

26th Summer School and International Symposium on the Physics of Ionized Gases

(SPIG 2012)

Journal of Physics: Conference Series Volume 399

**Zrenjanin, Serbia
27-31 August 2012**

**ISBN: 978-1-62276-865-3
ISSN: 1742-6588**

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2012) by the Institute of Physics
All rights reserved.

Printed by Curran Associates, Inc. (2013)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

ATOMIC COLLISION PROCESSES

012001 Plasma-Wall Interactions in the Cesium SNS H⁻ Ion Source	1
<i>Martin P. Stockli</i>	
012002 Photoionization of Atomic and Molecular Positively Charged Ions	11
<i>J. M. Bizau, D. Cubaynes, M. M. Al Shorman, S. Guilbaud, C. Blanckard, J. Lemaire, R. Thissen, A. Giuliani, C. Nicolas, A. R. Milosavljevic</i>	
012003 vibrationally Inelastic Collisions of Slow Electrons with Polyatomic Molecules	17
<i>R. Curić, P. Carsky</i>	
012004 Measurements of Differential Cross Sections for Elastic Electron Scattering and Electronic Excitation of Silver and Lead Atoms.....	24
<i>S. D. Tasic</i>	

PARTICLE AND LASER BEAM INTERACTIONS WITH SOLIDS

012005 Preliminary Results from Recent Experiments and Future Roadmap to Shock Ignition of Fusion Targets.....	32
<i>D. Batani, G. Malka, G. Schurtz, X. Ribeyre, E. Lebel, L. Giuffrida, V. Tikhonchuk, L. Volpe, A. Patria, P. Koester, L. Labate, L. A. Gizzi, L. Antonelli, M. Richetta, J. Nejdl, M. Sawicka, D. Margarone, M. Krus, E. Krouský, J. Skala, R. Dudzak</i>	
012006 Properties of Plasmas Produced by Short Double Pulse Laser Ablation of Metals.....	40
<i>J. Hermann, L. Mercadier, E. Axente, S. Noel</i>	
012007 Application of keV and MeV Ion Microbeams Through Tapered Glass Capillaries	52
<i>T. Ikeda, T. M. Kojima, T. Kobayashi, W. Meissl, V. Mackel, Y. Kanai, Y. Yamazaki</i>	
012008 The Non-Resonant Neutralization Dynamics of the Multiply Charged Rydberg Ions Escaping Solid Surfaces.....	61
<i>S. M. D. Galijas, N. N. Nedeljkovic, M. D. Majkic</i>	
012009 Intermediate Stages of the Neutralization of Multiply Charged Ions Interacting with Solid Surfaces	68
<i>M. D. Majkic, N. N. Nedeljkovic, S. M. D. Galijas</i>	
012010 Electron Emission from a Metal Nano-Tip by Ultrashort Laser Pulses.....	75
<i>G. Wachter, C. Lemell, J. Burgdorfer</i>	

LOW TEMPERATURE PLASMAS

012011 Modeling of Plasma and Plasma-Surface Interactions for Medical, Environmental and Nano Applications.....	82
<i>A. Bogaerts, R. Aerts, R. Snoeckx, W. Somers, W. Van Gaens, M. Yusupov, E. Neyts</i>	
012012 Experimental Transition Probability Measurements in Pulsed Lamps: Critical Points.....	94
<i>Juan A. Aparicio, Maria T. Belmonte, Ramon J. Pelaez, Stevica Djurović, Santiago Mar</i>	
012013 Cathode Sheath and Hydrogen Balmer Lines Modelling in a Micro-Hollow Gas Discharge.....	102
<i>Dj Spasojevic</i>	
012014 Physico-Chemistry of Planetary Atmospheric Entry Plasmas	112
<i>Arnaud Bultel, Julien Annaloro, Vincent Morel</i>	
012015 Diagnostics and Biomedical Applications of Radiofrequency Plasmas	121
<i>Sasa Lazovic</i>	
012016 Near-threshold Photoelectron Angular Distributions from Two-Photon Resonant Ionisation of He and Ne Atoms	128
<i>A. Mihelic, M. Zitnik, P. O'Keeffe, P. Bolognesi, A. Moise, R. Richter, L. Avaldi</i>	
012017 Breakdown and Discharge Regimes in Standard and Micrometer Size DC Discharges.....	135
<i>N. Skoro</i>	

GENERAL PLASMAS

012018 On the Role of Electron-Driven Processes in Planetary and Cometary Atmospheres	143
<i>Laurence Campbell, Oddur Ingolfsson, Michael J. Brunger</i>	
012019 Plasma Spectroscopy in the Conditions of the ITER Tokamak	153
<i>J. Rosato, Y. Marandet, V. Kotov, D. Reiter, H. Capes, L. Godbert-Mouret, M. Koubiti, R. Hammami, R. Stamm</i>	
012020 Gyrokinetic Simulation Studies for Non-Axisymmetric Plasma Confinement: Turbulent Transport and Entropy Transfer	161
<i>T. H. Watanabe, H. Sugama, M. Nunami, M. Nakata</i>	
012021 The Structure of the Si IV Region in Be Stars: A Study of Si IV Spectral Lines in Be 68 Stars	171
<i>A. Antoniou, E. Danezis, E. Lyratzi, D. Stathopoulos</i>	
012022 Stellar Population in the Sample of Type 2 Active Galactic Nuclei	178
<i>Natasa Gavrilovic Bon, Edi Bon, Luka C. Popovic</i>	
012023 The Properties of Emission Lines and Their Correlations in Spectra of Active Galactic Nuclei	184
<i>Jelena Kovacevic, Luka C. Popovic</i>	
012024 Laboratory Studies of Charging Properities of Dust Grains in Astrophysical/Planetary Environments	190
<i>D. Tankosic, M.M. Abbas</i>	
Author Index	