

JOURNAL OF PLASMA AND FUSION RESEARCH

The Journal of the Japan Society of Plasma Science and Nuclear Fusion Research

Vol. 80, No.3, March 2004

Rapid Communications

Full-Wave Maxwell Simulation on R-Mode Tunneling in Electron Cyclotron Resonance Heating Study HOJO Hitoshi, UCHIDA Naoto, SHIMAMURA Akihiro, SAITO Teruo and TATEMATSU Yoshinori	175
Reflectionless Transmission of Electromagnetic Wave in One-Dimensional Multi-Layer Plasmas HOJO Hitoshi, AKIMOTO Kazuhiro and MASE Atsushi	177
Visible Imaging of Edge Fluctuations in Heliotron J NISHINO Nobuhiro, TAKAHASHI Koichi, KAWAZOME Hayato, FUKAGAWA Yohei, MIZUUCHI Tooru, KONDO Katsumi, SANO Fumimichi, NAGASAKI Kazunobu, OKADA Hiroyuki, KOBAYASHI Shinji and YAMAMOTO Satoshi	179

Special Topic Article

Recent Progress of Boundary Plasma Research

1. Preface ASAKURA Nobuyuki	181
2. An Introduction to Boundary Plasma Physics SHIMIZU Katsuhiko and TAKIZUKA Tomonori	183
3. Recent Progress of SOL and Divertor Plasma Studies in Tokamaks ASAKURA Nobuyuki	190
4. Recent Progress of Boundary and Divertor Plasma Studies in Helical Devices MASUZAKI Suguru and OHYABU Nobuyoshi	201
5. Recent Progress of Boundary Plasma Modeling in Tokamak HATAYAMA Akiyoshi	205
6. Recent Results in Divertor Plasma Simulators OHNO Noriyasu	212
7. Recent Studies of Plasma-Material-Interaction in Tokamak Experiments UEDA Yoshio	217
8. Progress of Boundary Plasma Investigation toward ITER SHIMADA Michiya	222

Lecture Note

Multiscale Modeling of Fusion Materials Behavior under Irradiation

1. Theory and Modeling of Radiation Damage Processes in Materials SEKIMURA Naoto, MORISHITA Kazunori, KURAMOTO Eiichi, SONEDA Naoki, OKITA Taira and HIRATANI Masato	228
---	-----

Contributed Papers

Development of a Laser-Pumped X-Ray Laser with Full Spatial Coherence

... NAGASHIMA Keisuke, TANAKA Momoko, NISHIKINO Masaharu, KISHIMOTO Maki, KADO Masataka, KAWACHI Tetsuya, HASEGAWA Noboru, OCHI Yoshihiro, SUKEGAWA Kota and TAI Renzhong	236
--	-----

Operating Parameters of a Reactor for Early Demonstration of Electric Power Generation and the Expansion by Realization of Advanced Tokamak Plasma

..... OKANO Kunihiro, ASAOKA Yoshiyuki and HIWATARI Ryoji	241
---	-----

Experimental and Theoretical Research about a Scenario to Produce High-Beta Spherical Tokamak by Merging Method

..... KIMURA Toshio, MIYAZAKI Satoru, UEDA Yoshinobu and ONO Yasushi	249
--	-----

Opinion

Prospects for the Future Nuclear Fusion Research	256
--	-----

Introduction of Research Group

Plasma and Pulse Power Laboratory, Iwate University	262
---	-----

News of Related Fields	263
------------------------------	-----

Plasma and Fusion Calendar	264
----------------------------------	-----

Announcement	266
--------------------	-----

List of Newly Arrived Publications, NIFS	270
--	-----

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:jspf@nifs.ac.jp, URL:http://jspf.nifs.ac.jp/