

ALEXANDRU POPA	477	Accurate calculation of radiation damping parameters in the interaction between very intense laser beams and relativistic electron beams
Y.F. KANG, J. ZHAO, J.Y. ZHAO, AND T.T. TANG	487	A novel numerical calculation method for electron guns
ASHOK KUMAR, DEEPAK DAHIYA, AND V. K. TRIPATHI	495	Laser driven electron acceleration in a CNT embedded gas jet target
MENDYKHAN U. KHASENOV	501	Mechanisms of level population in gas lasers pumped by ionizing radiation

LASER AND PARTICLE BEAMS

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

Volume 32

September 2014

Number 3

CONTENTS

- TING SI, ZHIGANG ZHAI, AND XISHENG LUO **343** Experimental study of Richtmyer-Meshkov instability in a cylindrical converging shock tube
- A. HASANBEIGI, S. MOGHANI, AND H. MEHDIAN **353** Linear theory of quantum two-stream instability in a magnetized plasma with a transverse wiggler magnetic field
- SATCHI KUMARI AND ALIKA KHARE **359** Langmuir probe studies of laser ablated ruby plasma and correlation with pulsed laser deposited ruby thin film properties
- H. YUAN, Z.W. LU, Y.L. WANG, Z.X. ZHENG, AND Y. CHEN **369** Hundred picoseconds laser pulse amplification based on scalable two-cells Brillouin amplifier
- PRATEEK VARSHNETY, VIVEK SAJAL, PRASHANT CHAUHAN, RAVINDRA KUMAR, AND NAVNEET K. SHARMA **375** Effects of transverse static electric field on terahertz radiation generation by beating of two transversely modulated Gaussian laser beams in a plasma
- L. TORRISI **383** Ion energy enhancement from TNSA plasmas obtained from advanced targets
- DJEMAI BARA, MOURAD DJEBLI, AND DJAMILA BENNACEUR-DOUMAZ **391** Combined effects of electronic trapping and non-thermal electrons on the expansion of laser produced plasma into vacuum
- MOHAMMAD GHORBANALILU, ELAHE ABDOLLAHZADEH, AND S.H. EBRAHIMNAZHAD RAHBARI **399** Particle-in-cell simulation of two stream instability in the non-extensive statistics
- P. LALOUSIS, H. HORA, AND S. MOUSTAIZIS **409** Optimized boron fusion with magnetic trapping by laser driven plasma block initiation at nonlinear forced driven ultrahigh acceleration
- A.M. EFREMOV, V.I. KOSHELEV, B.M. KOVALCHUK, V.V. PLISKO, AND K.N. SUKHUSHIN **413** Generation and radiation of ultra-wideband electromagnetic pulses with high stability and effective potential
- J.J. HONRUBIA, J.C. FERNÁNDEZ, B.M. HEGELICH, M. MURAKAMI, AND C.D. ENRIQUEZ **419** Fast ignition driven by quasi-monoenergetic ions: Optimal ion type and reduction of ignition energies with an ion beam array
- ARUN KUMAR PANDA, AKASH SINGH, MANEESHA MISHRA, R. THIRUMURUGESAN, P. KUPPUSAMI, AND E. MOHANDAS **429** Plasma plume behavior of laser ablated cerium oxide: Effect of oxygen partial pressure
- SHEN ZHAO, XINLEI ZHU, RAN ZHANG, HAIYUN LUO, XIAOBING ZOU, AND XINXIN WANG **437** Current division between two paralleled X-pinchs
- DAN CAI, LIE LIU, JINCHUAN JU, XUELONG ZHAO, AND YONGFENG QIU **443** Observation of a U-like shaped velocity evolution of plasma expansion during a high-power diode operation
- D.N. GUPTA, K. GOPAL, I.H. NAM, V.V. KULAGIN, AND H. SUK **449** Laser wakefield acceleration of electrons from a density-modulated plasma
- R.J. CLARKE, S. DORKINGS, R. HEATHCOTE, K. MARKEY, AND D. NEELY **455** Proton activation history on the Vulcan high-intensity petawatt laser facility
- P.A.P. NGHIEM, N. CHAUVIN, M. COMUNIAN, C. OLIVER, AND D. URIOT **461** A catalogue of losses for a high power, high intensity accelerator
- A.V. KHARLOV, B.M. KOVALCHUK, E.V. KUMPYAK, G.V. SMORUDOV, AND N.V. TSOY **471** Physical constraints at design of a high current inductor

continued in inside back cover

Cambridge Journals Online

For further information about this journal please go to the journal website at:

journals.cambridge.org/lpb

CAMBRIDGE
UNIVERSITY PRESS