SHIVANI VIJ, NITI KANT, AND MUNISH AGGARWAL	171	Resonant third harmonic generation in clusters with density ripple: Effect of pulse slippage
B. Touil, A. Bendib, K. Bendib-Kalache, and C. Deutsch	178	Dispersion relation of low-frequency electrostatic waves in plasmas with relativistic electrons
A. Gopal, A. H. Woldegeorgis, S. Herzer, G. G. Paulus, P. Singh, W. Ziegler, and T. May	187	Smith–Purcell radiation in the terahertz regime using charged particle beams from laser–matter interactions

LASER AND PARTICLE BEAMS

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

Volume 34

March 2016

Number 1

CONTENTS

ARVINDER SINGH AND NAVEEN GUPTA	1	Second-harmonic generation by relativistic self-focusing of cosh-Gaussian laser beam in underdense plasma
K. Kolacek, J. Schmidt, J. Straus, O. Frolov, V. Prukner, R. Melich, and P. Psota	11	Spontaneous and artificial direct nanostructuring of solid surface by extreme ultraviolet laser with nanosecond pulses
VICTOR F. TARASENKO, IGOR' D. KOSTYRYA, AND DMITRY V. BELOPLOTOV	23	Backward runaway electrons in a subnanosecond air discharge at atmospheric pressure
Z. Lécz, A. Andreev, and A. Seryi	31	Plasma rotation with circularly polarized laser pulse
CHENG ZHANG, JIANWEI GU, RUEXUE WANG, HAO MA, PING YAN, AND TAO SHAO	43	Simulation of runaway electron inception and breakdown in nanosecond pulse gas discharges
Anuraj Panwar, Chang-Mo Ryu, and Ashok Kumar	53	Modulational instability of a laser pulse in a non-uniform plasma channel
C. DEUTSCH, H.B. NERSISYAN, AND A. BENDIB	61	Diagnosing dense and magnetized plasmas irradiated by a petawatt laser
Yulei Wang, Xuehua Zhu, Zhiwei Lu, and Hengkang Zhang	72	Self-pumped SBS effect of high-power super-Gaussian-shaped laser pulses
Alireza Paknezhad	80	Effect of dc-magnetic field on the growth rate of Raman backscattering of <i>X</i> -mode laser in magnetized collisional plasma
Saba Hussain, Ram Kishor Singh, and R. P. Sharma	86	Strong terahertz field generation by relativistic self-focusing of hollow Gaussian laser beam in magnetoplasma
T. Pisarczyk, S.Yu. Gus'kov, O. Renner, R. Dudzak, J. Dostal, N.N. Demchenko, M. Smid, T. Chodukowski, Z. Kalinowska, M. Rosinski, P. Parys, J. Badziak, D. Batani, S. Borodziuk, L. A. Gizzi, E. Krousky, Y. Maheut, G. Cristoforetti, L. Antonelli, P. Koester, F. Baffigi, J. Ullschmied, J. Hrebicek, T. Medrik, M. Pfeifer, J. Skala, and P. Pisarczyk	94	Short-wavelength experiments on laser pulse interaction with extended pre-plasma at the PALS-installation
ROHTASH SINGH AND V. K. TRIPATHI	109	Laser excitation of terahertz surface plasma wave over a hollow capillary plasma
N. E. Andreev, L. P. Pugachev, M. E. Povarnitsyn, and P. R. Levashov	115	Electron acceleration at grazing incidence of a subpicosecond intense laser pulse onto a plane solid target
Stjepan Lugomer	123	Laser-matter interactions: Inhomogeneous Richtmyer-Meshkov and Rayleigh-Taylor instabilities
Wu Shenjiang, Li Dangjuan, and Su Junhong	137	Laser-induced diamond-like carbon film under different electric field directions
M. Polek and A. Hassanein	143	Dependence of silicon ablation regimes on fluence during ultrafast laser irradiation
Dan Cai, Lie Liu, Jinchuan Ju, Xuelong Zhao, Hongyu Zhou, and Xiao Wang	151	Characterization of a short-pulse high-power diode operated with anode effects
V. Sizyuk and A. Hassanein	163	The effects of using axial magnetic field in extreme ultraviolet photon sources for papolithography – recent integrated simulation

Cambridge Journals Online
For further information about this journal please
go to the journal website at:
journals.cambridge.org/lpb

