

Poster presentation (core time: 9:00-11:30, July 28)

In the session except for the Electronics and Information Technology, a short presentation will be made from 9:00 to 10:30.

Chemistry and Materials (1) Chairperson: Ryota KONDO

- MC-P-01 Enhancement of impact properties via Vulcanized Natural Rubber latex blended with PP/wood
Abstract composites
page 110 Natchaya SIRIPORNAMART¹, Hathaikarn MANUSPIYA¹, Srichariya KACHORNVITAYA²,
¹ The Petroleum and Petrochemical College, Chulalongkorn University
² The Union link Co., Ltd
- MC-P-02 Preparation and electrocatalytic activity for ethanol oxidation of Pt-TiO₂/graphene composite
Abstract nanofibers for direct ethanol fuel cell application
page 111 Tawanchay THUESOMBAT¹, Kannanut SENEEKATIMA³, Rojana PORNPRASERTSUK^{1,2}
¹ Department of Material Science, Faculty of Science, Chulalongkorn University
² Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University
³ The Gem and Jewelry Institute of Thailand (Public Organization)
- MC-P-03 Deposition of YSZ thin films on powder-injection anode by electrophoretic deposition technique
Abstract Sirima CHAUOON, Rojana PORNPRASERTSUK, Nutthita CHUANKRERKKUL, Malinee
page 112 MEEPHO
Department of Materials Science, Faculty of Science, Chulalongkorn University
- MC-P-04 Efficiency of TiO₂ coating on porous silica beads for degradation of cumene hydroperoxide
Abstract Kamonwan PINATO¹, Komkrit SUTTIPONPARNIT², Withaya PANPA³, Supatra
page 113 JINAWATH⁴, Dujreutai Pongkao KASHIMA^{1,4}
¹ Research Unit of Advanced Ceramics, Department of Materials Science, Faculty of Science, Chulalongkorn University
² PTT Research and Technology Institute (PTT RTI), Thailand.
³ Faculty of Industrial Technology, Thepsatri Rajabhat University
⁴ Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University
- MC-P-05 The study of improving tooling manufacturing quality by using risk management with TRIZ
Abstract Ciping JIANG
page 114 *Industrial Engineering and Management, Cheng Shiu University*
- MC-P-06 Absorption and desorption behaviors of strontium ion using alginate fiber
Abstract Duangkamol DANWANICHAKUL, Tetsuya FURUIKE, Hiroshi TAMURA
page 115 *Department of Chemistry and Materials Engineering Kansai University*

- MC-P-07 Preparation of gel electrolytes based on natural polymers
Abstract Ditpon KOTATHA, Tetsuya FURUIKE, Hiroshi TAMURA
page 116 *Department of Chemistry and Materials Engineering Kansai University*
- MC-P-08 Issues in dehydrogenation process of $2\text{LiBH}_4-(1-x)\text{MgH}_2-x\text{Al}$ composite ($0 \leq x \leq 0.5$) for reversible hydrogen storage
Abstract
page 118 Sumiya SHIMADA, Ryota KONDO, Hiroyuki T. TAKESHITA
Department of Chemistry and Materials Engineering Kansai University
- MC-P-9 Evaluation of Mg nucleation and growth process for mechanism clarification of incubation period in MgH_2 dehydrogenation
Abstract
page 117 Shintaro YUI¹, Tatutaka AOYAMA¹, Ryota KONDO¹, Koji TANAKA², Hiroyuki T. TAKESHITA¹
¹ *Department of Chemistry and Materials Engineering Kansai University*
² *Research Institute of Electrochemical Energy, National Institute of Advanced Industrial Science and Technology (AIST)*
- MC-P-10 Effect of grain boundary on hydrogenation capacity of magnesium hydride
Abstract
page 119 Nobuaki YAMAMOTO¹, Syunsuke SATAKE¹, Koji TANAKA², Ryota KONDO¹, Hiroyuki T. TAKESHITA¹
¹ *Department of Chemistry and Materials Engineering Kansai University*
² *Research Institute of Electrochemical Energy, National Institute of Advanced Industrial Science and Technology (AIST)*
- MC-P-11 Effects of the amount of PVP and heat treatment conditions on the porosity of SiO_2 thin films prepared by PVP-assisted sol-gel method
Abstract
page 120 Yutaka EMI, Hiromitsu KOZUKA, Hiroaki UCHIYAMA
Department of Chemistry and Materials Engineering Kansai University
- MC-P-12 Water-repellency, hardness and transparency of polyfluorocarbon-silica hybrid thin films prepared using polysilazane as silica source
Abstract
page 121 K. TAIRA, H. KOZUKA, H. UCHIYAMA
Department of Chemistry and Materials Engineering Kansai University
- MC-P-13 Preparation of BiVO_4 photoanode films from aqueous solutions of metal salts with low-speed dip-coating technique
Abstract
page 122 Seishirou IGARASHI, Hiroaki UCHIYAMA, Hiromitsu KOZUKA
Department of Chemistry and Materials Engineering Kansai University
- MC-P-14 Preparation of ceramic thin films on plastic substrates by sol-gel transfer technique: Effects of the thickness of release layer on the film formation and transferability.
Abstract
page 123 Kota NIINUMA, Hiromitsu KOZUKA, Hiroaki UCHIYAMA
Department of Chemistry and Materials Engineering Kansai University

