

JOURNAL OF PLASMA AND FUSION RESEARCH

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

Vol. 85, No.5, May 2009

Commentary

Plasma Transport in Stochastic Magnetic Boundary KOBAYASHI Masahiro and MASUZAKI Suguru 221

Lecture Note

Nonlinear Optical Crystals and their Application to Plasma Science

1.1 Preface KIRIYAMA Hiromitsu 237

1.2 Basis of Harmonic Generation in Nonlinear Optical Crystal YOSHIMURA Masashi and MORI Yusuke 239

1.3 Nonlinear Optical Crystal for Frequency Conversion in Broad Frequency Range
..... YOSHIMURA Masashi and MORI Yusuke 243

Project Review

Japan-US Joint Research Project JUPITER-II

1. Objectives and Methods of the Project
..... ABE Katsunori, KOHYAMA Akira, TANAKA Satoru and NAMBA Chusei 247

2. Study on Molten-Salt Flibe Systems

2.1 Chemical Behavior of Flibe Molten Salt
..... TERAJ Takayuki, FUKADA Satoshi, HATANO Yuji and OYA Yasuhisa 251

2.2 Thermofluid of Flibe Simulants
..... KUNUGI Tomoaki, SATAKE Shin-ichi, YUKI Kazuhisa and YOKOMINE Takehiko 257

3. Study on Vanadium Alloy-Liquid Lithium Systems MUROGA Takeo, NAGASAKA Takuya,
SUZUKI Akihiro, FUKUMOTO Ken-ichi, SATOU Manabu and WATANABE Hideo 260

4. Study on SiC/SiC Composites -He Coolant Systems
..... HASEGAWA Akira, HINOKI Tatsuya, SHIMIZU Akihiko, SHIBAYAMA Tamaki,
YOKOMINE Takehiko and NOGAMI Shuhei 267

5. Integration Model SAGARA Akio, SEKIMURA Naoto, HASHIZUME Hidetoshi, FUKADA Satoshi,
MORISHITA Kazunori and TANAKA Teruya 276

6. Development of a New Japan-US Project —TITAN Project— MUROGA Takeo and OKUNO Kenji 281

7. Summary ABE Katsunori 283

Research and Technology Note

Innovation in Fusion Technology (1) —Confinement Device—

..... ITOU Yutaka, FURUYAMA Masayuki and OHTA Mitsuru 287

Information 307

Plasma & Fusion Calendar 317

Announcement 319

Cover

The figure shows contour plots of the particle density from numerical simulations of plasma turbulence in the poloidal plane of a tokamak scrape-off layer. Blob-like structures emerge from the ambient turbulence in the edge region and propagate radially outwards from the plasma column. (Odd E. GARCIA, Plasma and Fusion Research Vol.4, 019 (2009) <http://www.jspf.or.jp/PFR/>)