

**The 6th International GIGAKU Conference
in Nagaoka
(IGCN 2017)**

Plenary & Poster Program

6th October (Fri), 2017

Nagaoka University of Technology

Categories (Sessions)

Plenary	p.1	<u>PL</u>
GIGAKU Education	p.2-3	<u>GE</u>
GIGAKU Research and Development	p.3-14	<u>RD</u>

<http://igcn.gigaku.org/>

2017.10.03

PLENARY Lecture Bldg. Room A, October 6 (Fri)

Plenary Session (PL)

09:00 ~ 11:50	Plenary Session (Chairperson: Prof. Masato Aketagawa)
	Opening Remarks
09:00 ~ 09:05	Dr. Nobuhiko Azuma, President, Nagaoka University of Technology, Japan
09:05 ~ 09:15	Dr. Hoang Minh Son, President, Hanoi University of Science and Technology, Vietnam
09:15 ~ 09:40 PL-01:	“Fostering Future Glocal Engineers for Sustainable Development of Local Communities, Japan And World” Dr. Akiko Kato, Associate Professor, National Institute of Technology, Fukushima College. Japan
09:40 ~ 10:05 PL-02:	“Interactive Engineering Education” Dr. Rajapa Gnanamoorthy, Professor, Indian Institute of Technology Madras, India
10:05 ~ 10:30 PL-03:	“IGCN 2017 Cooperative and Work-Integrated Education and Research Collaboration at Western Digital” Dr. Sampan Silapanad, Vice-president, Western Digital (Thailand) Co., Ltd., Thailand
10:30 ~ 10:45	Coffee Break
10:45 ~ 11:10 PL-04:	“A new strategy for student engagement at the Australian Nuclear Science and Technology Organisation (ANSTO)” Dr. Gordon Thorogood, Professor, Australian Nuclear Science and Technology Organisation, Australia
11:10 ~ 11:30 PL-05:	“Long-Term Internship "Jitsumu-Kunren" for Sustainable Development of Vitality, Originality And Services” Dr. Masahiro Iwahashi, Professor, Nagaoka University of Technology, Japan
11:30 ~ 11:50 PL-06:	“Gigaku Education, Past, Present and Future” Dr. Yoshiki Mikami, Executive Director, Vice President, Nagaoka University of Technology, Japan

* Poster Presentation: 12:30 ~ 14:30 Lecture Bldg. 1st floor

Networking Dinner: 17:30 ~ 19:00 Commissary (Cafeteria) 1st floor (fee: JPY2,000)

POSTER October 6 (Fri), 12:30 ~ 14:30

Lecture Bldg. 1st Floor

GIGAKU Education (GE)

- GE-001:** “Visualizing Extracurricular Activities by All Faculty Members and Developing Educational Materials in Collaboration with Senior Graduates”
_sub41 Nobuyuki Ogawa, Tetsuro Tokoro, Akira Shimizu and Yoshito Itoh
(*NIT, Gifu College, Japan*)
- GE-002:** “Development of Programming Teaching Materials for Elementary School with Programming Language "Scratch"”
_sub47 Shigehiro Toyama, Kazuki Sakai, Mari Miyata, Fumihito Tamura, Yasuko Tsuchida, Yoshinori Tokoi, Tetsuro Iyama, Taku Kiryu, and Fujio Ikeda (*NIT, Nagaoka Collage, Japan*)
- GE-003:** “Education and Research Activation for Students And Faculty Members Through “Prelab” System”
_sub53 Yoshihiro Tawara, Shin-ichi Akazawa, and Taku Kiryu (*NIT, Nagaoka College, Japan*)
- GE-004:** “Global R&D in Developing Country, Vietnam”
_sub57 N. Dam Tran¹, T.Hoa Tran¹, Takashi Kikuchi², Toru Sasaki², Kazumasa Takahashi², and Nob. Harada³ (¹*HCM University of Technology and Education, Vietnam*, ²*NUT, Japan*, and ³*NIT, Kitakyushu College, Japan*)
- GE-005:** “Development of a Sequence Learning Kit and the Practice as Global PBL Contents”
_sub88 Kuniaki Yajima¹, Akihiro Nitta¹, Yoshihiro Takeichi², and Jun Sato² (¹*NIT, Sendai College, Japan*, and ²*NIT, Tsuruoka College, Japan*)
- GE-006:** “Operation of Engineering Design Educational Program Covering Environmental Problems in Local Community”
_sub97 Tsukasa Sato, Michiaki Shishido, Takeshi Houga, and Ryoji Onodera (*NIT, Tsuruoka College, Japan*)
- GE-007:** “Practical Project Oriented Curriculum on the Three Institutes Corroboration Program”
_sub107 Yoshihiro Takeichi¹, Kuniaki Yajima², Jun Sato¹ and Takashi Yukawa³ (¹*NIT, Tsuruoka College, Japan*, ²*NIT, Sendai College, Japan* and ³*NUT, Japan*)