- MC-P-15 Synthesis of thermoplastic materials from metal alkoxide solutions containing guaiacol
Abstract Shinnosuke YAMAZAKI, Hiromitsu KOZUKA, Hiroaki UCHIYAMA
page 124 *Department of Chemistry and Materials Engineering Kansai University*
- MC-P-16 Simultaneous formation of carbide and boride layers using B₄C powder by spark plasma sintering
Abstract method
page 125 Chihiro NISHI, Akio NISHIMOTO
Department of Chemistry and Materials Engineering Kansai University
- MC-P-17 Deposited and nitrided layer during active screen plasma nitriding
Abstract Takahiro FUKUBE, Toshiya TANAKA, Akio NISHIMOTO
page 126 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-18 Organic secondary batteries using naphthazarin derivatives in the positive electrode: the effect of chloro-substituents on the electrode characteristics
Abstract
page 127 Shinji UMETANI ^{1,2}, Masaru YAO ^{1,2}, Hisanori ANDO ^{1,2}, Tetsu KIYOBAYASHI ¹, Nobuhiko TAKEUCHI ¹, Ryota KONDO ², Hiroyuki T. TAKESHITA ²
¹ *Research Institute of Electrochemical Energy, Department of Energy and Environment, National Institute of Advanced Industrial Science and Technology (AIST)*
² *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-19 Adsorption of Cs⁺ from aqueous solution using nanostructured titanate adsorbents
Abstract P. WEERACHAWANASAK ¹, Y. KAKUTANI ², A. SAKO ², M. SANO ², T. SUZUKI ², T. MIYAKE ^{1,2}
page 128 ¹ *The Organization for Research and Development of Innovative Science and Technology, Kansai University*
² *Faculty of Environmental and Urban Engineering, Kansai University*

Chemistry and Materials (2) Chairperson: Akifumi KAWAMURA

- MC-P-20 Creating carbon dioxide adsorption layer on polydivinylbenzene (DVB) HIPE surface by
Abstract Layer-by-Layer technique
page 129 Jitima PREECHAWONG ¹, Jirasuta CHUNGPREE ¹, Pornsri SAPSRITHONG ², Stephan T. DUBAS ¹, Manit NITHITANAKUL ¹
¹ *The Petroleum and Petrochemical College, Chulalongkorn University*
² *Division of Polymer Engineering Technology, Department of Mechanical Engineering, College of Industrial Technology, King Mongkut's University of North Bangkok*
- MC-P-21 Development of a novel laser-triggered drug-delivery-system using polymer micelles and
Abstract Au-nanoparticles for skin cancer treatment
page 130 Anna HART, Rachel KRESS
Center of Materials for Information Technology, Department of Chemistry, University of Alabama
Department of Inorganic Chemistry, Albert-Ludwigs-Universität

