

The 58th General Session of the Japanese Society for Dental Materials and Devices(JSDMD)

October 22 (Saturday) - 23 (Sunday), 2011
Ohu University

31-1 Misumido, Tomita-machi, Koriyama-shi, Fukushima-ken, 963-8611 Japan

October 22 (Saturday)

9:25 - 9:30 **Opening Remark**

9:30 - 11:00 **General Presentation (Oral Session)**

Hall A

A-1 Optimization of BMP2-contained osteogenic drug cocktails with system engineering approach

○Honda Yoshitomo^{1,2}, Suzuki Osamu², Nishimura Ichiro¹

¹UCLA, ²Tohoku University

A-2 Development of *in vitro* embryotoxicity testing by differentiation of ES cells using glass fiber material

○Imai Koichi, Takeda Shoji
Osaka Dental University

A-3 Anti-bacterial effect of Protamine adsorbed on Silica

○Narusawa Hideaki, Cho Han-Cheol, Kataoka Yu, Tamaki Yukimichi, Miyazaki Takashi
Showa University

A-4 Bonding strength between zirconia and dental porcelain : (Part5) Effect of firing temperature, firing time and sintering tray

○Tsuruki Jiro¹, Noda Makoto¹, Okuda Yuji¹, Miyamoto Motoharu¹, Ban Seiji²
¹Kagoshima University, ²Aichi Gakuin University

A-5 The influence of contaminants and firing temperature on mechanical properties of zirconia

○Noda Makoto¹, Okuda Yuji¹, Tsuruki Jiro¹, Miyamoto Motoharu¹, Ban Seiji²
¹Kagoshima University, ²Aichi Gakuin University

A-6 Influence of low temperature aging degradation to the flexural strength of veneered zirconia

○Terui Yuichi, Sato Kotaro, Kuriyama Soichi, Hotta Yasuhiro, Miyazaki Takashi
Showa University

Hall A

13:15 - 14:15 **Special Lecture**

14:30 - 16:00 **General Presentation (Oral Session)**

A-7 Microstructures and mechanical properties of high chromium, high nitrogen Co-Cr-Mo alloys fabricated by selective laser melting process

○Su Yalatu¹, Nomura Naoyuki¹, Takaichi Atsushi¹, Nakamoto Takayuki², Doi Hisashi¹, Tsutsumi Yusuke¹, Kurosu Shingo³, Chiba Akihiko³, Wakabayashi Noriyuki¹, Igarashi Yoshimasa¹, Hanawa Takao¹

¹Tokyo Medical and Dental University, ²Technology Research Institute of Osaka Prefecture, ³Tohoku University

A-8 Anisotropic mechanical properties of Co-29Cr-6Mo alloy fabricated by selective laser melting process

○Takaichi Atsushi¹, Su Yalatu¹, Nomura Naoyuki¹, Nakamoto Takayuki², Doi Hisashi¹, Tsutsumi Yusuke¹, Kurosu Shingo³, Chiba Akihiko³, Wakabayashi Noriyuki¹, Igarashi Yoshimasa¹, Hanawa Takao¹

¹Tokyo Medical and Dental University, ²Technology Research Institute of Osaka Prefecture, ³Tohoku University

A-9 Effects of Cr and N in Co-Cr-Mo dental alloys on their plastic deformation

○Nomura Naoyuki¹, Yoda Keita¹, Su Yalatu¹, Tsutsumi Yusuke¹, Doi Hisashi¹, Kurosu Shingo²,
Chiba Akihiko², Wakabayashi Noriyuki¹, Igarashi Yoshimasa¹, Hanawa Takao¹

¹Tokyo Medical and Dental University, ²Tohoku University

A-10 Effect of solidification rate on both physical property and microstructure for PdCu-xAg alloy

○Koiso Kazuo, Kawashima Isao, Hayashi Mikita, Okada Hidetoshi
Ohu University

A-11 Improvement of hard-tissue compatibility of Zr by combination of MAO and chemical treatments

