#	Publication title	Journal, Year of publication	List of authors
1	Structural, vibrational and opto-nonlinear properties of spin coater derived PbI2 films: Effect of solute concentrations	Physica B: Condensed Matter, (2022)	Z.R.Khan, Abdullah S.Alshammari, Mansour Mohamed, Mohd Shkir
2	Facile low-cost/temperature nanoarchitectonics of Ag_2HgI_4 nanostructures and their structural, vibrational, optical, dielectric, and photodetection studies	Journal of Materials Science: Materials in Electronics, (2022)	I. M. Ashraf, Z. R. Khan, Mohd. Shkir
3	Tailoring of structural, opto-nonlinear and electrical properties of CdO thin films via Zn and Ag co-doping for optoelectronics applications	Micro and Nanostructures, (2022)	Z.R.Khan, Abdullah S.Alshammari, Mohd. ShahidKhan, Mansour Mohamed, M.Gandouzi, Mohd.Shkir
4	A comprehensive study on structure, opto-nonlinear and photoluminescence properties of Co3O4 nanostructured thin films: An effect of Gd doping concentrations	Ceramics International, (2022)	Mohd Shkir, ZR Khan, Aslam Khan, Kamlesh V Chandekar, MA Sayed, S AlFaify
5	An investigation on structural, optical and enhanced third order nonlinear optical properties of facilely synthesized Ce:CuS nanosheets	Inorganic Chemistry Communications, (2022)	Nafis Ahmad, A.M.Alshehri, Z.R.Khan, S.A.M.Almahdawi, MohdShkir, P.M.Z.Hasan, AhmedAlshahrie, AmirAl-Ahmed
6	Effect of Ag doping on structural, morphological and optical properties of CdO nanostructured thin films	Physica B: Condensed Matter, (2022)	Z.R.Khan, Abdullah S.Alshammari, Mohd.Shkir, M.Bouzidi, Mansour Mohamed, Manish Kumar, Rakesh K.Sonker
7	Improved opto-nonlinear and emission properties of spray pyrolysis grown Nd:PbS nanostructured thin films	Physica B: Condensed Matter, (2022)	Z.R.Khan, Mohd Shkir
8	Noticeably enhanced opto-electrical and photodetection performance of spray pyrolysis grown Mn:CdS nanostructured thin films for visible-light sensor applications	Surfaces and Interfaces, (2022)	Z.R.Khan, M.S.Revathy, Mohd.Shkir, AslamKhan, M.A.Sayed, Ahmad Umar, Abdullah S.Alshammari, S.Vinoth, R.Marnadu, El SayedYousef, H.Algarni, S.AlFaify