- MC-P-22 A simple 8-amidoquinoline derivative as a turn-on fluorescent sensor for detection of Zn (II) and Cd (II) ions.
Abstract Atchareeporn SMATA, Mongkol SUKWATTANASINITT
page 131 *Nanotec-CU Center of Excellence on Food and Agriculture, Department of Chemistry, Faculty of Science, Chulalongkorn University*
- MC-P-23 Layer-by-layer modification of non-woven fabric with humic acid for the removal of heavy metals
Abstract Khine Myat OO¹ and Stephan Thierry DUBAS^{1,2}
page 109 ¹*The Petroleum and Petrochemical College, Chulalongkorn University*
²*Center for Petroleum, Petrochemicals, and Advanced Materials, Chulalongkorn University*
- MC-P-24 Dialdehyde microcrystalline cellulose (DAC) generated from sugarcane bagasses- induced periodate oxidation Reaction
Abstract Satita THIANGTHAM, James RUNT, Hathaikarn MANUSPIYA
page 132 *The Petroleum and Petrochemical College, Chulalongkorn University*
- MC-P-25 Biodegradable injectable polymer formulation exhibiting temperature-responsive sol-gel transition for instant use at clinical scene
Abstract Yasuyuki YOSHIDA¹, Akinori KUZUYA^{1,2}, Yuichi OHYA^{1,2}
page 133 ¹*Department of Chemistry and Materials Engineering, Kansai University*
²*The Organization for Research and Development of Innovative Science and Technology, Kansai University*
- MC-P-26 Development of biodegradable injectable polymer formulations forming chemical cross-linkings in response to temperature
Abstract Keisuke KAWAHARA¹, Yasuyuki YOSHIDA¹, Akinori KUZUYA^{1,2}, Yuichi OHYA^{1,2}
page 134 ¹*Department of Chemistry and Materials Engineering, Kansai University*
²*The Organization for Research and Development of Innovative Science and Technology, Kansai University*
- MC-P-27 Preparation of biodegradable hierarchical tubular structures by electrospinning for regenerative blood vessels
Abstract Kazuki NISHIMURA¹, Akinori KUZUYA^{1,2}, Atsushi MAHARA³, Tetsuji YAMAOKA³, Yuichi OHYA^{1,2}
page 135 ¹*Department of Chemistry and Materials Engineering, Kansai University*
²*The Organization for Research and Development of Innovative Science and Technology, Kansai University*
³*National Cerebral and Cardiovascular Center*

- MC-P-28 Design of biodegradable double network gels and evaluation of their physical properties
Abstract Takanori YOKOI ¹, Takuroh KITAMURA ¹, Takayuki KUROKAWA ², Tasuku NAKAJIMA ²,
page 136 Jian Ping GONG ² Akihiro TAKAHASHI ³, Akinori KUZUYA ^{1,3}, Yuichi OHYA ^{1,3}
¹ Department of Chemistry and Materials Engineering, Kansai University
² Faculty of Advanced Life Science, Hokkaido University
³ The Organization for Research and Development of Innovative Science and Technology, Kansai University
- MC-P-29 Cellular behavior in biodegradable injectable hydrogel for tissue engineering
Abstract Hiroki TAKAI ¹, Yasuyuki YOSHIDA ¹, Masaaki II ³, Akinori KUZUYA ^{1,2}, Yuichi OHYA ^{1,2}
page 137 *¹ Department of Chemistry and Materials Engineering, Kansai University*
² The Organization for Research and Development of Innovative Science and Technology, Kansai University
³ Osaka Medical College
- MC-P-30 Development of novel fluorescent probe by utilizing rotaxane structure
Abstract Hitomi OKUYAMA, Kenta HIRAYAMA, Mana ISHINO, Akinori KUZUYA, Yuichi OHYA
page 138 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-31 Inserting DNA origami into large scale DNA structure growing on mica.
Abstract Erina KIGOSHI, Ryosuke WATANABE, Shogo HAMADA, Akinori KUZUYA,
page 139 Satoshi MURATA, Yuichi OHYA
Department of Chemistry and Materials Engineering, Kansai University
- MC-P-32 Metal ion-responsive DNA quadruplex hydrogel made of PEG-DNA copolymer
Abstract Kazuki FUKUSHIMA, Shizuma TANAKA, Kenta WAKABAYASHI, Shinsuke YUKAMI,
page 140 Akinori KUZUYA, Yuichi OHYA
Department of Chemistry and Materials Engineering, Kansai University
- MC-P-33 Topology control of synthetic polymer using DNA helicity
Abstract Naohide AKAMATSU, Yuta IKEDA, Yuta YAMASAKI, Akinori KUZUYA, Yuichi OHYA
page 141 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-34 Investigation of molecular crowding by using DNA quadruplex gel
Abstract Shinsuke YUKAMI, Shizuma TANAKA, Kazuki FUKUSHIMA, Kenta WAKABAYASHI,
page 142 Akinori KUZUYA, Yuichi OHYA
Department of Chemistry and Materials Bioengineering, Kansai University