- GE-008:** “Design Method of Adaptive E-Learning Teaching Materials Based on Comparative Learning of Mongolian - Japanese Grammar”
_sub113
Sirigong, K. T. Nakahira, and Takashi Yukawa (*NUT, Japan*)
- GE-009:** “Training of Practical and Creative Nuclear Engineers Using Unsealed Radioisotopes”
_sub114
Yu Tachibana, and Tatsuya Suzuki (*NUT, Japan*)

GIGAKU Research and Development (RD)

- RD-001:** “Preparation of Ultra High Purity Magnesium Sheet”
_sub1
Makoto Inoue¹, Hiroki Fukayama¹, Tetsuo Aida², Kazuo Matsuzawa³ and Masao Kita¹ (¹*NIT, Toyama College, Japan*, ²*University of Toyama, Japan*, and ³*Tokyo Metropolitan College of Industrial Technology, Japan*)
- RD-002:** “A Proposal to Resolve Design Dilemma for Unexpected/Unknown Accidents”
_sub2
Kazuhiko Suzuki (*NUT, Japan*)
- RD-003:** “Effects of Unburned-Gas Temperature on Cellular Instabilities of Lean Premixed Flames”
_sub10
Masato Nogami, Thwe Thwe Aung, Toshiyuki Katsumi, and Satoshi Kadowaki (*NUT, Japan*)
- RD-004:** “Observation of Droplet Behavior in Laser Ignition of Green-Monopropellant”
_sub14
Masaya Furusawa, Tsubasa Kitamura, Toshiyuki Katsumi, and Satoshi Kadowaki (*NUT, Japan*)
- RD-005:** “Folding Characteristics of Multiple-Scored Lines of Corrugated Fiberboard”
_sub15
Haruya Yokoyama, and Shigeru Nagasawa (*NUT, Japan*)
- RD-006:** “Feasibility Study of Auto-Adjustable Mechanism of Allowable Crease Forming of Paperboard Using Tapered Groove Against Unbalanced Punch Indentation”
_sub16
Tetsuya Yamamoto¹, Shigeru Nagasawa¹, Akira Hine² and Daishiro Yamaguchi²
(¹*NUT, Japan*, and ²*Katayama Steel Rule Die Inc., Japan*)
- RD-007:** “Activities of “Research Association of High Pressure Technologies for The Creation of Future Industry” to Disseminate The High-Pressure Technology and Promote Its Industrial Use”
_sub20
Satoshi Maeda¹, Yuta Kazama¹, Yuya Imai¹, Asami Oguro¹, Akihiko Ando², and Akira Yamazaki² (¹*Echigo Seika Co., Ltd., Japan*, and ²*Research Association of High Pressure Technologies for the Creation of Future*

Industries, Japan)

