



FACULTY FULL NAME

Assistant Professor

Personal Data

Nationality | Saudi

Date of Birth | 1975

Department | Physics

Official IAU Email | nalonizan@iau.edu.sa

Office Phone No. | 37189

Language Proficiency

Language	Read	Write	Speak
Arabic	Excellent	Excellent	Excellent
English	Good	Good	Good
Others	None	None	None

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
02/06/1428	Ph. Doctorate	King Faisal University	
09/10/1424	Master	Ministry of Education	
09/٠٢/١٤١٨	Bachelor	Ministry of Education	

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Four-Dimensional Spectral Fingerprinting of Crude Petroleum Oils Using Time-Resolved Laser-Induced Fluorescence.
Master	Application of Interference Methods of Scattered Laser Light for the Formation of Optical Finger-Print for Different Material and Measurement of Their Roughness
Fellowship	



Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work			Date
Assistant Professor	Imam Abdulrahman Bin Faisal University	Science College for Girl in Dammam	Physics Department	1438
Assistant Professor	King Saud University	Science College	Physics & Astronomy Department	1432-1438
Assistant Professor	King Faisal University	Science College for Girl in Dammam	Physics Department	1430-1432
Lecturer	King Faisal University	Science College for Girl in Dammam	Physics Department	1424-1430
Demonstrator	Ministry of Education	Science College for Girl in Dammam	Physics Department	1418-1424

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Attorney Department of Physics & Astronomy in	King Saud University	1433-1436

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
19	K. Omri, N. Alonizan	Effects of ZnO/Mn Concentration on the Micro-structure and Optical Properties of ZnO/Mn–TiO ₂ Nano-composite for Applications in Photo-Catalysis	Journal of Inorganic and Organometallic Polymers and Materials (27 September 2018)
18	N. Alonizan , S. Rabaoui, K. Omri, Rabia Qindeel	Microstructure and luminescence properties of ZnO:Mn nano-particles and ZnO:Mn/TiO ₂ nano-composite synthesized by a two-step chemical method	Applied Physics A (124 (10), 710) 22 September 2018
17	Nafeesah Abdul Rahim Yaqub, Rabia Qindeel , Norah Alonizan , Nabil Ben Nessib	Expectation Values of the Neutral Chromium Radius	Atoms 6 (3), 51 12 September 2018



16	N. Alonizan , R Qindeel	Structural and magnetic properties of ytterbium substituted spinel ferrites	Applied Physics A 124 (6), 408 04 May 2018
15	R Qindeel, N Alonizan	Structural, dielectric and magnetic properties of cobalt based spinel ferrites	Current Applied Physics Current Applied Physics 18 (2018) 519–525
14	MI Khan, KA Bhatti, R Qindeel, N Alonizan	Sol–gel deposition and characterization of multilayer 2% Cu doped TiO ₂ nano structured thin films	Journal of Materials Science: Materials in Electronics 28 (13), 9471-9477
13	MI Khan, KA Bhatti, R Qindeel, HS Althobaiti, N Alonizan .	Structural, electrical and optical properties of multilayer TiO ₂ thin films deposited by sol–gel spin coating	Results in physics 7, 1437-1439 (1.259), 2017
12	MI Khan, KA Bhatti, R Qindeel, N Alonizan , HS Althobaiti	Characterizations of multilayer ZnO thin films deposited by sol-gel spin coating technique	Results in Physics 7, 651-655
11	N Alonizan , R Qindeel, N Ben Nessib	Atomic structure calculations for neutral oxygen	International Journal of Spectroscopy 2016 (0.79).
10	A Al-Towyan, NB Nessib, N Alonizan , R Qindeel, N Yacoub	Stark widths dependence on electron temperature for neutral chromium spectral lines	The European Physical Journal Plus 131 (1), 9 (1.377), 2016
9	MI Khan, KA Bhatti, R Qindeel, LG Bousiakou, N Alonizan	Investigations of the structural, morphological and electrical properties of multilayer ZnO/TiO ₂ thin films, deposited by sol–gel technique	Results in physics 6, 156-160
8	Rabia Qindeel, Norah Alonizan , W. A. Farooq, M. R. Baig.	Optical Band Gap Energy of Alpha and Laser Irradiated CN-85 Nuclear Track Detector.	Journal of Current Nanoscience.(1.096)
7	N Alonizan , R Qindeel, NB Nessib, S Sahal-Bréchet, MS Dimitrijević	Stark Broadening Parameters for Neutral Oxygen Spectral Lines	Journal of Astrophysics and Astronomy 36 (4), 0,(2015) (0.329)
6	R Qindeel, N Alonizan , MR Baig, WA Farooq, SSAGMS Al-Garawi	Study of Optical properties of Alpha and Nd: YAG Laser Irradiated Cellulose Nitrate Polymer	Organo Opto-Electronics An International Journal 1 (1), 17-24
5	R Qindeel, LG Bousiakou, W Tawfik,	Trace element analysis using ICP-MS in the shallow aquifers of the Haier region, Saudi Arabia	Middle-East Journal of Scientific Research 23 (8), 1941-1948 (2015)