- MC-P-35 Preparation of liquid crystalline polymer films with molecular recognition sites by molecular imprinting
Abstract
page 143 Takato SENZAKI ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University
- MC-P-36 Preparation of dual stimuli-responsive nanoparticles as DDS carriers and their drug release properties
Abstract
page 144 Ayaka HARADA ¹, Shunsuke UENO ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University
- MC-P-37 Preparation of stimuli-responsive hybrid hydrogels using novel gold nanoparticle monomer and their responsive behavior
Abstract
page 145 Atsushi SAKA ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University
- MC-P-38 Preparation of anisotropic stimuli-responsive nanogels with block copolymer lithography
Abstract
page 146 Kenichi OGATA ¹, Akifumi KAWAMURA ^{1,2} and Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University
- MC-P-39 Structural design of molecularly stimuli-responsive hydrogels with assembled molecule recognition sites
Abstract
page 147 Shingo YAMASHITA ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University
- MC-P-40 Relationship between network structures and molecular responsive behaviour of stimuli-responsive hydrogels with molecular recognition sites
Abstract
page 148 Saya YAMAFUJI ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University

MC-P-41 Synthesis of photo-responsive polymers that undergo sol-gel phase transition and cell culture on their surface
Abstract
page 149 Akana MATSUDA ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University

MC-P-42 Preparation of antifouling surfaces that are easily cleanable by light
Abstract
page 150 Toshiki SHIMAI ¹, Akifumi KAWAMURA ^{1,2}, Takashi MIYATA ^{1,2}
¹ Department of Chemistry and Materials Bioengineering, Kansai University
² The Organization for Research and Development of Innovative Science and Technology, Kansai University

Chemistry and Materials (3) Chairperson: Misaki NAKAI

MC-P-43 Fabrication and characterization of organoclays deposited on bacterial cellulose nanofibers via solution plasma process
Abstract
page 151 Nattakammala JANPETCH ¹, Ratana RUJIRAVANIT ^{1,2,3}
¹ The Petroleum and Petrochemical College, Chulalongkorn University
² NU-PPC Plasma Chemical Technology Laboratory, Chulalongkorn University
³ Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University

MC-P-44 Degradation of gold nanoparticle-loaded chitosan hydrogel by applying solution plasma treatment
Abstract
page 152 Chayanaphat CHOKRADJAROEN ¹, Nagahiro SAITO ², and Ratana RUJIRAVANIT ^{1,3,4}
¹ The Petroleum and Petrochemical College, Chulalongkorn University
² Department of Materials, Physics and Energy Engineering, Graduate School of Engineering, Nagoya University
³ Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University
⁴ NU-PPC Plasma Chemical Technology Laboratory, Chulalongkorn University

MC-P-45 Fabrication of bacterial cellulose composites containing gelatin
Abstract
page 153 Kamonwan THONGTHANOPPAKUN ¹, Ratana RUJIRAVANIT ^{1,2}
¹ The Petroleum and Petrochemical College, Chulalongkorn University
² Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University

MC-P-46 Release characteristics of model drugs from carboxymethyl chitin/chitin blend films
Abstract
page 154 Chinnicha WIRIYAMONTREE ^{1,2}, Ratana RUJIRAVANIT ^{1,2,3}
¹ The Petroleum and Petrochemical College, Chulalongkorn University
² NU-PPC Plasma Chemical Technology Laboratory, Chulalongkorn University
³ Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University