- RD-008:** “Activities of “High-Pressure Support” to Support The Practical Application of The High-Pressure Technology”
_sub21 Miyuki Ogino¹, Eri Ohara², Yasushi Tokunaga², Atsushi Kobayashi¹, Kiyoshi Kawai¹, and Akira Yamazaki¹ (¹*High-Pressure Support Co., Ltd., Japan, and* ²*Echigo Seika Co., Ltd., Japan)*
- RD-009:** “Study of The Diffusive-Thermal Instability of Low Lewis Numbers Premixed Flames for Safety Precautions in Lean Combustion”
_sub27 Thwe Thwe Aung, and Satoshi Kadowaki (*NUT, Japan*)
- RD-010:** “Formation and Tribological Properties of Polytetrafluoroethylene(PTFE) Composites Reinforced Newly Developed Bio-Material”
_sub31 Bui Duc Tai, Satoshi Yamagishi, and Masakazu Okazaki (*NUT, Japan*)
- RD-011:** “Defect Formations and Failure Behaviors of Friction Stir Welded T-Joints of Dissimilar AA5083 and AA7075”
_sub32 Duong Dinh Hao¹, Tran Hung Tra², Satoshi Yamagishi¹, and Masakazu Okazaki¹
(¹*NUT, Japan, and* ²*Nha Trang University, Vietnam*)
- RD-012:** “Thermal Dissolving Behavior of RPF Fly Ash”
_sub37 Takeshi Toshima¹, Syuya Daidai¹, Saori Takamatsu¹, Masamoto Tafu¹, Makoto Inoue¹ and Tomoyuki Honma²
(¹*NIT, Toyama College, Japan, and* ²*NUT, Japan*)
- RD-013:** “Low Pressure Hydrothermal Synthesis of Kuzelite by Using RPF Fly Ash”
_sub38 Syuya Daidai¹, Takeshi Toshima¹, Saori Takamatsu¹, Masamoto Tafu¹, Kazuhiro Tada¹, Makoto Inoue¹ and Tomoyuki Honma²
(¹*NIT, Toyama College, Japan, and* ²*NUT, Japan*)
- RD-014:** “Enhanced Room-temperature Formability in Commercial Mg-Al-Mn Alloy Sheet via Low-cost Zn and Ca Additions”
_sub46 Taiki Nakata, Chao Xu, and Shigeharu Kamado (*NUT, Japan*)
- RD-015:** “Study on Performance Improvement of the Horizontal Axis Type Circular Cylinder Blades Wind Turbine Driven by Longitudinal Vortex”
_sub52 Kasumi Sakamoto, Withun Hemsuwan, and Tsutomu Takahashi (*NUT, Japan*)
- RD-016:** “An Effect of Flow History on Occurrence of Second Yield Behavior in α gels”
_sub55 Yasunori Sato, Ippei Homma, and Tsutomu Takahashi (*NUT, Japan*)
- RD-017:** “Improvement of Yield Anisotropy in Extruded Mg Alloys”
_sub56 Keigo Tanaka, Taiki Nakata, Shigeharu Kamado, and Chao Xu (*NUT, Japan*)

