JOURNAL OF PLASMA AND FUSION RESEARCH

The Journal of the Japan Society of Plasma Science and Nuclear Fusion Research
Vol. 86, No.2, February 2010

Special Topic Article
Recent Progress of Ion Heat Transport Study on LHD

1. Introduction .......................................................... NAGAOKA Kenichi 69
2. Improvement of Ion Heat Transport on LHD .................. NAGAOKA Kenichi and YOKOYAMA Masayuki 71
3. Observations of Spontaneous Toroidal Flow and Impurity Hole on LHD ............... YOSHINUMA Mikirou 78
4. Comparison with an Internal Transport Barrier (ITB) in Tokamaks ..................... IDA Katsumi 86
5. Prospects on High-Ion-Temperature Plasmas in the LHD .......... YOKOYAMA Masayuki and TAKEIRI Masahiko 94

Lecture Note
R&D Activities for 30 Years on Handling Technology of a Large Amount of Tritium and Future Subjects


Research and Technology Note
Development of High-Power Microwave Tubes for Fusion Experimental Devices ............ HAYASHI Kenichi 104

PFR Abstracts ................................................................. 122
Information ........................................................................ 123
Plasma & Fusion Calendar .................................................. 132
Announcement .................................................................... 134

Cover
SEM pictures of carbon dust observed on the graphite target irradiated by Ar/H$_2$/N$_2$ plasmas at different N$_2$ injection ratio to hydrogen. The injection of a small amount of nitrogen gas led to significant suppression of carbon dust formation on the graphite surface. With increasing N$_2$ injection ratio, the carbon dust shape changes into polyhedral particles at an N$_2$ content of 0.3 $\sim$ 0.7% and clusters made of smaller particles at an N$_2$ content $\sim$ 2%. (Masaaki KYO et al., Plasma and Fusion Research Vol.5, 004 (2010) http://www.jspor.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 052-735-3483, E-mail plasma@jspor.jp, URL http://www.jspor.jp/