

JOURNAL OF PLASMA AND FUSION RESEARCH

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

Vol. 84, No.9, September 2008

Commentary

- Atomic-Scale Understanding of Tritium Behavior in Solid Breeding Materials
..... ODA Takuji, OYA Yasuhisa and TANAKA Satoru 563

Lecture Note

- Radiation Damage on Fusion Reactor Materials
6. Radiation Damage on Recent Fusion Reactor Candidate Materials
..... WAKAI Eiichi, MUROGA Takeo and HASEGAWA Akira 571

Lecture Note

- Particle Acceleration Caused by Collisionless Shock Waves
1. Overview of Cosmic Rays and Nonlinear Magnetosonic Waves OHSAWA Yukiharu 583
2. Ultrarelativistic Acceleration of Trapped Electrons OHSAWA Yukiharu 589

Contributed Paper

- Present Status of Investigations on ITER Neutron Streaming
..... OCHIAI Kentaro, IIDA Hiromasa, SATO Satoshi, TAKAKURA Kosuke and KONNO Chikara 594

Review Paper

- Experimental Study on IFMIF Liquid Lithium Target Flow
..... KONDO Hiroo, KANEMURA Takuji, KO Kaduhira, YAMAOKA Nobuo, MIYAMOTO Seiji,
IDA Mizuho, NAKAMURA Hiroo, MATSUSHITA Izuru, MUROGA Takeo and HORIIKE Hiroshi 600

Information 606

Plasma & Fusion Calendar 613

Announcement 615

Cover

Main part of TRAPSE test facility (a, b) and principle of the test (c). Superconducting cables located in effective magnetic field of 50 mm in diameter, are tested under a comparative condition to DEMO, i.e. 15 T in magnetic field, 10 kA in current (500 kA in ITER conductor corresponding value), and 40 MPa in maximum compressive stress. Cables were reinforced by ice (d), whose thermal conductivity is as high as diamond at cryogenic temperature, and the effectiveness was proven in this study, demonstrating no degradation under 40 MPa in stress. (Kazutaka SEO *et al.*, Plasma and Fusion Research Vol.3, 042 (2008). <http://www.jspf.or.jp/PFR/>)



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@jspf.or.jp, URL: <http://www.jspf.or.jp/>