○Tsutsumi Yusuke, Doi Hisashi, Nomura Naoyuki, Hanawa Takao
Tokyo Medical and Dental University

A-12 Torsion test of dental materials Part2

○Seto Munetsugu, Ozawa Makoto, Akagawa Susumu, Watanabe Fumihiko
Nippon Dental University

October 22 (Saturday)**Hall B****9:30 - 15:00 General Presentation (Poster Session) (11:00 - 12:00 Discussion)****[Award Challenge Posters P-1 - P-5]****P-1** withdrawn**P-2** Enhanced effects of electrical polarization to form new bone on hydroxyapatite powders and availability of platelet-rich plasma as a carrier

○Ohba Seiko, Wang Wei, Itoh Soichiro, Takagi Yuzo, Yamashita Kimihiro
Tokyo Medical and Dental University

P-3 Relationship between L10-type ordered phase and unique hardening on dental Ag-Pd-Au-Cu alloys

○Kim Yonghwan¹, Niinomi Mitsuo¹, Hieda Junko¹, Nakai Masaaki¹, Fukui Hisao²
¹Tohoku University, ²Aichi Gakuin University

P-4 Fabrication of bone substitutes that uses sintered calcium carbonate as precursor

○Otsu Akihiro¹, Tsuru Kanji¹, Maruta Michito², Valanezhad Alireza¹, Matsuya Shigeki², Ishikawa
Kunio¹

¹Kyushu University, ²Fukuoka Dental College

P-5 Interfacial observation of phosphate glass and enamel that irradiates CO₂ laser

○Shinya Akihiro¹, Kasuga Toshihiro², Mituhashi Husako¹, Ogawa Masaaki¹, Shinya Akiyoshi¹
¹The Nippon Dental University, ²Nagoya Institute of Technology

P-6 Geometric design method for inlay cavity

○Kikuchi Masafumi, Takahashi Masatoshi, Takada Yukyo
Tohoku University

P-7 Bonding strength of machinable ceramics to ceria stabilized zirconia / alumina nano-composite

○Sato Kotaro, Terui Yuichi, Hotta Yasuhiro, Fujishima Akihiro, Kuriyama Soichi, Miyazaki Takashi
Showa University

P-8 The constructed trial practice for dental technician student in Dental Material Science

○Yoshida Takaichi, Ito Shuichi, Yoshida Koichi
Toho Dental College

P-9 A study of occlusal force and loosening of screw on the dental implant

○Nagasawa Sakae, Kawase Yuji, Takeuchi Ken, Ono Hirohito, Yamakura Kazunori
Matsumoto Dental University

P-10 Application of micro-analysis using SOR for the clinical diagnosis

○Uo Motohiro
Tokyo Medical and Dental University

P-11 Dimensional measurements of plaster model - In vitro evaluation of non-destructive micro X-rays CT

○Izumida Akio, Ishibashi Minoru, Kasahara Shin, Yoda Masanobu
Tohoku University

P-12 Laser transmission welding of titanium and PET resin

○Kikuchi Hisaji, Kurotani Tomoko, Kaketani Masahiro, Hirose Hideharu, Yoneyama Takayuki
Nihon University

P-13 Basic study on laser joining of acrylic resin for denture base and dental metal

○Naito Daisuke, Kakimoto Kazutoshi, Takahashi Kazuya, Komasa Yutaka
Osaka Dental University

P-14 Influence of wave forms on deformation of metal frames in laser welding

○Miura K, Shimakura M
Ohi University

P-15 Sag resistance of gold alloy for porcelain bonding -Effect of pre-heat treatment-

○Tsuruta Shozo, Morimoto Keita, Mizuno Masanobu, Uematsu Yasuaki, Kawai Tatsushi, Yamamoto Iichiro
Aichi Gakuin University