- MC-P-47 Preparation and characterization of ZnO-coated, glutaraldehyde-modified cellulose sheet
Abstract Chayanit POBHOOK ^{1,2}, Saito NAGAIHIRO ^{4,5}, Ratana RUJIRAVANIT ^{1,2,3}
page 155 ¹ *The Petroleum and Petrochemical College, Chulalongkorn University*
² *NU-PPC Plasma Chemical Technology Laboratory, the Petroleum and Petrochemical College, Chulalongkorn University*
³ *Center of Excellence on Petrochemical and Materials Technology, Chulalongkorn University*
⁴ *Department of Materials, Physics and Energy Engineering, Graduate School of Engineering, Nagoya University*
⁵ *Green Mobility Collaborative Research Center, Nagoya University*
- MC-P-48 Laminin-elastin mimetic artificial protein for xeno-free biofunctionalization of poly (L-lactic acid)
Abstract substrate
page 156 Masaru YAMADA ¹, Sachiro KAKINOKI ¹, Yoshiaki HIRANO ¹, Tetsuji YAMAOKA ²
¹ *Department of Chemistry and Materials Engineering, Kansai University*
² *Department of Biomedical Engineering, National Cerebral and Cardiovascular Center Research Institute*
- MC-P-49 Solubility behaviors of chitosan hydrogel by various acids
Abstract Daiki KOMOTO, Tetsuya FURUIKE, Hiroshi TAMURA
page 157 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-50 Preparation of graft polymers onto chitosan by atom transfer radical polymerization
Abstract Hiroki HASHIMOTO, Tetsuya FURUIKE, Hiroshi TAMURA
page 158 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-51 Synthesis of C₆₀-glycoCD inclusion complex
Abstract Yusaku ASAOKA, Hiroshi TAMURA and Tetsuya FURUIKE
page 159 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-52 Metallacyclic-stabilized copper nanoparticles and the electrical conductivity/durability of the copper film
Abstract Yusuke AKIYAMA, Tomonori SUGIYAMA, Ryuichi ARAKAWA, Hideya KAWASAKI
page 160 *Department of Chemistry and Materials Engineering, Kansai University*
- MC-P-53 Synthesis and antibacterial properties of catanionic complex of anionic silver cluster with cationic surfactant
Abstract surfactant
page 161 Chiaki TOMINAGA, Ryuichi ARAKAWA, Hideya KAWASAKI
Department of Chemistry and Materials Engineering, Kansai University
- MC-P-54 Synthesis of water-soluble carbon quantum dots for photodynamic therapy
Abstract Takashi NOZAKI, Ryuichi ARAKAWA, Hideya KAWASAKI
page 162 *Department of Chemistry and Materials Engineering, Kansai University*

- MC-P-55 Chirality detection by liquid-MALDI-MS coupled with the enantiomer labeled guest method
Abstract Yoshihiro ANTATSU¹, Hirofumi SATO², Hideya KAWASAKI¹, Motohiro SHIZUMA²,
page 163 Ryuichi ARAKAWA¹
¹Department of Chemistry and Materials Engineering, Kansai University
²Department of Biochemistry, Osaka Municipal Technical Research Institute
- MC-P-56 Control of the end structures of conjugated helical polymers and coupling reaction of the polymers
Abstract Takeru KAMADA, Yu MIYAGI, Fumio SANDA
page 164 Department of Chemistry and Materials Engineering, Kansai University
- MC-P-57 Polymerization of disubstituted acetylene monomers by Pd catalyst bearing bulky phosphine
Abstract ligand
page 165 Yuta GOTO¹, Yu MIYAGI¹, Natsuhiko SANO², Fumio SANDA¹
¹Department of Chemistry and Materials Engineering, Kansai University
²Nippon Chemical Industrial, Co., Ltd.
- MC-P-58 Synthesis and structure control of polymers containing diketopiperazine moieties in the main chain
Abstract Noritaka SHIMOSARAYA, Yu MIYAGI, Fumio SANDA
page 166 Department of Chemistry and Materials Engineering, Kansai University
- MC-P-59 Interaction between helically folded poly(phenylene ethynylene) and low molecular weight
Abstract compounds
page 167 Mana TANAKA, Yoshinori OTAKI, Yu MIYAGI, Fumio SANDA
Department of Chemistry and Materials Engineering, Kansai University
- MC-P-60 Synthesis of platinum-containing conjugated polymers having bipyridine ligands
Abstract Manabu MARUMOTO¹, Yu MIYAGI¹, Natsuhiko SANO², Fumio SANDA¹
page 168 ¹Department of Chemistry and Materials Engineering, Kansai University
²Nippon Chemical Industrial, Co., Ltd.
- MC-P-61 Bioactivation of PEEK surface via modifying poly (ethylene phosphate)
Abstract Shun KUNOMURA, Yasuhiko IWASAKI
page 169 Department of Chemistry and Materials Engineering, Kansai University
- MC-P-62 Design of β -hairpin peptide hydrogel for tissue engineering scaffold
Abstract Daisuke NAKAYAMA¹, Yusuke KAMBE², Tetsuji YAMAOKA², Sachiro KAKINOKI¹,
page 170 Yoshiaki HIRANO¹
¹Department of Chemistry and Materials Engineering, Kansai University
²National Cerebral and Cardiovascular Center