- RD-018:** “High-Temperature Mechanical Properties Of A Coarse Grained Ti3Al
_sub59 Intermetallic Compound”
Takahiro Fukui¹, Tsutomu Ito^{1,3}, Hiroaki Takano², Tomoyuki Homma², and
Yoko Yamabe-Mitarai³ (¹*NIT, Kagawa College, Japan*, ²*NUT, Japan*, and
³*National Institute for Materials Science, Japan*)
- RD-019:** “Effects of Ca Addition and Rolling Process on Room Temperature
_sub65 Formability and Mechanical Properties of Mg-4Zn-1MM Alloy Sheet”
Yoshihide Uehara, Taiki Nakata, and Shigeharu Kamado (*NUT, Japan*)
- RD-020:** “Mechanical Tensile Estimation of Glass Fiber Based Structure Sheet as Single
_sub66 Face Corrugated Fabrics and Development of Block Fixture with Corrugated
Structure”
Songtam Laosuwan¹, Shigeru Nagasawa¹, and Syotaro Takeda² (¹*NUT, Japan*,
and ²*Kubo Corporation, Japan*)
- RD-021:** “Development of linear Fresnel lens concentrator photovoltaic module”
_sub73 Yoshitaka Hayakawa, Akihiro Abe, Daisuke Sato, Masaaki Baba, and Noboru
Yamada (*NUT, Japan*)
- RD-022:** “Development of Refuse Paper And Plastic Fuel Molding Machine and
_sub75 Feasibility Study of Crush Cutting Characteristics of Disposable Paper Diaper”
Yuta Takano¹, Jina Weerayut¹, Shigeru Nagasawa¹, Piyawan Phookerd²,
Katsushi Yoshizawa³, Takeo Furumi⁴, and Yutaka Mohri⁵ (¹*NUT, Japan*, ²*NUT
and Thai-Nichi Institute of Technology, Thailand*, ³*Yoshizawa Toubei Ltd.,
Japan*, ⁴*Super Faiths Inc., Japan*, and ⁵*Mohri Manufacturing Ltd., Japan*)
- RD-023:** “Study on Liquid-level Sensing Utilizing Wedge Wave”
_sub86 Iwao Matsuya, Yudai Honma, and Ikuo Ihara (*NUT, Japan*)
- RD-024:** “Enhancement and Control of Boling Heat Transfer with Advanced Methods”
_sub110 Shun Hosokai, Katsumasa Takahashi, and Noboru Yamada (*NUT, Japan*)
- RD-025:** “Dynamics of Predicting Environmental Factors via Optimal Scheduling for
_sub40 Air Cooling and Dehumidifying”
Yohei Saika¹, and Masahiro Nakagawa² (¹*NIT, Gunma College, Japan*, and
²*NUT, Japan*)
- RD-026:** “Effect of Alkali Metal Nitrate Doping on the Structure and Optical Transition
_sub42 Properties of Zinc Tungstate”
Prinya Lorchorchoonkul, Masaya Nakata and Tomoichiro Okamoto (*NUT,
Japan*)

- RD-027:** “Effect of the Electrical Material Properties on the Surface Pressure Distribution of a Circular Cylinder”
_sub44
Naoto Watanabe¹, Ayumu Inagaki¹, Toyohisa Asaji², Toru Sasaki³, and Kazumasa Takahashi³ (¹*NIT, Oita College, Japan*, ²*NIT, Toyama College, Japan* and ³*NUT, Japan*)
- RD-028:** “Monomolecular Layer Growth Control of ZnO Films by Pulse Supply of A Metal Source Gas in Catalytic Reaction-Assisted Chemical Vapor Deposition”
_sub45
Taro Saito, Shotaro Ono, Ryuta Iba, and Kanji Yasui (*NUT, Japan*)
- RD-029:** “Arrangement of Parallel Link Robot for Disturbance Load in Somatosensory Stimulation”
_sub50
Yuki Nakamura¹, Shigehiro Toyama¹, Fujio Ikeda¹, Kenji Kamimura¹ and Toshimasa Miyazaki² (¹*NIT, Nagaoka College, Japan*, and ²*NUT, Japan*)
- RD-030:** “Developing An Aging Wine Model by Dielectric Barrier Discharge (DBD) at Atmospheric Pressure”
_sub58
N. Dam Tran¹, T.Hoa Tran¹, Takashi Kikuchi², Toru Sasaki², Kazumasa Takahashi², and Nob. Harada³ (¹*HCM University of Technology and Education, Vietnam*, ²*NUT, Japan*, and ³*NIT, Kitakyushu College, Japan*)
- RD-031:** “Optical Properties of Non-Polar ZnO Films Grown by Catalytic Reaction-Assisted Chemical Vapor Deposition”
_sub63
Yuki Adachi, Munenori Ikeda, Ryouichi Tajima, Ariyuki Kato, and Kanji Yasui (*NUT, Japan*)
- RD-032:** “Effect of annealing temperature on photoluminescence property of Cu-doped β -Ca₃(PO₄)₂”
_sub85
Masaya Nakata, and Tomoichiro Okamoto (*NUT, Japan*)
- RD-033:** “Conductivity CONTROL of Mn-doped ZnSnAs₂ Thin Films Grown on InP Substrates”
_sub92
Hideyuki Toyota¹, Yuto Minamizawa¹, Tomohiro Kitazawa¹, Shiro Hidaka¹, Shin-ichi Nakamura², Bakhshi Mehdiyev¹, and Naotaka Uchitomi¹ (¹*NUT, Japan*, and ²*Aoyama Gakuin University, Japan*)
- RD-034:** “Electronic and Magnetic Properties of Mn-doped ZnSnAs₂ Chalcopyrite Semiconductor”
_sub93
Bakhshi Medhiyev^{1,2}, Hideyuki Toyota¹, Nazim Mamedov², Ayaz Bayramov², and Naotaka Uchitomi¹ (¹*NUT, Japan*, and ²*Institute of Physics, National Academy of Sciences of Azerbaijan, Azerbaijan*)

