

EMAN DAAR

Department of Physics, The University of Jordan, Amman 11942, Jordan.

E-mail: e.daar@ju.edu.jo

EDUCATION

- **University of Surrey, UK** **2010**
PhD in Medical Physics
- **University of Surrey, UK** **2006**
MSc in Medical Physics
- **Jordan University of Science and Technology, Jordan** **2004**
BSc in Applied Medical Sciences

WORK EXPERIENCE

- **The University of Jordan (January 2017 - Present)**
Associate Professor of Medical Physics at the University of Jordan.
- **The University of Jordan (July 2011 – January 2017)**
Assistant Professor of Medical Physics at the University of Jordan.
- **University of Surrey (2008 -2010)**
I taught a Teamwork and Leadership Course for undergraduate engineering students annually from 2008 to 2010.
- **University of Surrey (2007 – 2014)**
Co-supervising MSc projects at the University of Surrey, Guildford, UK.
- **University of Surrey (2007 – 2010)**
Laboratory demonstration in the department of Physics for the MSc Medical Physics programme, University of Surrey.

FELLOWSHIPS AND SCHOLARSHIPS

- **August 2015 – October 2024**
Visiting Lecturer at the Faculty of Engineering and Physical Sciences, University of Surrey, Guildford, UK.

- **February 2011 – February 2012**
Post-doctoral Researcher at the Faculty of Engineering and Physical Sciences, University of Surrey, Guildford, UK.
- **January 2009 – January 2010**
A scholarship from the University of Jordan covering the expenses of one year of my PhD studies.
- **September 2000 –June 2004**
A competitive scholarship for undergraduate studies from the Ministry of Higher Education and Scientific Research (Jordan).

REVIEWING

I have reviewed for the following journals:

- **ARI** (Applied Radiation and Isotopes)
- **CVET** (Cardiovascular Engineering and Technology)
- **(JJP)** Jordan Journal of Physics
- **PRC** (Journal of Radiation and Chemistry)
- (Journal of Results in Physics)

ACADEMIC ACTIVITIES

- Member of number of committees in the department since 2011.
- Guest Editor for a special issue of the Elsevier journal Radiation Physics and Chemistry, volume 140, November 2017.
- Participating in organising the 2nd International Conference on Dosimetry and its Application (ICDA-2).
- Participating in revisions to the MSc Medical Physics program at the University of Jordan.
- Participate in establishing a new undergraduate level course on energy sources as an elective course in the Department of Physics.
- Participating in organising the International Conference on Biomedical Applications of High Energy Ion Beams, held July 30 - August 2, **2007**, Guildford, UK.

CONFERENCES AND MEETINGS

- Workshop on Advances in Radiotherapy and Diagnostic Physics, April 21-24, 2019. The workshop was hosted by (KAUH) and in collaboration with the (AAPM) and (IOPM).
- 14th Synchrotron-light for Experimental Science and Applications in the Middle East (SESAME) Users' Meeting, held December 3-4, 2016, Amman, Jordan.
- 2nd International Conference on Dosimetry and its Applications (ICDA-2), held July 3-8, 2016, University of Surrey, Guildford, United Kingdom.
- 13th International Symposium on Radiation Physics (ISRP-13), held September 7-11, 2015, Beijing, China.
- First Swedish-Jordanian Workshop on Science and Research with Synchrotron Radiation, held at the Hashemite University, Jordan, January 25-29, 2015.
- Building International Networks for Enhancement of Research in Jordan Humboldt Kolleg, held at Princess Sumaya University for Technology (PSUT), Amman, Jordan, April 3-5, 2014.
- The Eight Meeting of the National users' of SESAME, held in Amman, 3 May 2012.
- The Fourth International Symposium on Nuclear Energy (Reality and Challenges), held October 25-27, 2011, Amman, Jordan.
- Industrial Radiation and Radioisotope Measurement Applications (IRRMA-8), held June 26 - July 1, 2011, Kansas City, USA.
- 2010 Symposium on Radiation Measurements and Applications (SORMA-XII), held May 24-28, 2010, University of Michigan, USA.
- International Symposium on Radiation Physics, held September 20-25, 2009, the University of Melbourne, Victoria, Australia.
- 7th International Topical Meeting on Industrial Radiation and Radioisotope Measurement Application (IRMA-7), held June 22-27, 2008, Prague, Czech Republic.
- International Conference on Medical Physics (ICMP), held April 14-16, 2008, Dubai, UAE.
- Festival of Research, held November 2, 2007, University of Surrey, UK.
- The 8th SLS Users' Meeting held September 10-14, 2007, Paul Scherrer Institute (PSI), Villigen, Switzerland.
- International Conference on Biomedical Applications of High Energy Ion Beams, held July 30 - August 2, 2007, Guildford, UK.

