

VII. PUBLICATIONS
(APRIL 2010 – MARCH 2011)

VII. PUBLICATIONS

Since 1967, the institute published the Annual Report of the KURRI, containing the original papers written by researchers of the institute and users of other organizations. It played an important role in showing the activities of the institute. However, due to a variety of research fields covered by researchers in the institute, it became difficult to contain all the original papers. Therefore, the Annual Report was discontinued in 1995. The Progress Report of the KURRI has been issued from 1991 in English and summarizes the abstracts of the published papers, reviews, book titles and current research activities of the KURRI. The Technical Report of the KURRI (KURRI-TR) has been issued occasionally from 1965. It contains technical data in Japanese with English summaries. The KUR Report (KURRI-KR), issued in Japanese since 1996, is the proceedings of symposia and technical meetings held at the institute. Furthermore, the CD-ROM version (KURRI-KR(CD)) has been issued from 2004.

The Technical Report of the KURRI(KURRI-TR)

KURRI-TR-443 Trouble Case and Measures of Pneumatic Irradiation Facility in the Kyoto University Research Reactor (KUR) (2010)

The KUR Report (KURRI-KR)

KURRI-KR-156 The International Workshop on FFAG Accelerators - FFAG'10 - (2011)

KURRI-KR-157 The introduction of total micro-element analysis system and its application in Kyoto University Reactor (2011)

KURRI-KR-158 Proceeding of the 19th Technical Meeting on Nuclear Reactor and Radiation for KURRI Engineers and the 10th Technical Official Group Section V Meeting in Kyoto University (2011)

KURRI-KR-159 Proceedings of the Specialist Research Meeting on "Condensed Matter Physics Research Using Short-Lived Nuclei and Radiations" (2011)

KURRI-KR-160 Workshop on 'Effect of Radiation on the Non-human Biota' (2011)

KURRI-KR-161 Activity Report of the Subcommittee on Multidisciplinary Nuclear Science and Technology (April 2009 - March 2010)

KURRI-KR-162 Promotion of Leading Research toward Effective Utilization of Nuclear Power and Radiation (2011)

KURRI-KR-163 Proceedings of the Specialist's Meeting on Radioactive Waste Management (2011)

KURRI-KR-164 Proceedings of the Specialist Research Meeting on "Abnormal Protein Aggregation and the Folding Diseases, and Their Protection and Repair System" (2011)

The KUR Report (CD) (KURRI-KR (CD))

KURRI-KR (CD)-30 Proceedings of the Specialist Meeting on Positron Beam Techniques for Science and Engineering(2011)

KURRI-KR (CD)-31 Workshop on Materials Irradiation Effects and Applications (2011)

KURRI-KR (CD)-32 Development and applications of devices for neutrons IV (2011)

KURRI-KR (CD)-33 Proceedings of the Specialist Research Meeting on MIEZE/N(R)SE Spectroscopy (2011)

Publication List (April 2010—March 2011)

(* The Results of Research that an Outside Researcher Carried out Originally in RRI.)

1. Slow Neutron Physics and Neutron Scattering

Papers

Protonation States of Histidine and other Key Residues in Deoxy-human Normal Adult Hemoglobin by Neutron Protein Crystallography

A. Kovalevsky, T. Chatake, N. Shibayama, S.-Y. Park, T. Ishikawa, M. Mustyakimov, Z. Fisher, P. Langan and Y. Morimoto

Acta Cryst. D, **66** (2010) 1144-1152.

SAXS and SANS Observations of Abnormal Aggregation of Human α -Crystallin

M. Sugiyama, N. Fujii, Y. Morimoto, K. Itoh, K. Mori, T. Fukunaga and N. Fujii

Chemistry & Biodiversity, **7** (2010) 1380-1388.

An Approach to DNA Crystallization Using the Thermal Reversible Process of DNA Duplexes

T. Chatake, G. Sazaki, T. Kikkou, S. Fujiwara, T. Ishikawa, O. Matsumoto and Y. Morimoto

Crystal Growth & Design, **10** (2010) 1090-1095.

