

JOURNAL OF PLASMA AND FUSION RESEARCH

The Journal of the Japan Society of Plasma Science and Nuclear Fusion Research
Vol. 83, No.3, March 2007

Commentaries

Development of Beryllides as Advanced Neutron Multipliers for Fusion Blankets	207
..... TSUCHIYA Kunihiko, KAWAMURA Hiroshi, MISHIMA Yoshinao, YOSHIDA Naoaki, TANAKA Satoru, UCHIDA Munenori, ISHIDA Kiyohito, SHIBAYAMA Tamaki, MUNAKATA Kenzo, SATO Yoshiyuki, IWAKIRI Hirotomo and OHNUMA Ikuo	
Ultra-Sensitive Measurement of Sheath Electric Fields by Laser-Induced Fluorescence-Dip Spectroscopy	215
..... CZARNECKI Uwe and SASAKI Koichi	

Lecture Note

Research Guidance to Fast-Flowing Plasmas and Shock Waves	
3. An Introduction to the Computer Simulation of Fast-Flowing Plasmas	228
..... MIYOSHI Takahiro and KUSANO Kanya	

Project Review

Research on Structural Formation and Selection Rules in Turbulent Plasmas	241
..... ITOH Sanae-I.	

Front Runner

Fusion Technology Pioneers New Fields in Space Exploration	
1. Introduction	264
..... NAKASHIMA Hideki	
2. Recent Research and Development of Electric Thrusters and Plasma Technology	265
..... TAHARA Hirokazu	
3. Ground Launch and On-Orbital Applications of Laser Propulsion	271
..... UCHIDA Shigeaki	
4. The Challenge of High Power Plasma Thruster for Manned Space Exploration	276
..... ANDO Akira	
5. The Challenge of Magnetoplasma Sail Propulsion for Deep Space Explorations	281
..... FUNAKI Ikkoh and YAMAKAWA Hiroshi	
6. Development of Fusion Rocket	
6.1 Laser Fusion Rocket	285
..... NAKASHIMA Hideki and KAJIMURA Yoshihiro	
6.2 Magnetic Fusion Rocket	288
..... TOMITA Yukihiko	
6.3 Comparison with the Design Study of Grounded Power Plants	290
..... OKANO Kunihiro	
7. Summary and Future Prospects	293
..... ANDO Akira	

Contributed Paper

Atmospheric Pressure Dependence of the Microwave Rocket's Performance Powered by a High Power Gyrotron	
.... ODA Yasuhisa, KOMURASAKI Kimiya, TAKAHASHI Koji, KASUGAI Atsushi and SAKAMOTO Keishi	296

Series

Let Us Start Parallel Processing Using High Performance Fortran !	
8. Let Us Practice HPF (2)	300
..... HAYASHI Yasuharu	

New Books

New Books	306
-----------	-----

PFR Abstracts

PFR Abstracts	307
---------------	-----

Information

Information	308
-------------	-----

Announcement

Announcement	313
--------------	-----

Plasma & Fusion Calendar	314
--------------------------	-----

Published Monthly by

The Japan Society of Plasma Science and Nuclear Fusion Research

3-1-1, Uchiyama, Chikusa-ku, Nagoya 464-0075, Japan

Tel 052-735-3185, Fax 052-735-3485, E-mail: plasma@jspd.or.jp, URL: http://www.jspd.or.jp/