Professor Husam H. Abu-Safe
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Education

Ph.D. Physics, 2002
University of Arkansas, Fayetteville, AR, USA.
Title: Investigation of parametric processes in periodically poled lithium niobate ($LiNbO_3$).
Advisor: Yuji Ding

M.Sc. Physics, 1997
Wilkes University, Wilkes-Barre, PA, USA.
Title: High-field quantum transport in the inversion layer of a metal-oxide-semiconductor field effect transistor.
Advisor: Vijay Arora.

B.Sc. Physics, 1989
Yarmouk University, Irbid-Jordan

Teaching & Research Experience

Professor (2022-present): German Jordanian University, Jordan.

Associate Professor (2016-2022): German Jordanian University, Jordan.

Assistant Professor (2013-2016): German Jordanian University, Jordan.

Assistant Professor (2008-2013): Lebanese American University, Lebanon.

Research Assistant Professor (2002- 2008): University of Arkansas, Fayetteville, AR USA

Research Assistant (1998-2002): Physics Department, University of Arkansas, AR USA

Physics Instructor (1998-1998): Physics department, University of Pittsburgh at Johnstown, PA, USA

Science Teacher (1990-1996): Islamic Scientific College, Amman, Jordan

Honors

- Member of the international society for optics and photonics (SPIE) 2018-2021
- American Optical Society 2002-2021
- Member IEEE 2007-2008
- Member Material Research Society 2003-2006

Scientific Community Services
Reviewer for the

- Material Research Society 2002-2008
- American Optical Society 2015-
- Applied Optics 2016-
- Advanced Optical Materials 2021-

Proposals and Grants
National Science Foundation, 2008
US-India Cooperative Research: Investigating Metal Induced Crystallization on Thin Films of Amorphous Silicon, Annual Reports written

German Jordanian University Seed Grants

- Investigating third order nonlinearities in nonorganic nanomaterials (Grant SBSH 2016/32) 2016-2018)
- Correlating the state of oxidation in Human Low- and High-Density Lipoprotein, triacylglycerols and glucose with cardiometabolic biomarkers (age and gender) using z-scan technique (Grant SBSH 2021/02) 2021-2022
- Probing the Broken Time Reversal Symmetry in Monolayers Using the Z-Scan Technique (Grant RA SEEIT 01/2025) 2025-2026

Journal Publications

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https://doi.org/10.1016/j.arabjc.2022.104535

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Published Conference papers

24 Abu-Safe, H. H., S. Sbeih, M. Saleh, M. Al-Nsour, Q. Almassoud, M. E. Ware and N. Ayoub. Probing the Broken Time Reversal Symmetry in Monolayers Using the Z-Scan Technique. 2025 Photonics & Electromagnetics Research Symposium-Fall (PIERS-Fall), IEEE (2025).
https://doi.org/10.23919/PIERS-Fall62445.2025.11394515

23 Abu-Safe, H. H. Probing the Oxidation levels of Low-Density Lipoprotein Using the Z-scan Technique. Laser Science, Optica Publishing Group (2024).
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22 Husam H. Abu-Safe, Issra Hammoudeh, Husam Al-Nasser, Timothy A. Morgan, Morgan E. Ware, Radwan A. Al Faouri, Hameed Naseem, "Ellipsometric study of aluminum-nickel nano-films for plasmonic application ", Proc. SPIE 10731, Nanostructured Thin Films XI, Volume 10731, pp. 107310J (2018).
https://doi.org/10.1117/12.2318981

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