

JOURNAL OF PLASMA AND FUSION RESEARCH

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

Vol. 78, No.2, February 2002

Rapid Communications

Achievement of 10 keV Central Electron Temperatures by ECH in LHDKUBO Shin, SHIMOZUMA Takashi, IDEI Hiroshi, YOSHIMURA Yasuo, NOTAKE Takashi, SATO Motoyasu, OHKUBO Kunizo, KAWAHATA Kazuo, OHYABU Nobuyoshi, KANEKO Osamu, KOMORI Akio, YAMADA Hiroshi, ASHIKAWA Naoko, EMOTO Masahiko, FUNABA Hisamichi, GOTO Motoshi, IDA Katsumi, IKEDA Katsunori, INAGAKI Shigeru, ISOBE Mitsutaka, KHLOPENKOV Konstantin, KOBUCHI Takashi, KUMAZAWA Ryuhei, LIANG Yunfeng, MASUZAKI Suguru, MINAMI Takashi, MIYAZAWA Jyun-ichi, MORISAKI Tomohiro, MORITA Shigeru, MURAKAMI Sadayoshi, MUTO Sadatsugu, MUTOH Takashi, NAGAYAMA Yoshio, NAKAMURA Yukio, NAKANISHI Hideya, NARIHARA Kazumichi, NARUSHIMA Yoshiro, NISHIMURA Kiyohiko, NODA Nobuaki, OHDACHI Satoshi, OKA Yoshihide, OSAKABE Masaki, OZAKI Tetsu, PETERSON Byron J., SAGARA Akio, SAITO Kenji, SAKAKIBARA Satoru, SAKAMOTO Ryuichi, SASAO Mamiko, SEKI Tetsuo, SHOJI Mamoru, SUDO Shigeru, SUZUKI Hajime, TAKEIRI Yasuhiko, TAKEUCHI Norio, TAMURA Naoki, TANAKA Kenji, TOI Kazuo, TOKUZAWA Tokihiko, TORII Yuki, TSUMORI Katsuyoshi, WATANABE Kiyomasa, WATANABE Tsuguhiko, WATARI Tetsuo, YAMADA Ichihiko, YAMAMOTO Satoshi, YAMAMOTO Taro, YAMAZAKI Kozo, YOKOYAMA Masayuki, YOSHINUMA Mikiro and MOTOJIMA Osamu	99
---	----

Commentary

Calculations of Opacity for Partially Ionized Atoms	YAMADA Shoichi	101
---	----------------	-----

Special Topic Article

Technical Issues on the Control of Plasma-Wall Interactions in Steady-State Magnetic Fusion Devices		
1. Introduction	HIROOKA Yoshi	110
2. Plasma Wall Interactions Database and Related Computer Codes		
2.1 Modeling of Hydrogen Isotope Recycling from Graphite, and the Data Needs for Diffusion and Recombination Coefficients	MORITA Kenji and MATSUHIRO Kenjiro	112
2.2 Database on Hydrogen Isotope Retention in Plasma-Facing Materials	IWAKIRI Hirotomo and HIROOKA Yoshi	117
2.3 Computer Simulation of Combined Effects of Diffusion and Erosion	ONO Tadayoshi and YAMAMURA Yasunori	122
2.4 EDDY Code Development and Its Application for Plasma-Wall Interactions in TEXTOR	OHYA Kaoru	125
3. Innovative Concepts for Plasma-Facing Components		
3.1 Moving Solid Surface Plasma-Facing Components	NISHIKAWA Masahiro	129
3.2 A New Cooling Concept of Free Surface Flow Balanced with Surface Tension	KUNUGI Tomoaki and SAGARA Akio	133
3.3 Proof-of-Principle Experiments on the Selected Concepts of Moving-Surface Plasma-Facing Components	MATSUHIRO Kenjiro and HIROOKA Yoshi	137

Lecture Note

Computers as Research Tools		
1. Introduction	OKUMURA Haruhiko	143
2. Data Processing and Visualization	MATSUDA Namio	144
3. e-Papers and e-Prints: PDF, Post Script, LaTeX, and all that	OKUMURA Haruhiko	155

Contributed Paper

Design of Quasi-Axisymmetric Stellarator CHS-qaOKAMURA Shoichi, MATSUOKA Keisuke, NISHIMURA Shin, ISOBE Mitsutaka, SUZUKI Chihiro, SHIMIZU Akihiro, NOMURA Izumi, IDA Katsumi, FUJISAWA Akihiko, MURAKAMI Sadayoshi, NAKAJIMA Noriyoshi and YOKOYAMA Masayuki	166
--	-----

Introduction of Research Group

Department of Engineering and Technical Services, National Institute for Fusion Science	180
---	-----

New Books

.....	182
-------	-----

News of Related Fields

.....	183
-------	-----

Plasma and Fusion Calendar

.....	185
-------	-----

Announcement

.....	187
-------	-----

Published Monthly by

The Japan Society of Plasma Science and Nuclear Fusion Research

2-20-20, Nishiki, Naka-ku, Nagoya 460-0003, Japan

Tel 052-231-4535, Fax 052-231-7557, E-mail:jpspf@nifs.ac.jp, URL:http://jpspf.nifs.ac.jp/