

# JOURNAL OF PLASMA AND FUSION RESEARCH

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

Vol. 89, No.7, July 2013

<b>Inaugural Address</b> .....	NINOMIYA Hiromasa	443
<b>Front Runner</b>		
Progress of 28 GHz Range High Power Gyrotron for the New Research Development from the Bi-Directional Collaboration Research ..... IMAI Tsuyoshi, KARIYA Tsuyoshi, MINAMI Ryutaro, IDEI Hiroshi, ZUSHI Hideki, NAGASAKI Kazunobu, SANO Fumimichi, KANEKO Osamu and HINO Tomoaki		445
<b>Contributed Papers</b>		
Experimental Verification of Entropy Cascade Induced by Nonlinear Phase-Mixing in Two-Dimensional Electrostatic Turbulence in Magnetized Plasma .....	KAWAMORI Eiichirou	451
<b>Contributed Papers</b>		
Enhancement of Energy Coupling Efficiency in Fast-Ignition Laser Fusion by Electron Beam Guiding with Self-Generated Magnetic Field ... JOHZAKI Tomoyuki, SUNAHARA Atsushi, NAGATOMO Hideo, SAKAGAMI Hitoshi, FUJIOKA Shinsuke, SHIRAGA Hiroyuki and MIMA Kunioki		456
<b>Special Topic Articles</b>		
Status of Remote Experiments for ITER		
1. Introduction .....	OZEKI Takahisa	462
2. Status of Remote Experiments in Fusion Reactor, Issues and Plans		
2.1 Remote Experiments in JT-60U .....	ISAYAMA Akihiko	464
2.2 Remote Participations for LHD and Other Experiments at Universities ..... NAKANISHI Hideya, HASEGAWA Makoto and YOSHIKAWA Masayuki		468
3. Technologies for High-Speed Data Transfer and Remote Experiments' Data Analyses ..... YAMAMOTO Takashi, EMOTO Masahiko and NAKANISHI Hideya		474
4. Role of Simulation in Remote Experiments .....	FUKUYAMA Atsushi	479
5. Present Status and Future Prospects of Visual Communication Systems .....	TAN Yasuo	482
6. BA Remote Experimentation Center and Remote Experiments in ITER ..... OZEKI Takahisa and YONEKAWA Izuru		487
<b>Lecture Note</b>		
Material Property and Simulation Methods Applicable to Laser Produced Plasmas in the New Density and Temperature Region		
4. Laser Ablation: From the Viewpoint of Solid State Physics .....	TOMITA Takuro	493
5. Numerical Simulation of Laser Processing ..... YAMADA Tomonori, YAMASHITA Susumu, SUGIHARA Kenta and MURAMATSU Toshiharu		500
<b>PFR Abstracts</b> .....		507
<b>Information</b> .....		509
<b>Plasma &amp; Fusion Calendar</b> .....		513
<b>Announcement</b> .....		515

## Cover

(a) Temporal evolution of the returned laser power by the corner cube mirror in LHD during Ne and H glow discharge cleanings. Since the shutter was opened only when the power was measured, the envelope shown in broken line and circles indicate the temporal evolution. (b) Three mirrors making up the corner cube mirror after the 15th experimental campaign. Impurity (mainly carbon) deposits on the mirror surface and reduces the reflectivity. (Tsuyoshi AKIYAMA *et al.*, Plasma and Fusion Research Vol.8, 1402092 (2013) <http://www.jspf.or.jp/PFR/>)