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Education

2001-2004	<p>Doctor of Philosophy, Physics, University of Jordan, Amman, Jordan</p> <ul style="list-style-type: none"> Thesis title: Spin-Polarized $^3\text{He-HeII}$ Mixtures: A Microscopic Study, Supervisor Prof. Dr. Humam Ghassib and Co-Supervisor Dr. Mohamed K. Al-Sugheir. <p>Committee: Prof. Dr. Jamil M. Khalifeh, Prof. Dr. Kamal Al-Saleh, Dr. Mohammad S. Shikakhawa, Dr. Rashad I. Badran.</p>
1995-1998	Master of Science , Physics, University of Jordan, Amman, Jordan
1991-1995	Bachelor of Science , Physics, Yarmouk University, Irbid, Jordan, 1995

Teaching Experience

2/7/2019 to date.	Professor , Department of Physics, Faculty of Science, Al-Balqa Applied University, Al-Salt, Jordan.
7/11/2012 to 1/7/2019.	Associate Professor , Department of Physics and Basic Sciences, Faculty of Engineering Technology, Al-Balqa Applied University, Amman, Jordan.
10/9/2008 to 6/11/2012	Assistant Professor , Basic Sciences Department, Faculty of Engineering Technology, Al-Balqa Applied University, Amman, Jordan.

Recent Publications

1	A. S. Sandouqa , M. K. Al-Sugheir, and H. B. Ghassib (2006). Spin-Polarized $^3\text{He-HeII}$ Mixtures in the Static Fluctuation Approximation. <i>International Journal of Theoretical Physics</i> 45(1), 159-182.
2	A. S. Sandouqa , M. K. Al-Sugheir, and H. B. Ghassib (2006). Hole-Hole Scattering in Spin Polarized $^3\text{He-HeII}$ Mixtures. <i>Physica Scripta</i> , 74, 5-11.
3	A. S. Sandouqa , B. R. Joudeh, M. K. Al-Sugheir, and H. B. Ghassib (2008). Spin-Polarized Atomic Deuterium ($\downarrow\text{D}$) in the Static Fluctuation Approximation (SFA). <i>International Journal of Modern Physics B</i> , 22 (3), 257-266.



