

## Poster Program

### Poster Session 1 (Day1, December 3, 15:00~16:30)

P1-01

#### **Development of plastic scintillators loaded with surface-modified LiGaO<sub>2</sub> nanoparticle for neutron detection**

Haruhisa Tsukahara, Masanori Koshimizu  
(Shizuoka University)

P1-02

#### **Analysis of proteins involved in recruitment of adaptor proteins for sorting of vacuolar luminal proteins to the trans-Golgi network**

Kohji Nishimura, Koichiro Awai  
(Shimane University, Tottori University, Shizuoka University)

P1-03

#### **Development of Red-Emitting Eu-Doped TAGG Nanoparticle Scintillators**

Yuma Takahashi, Masanori Koshimizu  
(Shizuoka University)

P1-04

#### **Application of FPGA-Based Hardware-Implemented Ring Reservoir for Anomaly Detection in Vacuum Pumps**

H. Murakami, I. Teramoto, T. Koide, H. Momose, T. Morie  
(National Inst. of Tech., Kurume College, Hiroshima Univ., Kyushu Institute of Technology)

P1-05

#### **Development of UV-cured Plastic Scintillators with 9-Vinylcarbazole Having High Scintillation Light Yields**

Naru Hayashi, Masanori Koshimizu  
(Shizuoka University)

P1-06

#### **Bright burn of Ce:GAGG scintillator**

T. Yanagida, Y. Fujimoto, M. Koshimizu, K. Watanabe, T. Kato, D. Nakauchi, N. Kawaguchi  
(Nara Institute of Science and Technology, Tohoku Univ., Shizuoka Univ., Kyushu Univ)

P1-07

#### **Nd-doped BaO-Bi<sub>2</sub>O<sub>3</sub>-B<sub>2</sub>O<sub>3</sub> Glass Scintillators for High Radiation Dose Field Monitoring**

Keita Miyajima, Akihiro Nishikawa, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

P1-08

#### **Construction of Multi-Core Gel Filaments by Dynamic Gelation of Liquid-Liquid Phase-Separated Casein-Polysaccharide Systems in a Flow Field**

Yukiya Kobayashi, Misuzu Takahashi, Kota Sagawa, Eri Nasuno, Yasuko Yanagida, Norihiro Kato  
(Utsunomiya University, Institute of Science Tokyo)

P1-09

#### **Optical and Scintillation Properties of Fe-doped Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub> Single Crystals**

Naoki Hayashi, Toshiaki Kunikata, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Hiroo Omi, Takayuki Yanagida  
(Yamato university, NAIST)

P1-10

#### **Developing HPC pipelines for omics research**

F. Liberati, P. Bottoni, T. Castrignanò, K. Kanev, D. Moraru, A. Nakamura  
(Sapienza University of Rome, University of Tuscia, Ontario Tech University, Shizuoka University)

P1-11

**Photoluminescence and scintillation properties of n-GaN/free-standing n<sup>+</sup>-GaN substrates**

Yuta Tominaga, Takumi Kato, Akihiro Nishikawa, Keiichiro Miyazaki, Daisuke Nakauchi, Noriaki Kawaguchi, Yukiharu Uraoka, Takayuki Yanagida  
(Fukuoka University, Nara Institute of Science and Technology)

P1-12

**Development of novel oxide neutron scintillators as alternatives to He-3 detectors**

Noriaki Kawaguchi, Takumi Kato, Yuma Takebuchi, Masanori Koshimizu, Kai Okazaki, Daisuke Nakauchi, Takayuki Yanagida  
(Nara Institute of Science and Technology, Utsunomiya University, Shizuoka University)

P1-13

**The role of coating homogeneity for enhanced performance in Lithium-Ion Battery Cathodes**

Tomoya Ohno, Jeevan Kumar Padarti, Shigeto Hirai, Takeshi Matsuda  
(Kitami Institute of Technology)

P1-14

**Development of optical fiber-based neutron detectors for BNCT**

Kenichi Watanabe, Yutaro Saito, Yuya Oshima  
(Kyushu University)

P1-15

**Scintillation properties of Nd-doped Ca<sub>3</sub>TaGa<sub>3</sub>Si<sub>2</sub>O<sub>14</sub> single crystals emitting near-infrared photons**

K. Okazaki, M. Koshimizu, D. Nakauchi, T. Kato, N. Kawaguchi, T. Yanagida  
(Nara Institute of Science and Technology, Shizuoka University)

P1-16

**Development of shape memory composite actuators for application to medical and nursing care robots**

Kazuhiro Kitamura, Hideki Hosoda  
(Aichi University of Education, Tokyo Institute of Technology)

P1-17

**Scintillation Properties of Pure BaCl<sub>2</sub> Transparent Ceramic with Fast Luminescence**

Shota Otake, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Masanori Koshimizu, Takayuki Yanagida  
(Nara Institute of Science and Technology, Shizuoka University)

P1-18

**Fabrication of Coaxial Nanocable Applicable to Biosensing Applications**

Toshiaki Kondo, Atsushi Ono  
(Aichi University of Technology, Shizuoka University)

P1-19

**Scintillation Properties of Tm:YVO<sub>4</sub> Single Crystals for Current-type Detectors**

Kensei Ichiba, Kenichi Watanabe, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology, Kyushu University)

P1-20

**Hybridized photocatalytic sheet fabricated using titanium dioxide nanoparticles and fibrous calcium phosphates**

Shohei Kajiwara, Kiyoshi Itatani, Hideki Kuwahara, Taishi Yokoi, Tetsuo Sasaki, Haruhiko Kuroe  
(Sophia Univ., Nihon Univ., Institute of Science Tokyo, Shizuoka Univ.)

