

Contents

Improvement of Hydrogen Isotope Release on Lithium Orthosilicate Ceramic Pebble by Catalytic MetalsChengjian XIAO, Chunmei KANG, Xingbi REN, Xiaoling GAO, Xiaojun CHEN, Heyi WANG and Xiaolin WANG	1
Effects of Li_4TiO_4 Structure on Tritium Release Kinetics from Lithium-Enriched $\text{Li}_{2+x}\text{TiO}_3$ Makoto KOBAYASHI, Kiyotaka KAWASAKI, Katsuyoshi TATENUMA, Masanori HARA, Masao MATSUYAMA, Toshiyuki FUJII, Hajimu YAMANA, Yasuhisa OYA and Kenji OKUNO	7
Release Behavior of Hydrogen Isotopes in Li_2TiO_3 PelletDeqiong ZHU, Takuji ODA and Satoru TANAKA	12
Mass Loss of Li_2TiO_3 Pebbles in Atmosphere Containing Hydrogen Hideaki KASHIMURA, Masabumi NISHIKAWA, Kazunari KATAYAMA, Shohei MATSUDA, Satoshi FUKADA, Tsuyoshi HOSHINO	18
Flibe-Tritium Research for Fission or Fusion Reactors at Kyushu UniversitySatoshi FUKADA	22
Experimental and Computational Studies on Tritium Permeation Mechanism in Erbium OxideWei MAO, Takumi CHIKADA, Akihiro SUZUKI, Takayuki TERAJ and Kenji YAMAGUCHI	27
Solubility of Hydrogen Isotopes in Zirconia Ceramics Kenichi HASHIZUME, Kosuke OGATA, Satoshi AKAMARU and Yuji HATANO	33
Numerical Simulation of Detritiation System for NIFS with Commercial Catalyst and AdsorbentKenzo MUNAKATA, Keisuke HARA, Takahiko SUGIYAMA, Kenji KOTOH, Masahiro TANAKA and Tatsuhiko UDA	36
Effects of La_2O_3 , Cu and Fe Addition on the Catalytic Performance of Ni- SiO_2 Catalysts for Methane DecompositionHeyi WANG, Wenhua WANG, Yong YANG and Shuming PENG	42
Measurement of Tritium Distribution in Nickel and Vanadium by Means of a Combined Technique of an Imaging Plate and Thin AbsorbersHiroko YOSHIDA-OHUCHI, Yuji HATANO, Akram MOHAMMADI and Takao KAWANO	49

The R&D Status of ITER SDS	Sei-Hun YUN, Chang Shuk KIM, Min Ho CHANG, Hyun-Goo KANG, Seungyon CHO, Hyun Gon LEE, Ki Jung JUNG, Hongsuk CHUNG, Dae Seo KOO, Kyu-Min SONG, Soon-Hwan SHON and Duk Jin KIM	54
Trapping of Tritium by Stainless Steel Exposed to Plasmas in Experimental Campaigns of LHD	Masao MATSUYAMA, Shinsuke ABE, Kiyohiko NISHIMURA, Yasushi ONO, Yasuhisa OYA, Kenji OKUNO, Tomoaki HINO and Akio SAGARA	64
Simulating Tritium Retention in Tungsten with a Multiple Trap Model in the TMAP Code	Brad J. MERRILL, Masashi SHIMADA and Paul W. HUMRICKHOUSE	71
Implantation Energy Dependence on Deuterium Retention Behaviors for the Carbon Implanted Tungsten	Yasuhisa OYA, Makoto KOBAYASHI, Naoaki YOSHIDA, Naoko ASHIKAWA, Akio SAGARA, Yuji HATANO and Kenji OKUNO	76
Tritium Distribution on the Tungsten Surface Exposed to Deuterium Plasma and then to Tritium Gas	Kanetsugu ISOBE, Vladimir Kh. ALIMOV, Akira TAGUCHI, Makiko SAITO, Yuji TORIKAI, Yuji HATANO and Toshihiko YAMANISHI	81
Study on Plasma-Tungsten Surface Interactions Using the New Experimental Device EXPRESS	Ryo MIURA, Tetsuo FUJISHIMA, Yuto MIYAHARA, Tomohisa TAGUCHI, Masahiro TANAKA, Akio SAGARA, Yasuhisa OYA and Kenji OKUNO	85
Hydrogen Incorporation into Tungsten Deposits Growing under Hydrogen and Argon Mixed Plasma	Kazunari KATAYAMA, Yasuhito OHNISHI, Satoshi FUKADA and Masabumi NISHIKAWA	89
Hydrogen Storage Properties of Nanocrystalline Mg ₂ Ni Based Alloys Prepared by Ball-Milling	Yifu XIONG, Jingwen BA, Wuwen QING and Wenyong JING	94
Hydrogen Generation Property on the Surface of Plasma Sintered Be ₁₂ Ti	Kohei WADA, Kenzo MUNAKATA, Yusuke AKIMOTO, Haruki TAKEDA, Jae-Hwan KIM, Daisuke WAKAI, Kazuo YONEHARA and Masaru NAKAMICHI	98