- RD-035:** “Numerical Analysis on Particle Distribution in Phase Space for Compact Beam Simulator in Heavy-Ion Inertial Fusion”
_sub94
Ryuma Matsuda¹, Youngsoo Park², Yukihiro Soga², Kazumasa Takahashi¹, Toru Sasaki¹, and Takashi Kikuchi¹ (¹*NUT, Japan*, and ²*Kanazawa University, Japan*)
- RD-036:** “Study on Decomposition of Neonicotinoid Pesticides Solution Irradiated by Pulsed Intense Relativistic Electron Beam”
_sub95
Naoya Hayashi¹, Takashi Kikuchi¹, Nob. Harada², Toru Sasaki¹, Kazumasa Takahashi¹, Go Imada^{1,3}, and Hiroshi Moriwaki⁴ (¹*NUT, Japan*, ²*NIT, Kitakyushu College, Japan*, ³*Niigata Institute of Technology, Japan*, and ⁴*Shinshu University, Japan*)
- RD-037:** “Fabrication of Double Cone Tube Formed by Micro Stereolithography for Molding of Three-Dimensional Metal Structure”
_sub96
Katsuaki Yamane, and Akira Kawai (*NUT, Japan*)
- RD-038:** “Evaluation of Photocatalytic Activity of TiO₂ Prepared by Electric Current Heating”
_sub104
Takao Nishizawa, and Tomoichiro Okamoto (*NUT, Japan*)
- RD-039:** “Electrochemical Characteristics of Triphenylamine-Derivative Single Crystal”
_sub11
Yasuaki Nakasone¹, Shofu Matsuda¹, Sayoko Shironita¹, Norio Nagayama^{1,2}, and Minoru Umeda¹ (¹*NUT, Japan*, and ²*Ricoh Company, Ltd., Japan*)
- RD-040:** “Effects of Lignin Addition on Cyclic Voltammetry of Pb Electrodes”
_sub19
So Tanabe, and Nobumitsu Hirai (*NIT, Suzuka College, Japan*)
- RD-041:** “Addition Effects of Aluminium or Magnesium Ions on the Electrochemical Behavior of Lead Electrode in Sulfuric Acid Solution with Potassium Sulfate”
_sub34
Shohei Kawakita, Yui Yamamoto, and Nobumitsu Hirai (*NIT, Suzuka College, Japan*)
- RD-042:** “Consideration of Power Generation Ability of Sulfate Reducing Bacteria Using Model Type Microbial Fuel Cell”
_sub35
Hayato Ito, Gento Nakagawa, and Nobumitsu Hirai (*NIT, Suzuka College, Japan*)
- RD-043:** “Preparation and Characterization of Cellulose Hydrogel Films From Myanmar Thanaka Heartwood”
_sub54
Cho Cho¹, Cho Cho Thet², and Takaomi Kobayashi³ (¹*Yenanchaung Degree College, Myanmar*, ²*University of Yangon, Myanmar*, and ³*NUT, Japan*)