	WA Farooq, N Alonizan , S Alsaleh, ...		
4	W Tawfik, LG Bousiakou, R Qindeel, WA Farooq, N Alonizan , AJ Fatani	Trace analysis of heavy metals in groundwater samples using laser induced breakdown spectroscopy (LIBS)	OPTOELECTRONICS AND ADVANCED MATERIALS- RAPID COMMUNICATIONS 9 (1-2), 185-192
3	NB Nessib, N Alonizan , R Qindeel, S Sahal-Bréchet, MS Dimitrijević	The OIV 1407.3 Å/1401.1 Å emission-line ratio in a plasma	Advances in Space Research 54 (7), 1190-1194 (2013) (1.358)
2	NB Nessib, N Alonizan , R Qindeel, A Al-Towyan, N Yacoub	TEMPERATURE DEPENDENCE OF ATOMIC SPECTRAL LINE WIDTHS FOR NEUTRAL CHROMIUM	BOOK OF ABSTRACTS, 15
1	Muhammad Afzal, Rabia Qindeel, Hafiz Muhibb Ullah Zulkafal and Norah Alonizan .	The role of medical physics to diagnose head and neck cancer.	<u>World Journal of Medical Sciences</u> 9(1):43-48 · January 2013

Refereed Scientific Research Papers Accepted for Publication

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date
	None			

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date
1	Rabia Qindeel, Hamdah S. Alanazi, Norah Alonizan , Leda G. Bousiakuo, W.A. Farooq, M. Atif	Characterization of Multi-Layered TiO ₂ -ZnO-TiO ₂ Nano-structured Thin Film Prepared by Sol-Gel Spin Coating System.	Nanoscience and Nanotechnology for Next Generation (NaNoNG) 29-31 October 2015
2	Rabia Qindeel, W. A. Farooq, Norah Alonizan , M. R. Baig	Effect of Gamma Radiation on Morphological & Optical Properties of ZnO nano-Powder	Nanoscience and Nanotechnology for Next Generation (NaNoNG) 29-31 October 2015,

Handbook of Oil Spill Science and Technology

Completed Research Projects



#	Name of Investigator(s) (Supported by)	Research Title	Report Date

Current Researches

#	Research Title	Name of Investigator(s)

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution

Membership of Scientific and Professional Societies and Organizations

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Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	General Physics (2)	PHYS 102	Lectures
2	General Physics	PHYS 103	Lectures
3	General Physics (1) (Electricity and Magnetism)	PHYS 104	Lectures
4	General Physics (II)	PHYS 111	Lectures
5	Vibrations and waves	PHYS 234	Lectures
6	Classical Mechanics II	PHYS 312	Lectures
7	Electromagnetic Theory.		Lectures
8	General Physics(2) 'Modern Physics'		Lectures
9	Wave Physics Laboratory	PHYS 395	Laboratory
10	Laboratory Physics (1)	PHYS 306N	Laboratory
11	Physics I	PHYS 202	Lectures
12	Electronics2 (Laboratory)	PHYS 308N	Laboratory
13	Seminar-2	PHYS 412N	Seminar
14	PHYSICS I	PHYS 202	Lectures

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)