P1-21

**Scintillator application of  $\text{LiAl}_5\text{O}_8$  phosphors for neutron detection**

Takumi Kato, Yuma Takebuchi, Masanori Koshimizu, Kai Okazaki, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology, Utsunomiya University, Shizuoka University)

P1-22

**Influence of Flip-Chip Chip-Scale Packaging on Terahertz On-Chip Transmission Lines**

Sangyeop Lee, Takeshi Yoshida

(Institute of Science Tokyo, Hiroshima University)

P1-23

**Synthesis and X-ray-induced radioluminescence properties of Tb-doped  $\text{Ca}_3\text{TaGa}_3\text{Si}_2\text{O}_{14}$  single crystals**

Ryosei Takahashi, Kai Okazaki, Daisuke Nakauchi, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology)

P1-24

**In-situ confocal laser scanning microscopy and scanning ion-conductance microscopy of *Aliivibrio fischeri* biofilm formed on various substrates**

Nobumitsu Hirai, Yuhei Miwa, Moeka Takado, Shunta Hattori, Futoshi Iwata

(Suzuka College, Shizuoka University)

P1-25

**Tissue-Nonspecific Alkaline Phosphatase Tagged with Aspartic Acid Residues Promotes Periodontal Tissue Regeneration**

Muhammad Dimas Aditya Ari, Atsuhiko Nagasaki, Masahiro Yamada, Akane Yaida, Akitoshi Okino, Hiroshi Egusa

(Tohoku University, Institute of Science Tokyo)

P1-26

**Membrane fusion between exosomes and artificial lipid membranes by an atmospheric plasma soft ablation method**

Atsushi Shoji, Yukiko Moriwa, Akitoshi Okino

(Tokyo University of Pharmacy and Life Science, Tokyo Institute of Technology)

P1-27

**Visualization of Needle Deflection in Out-of-Plane CT-Guided Punctures: A Preliminary Study**

Ayaka Harigai, Shinnosuke Yamamoto, Hiroki Kase, Hiroshi Ishihata, Yuto Omori, Kenji Kikuchi, Kei Takase, Toru Aoki

(Tohoku University, Shizuoka University)

P1-28

**Microstructural Analysis of Pure Ti by Precise Measurement of Resistivity**

Masato Ueda, Tomonari Inamura, Hideki Hosoda

(Kansai University, Institute of Science Tokyo)

P1-29

**X-ray-induced Thermoluminescence Properties of Mg- and Pr-codoped  $\text{LiTaO}_3$  Ceramics**

Yuta Hiramatsu, Masanori Koshimizu

(Shizuoka University)

P1-30

**Numerical Calculation of Particle Trajectory and Scattering in Small Neutron Source Using Pyroelectric Crystal**

Satoshi Abo, Fuma Oue, Tomoaki Masuzawa, Hidenori Mimura, Fujio Wakaya

(Osaka University, Shizuoka University)

P1-31

**Analysis of processing characteristics of rice flour**

Kana Miura, Satoshi Takagi, Kiharu Igarashi, Masato Sone

(Fukushima College, Ariake College, Yamagata University, Institute of Science Tokyo)

P1-36

**Preparation of various type of LTA zeolite bulk**

Yoshikazu Kameshima, Shunsuke Nishimoto, Masakazu Kawashita

(Okayama University, Institute of Science Tokyo)

P1-32

**PL and RL properties of rare-earth-doped SrAl<sub>2</sub>O<sub>4</sub> crystals**

Daisuke Nakauchi, Masanori Koshimizu, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology, Shizuoka University)

P1-37

**Creation of a human placental barrier model to evaluate substance permeability**

Inês M. Gonçalves, Takeshi Hori, Ana Moita, Rui Lima, Yuji Nashimoto, Hirokazu Kaji

(Institute of Science Tokyo, University of Minho, Universidade de Lisboa)

P1-33

**Assessing the Impact of Microplasma Exposure on Drug Uptake in Human Promyelocytic Leukemia (HL-60) cells**

Mahedi Hasan, Farhana Begum, Jaroslav Kristof, Alam Md Jahangir, Abubakar Hamza Sadiq, Sadia Afrin Rimi, Kazuo Shimizu

(Shizuoka University)

P1-38

**Quantification of drugs concentrated into a single particle using atmospheric pressure plasma soft ablation method**

Yukiko Moriwa, Akitoshi Okino, Atsushi Shoji

(Tokyo University of Pharmacy and Life Science, Tokyo Institute of Technology)

P1-34

**Polyharmonic Model Description of Nonlinear One-Port Networks**

Shuhei Amakawa, Korkut Kaan Tokgoz, Hiroyuki Ito

(Hiroshima University, Sabancı University, Institute of Science Tokyo)

P1-39

**Development and basic performance measurement of atmospheric linear type plasma source for uniform treatment of biomaterials**

Junnosuke Furuya, Kai Fukuchi, Taiki Osawa, Akane Yaida, Hajime Urai, Michihisa Uemoto, Akitoshi Okino

(Institute of Science Tokyo, Toyo University, Meisei University)

P1-35

**Characterization of Thermal Properties of Mineral Phases in Lunar Regolith Simulant via Image Analysis**

Kasumu Takei, Shunsuke Watanabe, Naoto Kudo, Yuna Nakayama, Wan-Ting Chiu, Manabu Tange, Tsuyoshi Nishi, Hiromichi Ohta, Hideki Hosoda, Sumitaka Tachikawa, Rie Endo

(Shibaura Institute of Technology, Ibaraki University, Institute of Science Tokyo, Japan Aerospace Exploration Agency)

P1-40

**Development of an oral appliance-based occlusal force-measuring device with ultra-thin sensor**

Taichi Narihara, Motoaki Tanaka, Wataru Hijikata, Nobuhiro Yoda

(Tohoku University, Institute of Science Tokyo)