Direct Determination of Protonation States of Histidine Residues in a 2Å Neutron Structure of eoxy-Human Normal Adult Hemoglobin and Implications for the Bohr Effect

A. Kovalevsky, T. Chatake, N. Shibayama, S.-Y.Park, T. Ishikawa, M. Mustyakimov, Z. Fisher, P. Langan and Y. Morimoto

J. Mol. Biol., **398** (2010) 276-291.

Swelling Structure of Thin Poly(methylmethacrylate) Films in Various Alkyl Length Alcohols

H. Atarashi, H. Morita, D. Yamazaki, M. Hino, T. Nagamura and K. Tanaka

J. Phys. Chem., **1** (2010) 881-885.

SANS Investigation of Assembly State of Proteasome Activator 28 and the 20S Proteasome

M. Sugiyama, E. Kurimoto, H. Sahashi, E. Sakata, Y. Morimoto, K. Itoh, K. Mori, T. Fukunaga, Y. Minami and K. Kato

J. Phys. Conf. Ser., **247** (2010) 12020.

Microstructure of Hydrogenated Mg₂Ni Studied by SANS

K. Mori, M. Sugiyama, K. Iwase, S. Kawabe, Y. Onodera, K. Itoh, T. Otomo and T. Fukunaga

J. Phys. Conf. Ser., **247** (2010) 12036.

Multilayer Neutron Interferometer with Complete Path Separation

Y. Seki, H. Funahashi, M. Kitaguchi, M. Hino, Y. Otake, K. Taketani and H.M. Shimizu

J. Phys. Soc. Jpn., **79** (2010) 124201.

Ionic Conductivity and Structural Properties of Lithium Lanthanum Titanate Quenched into Liquid Nitrogen Studied by Neutron Powder Diffraction

K. Mori, K. Iwase, M. Yonemura, J. Siewenie, T. Proffen, Y. Onodera, K. Itoh, M. Sugiyama, T. Kamiyama and T. Fukunaga

J. Phys. Soc. Jpn. Suppl. A, **79** (2010) 84-86.

Crystal Structure of $\text{Li}_7\text{P}_3\text{S}_{11}$ Studied by Neutron and Synchrotron X-ray Powder Diffraction
Y. Onodera, K. Mori, T. Otomo, A. C. Hannon, S. Kohara, K. Itoh, M. Sugiyama and T. Fukunaga
J. Phys. Soc. Jpn. Suppl. A, **79** (2010) 87-89.

Anomalous Aggregation State of Deuterium Molecules in the Nanoscale Pores of a Metal Organic Framework
I. Kanoya, T. Furuta, R. Sakamoto, M. Hosoe, M. Ichikawa, K. Itoh and T. Fukunaga
Jpn. J. Appl. Phys., **108** (2010) 74310.

Development of a Pixel Detector for Ultra-Cold Neutrons
S. Kawasaki, G. Ichikawa, M. Hino, Y. Kamiya, M. Kitaguchi, S. Komamiya, T. Sanuki and S. Sonoda
Nucl. Inst. Meth. A, **615** (2010) 42-47.

Development of Sample Holder for in Situ Neutron Measurement of Hydrogen Absorbing Alloy
K. Iwase, K. Mori, Y. Hishinuma, Y. Hasegawa, S. Iimura, H. Ishikawa, T. Kamoshida, T. Ishigaki
Int. J. Hydrogen Energy, **36** (2011) 3062-3066.

A Transport Optics for Pulsed Ultracold Neutron Sources
H.M. Shimizu, Y. Iwashita, M. Kitaguchi, K. Mishima and T. Yoshioka
Nucl. Instr. and Meth. A (Supplement 1), **634** (2011) 25-27.

Polarization of very Cold Neutron Using a Permanent Magnet Quadrupole
T. Yoshioka, K. Mishima, T. Ino, K. Taketani, S. Muto, T. Morishima, H.M. Shimizu, T. Oku, J. Suzuki, T. Hinohara,
K. Sakai, H. Sato, K. Hirota, Y. Otake, M. Kitaguchi, M. Hino, Y. Seki, Y. Iwashita, M. Yamada, M. Ichikawa,
T. Sugimoto, S. Kawasaki, S. Komamiya, H. Otono, Y. Kamiya, S. Yamashita and P. Geltenbort
Nucl. Inst. Meth. A (Supplement 1), **634** (2011) 17-20.

Development of Thin Film Neutron Focusing Lenses
T. Ino, T. Shinohara, T. Adachi, K. Hirota, M. Hino, T. Oku, K. Taketani, K. Mishima, T. Yoshioka, Y. Arimoto,
S. Muto, J. Suzuki and H. M. Shimizu
Nucl. Inst. Meth. A (Supplement 1), **634** (2011) 94-96.

