

Contents

Vol. 27, No. 4, 2019

Optical and Acoustical Waves in Plasma

- High-Order Harmonics from Laser Irradiated Electron Density Singularity Formed at the Bow Wave in the Laser Plasma
J. Mu, T. Zh. Esirkepov, P. Valenta, T. M. Jeong, Ya. Gu, J. K. Koga, A. S. Pirozhkov, M. Kando, G. Korn, and S. V. Bulanov 247
- Feedback in Plasma Maser
A. B. Buleyko, A. V. Ponomarev, O. T. Loza, and D. K. Ul'yanov 257
- Effects of Vortex-Like Ion Distribution on Dust-Acoustic Solitary Waves in a Self-Gravitating Opposite Polarity Dusty Plasmas
A. Paul, G. Mandal, A. A. Mamun, and M. R. Amin 261
-

Interaction of Laser Radiation with Matter

- Nanosecond Calibration of a Piezo Transducer by Comparing Thermoacoustic and Vaporization Pressure Signals at Pulsed Laser Irradiation of a Metal Target
A. A. Samokhin, E. V. Shashkov, N. S. Vorobiev, and A. E. Zubko 268
-

Laser Crystals

- Radiation Hardness of Nd:GdVO₄ Laser Crystal under γ -Ray Irradiation
M. Kh. Ashurov, Yu. D. Zavartsev, A. I. Zagumennyi, Sh. Kh. Ismoilov, Yu. L. Kalachev, S. A. Kutovoi, V. A. Mikhailov, I. Nuritdinov, and I. A. Shcherbakov 271
-

Photon Crystals

- Reflection Spectra of Composite Photonic Crystals Based on Anodic Alumina Filled with Ferroelectric Sodium Nitrite
P. P. Sverbil and V. S. Gorelik 275
-

Optics of Solutions

- Suspension Dynamics in an Optical Field
A. F. Bunkin, V. G. Mikhalevich, S. M. Pershin, and V. N. Streltsov 278
-

Surface Waves in Composite Materials

- Dispersion and Attenuation Characteristics of Love-Type Waves in a Fiber-Reinforced Composite over a Viscoelastic Substrate
P. Alam, S. Kundu, I. A. Badruddin, and T. M. Y. Khan 281
-

Electromagnetic Measurement Technology

- Limitations on Currents in Cylindrical Drift Tubes of Millimeter-Wave Vacuum Electronic Devices
V. E. Rodyakin, V. M. Pikunov, and V. N. Aksenov 290

Usage and Experimental Tests of the Modified Waveguide Method for Measurement of the Complex Permittivity and Permeability of Materials

M. P. Parkhomenko, D. S. Kalenov, I. S. Eremin, N. A. Fedoseev, V. M. Kolesnikova, and Yu. L. Barinov

299

Materials for High-Temperature Superconductivity

Modification of a Second-Generation HTS Tape Based on GdBCO(123) under Pulsed Electron Beam Irradiation

I. M. Minaev, A. V. Troitskii, A. V. Ponomarev, I. V. Anishchenko, S. V. Pokrovskii, I. A. Rudnev, and G. N. Mikhailova

307

Underwater Acoustics

Intense Internal Waves and Their Manifestation in the Interference Patterns of Received Signals on Oceanic Shelf. Part II

M. Badiy, V. M. Kuz'kin, G. A. Lyakhov, S. A. Pereselkov, D. Yu. Prosovetskiy, and S. A. Tkachenko

313

Optical Therapies

Analysis of Phototherapy Effectiveness Using Thermography

Ya. A. Zakharchenko, L. V. Zhorina, and G. N. Zmievskey

320

Nonlinear Surface Waves in a Liquid

Generation of Vortices by Nonlinear Waves on the Surface of a Viscous Liquid

S. V. Filatov, A. A. Levchenko, and L. P. Mezhev-Deglin

327