P1-41

**Development of shape memory alloy onplant for orthodontic treatment**

Sayaka Arima, Chiaki Endo, Sumio Kise, Tomonari Inamura, Kazuaki Nishimura

(Tohoku University, Tohoku University Hospital, Furukawa Techno Material Co., Ltd., Tokyo Institute of Technology)

P1-42

**Direct assembly of Au nanowire with a sandwiched laminar flow system for sensor development**

Chenhan Peng, Nahoko Kasai, Hizuru Nakajima, Shungo Kato, Sifeng Mao, Katsumi Uchiyama

(Tokyo Metropolitan University)

P1-43

**Disinfection effect of atmospheric plasma bubbled-up water against attached bacteria on baby bottle nipples**

Taiki Osawa, Ziyu Liu, Kai Fukuchi, Akane Yaida, Yu-ki Tanaka, Kazunori Tsuchida, Ryo Tagaino, Atsushi Oishi, Yuriko Matsumura, Atsuo Iwasawa, Hiroyasu Kanetaka, Akitoshi Okino

(Institute of Science Tokyo, Chiba University, Nihon Pharmaceutical University, Tohoku University, Tokyo Healthcare University)

P1-44

**Disinfection Effect of Shor Head Type Plasma Source Against Bacteria on Pigskin**

Ziyu Liu, Taiki Osawa, Akane Yaida, Yuriko Matsumura, Atsuo Iwasawa, Akitoshi Okino

(Institute of Science Tokyo, Tokyo Healthcare University)

P1-45

**Drug Delivery and Cell Membrane Response to Spiral DBD Plasma**

Abubakar Hamza Sadiq, Farhana Begum, Alam Md Jahangir, Mahedi Hasan, Jaroslav Kristof, Kazuo Shimizu

(Shizuoka University)

P1-46

**Effect of oil contamination in lipid bilayers on membrane fluidity**

Mana Honkawa, Yosuke Miki, Akira Heya, Koji Sumitomo

(University of Hyogo)

P1-47

**Electrodeposition of Polypyrrole on Silicon Wafer for Integrated Portable Sensing System**

Punvinai Vinaisuratarn, Tomoyuki Kurioka, Joji Higuchi, Tso-Fu Mark Chang, Masato Sone, Yoshishige Tsuchiya

(Institute of Science Tokyo, University of Southampton)

P1-48

**Emission Spectroscopy of Halogen Elements Using an Intensity-modulated Plasma**

Yuya Shimizu, Masaya Tahara, Syu Yamaji, Kai Fukuchi, Akane Yaida, Yukiko Moriwa, Kazuhiro Morioka, Atsushi Shoji, Akitoshi Okino

(Institute of Science Tokyo, Tokyo University of Pharmacy and Life Sciences)

P1-49

**Enhanced growth of ZnO on silver fabric for wearable thermoelectric applications**

J. Vinodhini, K. Ikeda, S. Harish, J. Archana, H. Hamasaki, M. Navaneethan, Y. Hayakawa, H. Ikeda

(Shizuoka University, SRM Institute of Science and Technology, Nara Institute of Science and Technology)

P1-50

**Enhanced Solar-Blind UV Detection with Mist CVD Grown Fe - ZnO nanostructures**

R. Aysha Parveen, E. Vinoth, K. Hara, J. Archana, S. Ponnusamy, M. Navaneethan

(SRM Institute of Science and Technology, Shizuoka University)

P1-51

**Estimating the Degree of ZnO-nanorods Alignment from SEM Images of ZnO-nanorods using Persistent Homology**

Yuki Ura, Naoki Fujiwara, Koki Kato, Hiromu Hamasaki, Hiroya Ikeda, Kazushi Ikeda

(Nara Institute of Science and Technology, Shizuoka University)

P1-52

**Shape Memory alloys Tactile Pin Actuator with Kirigami Structure for Tactile Displays**

Junpei Sakurai, Nodoka Inui, Chiemi Oka, Seiichi Hata, Dideki Hosoda

(Nagoya University, Institute of Science Tokyo)

P1-53

**Fabrication and characterization of Nd<sup>3+</sup>-doped BaO-BaCl<sub>2</sub>-TeO<sub>2</sub> glasses**

Tsubasa Suzuki, Shuntaro Muneta, Naoki Kawano, Daisuke Nakauchi, Takumi Kato, Kai Okazaki, Kensei Ichiba, Akihiro Nishikawa, Keiichiro Miyazaki, Kenji Shinozaki, Takayuki Yanagida

(Akita Univ., NAIST, AIST)

P1-54

**Algorithm to Evaluate Edge of Abutment Tooth Form in Tooth Preparation Skills Assessment**

Yayoi Endo, Zongwei Ren, Ryo Tagaino, Akane Ozaki, Masahiro Yamada, Hayato Yoshioka, Tadahiko Shinshi, Hiroshi Egusa

(Tohoku University, The University of Tokyo, Institute of Science Tokyo)

P1-55

**Research for nano-structured ceramics materials with excellent properties for novel biological application**

Tadashi Shiota, Yuta Kubota, Takahiko Kawaguchi, Naonori Sakamoto, Naoki Wakiya

(Okayama University, Science Tokyo, Shizuoka University)

Poster Session 2 (Day2, December 4, 10:45~11:45)

P2-01

**A Skin Roughness Evaluation Method Focusing on Local Structure of Skin Surface Using Deep Learning**

Tatsuki Ohta, Tetsushi Koide, Kenta Nakamoto, Yuki Hayashida, Yumi Aoyama  
(Hiroshima University, Kawasaki Medical School)

P2-02

**A Mouthguard Biosensor with Chitosan Biopolymer for Real-Time Uric Acid Measurement in Saliva**

Takahiro Arakawa, Kenta Itani, Kazuyoshi Yano, Kohji Mitsubayashi  
(Tokyo University of Technology, Tokyo Medical and Dental University)