A High S/N ratio Spin Flip Chopper System for a Pulsed Neutron Source
K. Taketani, T. Ebisawa, M. Hino, K. Hirota, T. Ino, M. Kitaguchi, K. Mishima, S. Muto, H. Oide, T. Oku,
H. Otono, K. Sakai, T. Shima, H.M. Shimizu, S. Yamashita and T. Yoshioka
Nucl. Inst. Meth. A (Supplement 1), **634** (2011) 134-137.

The Performance of Magnetic Lens for Focusing VCN-SANS
M. Yamada, Y. Iwashita, T. Kanaya, M. Ichikawa, H. Tongu, S.J. Kennedy, H.M. Shimizu, K. Mishima,
N.L. Yamada, K. Hirota, J.M. Carpenter, J. Lal, K. Andersen, P. Geltenbort, B. Guerard, G. Manzin, M. Hino,
M. Kitaguchi, M. Bleuel and NOP Collaboration
Nucl. Inst. Meth. A (Supplement 1), **634** (2011) 156-160.

Demonstration of Magnetic Field Imaging in a Permalloy Film with Neutron Spin Phase Contrast Imaging
H. Hayashida, D. Yamazaki, T. Ebisawa, R. Maruyama, K. Soyama, S. Tasaki, M. Hino and M. Matsubayashi
Nucl. Inst. Meth. A (Supplement 1), **634** (2011) 90-93.

Proceedings

KUR Facility report
Y. Kawabata

10th Korea-Japan meeting on Neutron Science, Sendai, Jan. 14-15, 2010, (2010) 13.

Books

Structural Biology Structural Study DNA by Neutron
T. Chatake
Kyoritsu Shuppan, (2010) (in Japanese).

Reviews

Surface and Interface Studies by Neutron Reflectivity
K. Sakurai, M. Hino and M. Takeda
J. Vac. Soc. Jpn., **53** (2010) 747-752.

Structural Analysis of Amorphous Alloys and Hydrogen Absorption Amorphous Materials
T. Fukunaga
RadioIsotopes, **59** (2010) 341-354 (in Japanese).

Others

1SH1015 Neutron Crystallography in Structural Biology
T. Chatake
Biophysical Society, **50** (2010) S4 (in Japanese).

Inversion of Band Positions in SDS-PAGE Revealed by Charge-state-discrimination Mass Spectroscopy Using MALDI-STJTOF-MS
K. Chiba, Y. Yanagisawa, T. Chatake, M. Ukibe, S. Shiki, J. Saito, H. Sumi and M. Ohkubo
Biophysical Society, **50** (2010) S35 (in Japanese).

2. Nuclear Physics and Nuclear Data

Papers

Investigation on the TPR Prediction Accuracy in Blanket Neutronics Experiments with Reflector at JAEA/FNS
K. Kondo, T. Yagi, K. Ochiai, S. Sato, K. Takakura, S. Ohnishi and C. Konno
Fusion Eng. Des., (2010).

Magnetic Moment of the $3/2^+$ State in ^{165}Ho
M. Tanigaki, Y. Ohkubo, A. Taniguchi, S. Izumi and T. Shinozuka
Hyperfine Interact., **198** (2010) 139-142.

Study on Effective Average (γ, n) Cross Section for ^{89}Y , ^{90}Zr , ^{93}Nb and ^{133}Cs and $(\gamma, 3n)$ Cross Section for ^{99}Tc
A. K. M. L. Rahman, K. Kato, H. Arima, N. Shigyo, K. Ishibashi, J. Hori and K. Nakajima
J. Nucl. Sci. Technol., **47** (2010) 618-625.

Measurement of Neutron Capture Cross Section Ratios of ^{244}Cm Resonances Using NNRI
S. Goko, A. Kimura, H. Harada, M. Oshima, M. Ohta, K. Furutaka, T. Kin, F. Kitatani, M. Koizumi, S. Nakamura, Y. Toh, M. Igashira, T. Katabuchi, M. Mizumoto, Y. Kiyonagi, K. Kino, M. Furusaka, F. Hiraga, T. Kamiyama, J. Hori, T. Fujii, S. Fukutani and K. Takamiya
J. Nucl. Sci. Technol., **47** (2010) 1097-1100.