9	An impact of novel Terbium (Tb) doping on key opto-nonlinear optical characteristics of spray pyrolyzed NiO nanostructured films for opto-nonlinear applications	Materials Science in Semiconductor Processing, (2022)	Z.R.Khan, Kamlesh V.Chandekar, AslamKhan, NaseemAkhter, M.A.Sayed, MohdShkir, H.Algarni, S.AlFaify
10	Tailoring of band gap, dielectric and antimicrobial properties of silver iodide nanoparticles through Cu doping	Materials Science in Semiconductor Processing, (2022)	Nafis Ahmad, A.M.Alshehri, Z.R.Khan, , P.M.Z.Hasan, Ammar A.Melaibari, MohdShkir
11	In situ spectral reflectance analysis of the early stages of GaN thermal decomposition	Optik, (2022)	W Malek, M Bouzidi, N Chaaben, AS Alshammari, A Rebey
12	Statistical physics analysis of adsorption isotherms and photocatalysis activity of MPA coated CuInS2/ZnS nanocrystals for the removal of methyl blue from wastewaters	Inorganic Chemistry Communications, (2022)	Naim Bel Haj Mohamed, M Bouzidi, S Ouni, Abdullah S Alshammari, ZR Khan, M Gandouzi, M Mohamed, Adrian Bonilla-Petriciolet, M Haouari
13	Downconversion mechanism in Er3+/Yb3+ codoped fluorotellurite glasses to enhance the efficiency of c-Si PV cells	Journal of Non-Crystalline Solids, (2022)	M Bouzidi, A Maaoui, N Chaaben, AS Alshammari, ZR Khan, M Mohamed
14	Tailoring the optical properties and the UV detection performance of sol-gel deposited ZnO nanostructured thin films via Cd and Na co-doping	Optical Materials, (2022)	Abdullah S Alshammari, Ziaul Raza Khan, Mohamed Gandouzi, Mansour Mohamed, Mohamed Bouzidi, Mohd Shkir, Hamed M Alshammari
15	Effects of the diameter of thermally generated nanopits on carrier dynamics in AlGaN/GaN heterostructures	Optical Engineering (2022)	Mohamed Bouzidi, Wafa Malek, Noureddine Chaaben, Abdullah Alshammari, Ziaul Khan, Mohamed Gandouzi, Monsor Mohamed, Ahmed Rebey, Abdullah Alatawi, Abdullah Alhassan, Abdullah Alharabi, Jean-Paul Salvestrini, and Khaled Shakfa
16	Highlighting the adsorption mechanism of dyes onto activated carbon derived from 2 sludge by theoretical physical analysis	Environmental Science and Pollution Research , (2022)	Lotfi Sellaoui, Sarra Said, Mohamed Bouzidi, Abdullah Sarhan Alshammari, Ziaul Raza Khan, Mohamed Gandouzi, Carlos Schnorr, Guilherme Luiz Dotto, Luis

			Silva, Angélica Fátima Streit, Abdelmottaleb Ben Lamine, Alessandro Erto
17	Synthesis and preparation of acid capped CdSe nanocrystals as successful adsorbent and photocatalyst for the removal of dyes from water and its statistical physics analysis	Environmental Science and Pollution Research, , (2022)	Naim Bel Haj Mohamed , Sabri Ouni, Mohamed Bouzid, Mohamed Bouzidi, Adrian Bonilla-Petriciolet, Mohamed Haouari
18	Structural, morphological, optoelectrical, linear and nonlinear optical properties of Ge10Se78Ag12 films, *Journal of Materials Science: Materials in Electronics (2022)*	Journal of Materials Science: Materials in Electronics, (2022)	Mansour Mohamed, M.A. Abdel-Rahim, A. Z. Mahmoud,
19	Structural, FTIR, optical, mechanical and magnetic properties of Zn1− xFexO with various Fe nanopowder additions	Applied Physics, (2022)	Mansour Mohamed, A Sedky, Abdullah S Alshammari, Marzook S Alshammari, ZR Khan, M Bouzidi, M Gandouzi
20	Parameter extraction of photovoltaic models using a comprehensive learning Rao-1 algorithm	Energy Conversion and Management, (2022)	Anouar Farah, Akram Belazi, Feres Benabdallah, Abdulaziz Almalaq, Mohamed Chtourou, M.A. Abido
21	Structural, electronic and optical DFT investigation of ruthenium doped anatase TiO 2 for photocatalytic applications	Physica Scripta, (2022)	Fekhra Hedhili Mohamed Gandouzi Shereen M Al-Shomar,Saleh Chebaane Abdelaziz Meftah
22	Investigations on mode-division multiplexed free-space optical transmission for inter-satellite communication link	Wireless Networks, (2022)	• Karamjeet Singh • Saleh Chebaane • Sana Ben Khalifa • Mehtab Singh
23	Proposed methods for optical fiber intrusion detection under windy conditions	Optik, (2022)	• Saleh Chebaane • Sana Ben Khalifa • Fekhra Hedhili • Shereen M. Al-Shomar
24	Elucidating the transverse magnetic susceptibility of superparamagnetic	The European Physical Journal Plus, (2022)	• Malika Madani, Najeh Rekik, Bachir Ouari, Umer Farooq, Wahab