- MC-P-63 Intramolecular macrocyclic cyclization employing photo-affinity reaction
Abstract Ryota IJJI, Yasuo NAGAOKA, Takaaki SUMIYOSHI
page 171 *Department of Life Science and Biotechnology, Kansai University*
- MC-P-64 Asymmetric synthesis of 3,3-disubstituted oxindoles using chiral acids
Abstract Masahiro SHIMIZU, Yusuke YAMAI, Kyoji ISHIDA, Yasuo NAGAOKA, Takaaki
page 172 SUMIYOSHI
Department of Life Science and Biotechnology, Kansai University
- MC-P-65 Efficient synthesis of (±)-coerulescine
Abstract Kazuki TAKEUCHI, Kyoji ISHIDA, Yusuke YAMAI, Yasuo NAGAOKA, Takaaki
page 173 SUMIYOSHI
Department of Life Science and Biotechnology, Kansai University
- MC-P-66 Concise synthesis of spiro-fused oxindole derivatives
Abstract Itaru NATSUTANI, Riyo IWATA, Yusuke YAMAI, Kyoji ISHIDA, Yasuo NAGAOKA,
page 174 Takaaki SUMIYOSHI
Department of Life Science and Biotechnology, Kansai University

Life and Food Science

- LF-P-01 Tyrosinase inhibitory activity of ethyl acetate extract of *Manilkara zapota L.*
Abstract Sutthiduean CHUNHAKANT¹, Chanya CHAICHARONPONG²
page 175 ¹*Program in Biotechnology, Faculty of Science, Chulalongkorn University*
²*Institute of Biotechnology and Genetic Engineering, Chulalongkorn University*
- LF-P-02 Self hydrogelation of chitosan/polyethylene glycol containing chitosan whiskers and its
Abstract scaffold embedding hydroxyapatite
page 176 Pornpitcha KANOKPREECHAWUT¹ and Suwabun CHIRACHANCHAI^{1,2}
¹*The Petroleum and Petrochemical College, Chulalongkorn University*
²*Center for Petroleum, Petrochemicals, and Advanced Materials, Chulalongkorn University*
- LF-P-03 Investigation of genes and the mechanism in salt tolerance in chromosome segment
Abstract substitution lines with 'Khao Dawk Mali 105' rice genetic background
page 177 Panita CHUTIMANUKUL, Boonthida KOSITSUP, Kitiporn PLAIMAS, Teerapong
BUABOOCHA, Meechai SIANGLIW, Theerayut TOOJINDA, Supachitra CHADCHAWAN
*Center of Excellent in Environment and Plant Physiology, Department of Botany, Faculty of
Science, Chulalongkorn University*