4	B. R. Joudeh, A. S. Sandouqa , M. K. Al-Sugheir, and H. B. Ghassib (2009). Effective Scattering in Spin-Polarized Atomic Deuterium ($\downarrow D$). <i>Physica B</i> , 404, 1847–1851.
5	Y. S. Abu-Khaled, A. S. Sandouqa , and I. M. Haddadin (2009). Radiation Exposure from Radioactive Iodine ^{131}I in and surrounding the Patients' Room. <i>Radiation Protection Dosimetry</i> . <i>Radiation Protection Dosimetry</i> , 135, 64-68.
6	M. K. Al-Sugheir, A. S. Sandouqa , B.R. Joudeh, S. Al-Omari, M. Awawdeh, and F. Rawwagah (2010). Bose–Einstein condensation and heat capacity of spin-polarized atomic hydrogen. <i>Physica B</i> , 405, 2171–2174.
7	A. S. Sandouqa , H. B. Ghassib, and B. R. Joudeh (2010). A Ramsauer–Townsend effect in liquid 3He . <i>Chemical Physics Letters</i> , 490, 172–175.
8	B. R. Joudeh, A. S. Sandouqa , H. B. Ghassib, and M. K. Al-Sugheir (2010). 3He - 3He and 4He - 4He Cross-Sections in Matter at Low Temperature. <i>Journal of Low Temperature Physics</i> , 161, 348-366.
9	A. S. Sandouqa , Y. S. Abu-Khaled, and I. M. Haddadin (2011). Hand Equivalent Doses of Nuclear Medicine Staff in Jordan. <i>Radiation Measurements</i> , 46(2), 250-253
10	A. S. Sandouqa , B. R. Joudeh, M. K. Al-Sugheir, and H. B. Ghassib. Weak 3He Pairing in 3He -HeII Mixtures (2011). <i>ACTA PHYSICA POLONICA A</i> , 119 (6), 807-813.
11	A. F. Al-Maaitah, B. R. Joudeh , A. S. Sandouqa , H. B. Ghassib (2011). Scattering Properties of Spin-Polarized Liquid 3He . <i>Journal of Low Temperature Physics</i> , 164, 5-22
12	F. S. Nammas, A. S. Sandouqa , H. B. Ghassib, and M. K. Al-Sugheir (2011). Thermodynamic properties of two-dimensional few-electrons quantum dot using the static fluctuation approximation (SFA). <i>Physica B</i> , 406 , 4671–4677.
13	M. K. Al-Sugheir, G. Alna'washi, H. B. Ghassib, and A. Sandouqa (2012). A microscopic study of the finite two-dimensional trapped bose atomic gas. <i>Physica B</i> , 407, 2313–2320.
14	A. S. Sandouqa (2012). Scattering Properties of spin-polarized 3He -HeII Mixtures at Low Temperature. <i>Modren Applied Science</i> , 6(8), 32-44.
15	S. M. Mosameh, A. S. Sandouqa , H. B. Ghassib, and B. R. Joudeh (2014). Thermodynamic Properties of 4He Gas in the Temperature Range 4.2-10K. <i>Journal of Low Temperature Physics</i> , 175, 523-542.
16	H. B. Ghassib, A. S. Sandouqa , B. R. Joudeh, S. M. Mosameh (2014). Predicting the borderline between the classical and quantum regimes in 4He gas from the second virial coefficient. <i>Canadian Journal of Physics</i> , 92, 997-1001.
17	I. Al-Hayek and A. S. Sandouqa (2015). Energy and binding energy of donor impurity in quantum dot with Gaussian confinement. <i>Superlattices and Microstructures</i> , 85, 216–225.
18	I.F. Al-Maaitah, B. R. Joudeh, A. S. Sandouqa , and H. B. Ghassib. Scattering Properties of Argon Gas in the Temperature Range 87.3–120 K (2016). <i>ACTA PHYSICA POLONICA A</i> , 129 (6), 1131-1140.
19	M. M. Hawamdeh, M. K. Al-Sugheir, A. S. Sandouqa , H. B. Ghassib (2017). Thermodynamic Properties of Graphene Using the Static Fluctuation Approximation (SFA). <i>Canadian Journal of Physics</i> 95 (3), 211–219.
20	O. T. Al-Obeidat, A. S. Sandouqa , B. R. Joudeh, H. B. Ghassib, M. M.



