

1. Kinetic Energies of Fragment Ions from  $C_2H_2^{r+*}$  ( $r=1-3$ ) Ions Produced by Fast Ion Collisions: Dependence on The Charge State  $r$   
 S. O. Yoshida<sup>1</sup>, T. Asai<sup>1</sup>, M. Matsubara<sup>1</sup>, T. Majima<sup>1,2</sup>, M. Imai<sup>1</sup>, H. Tsuchida<sup>1,2</sup>,  
 M. Saito<sup>1</sup>, and A. Itoh<sup>1,2</sup>  
<sup>1</sup>Dept. Nucl. Engng., <sup>2</sup>QSEC
2. Heavy-Ion Radiolysis of Glycine in An Aqueous Solution Environment  
 S. Nomura, R. Furuya, T. Majima\*, H. Tsuchida\*, and A. Itoh\*  
 Dept. Nucl. Engng., \*QSEC
3. Studies of Collisions of MeV-energy Ions with Water Cluster Ions Using A Merged-beam Technique  
 I. Hakamada<sup>1</sup>, N. Ojima<sup>3</sup>, T. Majima<sup>1,2</sup>, M. Imai<sup>1</sup>, H. Tsuchida<sup>1,2</sup>, M. Saito<sup>1</sup>, A. Itoh<sup>1,2</sup>  
<sup>1</sup>Dept. Nucl. Engng., <sup>2</sup>QSEC, <sup>3</sup>Kyoto Prefectural Univ.
4. Cluster Size Dependence of Fast  $C_{2-8}^+$  Transmission through Nano-capillaries  
 R. Murase, T. Majima, M. Imai, M. Saito, H. Tsuchida, A. Itoh  
 Dept. Nucl. Engng., QSEC
5. In Situ X-ray Study of Irradiation-induced Lattice Expansion in Al Foils by MeV-energy Heavy Ions  
 S. Nakanishi, H. Minagawa, T. Majima, M. Imai, M. Saito, H. Tsuchida, A. Itoh  
 Dept. Nucl. Engng., QSEC
6. In-situ Observation of Damage Relaxation in Fused Quartz by Positron Annihilation Lifetime Spectroscopy  
 D.Ueda<sup>1</sup>, S. Mizuno<sup>1</sup>, H. Tsuchida<sup>1,2</sup>  
<sup>1</sup>Dept. Nucl. Engng., <sup>2</sup>QSEC
7. Measurement of B-10 Concentration by PIGE in BNCT  
 T. Kawamura, R. Uchida, H. Tsuchida, T. Takata\*, H. Tanaka\* and Y. Sakurai\*  
 Dept. Nucl. Engng., \*RRI
8. Development of Ambient SIMS Using MeV-energy Ion Probe  
 M. Kusakari, M. Fujii\*, T. Seki, T. Aoki\*\*, and J. Matsuo\*  
 Dept. Nucl. Engng., \*QSEC, \*\*Dept. Electron. Sci. and Engng.
9. Development of Low-Vacuum SIMS Instruments with Large Cluster Ion Beam  
 K. Suzuki<sup>1</sup>, M. Kusakari<sup>1</sup>, T. Seki<sup>1,4</sup>, T. Aoki<sup>3,4</sup> and J. Matsuo<sup>2,4</sup>  
<sup>1</sup>Dept. Nucl. Engng., <sup>2</sup>QSEC, <sup>3</sup>ACCMS, <sup>4</sup>SENTAN(JST)
10. Experimental Investigation on Heat Transfer of HEMJ Type Divertor with Narrow Gap between Nozzle and Impingement Surface  
 T. Yokomine, K. Oohara, T. Kunugi  
 Dept. Nucl. Engng.
11. Influence of Magnetic Field and Absorbed Gas on Corrosion in Lead Lithium  
 T. Kunugi, T. Yokomine, Z. Kawara, K. Gotou  
 Dept. Nucl. Engng.
12. Hydrogen Diffusivity in Oxide Layers of Zr-alloy Formed in Air and Steam  
 T. Kato, I. Takagi  
 Dept. Nucl. Engng.
13. Hydrogen Isotope Exchange in Tungsten Damaged by Self-ion Irradiation  
 Y. Susuki, I. Takagi  
 Dept. Nucl. Engng.
14. Temperature Effect on The Solubility and Solubility Product of Thorium Hydroxide  
 S. Nishikawa, T. Kobayashi, T. Sasaki  
 Dept. Nucl. Engng.
15. “Nuclear Engineering Laboratory 1” in 2015 - In-air PIXE and PIGE -  
 T. Majima<sup>1,2</sup>, H. Tsuchida<sup>1,2</sup>, S. O. Yoshida<sup>1</sup> (TA), K. Kitajima<sup>1</sup> (TA), S. Nomura<sup>1</sup> (TA)  
 and H. Minagawa<sup>1</sup> (TA)  
<sup>1</sup>Dept. Nucl. Engng., <sup>2</sup>QSEC