- RD-044:** “Synthesis, Characterization and Reactivity of Dinuclear Metal(II) Hydroquinonate Complexes”
_sub67
Akira Miyano¹, Kosei Ohura¹, Hidehito Komatsuzaki¹, Tomohiro Agou², Yuya Tanaka³, Michito Yoshizawa³, Munetaka Akita³, Jun Nakazawa⁴, and Shiro Hikichi⁴ (¹*NIT, Ibaraki College, Japan*, ²*Ibaraki University, Japan*, ³*Tokyo Institute of Technology, Japan*, and ⁴*Kanagawa University, Japan*)
- RD-045:** “Nylon 6 - Mordenite Composite Membranes for Ethylene Gas Adsorption”
_sub68
Ton Nu Thanh Phuong, and Takaomi Kobayashi (*NUT, Japan*)
- RD-046:** “Chemical Conversion of Hardly Soluble Materials by Oxidized Plasma Jets”
_sub74
Tomohito Katano, Yu Tachibana, and Tatsuya Suzuki (*NUT, Japan*)
- RD-047:** “Dioxygen Activation by Thiocarboxylato Complexes Involving Sulfur Oxidation”
_sub83
Kazunari Ohira¹, Yuta Kanazawa¹, Hidehito Komatsuzaki¹, Yuya Tanaka², Michito Yoshizawa², Munetaka Akita², Jun Nakazawa³, and Shiro Hikichi³ (¹*NIT, Ibaraki College, Japan*, ²*Tokyo Institute of Technology, Japan*, and ³*Kanagawa University, Japan*)
- RD-048:** “Oil Absorbent Foams from Methyl Methacrylate and Stearyl Methacrylate (MMA/STA)”
_sub89
Orathai Boondamnoen¹, Pakorn Opaprakasit², Atisa Petchsuk³, and Mantana Opaprakasit¹ (¹*Chulalongkorn University, Thailand*, ²*Sirindhorn International Institute of Technology, Thammasat University, Thailand*, and ³*National Metal and Materials Technology Center, National Science and Technology Development Agency, Thailand*)
- RD-049:** “Self-powdering Phenomena of Ferroelastic β' -Gd₂(MoO₄)₃ Crystals in Glasses”
_sub102
Mikiya Kotaka¹, Tsuyoshi Honma¹, Kenji Shinozaki², Mario Affatigato³, Ralf Müller⁴, and Takayuki Komatsu¹ (¹*NUT, Japan*, ²*National Institute of Advanced Industrial Science and Technology, Japan*, ³*Physics Department, Coe College, USA*, and ⁴*BAM Federal Institute for Materials Research and Testing, Germany*)
- RD-050:** “Evaluation of Dead Layers in Nd_{0.5}Bi_{2.5}Fe₅O₁₂ Thin Films”
_sub106
Kaito Takano¹, Tomoyuki Takahashi¹, Masami Nishikawa¹, Hironori Asada², and Takayuki Ishibashi¹ (¹*NUT, Japan*, and ²*Yamaguchi University, Japan*)
- RD-051:** “The Study of Marine Anammox Bacteria Using an Upflow Column Reactor”
_sub3
Foo Lay Chia¹, Takakuni Tanaka¹, Mamoru Oshiki², Tomonori Kindaichi³,

Tadashi Nittami⁴ (¹*NIT, Oyama College*, ²*NIT, Nagaoka College, Japan*,
³*Hiroshima University, Japan*, and ⁴*Yokohama National University, Japan*)