LIST OF PUBLICATIONS

- SF Abdul Sani, MK Muhamad Azim, AA Marzuki, MU Khandaker, KS Almugren, Eman Daar, FH Alkallas, DA Bradley. *Radioactivity and elemental concentrations of natural and commercial salt*. Radiation Physics and Chemistry, 2022.
- Ming Tsuey Chew, Eman Daar, MU Khandaker, B Jones, A Nisbet, DA Bradley. *Low radiation dose to treat pneumonia and other inflammations*. The British journal of radiology, 2021.
- MKM Azim, SF Abdul Sani, Eman Daar, MU Khandaker, KS Almugren, FH Alkallas, DA Bradley. *Luminescence properties of natural dead sea salt pellet dosimetry upon thermal stimulation*. Radiation Physics and Chemistry, 2020.
- N Wahib, SF Abdul Sani, Ain Ramli, SS Ismail, Muhammad Hussin Abdul Jabar, Mayeen Uddin Khandaker, E Daar, KS Almugren, Fatemah H Alkallas, DA Bradley. *Natural dead sea salt and retrospective dosimetry*. Radiation and environmental biophysics, 2020.
- A. Alsubaie, Eman Daar, L Alsulaiti, A N Al-Dabbous, M. Chamakh, M Jaafar, DA Bradley. Reprint of “*Elemental evaluation of urban road dirt in tropical, arid and maritime climates*”. Radiation Physics and Chemistry, 2020.
- A Alsubaie, L Alsulaiti, Eman Daar, AN Al-Dabbous, M Chamakh, M Jaafar, DA Bradley. *Elemental evaluation of urban road dirt via three analytical techniques*. Radiation Physics and Chemistry, 2019.
- A Alsubaie, Eman Daar, L Alsulaiti, A N Al-Dabbous, M Chamakh, M Jaafar, DA Bradley. *Elemental evaluation of urban road dirt in tropical, arid and maritime climates*. Radiation Physics and Chemistry, 2019.
- A Alsubaie, M Jaafar, AN Al-Dabbous, S Alomairy, Y Altowairqi, Eman Daar, M Alkhorayef, L Alsulaiti, KS Almugren, NI Ward, DA Bradley. *A comparison of elemental presence in UK and Kuwait road dust*. Radiation Physics and Chemistry, 2019.
- A. Alsubaie, L. Alsulaiti, A. Al-Dabbous, M. Chamakh, M. Jaafar, Eman Daar, A. Alanazi, Y. Altowairqi, Z. Podolyak, NI Ward, DA Bradley. *A Comparison of Elemental Presence in Riyadh and Doha Road Dust*. Radiation Physics and Chemistry, 2019.
- M. Alkhorayef, A. Sulieman, E. Babikir, Eman Daar, M. Alnaaimi, M. Alduaij, DA Bradley. *Patient Exposure during Fluoroscopy-guided Pacemaker Implantation Procedures*. Applied Radiation and Isotopes, 2018.