P2-03

**Chemical Synthesis of Silver and Au Nanoparticles for LSPR Applications**

Shoma Matsumoto, Mitsuki Takeuchi, Tomoka Komatsu, Ayana Mizuno, Atsushi Ono  
(Shizuoka University)

P2-04

**A Study of Haptic Devices in Virtual Reality Meditation**

HaoAn Tseng, Kai Xuan Koh, Silas Alves, Patrick C. K. Hung, Kamen Kanev, Hidenori Mimura, Masakazu Kimura, Benjamin C. M. Fung  
(Ontario Tech University, Shizuoka University, McGill University)

P2-05

**Composition Dependence of  $K_2O-B_2O_3-SiO_2$  Glasses Doped with Tb on Dosimetric Properties**

Shiyu Rim, Akihiro Nishikawa, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

P2-06

**Acoustic measurement around the pinna in the very-high-frequency region using a head and torso simulators**

Mari Ueda, Kentaro Nakamura  
(Kanagawa Inst. of Tech., Science Tokyo)

P2-07

**Development of near-infrared emitting scintillators based on  $Er^{3+}$ -doped  $K_2O-Nb_2O_5-TeO_2$  glass ceramics**

Shuntaro Muneta, Naoki Kawano, Daisuke Nakauchi, Takumi Kato, Kai Okazaki, Kensei Ichiba, Toshiaki Kunikata, Akihiro Nishikawa, Keiichiro Miyazaki, Fumito Kagaya, Kenji Shinozaki, Takayuki Yanagida  
(Akita Univ., NAIST, AIST)

P2-08

**Analysis of Martensite Microstructure Formation at Annealing Twin in an Fe-30Ni-0.3C alloy**

Yuri Shinohara, Tomonari Inamura  
(The University of Electro- Communications, Institute of Science Tokyo)

P2-09

**Dosimetric Properties of Ce-doped  $ZnAl_2O_4$  Transparent Ceramics**

Satoshi Honjo, Kensei Ichiba, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

P2-10

**Systemic Stability Evaluation of a Miniature Maglev Drive System for a Pediatric Left Ventricular Assist Device**

Nobuyuki Kurita, Seiji Hashimoto, Iki Adachi, Yaxin Wang  
(Baylor College of Medicine, Texas Children's Hospital, Gunma University, Texas Heart Institute)

P2-11

**Fabrication of iPS cell-derived organoids using thermo-responsive substrates**

Naruephorn Vinaikosol, Hiroko Okawa, Yuta Sakauchi, Sora Watanabe, Yasuko Yanagida, Hiroshi Egusa  
(Tohoku University, Institute of Science Tokyo)

P2-16

**Cancer detection using circularly polarized light scattering: Phantom studies**

N. Nishizawa, M. R. Maskey, A. Esumi, T. Kuchimaru, K. Hara  
(Kitasato University, Jichi Medical University, Shizuoka University)

P2-12

**BGaN Growth on AlGaN and Device Characterization for High-Temperature Neutron Detection**

Toru Oikawa, Ryohei Kudo, Tatsuhiko Sakurai, Yoku Inoue, Toru Aoki, Takayuki Nakano  
(Shizuoka University)

P2-17

**Investigation of CNN models for image feature extraction in ECM structural feature maps**

Kazuki Hoashi, Naoki Matsuda, Ikuro Suzuki, Motoki Takagi, Akio Kishida, Tsuyoshi Kimura, Naoko Nakamura  
(Shibaura Institute of Technology, Tohoku Institute of Technology, Institute of Science Tokyo, Toyo University)

P2-13

**Formation of 3-dimensional electrodes for high response and wide range detection of glucose sensors**

S. Karunakaran, J. Archana, M. Navaneethan, S. Harish, Atsushi Kubono, Atsushi Nakamura  
(Shizuoka University, SRM Institute of Science and Technology)

P2-18

**CdZnTe Crystal Growth by High-Pressure Bridgman method**

Dmytro Nalyvaiko, Juha Kalliopuska, Sami Vähänen, Volodymyr Gnatyuk, Toru Aoki  
(ADVAFAB Oy, Shizuoka University)

P2-14

**Broadband Deep Red to Near-Infrared Phosphors Based on Fluorine doped Lithium Aluminate**

Yuta Matsushima<sup>1</sup>, Ryusei Hayasaka, Shogo Sato, Kazuma Ito, Hiroko Kominami, Kazuhiko Hara  
(Yamagata University, Shizuoka University)

P2-19

**Luminescence characterization of Ag-doped sodium borate glass by TORAIMS reader**

Caroline Paschoal Fernandes, Go Okada, René Rojas Rocca, Sonia Hatsue Tatumi  
(University of Sao Paulo, Kanazawa Institute of Technology, Federal University of Sao Paulo)

P2-15

**Heat treatment conditions and scintillation properties of CsI:In single crystals grown by inverse temperature crystallization**

Itsuki Gonda, Yutaka Fujimoto, Hiroki Kawamoto, Keisuke Asai  
(Tohoku University)

P2-20

**Characterization of 3D Chiral Metallic Microstructures by Terahertz Circular Dichroism Spectroscopy**

Atsushi Ouchi, Saroj R. Tripathi  
(Shizuoka University)

P2-21

**Luminescence properties of willemite powders under ionizing-radiation irradiation**

Hiroyuki Fukushima, Susumu Takahashi, Go Okada  
(National Institute of Technology, Fukui College, Kanazawa Institute of Technology)

P2-26

**Development of bioabsorbable magnesium-based metallic glasses**

Hiroyasu Kanetaka, Guoqiang Xie, Hideki Hosoda  
(Tohoku University, Harbin Institute of Technology, Tokyo Institute of Technology)