- RD-052:** “Based on Normative Evacuation Behavior Kashiwazaki Area Evacuation Demand Optimum Distribution Estimation Simulation”
_sub26
Yuya Minami, Kazusi Sano, Kiichiro Hatoyama, and Jun Ito (*NUT, Japan*)
- RD-053:** “Single-Stage Nitrogen Removal by Using Down-Flow Hanging Sponge Reactor without Aeration”
_sub71
Sumire Yamashita, Taiki Kataoka, and Daisuke Tanikawa (*NIT, Kure College, Japan*)
- RD-054:** “Aquaculture Effluent Treatment by Combination of Single Stage Nitrification-Denitrification System and Hydroponic Cultivation”
_sub77
Hiromi Tokuzawa, Yuka Nakamura, Takashi Yamaguchi, and Daisuke Tanikawa
(*NIT, Kure College, Japan*)
- RD-055:** “Process Performance Evaluation of Anaerobic Baffled Reactor-Down-Flow Hanging Sponge Reactor System For Natural Rubber Industrial Wastewater Treatment”
_sub81
Taiki Kataoka¹, Hideaki Sonaka¹, Yoshino Muro¹, Takashi Yamaguchi², and Daisuke Tanikawa¹ (¹*NIT, Kure College, Japan*, and ²*NUT, Japan*)
- RD-056:** “Investigation of Heating Temperature that Compatibility of Meat Safety and Palatability”
_sub84
Kenta Tanatani, Masaki Sukenaga, Katunari Tagata, Seiya Jigawa, Jun-ya Hasimoto, Yu-suke Obayashi, Shu-ma Yukimaru, Urumi Oshima, Reina Kanno, and Zen-ichiro Kimura (*NIT, Kure College, Japan*)
- RD-057:** “Adsorption Behaviour of Metal Ions on Silk Fibers”
_sub101
Tsukasa Sato, Tsugumi, Seki, Saki Abe, Shinko Ito, and Tatsuo Abe (*NIT, Tsuruoka College, Japan*)
- RD-058:** “Detection of bulking-causative microorganisms in an upflow anaerobic sludge blanket reactor using molecular techniques”
_sub105
Kyohei Kuroda¹, Yu Ikedo¹, Tomoka Arata¹, Nana Ohmine¹, Hazuki Kurashita¹, Manami Kotsusa¹, Yuga Hirakata², Masashi Hatamoto², Masayoshi Yamada³, Masahito Yamauchi³, and Takashi Yamaguchi² (¹*NIT, Miyakonjo College, Japan*, ²*NUT, Japan*, and ³*NIT, Kagoshima College, Japan*)
- RD-059:** “Performance Evaluation of Kanpyō Tablets Under Different Temperature”
_sub4
Masaya Matsumoto¹, Foo Lay Chia¹, Ryo Kobayashi¹, Daisuke Kawagoe¹, Takakuni Tanaka¹, Yoshinori Takahara² (¹*NIT, Oyama College, Japan*, and ²*NUT, Japan*)

- RD-060:** “Investigation of new application of kanpyo based on its characteristics”
_sub5 Ryo Kobayashi¹, Tomoya Onuki¹, Masaya Matsumoto¹, Yasuhiro Kobayashi¹, Hisako Ooka², Takakuni Tanaka¹, and Yoshinori Takahara³ (¹*NIT, Oyama College, Japan*, ²*NIT, Gunma College, Japan*, and ³*NUT, Japan*)
- RD-061:** “Identification of Substrate Recognition Residues in Family S46 Peptidase
_sub6 from Gram-Negative Bacteria”
Akihiro Nakamura¹, Yoshiyuki Suzuki¹, Saori Roppongi², Koushi Hidaka³, Yasumitsu Sakamoto², Nobutada Tanaka⁴, and Wataru Ogasawara¹ (¹*NUT, Japan*, ²*Iwate Medical University, Japan*, ³*Kobe Gakuin University, Japan*, and ⁴*Showa University, Japan*)
- RD-062:** “Cellobiose-dependent Cellulase Production Mechanism in Filamentous Fungi
_sub8 *Trichoderma reesei*”
Hiroki Hirasawa, Keitaro Takahashi, Hiroki Aita, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-063:** “Contribution of Transcription Factors to Protease Regulation in *Trichoderma*
_sub9 *reesei*”
Nayani D. Daranagama, Hiroki Hirasawa, Koki Shioya, Haruna Sato, Yoshiyuki Suzuki, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-064:** “Identification of the Protein Kinase Contributes to Xylanase Production in
_sub13 *Trichoderma reesei*”
Yoshihide Ohkawa, Hiroki Hirasawa, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-065:** “Isolation of Thermophilic Fungi Capable of Assimilating D-amino Acids and
_sub25 Characterization of a Thermophilic Fungal D-amino Acid Oxidase”
Yuya Shimekake, Shouji Takahashi, Katsumasa Abe, and Yoshio Kera (*NUT, Japan*)
- RD-066:** “Analysis of the nitrogen-responsive transcription factor in filamentous fungus
_sub30 *Trichoderma reesei*”
Daichi Okayama, Hiroki Hirasawa, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-067:** “Enzymatic Properties of PhoK Alkaline Phosphatase of *Sphingobium* sp.
_sub33 Strain TCM1”
Yuka Morooka, Shouji Takahashi, Hiroshi Katanuma, Katsumasa Abe, and Yoshio Kera (*NUT, Japan*)

