

# LASER AND PARTICLE BEAMS

Pulse Power, High Energy Densities, Hot Dense Matter, and Warm Dense Matter

Volume 37

December 2019

Number 4

## CONTENTS

- |  |     |   |
|--|-----|---|
| J. R. HARRIS   | 312 | Transport of intense beams with current-dependent initial conditions in linearly tapered solenoid channels  |
| YUTA ISHIKAWA, JUN HASEGAWA AND KAZUHIKO HORIOKA   | 324 | Mass separated particle flux from a laser-ablation metal cluster source   |
| S. PAYUN AND B. MALEKYNIA  | 332 | Thermal resonance effect by a strong shock wave in D–T fuel side-on ignition by laser-driven block acceleration   |
| NARENDER KUMAR, RAM KISHOR SINGH, R. UMA AND R. P. SHARMA  | 341 | Magnetosonic wave-aided terahertz emission by nonlinear mixing of lasers in plasmas   |
| D. SANGWAN, O. CULFA, C.P. RIDGERS, S. AOGAKI, D. STUTMAN AND B. DIACONESCU                        | 346 | Simulations of carbon ion acceleration by 10 PW laser pulses on ELI-NP  |
| A. MORABITO, M. SCISCIO, S. VELTRI, M. MIGLIORATI AND P. ANTICI                                    | 354 | Design and optimization of a laser-PIXE beamline for material science applications  |
| N. YU. ORLOV   | 364 | Temperature diagnostics for Z-pinch plasma in dependence on compression degree  |
| INDRANI PAUL, ARKOJYOTHI CHATTERJEE AND SAILENDRA NATH PAUL  | 370 | Nonlinear propagation of ion acoustic waves in quantum plasma in the presence of an ion beam  |
| SONI SHARMA AND A. VIJAY   | 381 | Nonlinear laser absorption over a dielectric embedded with nanorods   |
| SOON-KWON NAM AND YUNSEONG PARK  | 386 | Effects of waveguides on a free-electron laser with two electron beams  |
| DENIS ALEXANDER WISNIEWSKI AND MARK PRELAS   | 392 | Transport model for a transverse electron beam-pumped semiconductor laser   |
| A. BARTNIK, H. FIEDOROWICZ, P. WACHULAK AND T. FOK   | 400 | Time-resolved studies of low-temperature, EUV-induced plasmas: EUV emission in selected spectral ranges   |
| FALUN SONG, BEIZHEN ZHANG, CHUNXIA LI, FEI LI, GANPING WANG, HAITAO GONG, YANQING GAN AND XIAO JIN | 408 | Development and testing of a three-section pulse-forming network and its application to Marx circuit  |
| GUNJAN PUROHIT, VINOD RAWAT AND PRIYANKA RAWAT   | 415 | Generation of terahertz radiation from beating of two intense cosh-Gaussian laser beams in magnetized plasma  |
| MOHAMMAD GHORBANALILU AND NASIM NOZARNEJAD   | 428 | Direct electron acceleration with a linearly polarized laser beam in a two-dimensional magnetized plasma channel  |
| MUNISH AGGARWAL, VIMMY GOYAL, RICHA KASHYAP, HARISH KUMAR AND TARSEM SINGH GILL                    | 435 | Effects of plasma electron temperature and magnetic field on the propagation dynamics of Gaussian laser beam in weakly relativistic cold quantum plasma |
| NITI KANT, ARVINDER SINGH AND VISHAL THAKUR  | 442 | Second-harmonic generation by a chirped laser pulse with the exponential density ramp profile in the presence of a planar magnetostatic wiggler         |
| LI GUO, MINGQING LIU, RONGHUA LU, SHENSHENG HAN AND JING CHEN                                      | 448 | Analysis of above-threshold ionization by “Wigner-distribution-like function” method  |

Cambridge Core

For further information about this journal please go to the journal website at:  
[cambridge.org/lpb](https://doi.org/10.1017/S0263034619000752)

CAMBRIDGE  
UNIVERSITY PRESS