P2-22

**Characterization of Radiophotoluminescence Properties in Pb-doped  $\text{Li}_2\text{O-Al}_2\text{O}_3\text{-B}_2\text{O}_3$**

Yuuki Udo, Go Okada, Hidehito Nanto  
(Kanazawa Institute of Technology)

P2-27

**Optimized Non-Thermal Atmospheric Pressure Plasma Enhanced Cell Proliferation Potential of Yeast *Saccharomyces cerevisiae***

Farhana Begum, Jaroslav Kristof, Alam Md Jahangir, Kinoshita Soichiro, Mahedi Hasan, Abubakar Hamza Sadiq, Kazuo Shimizu  
(Shizuoka University)

P2-23

**Microdevice Design for Reproducing Dynamic Environments in High-Frequency Oscillatory Ventilation (HFOV)**

Taiki Otomo, Tatsuya Matsubara, Deok-Ho Kim, Masashi Ikeuchi, Kazuhiro Yoshida, Joon-wan Kim  
(Institute of Science Tokyo, Johns Hopkins University)

P2-28

**B-Substituted phosphine boranes: Investigation of their stability in aqueous solution and their use as a framework of biologically active compounds**

Yu Miyajima, Tomomi Noguchi-Yachide, Hiroyuki Kagechika, Shinya Fujii  
(Institute of Science Tokyo, The University of Tokyo)

P2-24

**Crystalline phase transitions of a new candidate DNA demethylating agent under varying temperature and humidity conditions and its closed storage stability**

Masaru Sudo, Makoto Otsuka, Takahiro Matsumoto, Yoshitaka Nakata, Tetsuo Sasaki  
(Shizuoka University, Ohara Pharmaceutical Co., Ltd.)

P2-29

**Photoluminescence and Scintillation Properties of Eu-doped  $\text{Y}_2\text{Ti}_2\text{O}_7$  Single Crystals using the floating zone method**

Toshiaki Kunikata, Kai Okazaki, Hiromi Kimura, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(NAIST, AIST)

P2-25

**Nanoscale Silicon-on-Insulator Tunnel pn-Junctions for Photo-Sensitive Applications**

Daris Alfafa, Baskoro A. Rianto, Arief Udhiarto, Daniel Moraru  
(Shizuoka University, University of Indonesia)

P2-30

**Effects of atmospheric pressure plasma on production of stem cell-derived extracellular vesicles**

Hidetaka Nishida, Mahiro Igarashi, Taiki Osawa, Akane Yaida, Akitoshi Okino  
(Azabu University, Institute of Science Tokyo)

P2-31

**Photoluminescence and thermally stimulated luminescence properties of  $\text{Ba}_3\text{Gd}(\text{PO}_4)_3:\text{Dy}$**

Haruaki Ezawa, Kai Okazaki, Yuma Takebuchi, Takumi Kato, Masaori Koshimizu, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology, Utsunomiya University, Shizuoka University)

P2-32

**Improvement of ion current detection of scanning ion conductance microscopy using capacitance compensation pipettes**

H Inomata, K Nakazawa, T Nagata, H Kawasaki, O Hoshi, F Iwata

(Shizuoka University, Hamamatsu University School of Medicine, Institute of Science Tokyo)

P2-33

**Plasma Injection Probe for Drug Analysis Assisted Using Dual Plasma Desorption/ionisation System**

Masaya Tahara, Yuya Shimizu, Kai Fukuchi, Akane Yaida, Yukiko Moriiwa, Toshihiro Takamatsu, Atsushi Shoji, Akitoshi Okino

(Institute of Science Tokyo, Tokyo University of Pharmacy and Life Sciences, National Institute of Advanced Industrial Science and Technology)

P2-34

**Machine Learning-Driven Prediction of Millimeter and Sub-Millimeter Wave Characteristics of Avalanche Transit Time Sources**

Santu Mondal, Aritra Acharyya, Arindam Biswas, Hiroaki Satoh

(Asansol Engineering College, Kalyani Government Engineering College)

P2-35

**Radiation dosimetry based on the radiophotoluminescence at the first biological window wavelength**

Hiroki Kawamoto, Yutaka Fujimoto, Keisuke Asai

(Tohoku University)

P2-36

**Organic multi-elemental compounds with a bis(4-hydroxyphenyl) skeleton in drug discovery**

Tomomi Noguchi-Yachide, Yuichiro Matsumoto, Yuichi Hashimoto, Shinya Fujii

(The University of Tokyo, Institute of Science Tokyo)

P2-37

**Radiation-induced luminescence properties of  $(n\text{-CH}_3\text{PEA})_2\text{PbCl}_4$  crystals fabricated by solvent diffusion method**

Itsuki Wakabayashi, Keishi Yamabayashi, Daisuke Nakauchi, Kai Okazaki, Naoki Kawano, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology, Akita University)

P2-38

**Structural development and crystallographic analysis of diphenylcarborane-based novel vitamin D receptor ligands**

Shinya Fujii, Hansaka Nirupama Thilakarathne Narasinghe Mudiyansele, Takashi Misawa, Yosuke Demizu, Yuya Hanazono, Nobutoshi Ito, Hiroyuki Kagechika

(Institute of Science Tokyo, National Institute of Health Sciences)

P2-39

**Radiation-Induced Luminescence Properties of Dy-doped  $\text{SrLu}_2\text{O}_4$  Single Crystals**

Yusuke Endo, Kensei Ichiba, Daisuke Nakauchi, Kenichi Watanabe, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology, Kyushu University)

P2-40

**Development of ferrite nanoparticle/shape memory polymer magnetic heater actuator**

Atsushi Nakamura, Satoshi Ota, Kosuke Shimizu, Masaaki Motozawa

(Shizuoka University, Hamamatsu University School of Medicine)