Multi-layered Parallel Plate Ionization Chamber for Cross-section Measurements of Minor Actinides
K. Hirose, T. Ohtsuki, Y. Shibasaki, N. Iwasa, J. Hori, K. Takamiya, H. Yashima, K. Nishio and Y. Kiyonagi
Nucl. Instrum. Meth. A, **621** (2010) 359-382.

Multi-layered Parallel Plate Ionization Chamber for Cross-section Measurements of Minor Actinides
K. Hirose T. Ohtsuki, Y. Shibasaki, N. Iwase, J. Hori, K. Takamiya, H. Yashima, K. Nishio and Y. Kiyonagi
Nucl. Instrum. Meth. A, **621** (2010) 379-382.

Development of Epithermal Neutron Camera with Resonance Filters
T. Teruta, H. Tsuji, H. Tomita, J. Kawahara, T. Iguchi, T. Matsumoto and J. Hori
2010 IEEE Nuclear Science Symposium Conference Record, **(CD)** (2011).

Integral Experiment on Beryllium with DD Neutrons for Nuclear Data Benchmarking
K. Kondo, K. Ohiai, Y. Tatebe, T. Yagi, S. Ohnishi, K. Takakura, S. Sato and C. Konno
J. Nucl. Sci. Technol., **1** (2011) 61-64.

Epithermal Neutron Response on Moderated Neutron Spectrometer with Multi-resonance Filters
H. Tsuji, S. Maeda, H. Tomita, J. Kawahara, T. Iguchi, T. Matsumoto and J. Hori
J. Nucl. Sci. Technol., **1** (2011) 316-319.

New Idea of a Small-sized Neutron Detector with a Plastic Fibre
T. Matsumoto, H. Harano, A. Masuda, J. Nishiyama, Y. Sakurai and A. Uritani
Radiat. Prot. Dosim., **146** [1-3] (2011) 92-95.

Amendments to ^{63}Ni Production Calculation for Hiroshima by Takamiya et al. and DS02 Fluence Data by Egbert et al
K. Takamiya, T. Imanaka, S. D. Egbert and W. Ruehm
Radiation and Environmental Biophysics, **50** (2011) 329-333.

Proceedings

Measurement of Neutron Capture Gamma-rays from the Resonances of ^{91}Zr and ^{96}Zr at the J-PARC/MLF/ANNRI
J. Hori, K. Furutaka, S. Goko, H. Harada, M. Igashira, T. Kamiyama, T. Katabuchi, A. Kimura, T. Kin, K. Kino, F. Kitatani, Y. Kiyonagi, M. Koizumi, M. Mizumoto, S. Nakamura, M. Ohta, M. Oshima and Y. Toh
Proc. Int. Conf. on Nuclear Data for Science and Technology 2010 (ND2010), Jeju Island, Korea, April 26-30, 2010, (2011) 1777-1780.

Quality Management System Proposed to JENDLE Valuation Project
N. Yamano, T. Yoshida, K. Nakajima, M. Ishikawa, K. Shibata, M. Uematsu, Y. Tahara, K. Suyama, K. Okumura and O. Iwamoto
Proc. Int. Conf. on Nuclear Data for Science and Technology 2010 (ND2010), Jeju Island, Korea, April 26-30, 2010.

Activities of Advanced Nuclear Energy Research Group
K. Nakajima
Proc. ZERO CARBON ENERGY KYOTO 2010, The 2nd Int. Symposium Kyoto Univ. Global COE Program "Energy Science in the Age of Global Warming – Toward CO₂ ZERO-emission Energy System –" Kyoto, Japan, Aug. 19-20, 2010.

Measurement of ^{151}Eu , ^{153}Eu Neutron Capture Cross Sections using a pair of C_6D_6 Detectors
J. H. Lee, J. Hori and K. Nakajima
Proc. 2010 Symposium on Nuclear Data, Kasuga, Fukuoka, Japan, Nov. 25-26, 2010.

Measurements of Neutron-Capture Cross Sections at J-PARC/MLF/ANNRI (2) Measurements of Neutron-Capture Cross Sections of Long-lived Fission Products using a High Intensity Pulsed Neutron Source

J. Hori, T. Fujii, S. Fukutani, M. Furusaka, F. Furutaka, S. Goko, H. Harada, F. Hiraga, M. Igashira, T. Kamiyama, T. Katabuchi, A. Kimura, T. Kin, K. Kino, F. Kitatani, Y. Kiyanagi, M. Koizumi, M. Mizumoto, S. Nakamura, M. Ohta, M. Oshima, K. Takamiya and Y. Toh

Proc. 2010 Symposium on Nuclear Data, Kasuga, Fukuoka, Japan, Nov. 25-26, 2010.