1	<p>General Physics (2) - PHYS 102: Vectors, Motion in straight line, Newton's Laws of motion, work, energy and momentum, simple harmonic motion, elasticity, mechanics of non-viscous fluids, flow of viscous fluids, surface tension, temperature, quantity of heat, work and heat</p>
2	<p>General Physics - PHYS 103: Introduction (Vectors), Motion in one dimension with constant acceleration, Motion in two dimension with application to projectile motion and circular motion, Newton's Laws of Motion, Work and Energy, Potential Energy and conservation of Energy, Linear Momentum and Collisions, Rotation of rigid object about a fix axis.</p>
3	<p>General Physics (1) - PHYS 104: Coulomb's law, electric fields, Gauss' Law, electric potential, potential energy, capacitance and dielectric, currents and resistance, Ohm's law, electrical energy and power, direct current circuits, Kirchhoff's rules, magnetic fields, motion of charged particle in a magnetic field, sources of the magnetic field, Ampere's law, Faraday's law of induction, self-inductance, energy in a magnetic field, mutual inductance, alternating current circuits, the RLC series circuit, power in an A.C. circuit, resonance in RLC series circuit.</p>
4	<p>General Physics (II)- PHYS 111 : Vectors and forces analysis, Electric forces, field and potential. motion of charged particle in electric field, Capacitance, Energy of charged capacitor, Direct current (DC), Ohm's law, Resistance and temperature, energy and power, Kirchhoff's rules, Current in charged Capacitor. Reflection and refraction of light: reflection and refraction laws, refraction by plane-parallel plate, Prism, total internal reflection and the critical angle. Introduction to quantum theory, Black Body radiation, Photoelectric effect, X-Rays, Nuclear Decay, Decay Law, Nuclear reactions, Radioactivity</p>
5	<p>Vibrations and waves - PHYS 234 : Periodic motion. Free Vibrations, mathematical and Fourier analysis. Super position of periodic motion. Sound, plasma, molecular and electrical circuit oscillations analysis. Damped vibrations, heavy light and critical damping. Forced Vibrations. Superposition. Transients. Resonance circuits. Waves: travelling , standing, dispersive and no dispersive. Fourier Theory.</p>
6	<p>Classical Mechanics II – PHYS 312: Normal coordinates, some methods in the calculus of variations, Hamilton's and Lagrangian's principles. Lagrangian's and Hamiltonian's dynamics, central force motion, dynamics of a system of particles, dynamics of rigid bodies, motion in a non-inertial reference frame, coupled oscillations, wave equation</p>
7	<p>Electromagnetic Theory. Gauss law and its applications, Electric Potential, Potential gradient and applications, Capacitors and Dielectrics, Dielectrics and Gauss theory, Electric displacement, polarization, Susceptibility, Dielectric Strength. The magnetic field of conductors, Ampere's law and its applications. Motion of charged particle in magnetic field and its applications. Electromagnetic induction, Induced electromotive force, Faraday's law & Lenz's law, Self and mutual Induction, Current in inductive circuit. Vector operations; Electric and magnetic fields in materials; magnetic potential vector, Electrostatic and magnetic energy; Maxwell's equations in differential forms ; Electromagnetic waves , propagation and radiation. Ac Circuit, Series and Parallel connection, Resonance AC Circuit, Complex Numbers in AC Circuit.</p>



8	General Physics(2) 'Modern Physics'
9	Wave Physics Laboratory –PHYS 395:
10	Laboratory Physics 1 Do a series of experiments in advanced mechanics and light, heat, electricity, and properties of the material and modern physics
11	Physics I Recognize the basic principles of physics in the branches of mechanics, movement, force sand fluid mechanics, as well as mathematical treatment. Be able to explain some physical phenomena. Conclude the basic laws of mathematical physics correct. Gain practical experiance through achieve some experiments related to the course
12	Electronics(2)(Laboratory)
13	Seminar-2

Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Spectroscopy Master	PHYS 561	Lectures

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

1	Spectroscopy (Master): 1- Introduction to Spectroscopy 2- A Classical Description of Absorption 3- Frequency- and Time-Domain Spectroscopy 4- Principles of Atomic Spectroscopy 5- Principles of Molecular Spectroscopy 6- Vibrational-Rotational Spectroscopy 7- Electronic Spectroscopy 8- Magnetic Resonance Spectroscopy 9- Spectroscopic techniques.
2	

Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad	Postgrad.	From	to
				.			



Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To
	Bachelor	40		
	Master	2		

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date
١	Master: Master's student/ Hinad Musaeid Aleatiq	Effect of UV radiation and impurities on the optical and structural properties of graphene film تأثير الأشعة فوق البنفسجية والشوائب على الخصائص البصرية والتركيبية لأفلام الجرافين	King Saud University	1437
٢	Master: Master's student/ Lubna safe Afaneh	Atomic and Spectroscopic Parameters of Copper in Plasma المعاملات الذرية البلازما والطيفية للنحاس	King Saud University	1٤٣٦- 1438
٣	Master: Master's student/ Ibtisam Hussein Al-Qahtani	Calculation of atomic and collisional data for singly ionized chromium in plasma حساب البيانات الذرية والتصادمية للكروميوم المتأين في البلازما	King Saud University	-١٤٣٤ ١٤٣٧

Ongoing Research Supervision

#	Degree Type	Title	Institution	Date

Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

Administrative Responsibilities

#	From	To	Position	Organization

Committee Membership



#	From	To	Position	Organization
1	10/02/1438	Now	Student Academic Supervision and Mentoring	Physics Department/ College of Science

Scientific Consultations

#	From	To	Institute	Full-time or Part-time

Volunteer Work

#	From	To	Type of Volunteer	Organization

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Computer Software (Origin, MATLAB, Excel, Word, PowerPoint,			
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Last Update : ٠١/١٠/٢٠١٨