P-16 Prevention of VS-related discoloration of Au-Ag-Pd alloy

○Fujii Kazuo, Doi Yutaka, Hotta Masato, Yamaguchi Yusuke
Asahi University

P-17 Corrosion behavior of dental alloys in the solution including fluoride ion Part 1: Corrosion reaction of silver alloy at early stage

○Watanabe Kouichi, Okawa Seigo, Kanatani Mitsugu, Ito Kyosuke, Kaneko Hiromi, Yamaga Yoshiro
Niigata Univ

P-18 Castability of nonmagnetic Au-Pt-8Nb alloy

○Uyama Emi, Inui Shihoko, Hamada Kenichi, Asaoka Kenzo The University of Tokushima

P-19 Preparation of drug-releasing collagen substrates -Comparison of crosslink efficiency between different crosslinking methods-

○Sasaki Kaori, Saitoh Setsuo, Nezu Takashi, Taira, Masayuki Iwate Medical University

P-20 The development of functional water reducing their stimulation property to oral tissue The color changing of the immersed dental alloy's

○Sakai Takashi, Yoshida Takaichi, Ito Shuichi Toho Dental College

P-21 Analysis of degradable products of poly (lactic acid)

○Sasaki Akiko¹, Abe Shigeaki¹, Akasaka Tsukasa¹, Uo Motohiro², Watari Fumio¹
¹Hokkaido University, ²Tokyo Medical and Dental University

P-22 Responsibility of several cells exposed to micro/nano inorganic particles

○Iwadera Nobuki¹, Abe Shigeaki¹, Ishikawa Kosuke¹, Akasaka Tsukasa¹, Uo Motohiro², Yawaka Yasutaka¹, Watari Fumio¹ ¹Hokkaido University, ²Tokyo Medical and Dental University

P-23 Evaluation on the expressions of xenobiotic-metabolism and inflammatory-cytokine related genes of THP-1 monocytes when exposed to TEGDMA

○Taira Masayuki
Iwate Medical University

P-24 Literature research regarding reproductive and developmental toxicity induced by di-n-butyl

October 23 (Sunday)

Hall A

9:30 - 11:15 General Presentation (Oral Session)

- A-13** Effect of surface treatment of gold-silver-palladium alloy on the bonding strength to resin for crown and bridge
OIshida Yoshinori, Okada Hidetoshi, Ryukata Ichiro, Koiso Kazuo, Kawashima Isao
Ohu University
- A-14** Trial production of temporary luting material consisting of PMMA and Eugenol(2)
ORyukata Ichiro, Okada Hidetoshi, Ishida Yoshinori, Kawashima Isao
Ohu University
- A-15** Strength of fractured teeth restored by adhesive technique -Influence of cyclic impact loading-
OOda Yutaka, Matsumoto Naoya, Takemoto Shinji, Kawada Eiji
Tokyo Dental College
- A-16** Effect of polarized titanium on osteoblast activity
ONozaki Kosuke, Nagai Akiko, Yamashita Kimihiro
Tokyo Medical and Dental University
- A-17** Weldability between the nickel-free shield-ring materials and the magnetic stainless steels by laser beam
OTakada Yukyo, Shiroto Jun, Kikuchi Masafumi, Takahashi Masatoshi
Tohoku University
- A-18** Effect of terminated functional group of silane coupling layer on adhesion strength between beta-type titanium alloy and polymer
OHieda Junko¹, Niinomi Mitsuo¹, Nakai Masaaki¹, Kamura Hiroyuki¹, Tsutsumi Harumi¹, Hanawa Takao²
¹Tohoku University, ²Tokyo Medical and Dental University
- A-19** Surface characterization of titanium alloys exposure to oral environment
OTakemoto Shinji, Hattori Masayuki, Yoshinari Masao, Oda Yutaka
Tokyo Dental College
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Hall B

10:00 - 13:00 General Presentation (Poster Session) (11:15 - 12:15 Discussion)

