رسائل الماجستير والدكتوراه الممنوحة خلال عام 2021- قسم الفيزياء

Id	Name	Title	Supervisors	M / D	Pages	Abstract
12730975	Fiasal sayed Hassan	Electronic ionacoustic waves at plasma environment	Abdelhaleem ahmed Reda ahmed	Master	90	The piece of work, in this thesis, is prepared on the basis of the formation and propagation of electrostatic ion acoustic waves (IAWs), a very important nonlinear waves in plasma, and their stability in higher dimensions in the plasma environment of the Venusian ionosphere. IAWs are very simple kind of waves that take the form of solitary waves, if the effects of nonlinearity and dispersion are balanced with each other in the plasma. A solitary wave is called a soliton if it retains its shape during propagation and after collision with another solitary wave. The Venusian ionosphere is characterized by the presence of H^+ and O^+ ions as well as superthermal and thermal electrons often exist together, IAWs were observed in such plasma environment.
12730819	Fatma ahmed sayed	Study of physical properaties of	Ahmed ebrahim Sheriff moktar	Master	80	This thesis is dedicated to investigate the structural, optical, electrical and thermal transport Preparation of various composition of $Se_{65-x}As_{35}Sb_x$ thin films with (x =0, 2, 4, 6, 8 and 10 at.%) were successfully synthesized in terms melt quenching technique and thin films with thickness (1µm) via thermal evaporation technique .

رسائل الماجستير والدكتوراه الممنوحة خلال عام 2021- قسم الفيزياء

12757270	**Mohamed baysam**	**Characterization of some biology samples**	**Ahmed sedky Wael el shemy**	**Master**	**120**	The low-level laser therapy was used in various biomedical applications for a long time such as improving the rheological properties of blood, wound healing, vascular restenosis, tissue repair. however, its safety has not been well investigated. The present in-vitro study aims to investigate the influence of low power laser irradiation on the functions and the secondary structure of human Hemoglobin (Hb). 27 samples of fresh blood were collected from healthy youth volun

رسائل الماجستير والدكتوراه الممنوحة خلال عام 2021- قسم الفيزياء

12757051	**samar gamal abdelhady**	**Meson nucleus scattering using local potentials**	**Ahmed ibrahem Sheriff moktar**	**Master**	**120**	**In this present study we investagate pion-nucleuse elastic scattering by using the optical model for ^{12}C, ^{16}O, ^{28}Si and $^{40,44,48}Ca$ in the kinetic energy range of 114 to 292MeV. The Krell-Ericson transformation provies a local potential that is excatily equavelant to the nonlocal Kisslinger-type potential form based on phase shift analysis. Johnson and Satchler modified Krell-Eriscon transformation to include some corrections. Kisslinger local potential is constructed by the sum of the contribution of *s*-wave and *p*-wave pion-nucleon interactions. A FORTRAN program is constructed to calculate the local Kisslinger potential for pion-nucleus interaction for first- and second- order interactions. The constructed potential takes into account all considered corrections made by others such as Coulomb correction, Perey factor and Ericson-Ericson Lorentez-Lorentez effect. The sensitivity of cross section to different forms of target densities are studied. Also, the effect of neglecting second-order parameters is studied. Good reproductions of the data are obtained by using both first- and second order parameters. The cross section is produced well with all densities.**
12757253	**Amna Mohamed elkomy**	**Effect of thermal treatment and mental ions incorporation on phase transformation**	**Abdelaziz abu elfadl Abdelhaleem ahmed**	**Master**	**199**	The crystal structure of any material is a decisive factor for controlling its properties. In this respect, zirconia (ZrO_2) is a material which exists in three crystallographic phases: the monoclinic phase which is stable up to 1205 °C; the tetragonal phase appears from 1205 °C to 2377 °C; and finally the cubic phase is