	nanoparticles: A representative case of biaxial anisotropy nanoparticles		M. A. Hussein, Hira Affan.
25	Elucidating the neutral mesons production at Large Hadron Collider energies in two centrality classes	The European Physical Journal Plus, (2022)	• Uzma Tabassam , Lariab Akhtar, Zain Ul Abidin, Najeh Rekik, Hira Affan, Muhammad Ajaz, Umer Farooq, Abdelhamid Albaid, A. Wahab M. A. Hussein, A.M. Khubrani.
26	Elucidating the Infrared Spectral Properties of Succinic Molecular Acid Crystals: Illustration of the Structure and the Hydrogen Bonds Energies of the Crystal and its Deuterated Analogs	J. Phys. Chem. A, (2022)	• Jakub Tomasz Hołaj-Krzak, Najeh Rekik, Norah Alsaif, Gandham Lakshminarayana.
27	Explaining the Temperature Effects on the Magnetization Dynamics of non-Interacting Antiferromagnetic Nanoparticles Across Wide Ranges of Frequencies and Damping	Journal of Magnetism and Magnetic Materials, (2022)	• Najeh Rekik, Bachir Ouari, Umer Farooq, Wahab M. A. Hussein, Hira Affan.
28	Exploring the Structure of pure germanophospate Glasses with different concentrations probed by Magic Angle Spinning NMR Spectroscopy for potential Nano-catalysts applications	Magnetic Resonance in Chemistry - Magn. Reson. Chem., (2022)	• A. Wahab M. A. Hussein, Najeh Rekik, Umer Farooq, Saleh Chebaane, Hira Affan, Abdelhamid Albaid, Affia Aslam, Latifah H. K. Alfhaid.
29	Estimating the performance of SOI FinFET transistor using electro-thermal formulation in conjunction with the quasi-ballistic effective electron mobility approach	Superlattices and Microstructures, (2022)	Fouazi Nasri, Najeh Rekik, Umer Farooq, A. Wahab M. A. Hussein, Hira Affan, Abdelhamid Albaid, and Bachir Ouari. •
30	The Effect of an External Electric Field on the Electronic Properties of Defective CBN Nanotubes: A Density Functional Theory Approach	Crystals, (2022)	• Saed Salman, Najeh Rekik, Alaaedeen R. Abuzir, Adil Alshoaibi and Jamal Suleiman.
31	Simulating the γ-ray and neutron attenuation properties of lithium borate glasses doped barite: Efficient and deterministic analysis using relevant simulation codes	Journal of Materials Research and Technology, (2022)	• Norah A.M. Alsaif, Najeh Rekik, Youssef Elmahroug, G. Lakshminarayana, Umer Farooq, Hira

