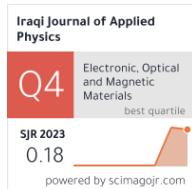


IRAQI JOURNAL OF APPLIED PHYSICS

Volume (20) Issue (4) October-December 2024

CONTENTS



About Iraqi Journal of Applied Physics (IJAP)

p. 1

Instructions to Authors

p. 2

Synthesis and Characterization of Perovskite Nanoparticles of $\text{Sr}_{2.5}\text{Tb}_{0.5}\text{CoFeO}_7$, $\text{Sr}_{2.5}\text{Tb}_{0.5}\text{CoCuO}_7$

Mirna M. Saleh, Ahmed Kalzia, Manar Hassan, Muhammad H. Abzal

pp. 715-720

Enhancement of Power Conversion Efficiency for Perovskite Solar Cells Using ZnO-G-Ge as Electron Transport Layer

Najlaa L. Tubena, Majid R. Al-Bahrani

pp. 721-726

Synthesis and Characterization of Zinc Cobalt Ferrite Embedded into PAN Nanofibers for Humidity Sensing Applications

Ban A. Rijah, Iftikhar M. Ali

pp. 727-730

Spectroscopic Diagnostics of Cu:Al Plasma Produced by DC Magnetron Discharge at Different Working Conditions

Nawfal A. Noori, Kadhim A. Aadim

pp. 731-738

Influence of Metal and Nonmetal Ion Doping on the Photocatalytic Performance of Iron Oxide Nanoparticles

Baraa A. Kareem, Ban M. Alshabander

pp. 739-746

Enhancement of Electric Efficiency and Structural Phase Change of CsPbBr_3 Caused by Ni^{2+} Doping

Hiba A. Ajeel, Majid R. Al-Bahrani

pp. 747-752

Optical and Spectral Properties of Aqueous Magnesium Chloride Solution: An Experimental Study

Dukra K. Taha

pp. 753-756

Development of Robust Harder Composites from Tungsten Carbide and Titanium Carbide by Arc Plasma Melt-Cast Method

Ranjan K. Moharana, Tapan Dash, Tapan K. Rout, Surendra K. Biswal

pp. 757-762

Fabrication and Characterization of Polymer Nanocomposites using BaTiO_3 Nanoparticles for Optoelectronic Applications

Duaa S. Shakir, Bahaa H. Rabee, Ibtihal M. Al-Hussaini

pp. 763-768

Effect of Tapered Length on Operation of Traveling-Wave Semiconductor Laser Amplifier: A Numerical Study

Ragheed M. Ibrahim, Ivan B. Karomi

pp. 769-774

Design and Analysis of Elliptical Microstrip Antenna with Partial Ground and Slots Techniques for UWB Applications using CST Studio 2023

Mohannad T. Sabeeh, Nabeel A. Areebi

pp. 775-780

Effects of Energy and Wavelength on Laser-Induced Breakdown Spectroscopy of Ablated Tantalum Plasma

Nihal H. Jabr, Ahmed K. Abbas, Isam M. Ibrahim

pp. 781-786

Photoresponsive Analysis of Zinc Telluride Broadband Photodetector Fabricated using Pulsed Laser Deposition Technique

Ahmed H. Abood, Asmiet Ramizy, Borhan A. Albiss
pp. 787-792

Effect of Doping with Carbon Nanotubes on Structural and Optical Properties of Nanostructured Zinc Oxide Thin Films

Ahmed H. Mansoor, Walla. M. Mohammd
pp. 793-796

Structural, Optical and Morphological Characteristics of Laser-Treated Graphene Layers Grown on Silicon Substrates by Spin Coating

Shareef F.S. Al-Tikrity, Athraa N. Taha
pp. 797-804

A Rapid and Efficient Preparation of Thermoelectric Zintl Antimonites $YbZn_{2-x}Mn_xSb_2$ by Microwave Irradiation Solid State Technique

Ibrahim M. Jasim, Arshad Hmood
pp. 805-810

High Sensitive Biosensor for *in vitro* Detection of Patulin Based on Optical Planar Waveguide

Zahraa A. Khudair, Ali M. Al-Jawdah, Nassar Al-Isawi
pp. 811-816

Nanocellulose-Based Biofuel Production from Sugarcane Bagasse: A Sustainable Approach

Eman Khammas, Yusra M. AlObaidi, Mustafa R. Alshaheen
pp. 817-822

Effect of Silver Content and Post-Deposition Annealing on Electrical Properties of CAZTSe Thin Films and Their Heterojunction Diodes

Mahmood R. Jobayr, Shatha H. Mahdi, Hanaa I. Mohammed, Noor H. Hasan
pp. 823-828

Structural and Mechanical Properties of Porcelain Prepared from Iraqi Raw Materials with Non-plastic Clay Additives

Mofeed A. Jaleel, Shihab A. Zaidan, Duraid F. Mahdi
pp. 829-836

Tunable Structural and Optical Properties of Hydrothermally Synthesized $Zn_{1-x}Mn_xFe_2O_4$ Nanostructures

Nabaa A. Ibrahim, Suhad A. Hamdan
pp. 837-842

Synthesis and Characterization of Metamaterials from Beetroot Juice and Metal Salt Solutions

Sarah K. Allawi, Mohammed A. Akraa
pp. 843-852

Synthesis and Analysis of ZnO/CdS Nanocomposites: Structural and Optical Properties

Mohammed J. Abdulameer, Mohammed A. Akraa
pp. 853-858

Structural and Electrical Properties of $Bi_2Te_3:Al$ Films Prepared by Thermal Evaporation

Samar S. Fazaa, Firas A. Najim
pp. 859-866

Study of Transient Laser-Induced Self-Focusing and Optical Modulation of Porous Silicon Films Using Pump-Probe Spectroscopy

Ammar T. Zakar, Zeina T. AbdulRahman, Thoalfiqar A. Zaker
pp. 867-872

Contents