Quantification of Neutron Leakage from Subcritical Fuel Assemblies Based on Spectrum Measurement of γ rays Radiated by Thermal Neutron Capture of Hydrogen

Y. Nauchi, T. Kameyama, H. Unesaki, T. Misawa, T. Sano and T. Yagi

2011 Annual Meeting of the Atomic Energy Society of Japan, Fukui, Mar. 28-30, 2011 (2011) 446.

3. Reactor Physics and Reactor Engineering

Papers

Experimental Analysis for Neutron Multiplication by using Reaction Rate Distribution in Accelerator-Driven System

H. Shahbunder, C. H. Pyeon, T. Misawa and S. Shiroya

Ann. Nucl. Energy, **37** (2010) 592-597.

Subcritical Multiplication Factor and Source Efficiency in Accelerator-Driven System

H. Shahbunder, C. H. Pyeon, T. Misawa, J. Y. Lim and S. Shiroya

Ann. Nucl. Energy, **37** (2010) 1214-1222.

Comparison of Monte Carlo Calculation Methods for Effective Delayed Neutron Fraction

Y. Nagaya, G. Chiba, T. Mori, D. Irwanto and K. Nakajima

Ann. Nucl. Energy, **37** (2010) 1308-1315.

Effects of Neutron Spectrum and External Neutron Source on Neutron Multiplication Parameters in Accelerator-Driven System

H. Shahbunder, C. H. Pyeon, T. Misawa, J. Y. Lim and S. Shiroya

Ann. Nucl. Energy, **37** (2010) 1785-1791.

Applicability of Non-analog Monte Carlo Technique to Reactor Noise Simulation

T. Yamamoto

Ann. Nucl. Energy, **38** (2010) 647-655.

Reactor Physics Experiment for Advanced Nuclear Reactor System at Kyoto University Critical Assembly (KUCA)

H. Unesaki, T. Misawa, C. Pyeon, T. Sano and J-Y. Lim

International Journal of Nuclear Safety and Simulation, **1**[3] (2010) 228-235.

Measurement of Two-Phase Flow in a Vertical Large Diameter Pipe using Hot-Film Anemometer

X. Shen, K. Mishima and H. Nakamura

Japanese Journal of Multiphase Flow, **23** (2010) 605-613.

Research on Consequence Analysis Method for Probabilistic Safety Assessment of Nuclear Fuel Facilities (V) Evaluation Method and Trial Evaluation of Criticality Accident

Y. Yamane, K. Nakajima, H. Abe, Y. Hayashi, J. Arisawa and S. Hayami

Trans. At. Energy Soc. Jpan **9** (2010) 96-107.

A New Experimental Correction Method for the First-Order Perturbation Approximation on the Steady Subcritical Reactor

S. Kawaguchi, T. Misawa, C. H. Pyeon and S. Shiroya
J. Nucl. Sci. Technol., **47** (2010) 550-557.

Reaction Rate Analysis of Nuclear Spallation Reactions Generated by 150, 190 and 235 MeV Protons

C. H. Pyeon, H. Shiga, K. Abe, H. Yashima, T. Nishio, T. Misawa, T. Iwasaki and S. Shiroya
J. Nucl. Sci. Technol., **47** (2010) 1090-1095.

Distribution Parameter and Drift velocity for Two-Phase Flow in a Large Diameter Pipe

X. Shen, R. Matsui, K. Mishima and H. Nakamura
Nucl. Eng. Des., **240**[12] (2010) 3991-4000.

New Evaluation Methods for Radial Uniformity in Neutron Transmutation Doping

H. S. Kim, J. Y. Lim, C. H. Pyeon, T. Misawa and S. Shiroya
Nucl. Eng. Technol., **42** (2010) 442-449.

Experiments on Injection of Spallation Neutrons by 100 MeV Protons into the Kyoto University Critical Assembly

C. H. Pyeon, J. Y. Lim and T. Misawa

Trans. Am. Nucl. Soc., **103** (2010) 21-22.

