

JOURNAL OF PLASMA AND FUSION RESEARCH

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

Vol. 85, No.7, July 2009

Inaugural Address	MOTOJIMA Osamu	419
Special Topic Article		
Tritium Distribution in the Environment and Transfer Model of Tritium Released from Nuclear Facilities		
1. Introduction	MOMOSHIMA Noriyuki	421
2. Recent Status and Distribution of Environmental Tritium		
2.1 History of Atmospheric Tritium Concentrations and Measurement of Tritiated Water Vapor, Hydrogen and Methane Gases	UDA Tatsuhiko and TANAKA Masahiro	423
2.2 Tritium in Rain	MOMOSHIMA Noriyuki	426
2.3 Distribution of Tritium in River Water	SUGIHARA Shinji	429
2.4 Groundwater Dating by Using Environmental Tritium	SHIMADA Jun	431
2.5 Groundwater Dating by the Tritium and Helium-3 Method and Its Application	MAHARA Yasunori and OHTA Tomoko	434
3. Transfer Models of Tritium in the Environment		
3.1 Estimation of Tritium Concentration in River Water by Using a Simple Model	TAKAHASHI Tomoyuki and YAMANISHI Hirokuni	437
3.2 Transfer Model of Tritium in the Drainage System of the River Basin	MIYAMOTO Kiriko	441
3.3 Parameters Useful for the Analysis of Water Movement Except for Tritium	AMANO Hikaru	444
3.4 A Validation Study of Transfer Model for Tritium Released from Local Sources in Japan	INOUE Yoshikazu	446
Lecture Note		
Nonlinear Optical Crystals and their Application to Plasma Science		
3.1 Control of Rayleigh-Taylor Instability Using Cocktail Color Laser Irradiation	SHIGEMORI Keisuke and OHTANI Kazuto	452
3.2 Generation of High Intensity, High Contrast Laser Pulses and its Applications to Laser-Driven Ion Acceleration	OKADA Hajime, KIRIYAMA Hiromitsu, MORI Michiaki, NAKAI Yoshiki, SHIMOMURA Takuya, TANOUE Manabu, KONDOH Shuji, KANAZAWA Shuhei, DAITO Izuru, DAIDO Hiroyuki, KIMURA Toyoaki and TAJIMA Toshiki	456
3.3 Concluding Remarks	KIRIYAMA Hiromitsu	460
Saloon		
Fusion Education in the European Union	VAN OOST Guido	463
PFR Abstracts		468
Information		470
Plasma & Fusion Calendar		476
Announcement		478

Cover

Magnetic structure of magnetic reconnection investigated by three-dimensional electromagnetic Particle Simulation code for Magnetic reconnection in an Open system (PASMO). We compare the results of short (top) and long (bottom)-simulation boxes to check whether the open boundary condition fulfills its function. The results of the short -simulation box effectively mimic those of the long -simulation box. Color isolines on top plane show the magnetic flux ϕ , and isosurfaces and color contours on the bottom plane show $B_x^2 + B_y^2$. (Hiroaki OHTANI and Ritoku HORIUCHI, Plasma and Fusion Research Vol.4, 024 (2009) <http://www.jspf.or.jp/PFR/>)