2014 and other events.

18) Water and National Security - The Case of Radiation in the Disi Aquifer.

The RMCC-9 meeting. Middle East Scientific Institute for Security MESIS, Amman, Jordan. October 20th, 2014.