16. Electrochemical Behavior of Sn–Ni Film Negative Electrodes in Na[FSA]–K[FSA] Ionic Liquid Electrolyte for Sodium Secondary Battery  
T. Yamamoto<sup>1</sup>, T. Nohira<sup>2</sup>, R. Hagiwara<sup>1</sup>, A. Fukunaga<sup>3</sup>, S. Sakai<sup>3</sup>, and K. Nitta<sup>3</sup>  
<sup>1</sup>Grad. Sch. Energy Sci., <sup>2</sup>Inst. Adv. Energy, <sup>3</sup>Sumitomo Electric Industries Ltd.
17. Si Electrodeposition in Water-soluble KF–KCl Molten Salt  
K. Yasuda<sup>1,2</sup>, K. Maeda<sup>1</sup>, T. Nohira<sup>1,3</sup>, R. Hagiwara<sup>1</sup> and T. Homma<sup>4</sup>  
<sup>1</sup>Dept. Fundamental Energy Sci., Grad. Sch. Energy Sci.,  
<sup>2</sup>Environ. Safety and Health Organization, <sup>3</sup>Inst. Adv. Energy, <sup>4</sup>Waseda Univ.
18. Fluorolytic Sol-gel Synthesis of Iron Trifluoride as A Positive Electrode Material for Lithium Secondary Batteries  
S. Tawa, K. Matsumoto, and R. Hagiwara  
Dept. Fundamental Energy Sci., Grad. Sch. Energy Sci.
19. The Effect of Ionic Liquid Matrices in Secondary Ion Mass Spectrometry of Phenylalanine Using MeV Primary Ions  
R. Tatemichi, K. Nakajima, and K. Kimura  
Dept. Micro Engng.
20. Negative Secondary Ion Emission from Phenylalanine Thin Films on a-SiN Membranes under Transmission of 6 MeV Cu<sup>4+</sup> Ions  
H. Ishii, K. Yamamoto, K. Nakajima, and K. Kimura  
Dept. Micro Engng.
21. Irradiation Effects of EMIM-BF<sub>4</sub> Ion Beams on Sapphire Substrate  
K. Nishi, H. Ueda, M. Takeuchi, H. Ryuto, and G. H. Takaoka  
Photo. and Electro. Sci. and Eng. Center
22. Non-Rutherford Backscattering Analysis of Titanium Nitride Thin Films to Determine Deposition Condition for Preparing An Atom Probe Sample  
C. Nishimura, H. Fujiwara, H. Tsuji, Y. Gotoh  
Dept. Electron. Sci. and Engng.
23. Variation of Electron Emission Properties of Field Emitter Arrays under MeV X-ray Irradiation  
Y. Gotoh, H. Tsuji, M. Nagao\*, and M. Akiyoshi\*\*, I. Takagi\*\*\*  
Dept. Electron. Sci. and Engng. \*AIST, \*\*Osaka Prefecture Univ., \*\*\*Dept. Nucl. Engng.
24. Fabrication of Cerium-doped Yttrium Aluminum Garnet Thin Films by Mist CVD Method  
S. Murai, T. Sato, S. Yao, R. Kamakura, K. Fujita, and K. Tanaka  
Dept. Mater. Chem., Grad. Sch. Engng.
25. TEM Studies on Fe-Ion Irradiated Model Alloys of Ferritic/Martensitic Steel  
S.S. Huang, K. Sato, Q. Xu, T. Yoshiie and H. Tsuchida\*  
RRI, \*QSEC
26. Experimental Physics Program A5 (2015) – Symmetry in Nature at The School of Science  
T. Murakami, K. Suzuki, T. Nakawaki, R. Fujii, H. Kasuya, Y. Sakaguchi, T. Bessho, A. Mamiya, Y. Michishita, N. Yokono, T. Wada, and A. Sakaue  
Dept. Phys.
27. Fluorine and Aluminum Content in Tea Leaf  
Y. Haruyama, K. Hakoda, H. Tsujino, T. Fujiwara, K. Yasuda and M. Saito\*  
Lab. Appl. Phys., Kyoto Prefectural Univ., \*Dept. Nucl. Engng.
28. Characterization of Cu(Ti)-electrode Formation on IGZO  
K. Ito, K. Kohama, T. Nishibata, T. Nabatame\*, and A. Ohi\*  
JWRI, Osaka Univ., \*NIMS
29. Total Li Depth Profiling of Metal/Electrolyte/Metal Capacitor under Biasing by Means of Transmission ERDA with 11 MeV O<sup>+5</sup> Ion  
K. Morita<sup>1</sup>, B. Tsuchiya<sup>2</sup>, T. Kato<sup>3</sup>, Y. Katayama<sup>3</sup>, Y. Iriyama<sup>3</sup>, H. Tsuchida<sup>4</sup> and T. Majima<sup>4</sup>  
<sup>1</sup>NISRI, <sup>2</sup>Meijo Univ., <sup>3</sup>Nagoya Univ., <sup>4</sup>QSEC

30. Evaluation of The Hydrogen Distribution near The Surface of Zirconium Alloy  
Investigated by Ion Beam Analysis

M. Akiyoshi<sup>1</sup>, S. Kurahashi<sup>2</sup>, S. Okuda<sup>1</sup>, I. Takagi<sup>3</sup>

<sup>1</sup>RRC, Osaka Prefecture Univ., <sup>2</sup>Dept. Quantum and Radiat. Engng.,  
Osaka Prefecture Univ., <sup>3</sup>Dept. Nucl. Engng.