P2-41

**Radioluminescence properties of Tm-doped Gd<sub>2</sub>SrAl<sub>2</sub>O<sub>7</sub> single crystals**

Keiichiro Miyazaki, Daisuke Nakauchi, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

P2-46

**Scintillation properties of Ce-doped SrCl<sub>2</sub> transparent ceramics**

Takeshi Ubukata, Shota Otake, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

P2-42

**A Real-time Diagnostic Support Method based on Full-screen Lesion Detection and Classification for Colonoscopy**

Yongfei Wu, Daisuke Katayama, Tetsushi Koide, Toru Tamaki, Shigeto Yoshida, Shin Morimoto, Yuki Okamoto, Shiro Oka, Shinji Tanaka  
(Hiroshima University, Nagoya Institute of Technology, Medical Corporation JR Hiroshima Hospital, Hiroshima University Hospital, JA Onomichi General Hospital)

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**Scintillation properties of organic–inorganic perovskite-type compounds with an alcohol amine**

Toranosuke Tsubokawa, Naoki Kawano, Kai Okazaki, Kensei Ichiba, Takumi Kato, Daisuke Nakauchi, Toshiaki Kunikata, Akihiro Nishikawa, Keiichiro Miyazaki, Takayuki Yanagida  
(Akita Univ., NAIST)

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**Research on the Development of Low Molecular Weight Compounds Targeting Guanine Quadruplexes for Novel Drug Discovery against Pancreatic Cancer**

Miku Soma, Shogo Sasaki, Yue Ma, Masayuki Tera, Sachiko Okabe, Hiroyuki Seimiya, Kazuo Nagasawa  
(Tokyo University of Agriculture and Technology, Nara Women's University, Institute of Science Tokyo, Japanese Foundation for Cancer Research)

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**Silver concentration dependence of radiophotoluminescence properties in silver-doped Li–Al borate glasses**

Ryoichi Morishita, Hiroki Kawamoto, Yutaka Fujimoto, Keisuke Asai  
(Tohoku University)

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**Scintillation and photoluminescence properties of Tl<sub>2</sub>NaScCl<sub>6</sub> crystals**

Miyu Ishida, Akito Watanabe, Hiroki Kawamoto, Yutaka Fujimoto, Keisuke Asai  
(Tohoku University)

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**Synthesis and Evaluation of RPL Properties of Bi-doped CaO–P<sub>2</sub>O<sub>5</sub> Ceramics**

Miho Aoki, Go Okada, Hidehito Nanto  
(Kanazawa Institute of Technology)

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**Scintillation properties of Ce-doped Cs<sub>2</sub>O–Gd<sub>2</sub>O<sub>3</sub>–Al<sub>2</sub>O<sub>3</sub>–P<sub>2</sub>O<sub>5</sub> glasses using energy transfer from Gd<sup>3+</sup> to Ce<sup>3+</sup>**

Akihiro Nishikawa, Daiki Shiratori, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology, Tokyo University of Science)

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**Thermoluminescence properties in Ti-doped CaSiO<sub>3</sub> single crystals**

Airo Fujii, Keiichiro Miyazaki, Takumi Kato, Daisuke Nakauchi, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

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**Evaluation of temperature response in atmospheric pressure temperature-controllable plasma jet with feedback control**

Ryo Sugiura, Taiki Osawa, Kai Fukuchi, Akane Yaida,  
Yuki Yanagawa, Akitoshi Okino

(Institute of Science Tokyo, Chiba University, RIKEN)

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**Application of microfluidic devices with microstructure for real-time observation of E. coli cells**

Yuta Sakauchi, Tetsuya Yamada, Masaaki Wachi,  
Yasuko Yanagida

(Institute of Science Tokyo)

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**Scintillation properties of Tb-doped  $\text{Sr}_2\text{La}_8(\text{SiO}_4)_6\text{O}_2$  oxyapatite single crystals**

Ren Tsubouchi, Haruaki Ezawa, Daisuke Nakauchi, Kenichi Watanabe, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology, Kyushu University)

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**Effects of the installation angle of the elliptical winding shaft on the spring characteristics of a single-coil torsion spring made of a shape memory alloy with an elliptical winding shaft**

Shigo Nagasumi, Hiroki Cho, Hideki Hosoda  
(The University of Kitakyushu, Institute of Science Tokyo)

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**Dynamic monitoring of respiratory muscles and lung tissues using spatially resolved near infrared spectroscopy**

Manato Shibata, Masatsugu Niwayama  
(Shizuoka University)

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**Development of biocompatible Fe-Pt thin sheets fabricated by exfoliation behavior : 2nd Report**

Kazuya Okamura, Tadahiko Shinshi, Masaki Nakano  
(Nagasaki University, Institute of Science Tokyo)

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**$\text{Al}(\text{DMSO})_6\text{SbCl}_6$  and  $\text{Ga}(\text{DMSO})_6\text{SbCl}_6$  single crystal scintillators fabricated by the solvent evaporation method**

Keishi Yamabayashi, Kai Okazaki, Daisuke Nakauchi, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida  
(Nara Institute of Science and Technology)

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**Evaluation of shoulder muscle movement using ultrasonography and tracking method**

Fujiwara Mizuki, Tabaru Marie, Yamaguchi Masahiro  
(Tohoku University, Institute of Science Tokyo)

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**Effect of Electrical Stimulation of Trigeminal Nerve V1 on Physiological Parameters**

Yasuko Fukushi, Hidenori Mimura, Masakazu Kimura  
(Shizuoka University)

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**Development of PLD-made Nd-Fe-B films on Si wafers applied to MEMS**

Haruka Yamaguchi, Tadahiko Shinshi, Masaki Nakano  
(Nagasaki University, Institute of Science Tokyo)

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**Cold Atmospheric Plasma Mediated Drug Delivery into Brain Endothelial Cells**