Higher Order Mode Analyses in Feynman- α Method

T. Yamamoto
Ann. Nucl. Energy, **38** (2011) 1231-1237.

Interfacial Drag Model and Numerical Analysis for Gas-Liquid Two-Phase Flow in a Large Diameter Pipe

X. Shen, K. Mishima and H. Nakamura

Japanese Journal of Multiphase Flow, **24**[5] (2011) 595-602.

Development of Bubble Measurements by using 4-Sensor Probe

Y. Saito, T. Morimoto and K. Mishima

Japanese Journal of Multiphase Flow, **24** [5] (2011) 673-680.

Determination of Lambda-Mode Eigenvalue Separation of a Thermal Accelerator-Driven System from Pulsed Neutron Experiment

H. Tanaka, K. Hashimoto, C. Pyeon, T. Sano, T. Misawa and T. Ohsawa

J. Nucl. Sci. Technol., **47** (2010) 367-383.

Determination of Subcritical Reactivity of a Thermal Accelerator-Driven System from Beam Trip and Restart Experiment

H. Taninaka, K. Hashimoto, C. H. Pyeon, T. Sano, T. Misawa, H. Unesaki, W. Sugiyama and T. Ohsawa

J. Nucl. Sci. Technol., **48** (2011) 873-879.

Proceedings

Experiments on Injection of Spallation Neutrons by 100 MeV Protons into the Kyoto University Critical Assembly

C. H. Pyeon, J. Y. Lim, T. Misawa and S. Shiroya

Proc. First Int. Workshop on Technol. and Components of Accelerator Driven Systems (TCADS-1) (OECD/NEA), Karlsruhe, Germany, Mar. 15-17 2010, (2010)(on CD-ROM).

Development of Two-Phase Flow Measurements by using 4-Sensor Probe

Y. Saito, T. Morimoto and K. Mishima

Proc. 2010 Spring Meeting of AESJ, Mar. 26-28, 2010, (2010) 17.

Experiments on Injection of Spallation Neutrons by 100 MeV Protons into the Kyoto University Critical Assembly

J. Y. Lim, C. H. Pyeon, T. Misawa and S. Shiroya

Proc. Int. Conf. on the Physics Reactors, Nucl. Power: A Sustainable Resource (PHYSOR2010), Pittsburgh, Pennsylvania, May. 9-14, 2010, (2010) 21-22.

Flow-induced Void Fraction Transition Phenomenon in Two-Phase Flow

X. Shen, K. Mishima and H. Nakamura

Proc. 18th International Conference on Nuclear Engineer, Xian, China, May. 17-21, 2010, (2010) 1-8.

Development of Neutron Radiography Facility for Boiling Two-phase Flow Experiment in Kyoto University Research Reactor

Y. Saito, S. Sekimoto, M. Hino and Y. Kawabata

9th World Conference on Neutron Radiography, Kwa-Maritane, South Africa, Oct. 3-8, 2010, (2010) 2-10.

Nuclear Design of Kyoto University Research Reactor (KUR) with LEU Core

T. Sano, H. Unesaki and K. Nakajima

32nd International Meeting on Reduced Enrichment for Research and Test Reactors, Lisbon, Portugal, Oct. 10-14, 2010, (2010).

Full Core Conversion of the Kyoto University Research Reactor (KUR) from HEU to LEU

H. Unesaki, T. Sano, T. Misawa and K. Nakajima

32nd International Meeting on Reduced Enrichment for Research and Test Reactors, Lisbon, Portugal, Oct. 10-14, 2010, (2010) S2-P2.

Higher Order α Mode Eigenvalue Calculation by Monte Carlo Power Iteration

T. Yamamoto

Proc. Joint Int. Conf. on Supercomputing in Nuclear Applications + Monte Carlo 2010, Tokyo, Japan, Oct. 17-21, 2010, **38**[6] (2011) 1231-1237.

Development of Beam Window Materials for Accelerator Driven System in the Kyoto University

T. Yoshiie, Y. Ishi, Y. Kuriyama, Y. Mori, T. Misawa, K. Nakajima, Y. Oki, Y. Saito, K. Sato, X. Shen, S. Shibata, T. Uesugi and Q. Xu

10th Japan-China Symposium (JCS-10) on Materials for Advanced Energy Systems and Fission & Fusion Engineering, Uji, Kyoto, Japan, Oct. 19-22, 2010, (2010) 119-123.

