

IRAQI JOURNAL OF APPLIED PHYSICS

Volume (21) Issue (2) April-June 2025

CONTENTS



About Iraqi Journal of Applied Physics (IJAP)

p. 1

Instructions to Authors

p. 2

Waveguide-Based Biosensors for Low-Level Concentration Fumonisin B1 Detection

Zahraa A. Khudair, Ali M. Al-Jawdah, Nassar Al-Isawi
pp. 161-165

Design and Fabrication of Triangular Microstrip Antenna with Slots Technique for 5G Wireless Communication

Asmaa N. Salih, Nabeel A. Areebi
pp. 166-172

Some Physical Properties of $Zn_{1-x}Gd_xO$ Composites Prepared by Solid Phase Reaction Method

Saleem H. Trier
pp. 173-180

Monte Carlo Simulation of Grain Growth Behavior in ZnO Thin Film during Crystallization Process

Leila Challat, Azzedine Bellel, Salah Sahli
pp. 181-190

Spectroscopic Analysis of Aluminum Plasma Produced by DC Magnetron Sputtering Technique

Nawfal A. Noori, Kadhim A. Aadim
pp. 191-198

Synthesis, Characterization, and Mechanical Properties of KTP Nanoparticles Incorporated into PMMA Matrix

Saeed Khirkhahan, Majid Jafar Tafreshi, Sanaz Alamdari, Elaheh Gharibshahian
pp. 199-204

Evaluation of the Capability of Utilizing the Local Soil as a Nuclear Radiation Shielding Materials

Rawaa M. Obaid, Ali Al-Jawdah, Radhiyah M. Aljarrah
pp. 205-208

Optimization of Diode Laser Q-Switching Using Optical Choppers for Improved Rhodamine B Degradation

Eman A. Saied, Samira Y. Asoka, Amange F. Boya
pp. 209-216

Synthesis and Characterization of Ni@Co and Co@Ni Core-Shell Nanoparticles via Laser Ablation

Mohammed J. Talab, Sahar N. Rashid
pp. 217-222

Characterization of Zinc Oxide Thin Film Gas Sensors Fabricated by Pulsed-Laser Deposition

Aidah A. Al-Doori, Awatif S. Jasim
pp. 223-228

Morphology-Engineered $CuBiS_2$ Thin Films for Next-Generation Dual-Gas Sensors

Budoor M. Saleh, Mohanad Q. Kareem
pp. 229-238

Advanced Triangle Split Ring Resonator Designs for Enhanced Negative Refractive Index in GHz Frequency Range

Samira A. Mahdi, Thill A.K. Al-musawi, Sundus Y.H. AL-Asadi
pp. 239-244

Effect of Plasma-Activated Water with Varying RONS Concentrations on Barley Seed Germination Parameters

Wafaa A. Abdullah, Hammad R. Humud
pp. 245-250

Spectroscopic Diagnostic of Silicon Plasma Produced by DC and AC Plasma Jet Techniques: Comparative Study

Riyam N. Muhsen, Wadaa S. Hussein, Wassan D. Hussain, Kadhim A. Aadim, Abdulrhman H. Shaker
pp. 251-256

Effects of Temperature, Pressure, and Frequency on Electrical Conductivity and Dielectric Behavior of PVA Nanopolymers

May A.S. Mohammed, Tabarak M. Awad
pp. 257-262

Spectroscopy and Regression Methods to Predict of Heavy Metals Contamination in Soil: Case Study in Baghdad

Essam M. Rasheed, Zainab K. Nasser Allah, Suhaib Q. Abdullah, Ali A. Al Maliki, Kareem K. Mohammad
pp. 263-269

Solvothermal Synthesis and Gas Sensing Properties of Nanostructured $\text{La}_6\text{Sb}_8\text{S}_{21}$ Composite Thin Films for Enhanced NO_2 Detection

Hanaa A. Muhammad, Mohanad Q. Kareem, Walla M. Mohammed
pp. 270-279

Influence of Lithium Sulfide Weight Ratio on Optical and Electrical Properties of Blend Solid Electrolytes Based on Chitosan/Polyvinylpyrrolidone

Alaa M. Qusay, Mohammed K. Jawad
pp. 280-285

Influence of Adding Silver Nanoparticles on Structural and Optical Characteristics of PMMA Nanopowders for Antibacterial Applications

Ishraq A. Fadhil, Sarah I. Abdulraheem, Israa H. Mohammed, Amjed M. Oda
pp. 286-290

Preparation of Zeolite NaA for Uranium Removal from Radioactive-Contaminated Water

Safana S. Odeh, Asia H. Al-Mashhadani
pp. 291-296

Contents