- LF-P-04 Transcriptome comparison between 'KDML105' rice and its chromosome segment substitution
Abstract line with salt tolerance ability
page 178 Noppawitchayaphong KHRUEASAN¹, Kitiporn PLAIMAS², Boonthida KOSITSUP¹,
Anchalee CHAIDEE¹, Teerapong BUABOOCHA³, Meechai SIANGLIW⁴, Teerayut
TOOJINDA⁴, Luca COMI⁵, Supachitra CHADCHAWAN¹
*¹ Center of Excellence in Environment and Plant Physiology, Department of Botany,
Chulalongkorn University*
² Department of Mathematics and Computer Science, Chulalongkorn University
³ Department of Biochemistry, Faculty of Science, Chulalongkorn University
*⁴ Rice Gene Discovery Unit, National Center for Genetic Engineering and Biotechnology,
Kasetsart University*
⁵ Plant Biology Department and Genome Center, University of California Davis
- LF-P-05 Preparation of variable shapes of biphasic calcium phosphate scaffold by mouldable technique
Abstract Sasirada TANCHITVIRIYA¹, Wirapong KORNPANOM¹, Siriporn LARPKIATTAWORN
page 179 ², Pasutha THUNYAKITPISAL^{3,4}, Dujreutai Pongkao KASHIMA^{1,4,5}
*¹ Research Unit of Advanced Ceramics, Department of Materials Science, Faculty of
Science, Chulalongkorn University*
² Thailand Institute of Scientific and Technological Research
³ Department of Anatomy, Faculty of Dentistry, Chulalongkorn University
*⁴ Unit Cell for Research and Development of Herbs and Natural Products for Dental Application,
Chulalongkorn University*
*⁵ Research Unit of Advanced Ceramic and Polymeric Materials, National Center of Excellence
for Petroleum, Petrochemicals, and Advanced Materials, Chulalongkorn University*
- LF-P-06 Effects of chitosan coating combined with spermidine on softening of 'Nam Dok Mai' mango
Abstract fruit
page 180 Pornchan JONGSRI, Teerada WANGSOMBOONDEE, Pranee ROJSITTHISAK, Kanogwan
SERAYPHEAP
*Center of Excellence in Environment and Plant Physiology, Department of Botany,
Faculty of Science, Chulalongkorn University*
- LF-P-07 Exogenous Application of Putrescine Maintained Quality of Postharvest 'Nam Dok Mai No.4'
Abstract Mango
page 181 Bussarin WONNABUSSAPAWICH, Kanogwan SERAYPHEAP
*Center of Excellence in Environment and Plant Physiology, Department of Botany, Faculty of
Science, Chulalongkorn University, Bangkok 10300, Thailand.*

- LF-P-08 Genome wide association study for root biomass under salt stress at seedling stage in local
Abstract Thai rice varieties
page 183 Thammaporn KOJONNA, Noppakhun KHUNPOLWATTANA, Teerapong BUABOOCHA,
Monnat PONGPANICH, Supachitra CHADCHAWAN
*Center of Excellence in Environment and Plant Physiology, Department of Botany, Faculty of
Science, Chulalongkorn University*
- LF-P-09 Transcriptome revealed *OsCaMI-1* affected carbon metabolism in rice under salt stress
Abstract Worawat YUENYONG, Warintra TAKPIROM, Amnart CHINPONGPANICH,
page 184 Teerapong BUABOOCHA
Department of Biochemistry, Faculty of Science, Chulalongkorn University
- LF-P-10 **Changed to LF-O-19**
- LF-P-11 Production of the exopolysaccharides from *peanibacillus mucilaginosus* and study of their
Abstract antioxidant activity
page 186 Tzu-Wen LIANG, San-Lang WANG
Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan
- LF-P-12 Fermentation of shrimp head for the production of α -glucosidase inhibitors by *Staphylococcus*
Abstract sp.
page 187 Yu-Cheng SU, San-Lang WANG
Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan
- LF-P-13 Purification and characterization of chitosanases from a bacteria strain TKU042
Abstract Hao-Ting YU, San-Lang WANG
page 188 *Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan*
- LF-P-14 Purification and characterization of chitosanases from *Bacillus mycooides* TKU038 and their
Abstract applications
page 189 Wei-Ting CHEN, San-Lang WANG
Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan
- LF-P-15 Fermentation of squid pen for the production of chitosanases by *Bacillus mycooides* TKU039
Abstract Chun-Ku CHEN, San-Lang WANG
page 190 *Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan*
- LF-P-16 Production and isolation of the antioxidant tryptophan from *Paenibacillus* sp. TKU036 using
Abstract squid pen as the sole carbon/nitrogen source
page 191 Hsin-Ting LI, San-Lang WANG
Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan

- LF-P-17 Production of poly lactide depolymerase from a bacteria strain
Abstract Shan-Ni JEN, San-Lang WANG
page 192 *Department of Chemistry, Tamkang University, Taiwan*
- LF-P-18 Fermentation of squid pen for the production of tyrosinase inhibitors and insecticidal materials
Abstract Chia-Hao HSU, San-Lang WANG
page 193 *Department of Chemistry, Tamkang University, Taiwan*
- LF-P-19 Utilization of *Bacillus* cells on dyes adsorption
Abstract Min-Hsiung TSAI, San-Lang WANG
page 194 *Department of Chemistry/Life Science Development Center, Tamkang University, Taiwan*
- LF-P-20 Design and synthesis of PEGylated hydroxamic acid-type histone deacetylase inhibitor
Abstract prodrugs having targeting ability to cancer tissue
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