

# KASOKUKI

Journal of Particle Accelerator Society of Japan, Vol.13, No.4, 2016

## CONTENTS

<b>Preface</b>	Yasuhiko FUJII	183
<b>Special Issue “Expansion of Researches and Applications with Accelerators: Neutron Case”</b>		
Japanese History of Neutron Application for Materials Science	Yasuo ENDOH	184
Accelerator Driven Neutron Sources	Yoshiaki KIYANAGI	192
Applications of the Accelerator Driven Neutron Source		
Materials Science of Hydrogen Storage Materials with Accelerator Based Neutron Source	Toshiya OTOMO and Kazutaka IKEDA	198
Neutron Reflectometry for Structure Analysis of Polymers and Soft Matters at Interfaces	Manabu INUTSUKA and Keiji TANAKA	202
Condensed Matter Research Using Neutron Inelastic Scattering	Taku J SATO	208
Basic and Applied Life Science Extended by Neutron	Hiroshi NAKAGAWA and Mikio KATAOKA	214
Neutrons for Elementary Particle, Nuclear, and Astrophysics	Kenji MISHIMA	220
Compact Neutron Systems Expand in Applications —RIKEN RANS —	Yoshie OTAKE	229
Application of Neutron Techniques for Development of Advanced Tire Materials	Hiroyuki KISHIMOTO and Tomomi MASUI	234
Application of Neutron Beams to Studies of a Battery and Related Materials	Masao YONEMURA	239
Endurance Measurement of Semiconductor Chips		
— Beam Test by Particle Accelerator for Single Event Effects —	Kazutoshi KOBAYASHI	245
Medical Application (Boron Neutron Capture Therapy)	Hiroaki KUMADA, Takeji SAKAE, Kenta TAKADA, Hideyuki SAKURAI and Akira MATSUMURA	253
<b>Meeting Report</b>		
Report on FFAG Workshop 2016	Tomonori UESUGI and Yoshihiro ISHI	259
Report on 21 <sup>st</sup> International Conference on Cyclotrons and their Applications (Cyclotrons 2016)	Satoshi KURASHIMA and Satoru HOJO	263
Conference Report of LINAC 16	Yong Ho CHIN	267
Report of Nuclear Photonics 2016	Ryoichi HAJIMA	270
<b>PASJ Announcements</b>		272
<b>Notice Board</b>		277

---

**Editorial Committee** Masao KURIKI chairperson  
Masatoshi ITOH, Haruo OHKUMA, Takashi OBINA, Masayuki KASE,  
Keigo KAWASE, Eiji KIKUTANI, Tetsuo SHIDARA, Toshinari TANAKA,  
Fujio NAITO, Koichi NAKAYAMA, Kazuo HASEGAWA, Masahito HOSAKA,  
Kai MASUDA, Tetsuhiko YORITA, Takashi WAKUI

The Journal is published quarterly by  
Particle Accelerator Society of Japan, Noritaka KUMAGAI, President.  
c/o Secretariat, Sanbi Printing Co., Ltd.,  
5-9-8 Nishinippori, Arakawa-ku, Tokyo 116-0013, Japan