Prologue

New Year Address

OGAWA Yuichi

Special Topic Articles

Ion Acceleration with Intense Laser Light and its Application

1. Introduction

KONDO Kiminori

2. Laser-Driven Ion Acceleration with Thin-Foil Target

NISHIUCHI Mamiko

3. Laser-Driven Ion Acceleration using Near-Critical Density Plasmas

3.1 Laser-Driven Ion Acceleration using Cluster Targets

FUKUDA Yuji

3.2 Magnetic Vortex Ion Acceleration

NAKAMURA Tatsufumi

4. Laser-Driven Ion Acceleration in the Radiation Pressure Dominated Regime

BULANOV Sergei V.

5. Laser-Driven Proton Beams Applied to Radiobiological Experiments

YOGO Akifumi

6. Summary

KONDO Kiminori

Lecture Note

Construction and Use of Atomic and Molecular Databases

1. Introduction — Overview of Atomic and Molecular Databases and their Applications for Plasma Research

MURAKAMI Izumi, OSAKABE Masaki, IKEDA Katsunori, NISHIURA Masaki,
ODA Akinori, SUGAWARA Hirotake and HAMAGUCHI Satoshi

2. Basic Knowledge of Atomic and Molecular Data

KATO Daiji

Information

Plasma & Fusion Calendar

The JSPF Award for Excellent Presentation by Young Scientist

PFR Abstracts

Announcement

Cover

Liquid-cathode atmospheric microdischarges with a helium gas flowing through a nozzle anode, of which inner and outer diameters were 0.5 and 0.8 mm, respectively (Exposure time of 20 ns). (a) DC discharge with the current of 4 mA. (b) Combined DC and pulsed discharges by applying pulsed voltages to the DC discharge. Its peak pulsed current and peak instantaneous power became 13.5 A and 19 kW, respectively. (Jun KIKUCHI et al., Plasma and Fusion Research Vol. 6, 1201154 (2011) http://www.jspfor.jp/PFR/)