- RD-068:** “The nuclear dynamics in cellulolytic filamentous fungus *Trichoderma reesei*”
_sub36 Nguyen Le Quynh Anh¹, Minaho Fujiwara¹, Nobuhito Nango², Yosuke Shida¹, Masako Osumi³, and Wataru Ogasawara¹ (¹*NUT, Japan*, ²*Ratoc System Engineering, Japan*, and ³*Integrated Imaging Research Support, Japan*)
- RD-070:** “Analysis of Light Response Mechanisms in Carotenoid Synthesis of the Yeast *Rhodospiridium toruloides*”
_sub39 Pham Khanh Dung¹, Atsushi Miyata¹, Yosuke Shida¹, Harutake Yamazaki², Kazuo Masaki³, Kazuki Mori⁴, Kosuke Tashiro⁴, Satoru Kuhara², and Wataru Ogasawara¹ (¹*NUT, Japan*, ²*Niigata University of Pharmacy and Applied Life Sciences, Japan*, ³*National Research Institute of Brewing, Japan*, and ⁴*Kyushu University, Japan*)
- RD-071:** “Comparison of Transformation Method in *Rhodospiridium toruloides*”
_sub43 Kota Oshiro, Takanobu Iwamoto, Takeru Takamizawa, Yoshiyuki Suzuki, Harutake Yamazaki Hiroaki Takaku, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-072:** “Elucidation of Carbon Metabolism Mechanism in *Rhodospiridium toruloides* NBRC10032 Strain”
_sub61 Takeru Takamizawa, Iwamoto Takanobu, Kota Oshiro, Yoshiyuki Suzuki, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-073:** “Analysis of Putative Sugar Transporter Tr67752 by Global Analysis of Transporter in *Trichoderma reesei*”
_sub62 Kazuya Otani, Yukina Kitahara, Yosuke Shida, and Wataru Ogasawara (*NUT, Japan*)
- RD-074:** “Expression, Affinity Purification, and Characterization of Hn-Tagged Haloalkylphosphorus Hydrolase”
_sub76 Narumi Tanaka, Katsue Miura, Katsumasa Abe, Shouji Takahashi, and Yoshio Kera (*NUT, Japan*)
- PRD-075:** “Heart Cell Generation From Human iPS Cell at Low Density”
_sub87 Minh Nguyen Tuyet Le, and Kiyoshi Ohnuma (*NUT, Japan*)
- RD-076:** “Sugar-Free Bio-Based Muconic Acid Production from Lignin-Derived Compounds”
_sub90 Eri Shinoda¹, Kenji Takahashi¹, Sachio Suzuki¹, Naofumi Kamimura¹, Tomonori Sonoki², and Eiji Masai¹ (¹*NUT, Japan*, and ²*Hirosaki University, Japan*)

- RD-077:** “Transcriptional Regulation of Lignin-Derived Biphenyl Catabolism
_sub91 in *Sphingobium* sp. strain SYK-6”
Ko Niinuma, Takuma Araki, Naofumi Kamimura, and Eiji Masai (*NUT, Japan*)
- RD-078:** “Cell Migration in the Human Gastrulation Stage Mimicked by Endoderm and
_sub98 Mesoderm Derived from Human Induced Pluripotent Stem Cells”
Kenshiro Maruyama, Shota Miyazaki, Yuta Yamamoto, and Kiyoshi Ohnuma
(*NUT, Japan*)
- RD-079:** “Functional analysis of a phosphodiesterase gene in the metabolism of an
_sub99 organophosphorus flame retardant in *Sphingobium* sp. strain TCM1”
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(¹*NUT, Japan*, and ²*National Institute for Fusion Science, Japan*)
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