Alam Md Jahangir, Farhana Begum, Abubakar Hamza Sadiq, Jaroslav Kristof, Mahedi Hasan, Yamano Tomoki, Kazuo Shimizu  
(Shizuoka University)

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**Examining the Effect of Audio-Based Pseudo-Haptics on a Needle Insertion Task**

Sandy Abdo, Bill Kapralos, Adam Dubrowski, Kamen Kanev, Michael Jenkin, Hiroki Kase, Toru Aoki  
(Ontario Tech University, York University, Shizuoka University)

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**Fabrication of microfluidic devices by applying titanium nanosurface modification**

Sora Watanabe, Yuta Sakauchi, Tetsuya Yamada, Masahiro Yamada, Hiroshi Egusa, Yasuko Yanagida  
(Institute of Science Tokyo, Tohoku University)

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**Impact of ultrasound therapy on medication related osteonecrosis of the jaw**

Kazuaki Nishimura, Marie Tabaru, Kazuki Satomi, Shohei Fukuda, Sayaka Arima, Kentaro Nakamura  
(Tohoku University, Institute of Science Tokyo)

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**Features of the spectroscopic properties of stacked CdTe diode X/γ-ray sensors**

Volodymyr Gnatyuk, Valeriy Sklyarchuk, Dmytro Gnatyuk, Oleksandr Kulyk, Toru Aoki  
(V.E. Lashkaryov Institute of Semiconductor Physics of the NAS of Ukraine, Advafab Oy, V.N. Karazin Kharkiv National University, Shizuoka University)

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**mTORC1 regulation of growth and lifespan through RNA splicing**

Takafumi Ogawa, Ryosuke Ishida, T. Keith Blackwell  
(Hiroshima University, Institute of Science Tokyo, Harvard Medical School)

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**Improvement in magnetic properties of thin sintered permanent magnets**

Toya Motomura, Kosuke Higasi, Tadahiko Shinshi, Masaki Nakano  
(Nagasaki University, Institute of Science Tokyo)

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**Influence of superficial tissues on bone tissue oximetry using continuous wave and spatially resolved spectroscopy**

Kyutaro Yamamoto, Masatsugu Niwayama  
(Shizuoka University)

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**How drug particles dissolve**

Michael Vynnycky, Milton Assunção, Kevin M. Moroney  
(University of Limerick)

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**Response improvement with small sample volumes for saliva monitoring**

Kaito Kumazawa, Ryo Sakai, Tetsuya Yamada, Jumpei Washio, Nobuhiro Takahashi, Yasuko Yanagida  
(Institute of Science Tokyo, Tohoku University)

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**Microfluidic devices for measuring cortisol in the oral cavity**

Sakai Ryo, Yamada Tetsuya, Jumpei Washio, Nobuhiro Takahashi, Yasuko Yanagida  
(Institute of Science Tokyo, Tohoku University)

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**Interfacial energy barrier tuning in  $\text{Ag}_{2-x}\text{Sn}_x\text{S}$  /Carbon fabric integrated with low resistance textrode for highly efficient wearable thermoelectric generator**

M. Navaneethan, H. Ikeda  
(SRM IST, Shizuoka University)

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**Room temperature preparation of Nd-Fe-B film magnets by LIFT technique 2nd Report**

Takuki Amiya, Gakuto Tahara, Kosuke Higashi, Haruka Yamaguchi, Tadahiko Shinshi, Kunihiro Koike, Masaki Nakano

(Nagasaki University, Institute of Science Tokyo, Yamagata University)

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**Mechanical Properties and Microstructure Observation of Biomedical Au-Cu-Al Shape Memory Alloys by Introducing Investment Casting Process**

Yecheng Li, Naoki Nohira, Tomonari Inamura, Masato Sone, Masaya Shimabukuro, Masakazu Kawashita, Hiroyasu Kanetaka, Masaki Tahara, Hideki Hosoda

(Institute of Science Tokyo, Tohoku University)

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**Scintillation properties of Tm-doped CsI single crystals emitting near-infrared light**

Shunta Takase, Keiichiro Miyazaki, Daisuke Nakauchi, Takumi Kato, Noriaki Kawaguchi, Takayuki Yanagida

(Nara Institute of Science and Technology)

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**Study on the detection of abnormal skin tissues using mmWave radar and preliminary SAR system development**

Hang Song, Bo Wei, Takamaro Kikkawa

(Institute of Science Tokyo, The University of Tokyo, JST PRESTO, Hiroshima University)

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**Selection of sheath fluid for high-selective single cell elemental analysis using cell sorter**

Syu Yamaji, Yuwa Ando, Kai Fukuchi, Yuya Shimizu, Akane Yaida, Yuki Maemoto, Motohide Aoki, Yuki Yanagawa, Tomonari Umemura, Yoshimasa Kawata, Akitoshi Okino

(Institute of Science of Tokyo, RIKEN, Chiba University, Shizuoka University)

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**Terahertz Spectra of PET bottles**

Tadao Tanabe, Tetsuo Sasaki

(Shibaura Institute of Technology, Shizuoka University)

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**Simultaneous multi-element analysis in single cells using inductively coupled plasma time-of-flight mass spectrometer with cell sorter**

Akane Yaida, Yuwa Ando, Syu Yamaji, Kai Fukuchi, Yuya Shimizu, Yuki Maemoto, Motohide Aoki, Yuki Yanagawa, Tomonari Umemura, Yoshimasa Kawata, Akitoshi Okino

(Institute of Science Tokyo, RIKEN, Chiba University, Shizuoka University)

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**The origin to decide the hysteresis width of Au-based martensitic alloy**

Yuki Matsuoka, Kyoko Kubo

(Nara Women's University)

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**Single crystals growth of p-acetanisidide for terahertz polarization spectroscopy**

Hikaru Ozaki, Tetsuo Sasaki

(Shizuoka University)

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**Using Layer-parameter of shear horizontal surface acoustic wave biosensor to differentiate different size of exosome particle**

Chia-Hsuan Cheng, Hiromi Yatsuda, Jun Kondoh

(Shizuoka University, tst Biomedical Electronics Co., Ltd.)