رسائل الماجستير والدكتوراه الممنوحة خلال عام 2021- قسم الفيزياء

						thermodynamically stable from 2377 °C to 2710 °C. Because of the superior chemical stability, high hardness, high dielectric constant and prominent optical properties, zirconia can be exploited for a broad range of applications such as medical implants, oxygen detectors and as wear resistant or thermal barrier coatings (TBCs). However, for pure zirconia, it is not possible to exploit most of the above-mentioned applications as this is restricted by the change in volume of the zirconia-based components due to the phase transformation upon heating and cooling, which ultimately leads to the deterioration of the device components
12760218	**Manar abdelrahman ali**	**Physic study on some divalent and trivalent metallic cation doped zinc**	**Abdelhamed Othman Mohamed ibrahem**	**Doctor**	**100**	**ZnS nanoparticles (NPs) were prepared by ultrasonication process by exposing a mixture of zinc acetate and thioacetamide solution to ultrasonic waves for a power of 50 W for 1 hour. This method has an effect on both of crystallization and growth stage accompanied with structural and morphological changes of ZnS NPs. Also, ZnS is doped with different content of nickel ions from 2% to 10% with step of 2%, and a constant content of divalent metals (such as nickel, cobalt, and manganese), and trivalent metals (such as antimony, indium, and bismuth). The doping process with these elements showed the dependence of changes in the crystallization and growth rates on the dopant type.**
12759001	**Azza Mohamed Hassan**	**Structural and magnetic properties of some nanostructure spin ferrrites synthesized**	**Abdelaziz abu elfadl Mohamed abdelkareem**	**Doctor**	**150**	Ferrites in the nano-scale size have aroused much attention in the past several decades because of their potential applications and due to their interesting physical properties, which differ from those of the corresponding bulk materials. The present thesis focuses on synthesis a series of $Zn_{1-x}Ni_xFe_2O_4$ (x=0.0–1.0 in step of 0.2) and a series of $Ni_{1-x}Mg_xFe_2O_4$

رسائل الماجستير والدكتوراه الممنوحة خلال عام 2021- قسم الفيزياء

						nanocrystals by a facile microwave-assisted combustion method then study the role of Cr ions incorporation with appropriate ratios for modifying the magnetic properties of Ni-Zn ferrites. The obtained nanocrystals were characterized by X-ray diffraction (XRD), TEM and FT-IR spectroscopy
12668423	**Alaa mostafa abdelnaeem**	**Preparation and charaterics of cdsn magnetic semiconductor.**	**Mohammed hafiz essam Ramadan**	**Doctor**	**105**	**Electromagnetic fields (EMF) can be generated from power lines, home wiring, airport and military radar, substations, transformers, computers and appliances and can cause brain tumors, leukemia, birth defects, miscarriages, chronic fatigue, headaches, cataracts, heart problems, stress. nausea, chest pain, forgetfulness, cancer and other health problems. Numerous studies have produced contradictory results, yet some experts are convinced that the threat is real. The measurement of magnetic fields has been a critical part in various technical areas.**
12740041	**Hadeer Hassan mohamed**	**Computer simulation of air breakdown in electricaly stressed from gaps.**	**Azza hashem Abdelhamed torky**	**Doctor**	**110**	The thesis is aimed at investigating air breakdown in electrically-stressed uniform and nonuniform field gaps. For the uniform field gaps, a new method based on the charge simulation technique is proposed for computing the electric field in a short uniform field gap with and without space charge of avalanches growing in the gap. The self-space-charge field of the avalanche is evaluated to result in field enhancement ahead of the avalanche due to electrons at its head and behind the avalanche due to positive ions in its wake
12763234	**Shiamaa abubaker**	**Synthesis and charactization of thin film**	**Mohammed hafiz Abdelhamid abusehly**	**Doctor**	**120**	

رسائل الماجستير والدكتوراه الممنوحة خلال عام 2021- قسم الفيزياء

12757566	Mohamed hasabelnaby	Studies on the human raditation exposure from the natural radionuclides	Hany elgamal Sheriff rashed	Doctor	90	The aim of this thesis is study the effect of cement industry on the human health by measurement the radionuclides content on some environmental samples from cement factories in Assiut Governorate; Building Materials Industry Company (BMIC) and Assiut Cement Company (ACC) through estimate the concentrations of natural radionuclides such as ^{226}Ra, ^{232}Th and ^{40}K in raw materials, cement products, soil samples adjacent to factories, and assessment of using pet coke as fossil fuel on the environment surrounding. The collected samples have been investigated using high purity germanium (HPGe) detector based γ-spectrometry and by Sodium Iodide [NaI(Tl)] scintillation detector for a part of the studied samples.