	Hawamdeh (2017). The Quantum Second Virial Coefficient of ^3He at Low Density in the Temperature-Range 0.005-10 K. <i>Canadian Journal of Physics</i> , 95 (12), 1208-1214.
21	A. F. Al-Maaitah, A. S. Sandouqa , B. R. Joudeh, H. B. Ghassib (2017). Thermodynamic properties of spin-polarized ^3He gas in the temperature range 1 mK–4 K from the quantum second virial coefficient. <i>International Journal of Modern Physics B</i> 31 (28), 1750202-1–1750202-11.
22	B. R. Joudeh, A. S. Sandouqa (2018). Transport Properties of Spin-Polarized Atomic Hydrogen Using Generalized Scattering Theory. <i>Journal of Low Temperature Physics</i> 190 (3-4), 101-119.
23	A. N. Akour, A. S. Sandouqa , B. R. Joudeh, H. B. Ghassib (2018). Equation of State of ^{20}Ne Gas in the Temperature-Range 27-36 K. <i>Chinese Journal of Physics</i> 56 (1), 411-422.
24	A. A Al-Harazneh, A. S. Sandouqa , B. R. Joudeh, H. B. Ghassib (2018). Scattering Properties of Ground-State ^{23}Na Vapor Using Generalized Scattering Theory. <i>Journal of Low Temperature Physics</i> 192 (1-2), 117–132.
25	A. S. Sandouqa (2018). The Quantum Second Virial Coefficient as a Predictor of Formation of Small Spin-Polarized Tritium ($T\downarrow$) Clusters. <i>Chemical Physics Letters</i> 703, 29-32.
26	H. B. Ghassib, A. S. Sandouqa , B. R. Joudeh, I. F. Al-Maaitah, A. N. Akour, M. K. Al-Sugheir (2018). A microscopic study of neon and argon gases within the static fluctuation approximation (SFA). <i>International Journal of Modern Physics B</i> 32(16), 1850203-1–1850203-15.
27	A. S. Sandouqa , B. R. Joudeh (2018). The Thermophysical Properties of Spin Polarized Atomic Tritium ($T\downarrow$) in the Temperature-Range 0.01 K-10 K. <i>Physica Scripta</i> 93, 095401.
28	A. S. Sandouqa (2019). Energy Spectra of Three-Dimensional Harmonium under Debye Potential using Shifted $1/N$ Expansion Approach. <i>Contributions to Plasma Physics</i> , 59(8), 1-9.
29	A. F. Al-Maaitah, A. S. Sandouqa , B. R. Joudeh, and O. T. Al-Obeidat. The Scattering and Thermodynamic Properties of Ultracold ^{20}Ne Vapor (2019). <i>Chinese Journal of Physics</i> 62, 194–201.
30	O. T. Al-Obeidat, A. S. Sandouqa , B. R. Joudeh, M. M. Hawamdeh, H. B. Ghassib (2020). The Classical and Quantum Second Virial Coefficient of Low-density ^{132}Xe Vapor in the Temperature-Range 0.1mK-30000K. <i>Physica Scripta</i> , 95(1), 015401.
31	A. S. Sandouqa , B. R. Joudeh, O. T. Al-Obeidat, M. M. Hawamdeh, H. B. Ghassib (2020). A comprehensive study of the second virial coefficient of low-density $^{84}\text{krypton}$ vapor in the temperature range 0.01–700K. <i>The European Physical Journal Plus</i> , 135 (2), 1-12.



Supervised Doctoral & Master Theses:

Master

2018-2019 Amani Awwad Alzboun, *Physical Properties of Quantum Dots Using the Static Fluctuation Approximation*, Mu'tah University

Doctoral

2009-2010 Fuad S. Nammās, *Physical Properties of Quantum Dots Using the Static Fluctuation Approximation*, University of Jordan

2013-2015 Ali Abdelhafeth Abdelrahman Al Harazneh, *Thermophysical Properties of Ground-State ^{23}Na Vapor Using Generalized Scattering Theory*, University of Jordan

2015-2017 Amani Mohammad Khalil Darabee, *Bound- and Scattering-State Properties of Diatoms for Some Inert Gases (Neon, Argon and Krypton)*, University of Jordan

2017-2019 Abeer Abd Almajeed Mohmmad Al Ajaleen, *The Transition from the Classical to the Quantum Regime for Rubidium-87 (^{87}Rb) in Terms of the Second Virial Coefficient and the Scattering Length*, University of Jordan

2017-2019 Ahmad Mousa Abedalqader Alkurdi, *Bound- and Scattering-State Properties of Two $^{133}\text{Cesium}$ (^{133}Cs) Atoms in Free Space and in an Ultracold, Low-dense ^{133}Cs Vapor*, University of Jordan.

2018-2019 Remah Yasin Mohammad Al-Masarweh, *The Quantum Second Virial Coefficient and Related Thermophysical Properties of Nuclear Matter Using the Reid-93 Potential*, University of Jordan

2018-2020 Yousef A. Dlabeeh, *A Microscopic Calculation for Neon-20 within the Brueckner-Bethe-Goldstone (BBG) Formalism*, University of Jordan.

2018-2019 Anood. H. Al-oun, *Bound-State Properties of Some Alkali Metal Vapors; Specifically, Lithium-7 (Li-7), Sodium-23 (Na-23), and Potassium-39 (K-39)*, University of Jordan