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**SnS<sub>2</sub>/g-C<sub>3</sub>N<sub>4</sub> thin film heterojunction formation by CVD method for photocatalytic application**

Yohei Mori, Atsushi Nakamura, Atsushi Kubono, Hiroyuki Kageshima, Hiroaki Satoh  
(Shizuoka University)

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**Preparation and electric properties of lead zirconate titanate thin film on porous Si**

Naoki Wakiya, Akira Sato, Takahiko Kawaguchi, Naonori Sakamoto, Akifumi Matsuda, Tomoaki Yamada  
(Shizuoka University, Institute of Science Tokyo, Nagoya University)

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**Structural and Morphological Properties of Flake-like Mg-silicate Nanosheets Synthesized by CaSi<sub>2</sub>/MgCl<sub>2</sub> Thermal Annealing**

Tepei Narita, Daichi Sato, Riku-Sasaki, Yushin Numazawa, Yoichiro Neo, Yosuke Shimura, Ryo Tamaki, Yoshitaka Okada, Hidenori Mimura, Hirokazu Tatsuoka  
(Shizuoka university, KISTEC, The University of Tokyo)

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**Synthesis and development of the MX-ene composites for energy conversion applications**

S.T. Venkata Sai Varma, V. Pandiyarasan, K. Ikeda, H. Hamasaki, H. Ikeda  
(Shizuoka University, IIT Kancheepuram, Nara Institute of Science and Technology)

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**Synthesis of light-up type G4 probes for monitoring the dynamic formation of G4 in living cells**

Haruki Fujita, Naruyuki Watatani, Shogo Sasak, Masayuki Tera, Yue Ma, Kazuo Nagasawa  
(Tokyo University of Agriculture and Technology, Nara Women's University, Institute of Science Tokyo)

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**Screening study of RPL materials based on impurity-doped MgO-B<sub>2</sub>O<sub>3</sub> systems**

Kano Hiraiwa, Go Okada, Hidehito Nanto  
(Kanazawa Institute of Technology)

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**Synthetic studies of the topological selective polyoxazole G4 ligands based on G4 templated synthesis**

Yuri Shimasawa, Yue Ma, Shogo Sasaki, Masayuki Tera, Kazuo Nagasawa  
(Tokyo University of Agriculture and Technology, Institute of Science Tokyo, Nara Women's University)

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**Synthesis of novel retinoids selectively exhibiting non-genomic activity mediated by CRABP1 binding**

Yue Ma, Yuuki Hosaka, Michiko Nakaishi, Li-Na Wei, Hiroyuki Kagechika  
(Institute of Science Tokyo, University of Minnesota)

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**The study of drug delivery to brain endothelial cells using cold atmospheric pressure microplasma**

Tomoki Yamano, Md Jahangir Alam, Mahedi Hasan, A. Sadiq Hamza, Jaroslav Kristof, Kazuo Shimizu  
(Shizuoka University)

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**The mechanism of introduction into the cells of intact plant tissues by a multi-gas plasma jet**

Yuki Yanagawa, Yusuke Iijima, Toshiki Aizawa, Yuma Suenaga, Akitoshi Okino  
(Chiba University, RIKEN, Institute of Science Tokyo)

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**Effects of heat on indomethacin and lidocaine mixture: in situ NIR spectroscopy and THz spectroscopy characterization**

Yuta Otsuka, Toyotoshi Suzuki, Tetsuo Sasaki, Besim Ben-Nissan, Hiroshi Kono, Masafumi Kikuchi  
(Kagoshima University, Shizuoka University, University of Technology Sydney)

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**Factors determining the morphological evolution of rounded spirals on screw dislocations**

Oleksii Kulyk, Viktor Tkachenko, Oleksandr Kulyk, Oksana Podshyvalova, Volodymyr Gnatyuk, Toru Aoki  
(V.N. Karazin Kharkiv National University, Kharkiv Institute of Physics and Technology of the National Academy of Sciences of Ukraine, National Aerospace University, Institute of Semiconductor Physics of the National Academy of Sciences, Shizuoka University)

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**Life Cycle Assessment of Artificial Organs Using Polymer Materials**

Keiichiro Sano, Yasuhiro Oi, Katsuhiko Takeda, A. Champa Jayasuriya, Ahalapitiya H. Jayatissa, Hiroki Kase, Toru Aoki  
(Kanto Gakuin University, The University of Toledo, Shizuoka University)

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**Quantitative Characterization of Low-frequency Vibrations of Building Units in Borates**

Feng Zhang, Tetsuo Sasaki, Hong-we Wang, Michitoshi Hayashi  
(Chinese Academy of Sciences, Shizuoka University, National Taiwan University)

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**Synthesis and characterization of colloidal silver solutions**

Tamara Potlog, Victor Suman, Hidenori Mimura, Masakazu Kimura  
(Moldova State University, Shizuoka University)

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**Four-terminal polycrystalline-silicon vertical thin-film transistors on glass substrates and their application as pH sensors**

K. Suzuki, T. Tabei, A. Hara  
(Tohoku Gakuin University, Hiroshima University)

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**Preparation and catalytic activity evaluation of atomic platinum composite electrodes for sensing organic compounds**

Kengo Watanabe, Keisuke Okamoto, Shohei Yoshida, Tomoyuki Kurioka, Chun-Yi Chen, Chi-Hua Yu, Tso-Fu Mark Chang, Takamichi Nakamoto, Masato Sone  
(Institute of Science Tokyo, National Cheng Kung University)