Reactor Physics Experiments at Kyoto University Critical Assembly (KUCA)

T. Misawa

Technical Meeting on Low-Power Critical Facilities and Small Reactors, Ottawa, Ontario, Canada, Nov. 1-3, (2010) (on CD-ROM).

Progress Review of Accelerator-Driven System in Kyoto University Critical Assembly

C. H. Pyeon, J. Y. Lim, T. Misawa, H. Unesaki and K. Nakajima

Proc. Actinide and Fission Product Partitioning and Transmutation, 11th Information and Exchange Mtg., OECD/NEA, San Francisco, USA, Nov. 1-5, 2010.

The Study on Erbium Credit Super-High-Burnup Fuel with Isotopically Modified Erbium

M. Yamasaki, A. Yamamoto and H. Unesaki

Proc. of ANS 2010 Winter Mtg, Las Vegas, USA, Nov. 7-11, 2010, (2010) 735-736.

Experiments on Injection of Spallation Neutrons by 100 MeV Protons into the Kyoto University Critical Assembly

C. H. Pyeon, J. Y Lim and T. Misawa

Proc. of ANS 2010 Winter Mtg, Las Vegas, Nevada USA, Nov. 7-11, 2010.

Preliminary Experimental Results of Erbium Density Measurement Using PGAA for Uranium Fuel

T. Takamatsu, N. Sugimura and T. Sano

Proc. of ANS 2010 Winter Mtg, Las Vegas, Nevada USA, Nov. 7-11, 2010.

Books

Nuclear Reactor Physics Experiments

T. Misawa, H. Unesaki and C. Pyeon

Kyoto University Press 2010

Nuclear Reactor Physics Experiments

J.H. Moon, S. Kim, G.T. Kim and C. Pyeon

Dongguk University, Wonjaro Mulri Shirum 2010(in Korean).

Reactor Physics Experiment

T. Misawa, H. Unesaki and C. Pyeon

Kyoto University Press 2010 (in Japanese).

Reviews

Basic Experiments on Accelerator Driven System Loaded with Thorium at KUCA

T. Misawa

Genshiryoku Eye, **9** (2010) 36-45 (in Japanese).

Basic Experiments on Accelerator Driven System at KURRI

T. Misawa

Hamon, **21** (2011) 12-15 (in Japanese).

Others

Safety Assessment of KUR Low-Enriched Uranium Silicide Core

X. Shen, K. Mishima and K. Nakajima

KURRI-TR-442, **287** (2010) 1-208.

4. Material Science and Radiation Effects

Papers

Terahertz-Wave Spectrophotometry by Compton Backscattering of Coherent Transition Radiation

N. Sei and T. Takahashi

Appl. Phys. Express, **3** (2010) 52401(1-3).

Elucidation of Annihilation Processes of Defects Induced by γ -irradiation in Li_2TiO_3
S. Suzuki, M. Kobayashi, R. Kurata, W. Wang, T. Fujii, H. Yamana, K. Feng, Y. Oya and K. Okuno
Fusion Eng. Des., **85** [10-12] (2010) 2331-2333.

Interaction between Sn Atoms and Vacancies

K. Sato, T. Yoshiie and Q. Xu

J. Japan Inst. Metals, **74** (2010) 572-577.

Nuclear Resonant Time Spectra for ^{119}Sn in Co_2TiSn Heusler Alloy Films

E. Suharyadi, T. Hori, K. Mibu, M. Seto, S. Kitao, T. Mitsui and Y. Yoda

J. Mag. Mag. Mater., **322** (2010) 158-162.

Defect Structures in Nickel and SUS304SS Formed by the Collapse of Cavitation Bubbles

T. Yoshiie, K. Sato, Q. Xu, M. Komatsu, M. Futakawa, T. Naoe and M. Kawai

J. Nucl. Mater., **398** (2010) 227-231.

Hardening and Microstructural Evolution in A533B Steels under Neutron Irradiation and a Direct Comparison with Electron Irradiation

K. Fujii, H. Nakata, K. Fukuya, T. Ohkubo, K. Hono, Y. Nagai, M. Hasegawa and T. Yoshiie

J. Nucl. Mater., **400** (2010) 46-55.

Effects of Chemical Composition and dose on Microstructure Evolution and Hardening of Neutron Irradiated Reactor Pressure Vessel Steels

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