- A. Alyahyawi, Z. SitiRozaila, A.S. SitiShafiqah, SitiNorbainiSabtu, A. Alsubaie, A. Alanazi, Eman Daar, S.F. Abdul Sani, D.A. Bradley. *Investigation of silica-based TL media for X-ray dosimetry*. Radiation Physics and Chemistry, 2017. Volume 140, Pages 78-82.
- Eman Daar et al. *X-ray fluorescence analysis of Pb, Fe and Zn in Kohl*. Results in Physics, 2017.
- Eman Daar, D A Bradley, M Alkhorayef, K S Al-Mugren, R G Abdallat, H Al-Dousari. *Towards evaluating post-irradiation tissue alterations*. Radiation Physics and Chemistry, 2017.
- H. Al-Sulaiti, T. Nasir, K.S. Al Mugren, N. Alkhomashi, N. Al-Dahana, M. Al-Dosari, D.A. Bradley, S. Bukhari, M. Matthews, P.H. Regan, T. Santawamaitre, D. Malain, A. Habib, Hanan Al-Dosari, Ibrahim Al Sadig, Eman Daar. *Determination of ¹³⁷Cs activity in soil from Qatar using High-Resolution Gamma-ray Spectrometry*. Radiation Physics and Chemistry, 2016.
- Huda Al-Sulaiti, T Nasir, K.S. Al Mugren, N. Alkhomashi, N. Al-Dahana, M. Al-Dosari, D.A. Bradley, S. Bukhari, M. Matthews, P.H. Regan, T. Santawamaitre, D. Malain, A. Habib, H Al-Dosari, I Al Sadig, Eman Daar. *Determination of ¹³⁷Cs activity in soil from Qatar using High-Resolution Gamma-ray Spectrometry*. Radiation Physics and Chemistry, 2016.
- Eman Daar and D. A. Bradley. *Lead Poisoning and Measurement of Body Burdens of Lead: A Perspective*. 2015. DOI:10.14331/ijfps.2015.330089.
- Eman Daar et al. *XRF Measurements of Zn, Sr, and Pb in Archaeological Bone*. X-ray Spectrometry, 2015.
- M. U. Khandaker, Kh. Asaduzzaman, S. M. Nawi, A. R. Usman, Y. M. Amin, Eman Daar, D. A. Bradley, H. Ahmed, A. A. Okhunov. *Assessment of Radiation and Heavy Metals Risk due to the Dietary Intake of Marine Fishes (Rastrelligerkanagurta) from the Straits of Malacca*. PLOS ONE, 2015. DOI: 10.1371/journal.pone.0128790.
- Eman Daar et al. *Atomic Force Microscopy and Mechanical Testing of Bovine Pericardium Irradiated to Radiotherapy Doses*. Radiation Physics and Chemistry, 2014.
- Eman Daar et al. *AFM and Uni-axial Testing of Pericardium Exposed to Radiotherapy Doses*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011.
- W. Kaabar, E. Daar, O. Bunk, M.J. Farquharson, A. Laklouk, M. Bailey, C. Jeynes, O. Gundogdu, D.A. Bradley. *Elemental and Structural Studies at the Bone-Cartilage Interface*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011.

- Eman Daar et al. *Effect of penetrating ionising radiation on the mechanical properties of pericardium*. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010.
- Eman Daar et al. *Viscosity changes in hyaluronic acid: Irradiation and rheological studies*. Applied Radiation and Isotopes, 2010.
- W, Kaabar., E. Daar, O. Gundogdu, P.M. Jennesson, M.J. Farquharson, M. Webb, C. Jeynes and D.A. Bradley, *Metal deposition at the bone–cartilage interface in articular cartilage*. Applied Radiation and Isotopes, 2009.

COURSES ATTENDED

- The 10th International Petra School of Physics (PSP10), Quantum Computing: Theory and Applications. October 9-13, 2023, at the University of Jordan, Amman, Jordan.
- 2019 AAPM/ISEP Workshop on Advances in Radiotherapy and Diagnostic Physics held April 21-24, 2019 in Amman.
- Radiation Protection Refresher Course: held at the University of Surrey, UK, 16th July 2015.
- Workshop on IMRT and practical training of IMRT quality assurance, held at KHCC, Amman, Jordan, 27 September 2012.
- Workshop on Ionizing Radiation Detection, held June 24-26, 2011, Kansas City, USA.
- Team work and Leadership Course for 3 days every year from 2008 to 2010. I have also helped in delivering the course for undergraduate engineering students.
- Workshop entitled 'Advances in Analytical Techniques', held September 26-27, 2009, the University of Melbourne, Australia.

MEMBERSHIP

- International Radiation Physics Society (IRPS)
- Aerosol Association in the Middle East - Northern Africa Region (AAMENA)
- Jordanian Association for Physicists in Medicine (JAPM)