			Affan, Wahab M.A. Hussein
32	Elucidating the Theoretical Evolution of the IR Spectral Density and the Potential Energy Surfaces of Hydrogen Bonded Complexes: A Quantum Dynamical Study	Chemical Physics Letters, (2022)	Saed Salman, Najeh Rekik, Jamal Suleiman, and Alaaedeen R. Abuzir. •
33	Electronic properties tuning of defective heterostructured CBN nanotubes by uniaxial pressure: a density functional study	Applied. Physics A, (2022)	Saed Salman, Najeh Rekik, Alaaedeen Abuzir, Jamal Suleiman •
34	Cyclohexylammonium Hexaisothiocyanatonickelate(II) Dihydrate as a Single-Source Precursor for High Surface Area Nickel Oxide and Sulfide Nanocrystals	*Crystals* 2022, (2022)	• Mohamed F. Aly Aboud,Abdulmalik M. BinTaleb ,Hamdi Ben Yahia Abdelhamid Albaid ,Sultan Albishi ,Rasheed Arasheed Ibrahim Albinali ,Fahad Albaqi ,Khalid Anojaidi Fahad Alqahtani Asma M. Alenad ,Kamal Taha and Abdulaziz Bagabas
35	Characterization and applications of ITO/SeO2 interfaces.	Optical and Quantum Electronics, (2022)	• Alfhaid, Latifah Hamad Khalid, and Atef Fayez Qasrawi.
36	Pt/SeO2 optical receivers designed for terahertz and 5G/6G technologies.	Physica Scripta, (2022)	• Alfhaid, Latifah Hamad Khalid, and A. F. Qasrawi.
37	Smart Nanocarrier Based on Poly (oligo (ethylene glycol) methyl ether acrylate) Terminated pH-Responsive Polymer Brushes Grafted Mesoporous Silica Nanoparticles.	Applied Sciences, (2022)	• Alfawaz, Amal, Khalid Alzahrani, Abdurahman Niazy, Hamdan Alghamadi, Rhodanne Lambarte, Abeer Beagan, Latifah Alfhaid, Khalid Alotaibi, and Abdullah Alswieleh.
38	Comparison of different time discretization schemes for solving the Allen–Cahn equation	International Journal of Nonlinear Sciences and Numerical Simulation, (2022)	• Sana Ayub, Abdul Rauf, Hira Affan, Abdullah Shah
39	Structural, electronic and optical DFT investigation of ruthenium doped anatase TiO2 for photocatalytic applications	Physica scripta, (2022)	• Fekhra Hedhili , Mohamed Gandouzi , Shereen M Al-Shomar , Q Mahmood , Saleh

			Chebaane , Fathi Alimi and Abdelaziz Meftah
40	Photocatalytic treatment of industrial efuent containing clopidogrel using europium doped TiO2 thin flms under solar irradiation	Reaction Kinetics, Mechanisms and Catalysis, (2022)	• S. M. Al-Shomar , Dorsaf Mansour , Fekhra Hedhili , Afa Aslam , Safwat A. Mahmoud , A. A. Akl , Esam R. Shaaban
41	Influence of Mo^{+2} ion concentration on crystallization, microstructure, crystal imperfection and morphology of WO_3 sprayed thin films	Material research express, (2022)	• S M Al-Shomar, Alaa Ahmed Akl, Dorsaf Mansour, Fekhra Hedhili, Affia Aslam, Esam R Shaaban and Safwat A Mahmoud
42	Interfacial Microstructure and Bonding Area of Snbased Alloy-GG25 Gray Iron Bimetallic Material Using Flux, Sn, and Sn-Zn Interlayer Compound Casting	Engineering, Technology & Applied Science Research, (2022)	• Naglaa Fathy
43	Super Bonding Strength of Al2O3 Nanoparticles Reinforced Sn Interlayer Steel/Aluminum Bimetal Casting	Crystals, (2022)	• Mohamed Ramadan , Abdul Khaliq , K. M. Hafez , Abdulaziz S. Alghamdi , Naglaa Fathy , Farid A. Harraz , Badreddine Ayadi and K. S. Abdel Halim
44	Enhancement of Surface and Interface Properties of Low Carbon Steel by Hybrid ZnO and NiO Nanoparticles Reinforced Tin Coating	Crystals, (2022)	• K. S. Abdel Halim, Mohamed Ramadan , El-Sayed M. Sherif , Khalid M. Hafez , Tayyab Subhani , Naglaa Fathy , Abdulaziz S. Alghamdi and Mohamed H. Khedr
45	Production of AB5 materials from spent Ni-MH batteries with further tests of hydrogen storage suitability.	Journal of Power Sources, (2022)	• Mansouri, Moufida, Vitalii Shtender, Cristian Tunsu, Duygu Yilmaz, Olfa Messaoudi, Burçak Ebin, Martin Sahlberg, and Martina Petranikova.

46	Non-covalent assembly of β-iminoamine-chlorocobaltate (II) hybrid material: Molecular structure, computational simulations and antimicrobial activity.	Journal of Molecular Structure, (2022)	• Teka, Safa, Melek Hajji, Achref Jebnouni, Olfa Messaoudi, Dorsaf Mansour, and Taha Guerfel.

Publications for the year 2022