- P-25** The repulsion load of Copper-Ni-Ti wire with the transformatoin appearing
OYoshida Takaichi, Yoshida Koichi
Toho Dental College
- P-26** Corrosion behavior and biological response of the pure Ti coated with titanium nitride film
O Akanuma Masayoshi, Naganuma Hiroko, Kado Takashi, Furuichi Yasushi, Endo Kazuhiko, Ochi Morio
Health Sciences University of Hokkaido
- P-27** Influence of gold deposition onto titanium substrate on adhesion of thiol compounds
OSaitoh Setsuo, Sasaki Kaori, Nezu Takashi, Taira Masayuki
Iwate Medical University
- P-28** Tarnish resistance of experimental Ti-Ag alloys in 0.1% Na₂S solution
OTakahashi Masatoshi, Kikuchi Masafumi, Takada Yukyo

- P-29** Corrosion resistance in 1% lactic acid of Co-Cr-Mo alloy dental castings added N
 ○Doi Hisashi, Su Yalatu, Migita Satoshi, Tsutsumi Yusuke, Nomura Naoyuki, Hanawa Takao
 Tokyo Medical and Dental University
- P-30** Corrosion of dental alloys Part1 Surface analysis of dental alloys removed from oral cavities
 ○Kaneko Hiromi, Okawa Seigo, Kanatani Mitsugu, Ito Kyosuke, Yamaga Yoshio, Nomura Shuichi,
 Watanabe Kouichi
 Niigata University
- P-31** Effect of anodic oxide film thickness on deposition characteristics of calcium phosphate by
 applying polarity inversion electrolysis
 ○Okawa Seigo, Ito Kyosuke, Kaneko Hiromi, Yamaga Yoshio, Watanabe Kouichi, Kanatani Mitsugu
 Niigata University
- P-32** Flexural behavior of octacalcium phosphate (OCP)/apatite-type I collagen composite
 consolidated by a warm isostatic pressing
 ○Iijima Mayumi, Wakamatu Norikazu, Kamemizu Hideo, Adachi Masanori, Doi Yutaka
 Asahi University
- P-33** Fabrication of solid and hollow carbonate apatite microsphere bone substitute using calcite as a
 precursor
 ○Sunouchi Kazuhiro¹, Tsuru Kanji¹, Maruta Michito², Kawachi Giichiro¹, Matsuya Shigeki², Terada
 Yoshihiro¹, Ishikawa Kunio¹
¹Kyushu University, ²Fukuoka Dental College
- P-34** Difference in shade between dental porcelains for metal ceramics and all ceramics
 ○Hayashi Kunihiro, Katou Takahiro, Tanaka Hidekazu, Yamamoto Sigenari
 Yamamoto Precious Metal Co., Ltd
- P-35** Effect of LEB irradiation on surface properties of PMMA
 ○Ito Kyosuke¹, Okawa Seigo¹, Kanatani Mitsugu¹, Kaneko Hiromi¹, Yamaga Yoshio¹, Nomura
 Akiko², Nomura Shuichi¹, Watanabe Kouichi¹
¹Niigata University, ²Meirin College
- P-36** Viscoelasticity and bond strength to denture base resin of denture lining materials
 ○Iwasaki Naohiko¹, Kasuga Yuta², Takahashi Hidekazu¹, Suzuki Tetuya¹, Minakuti Shunsuke¹
¹Tokyo Medical and Dental University, ²Meikai University
- P-37** Effect of mixing and degassing of denture relining material by using rotation-revolution mixer
 ○Yamaga Yoshio, Okawa Seigo, Kanatani Mitsugu, Ito Kyosuke, Kaneko Hiromi, Nomura Shuichi,
 Watanabe Kouichi
 Niigata University
- P-38** Effect of irradiation on composite resin properties
 ○Aoyagi Yujin¹, Yoshida Midori², Takahashi Hidekazu³, Umemoto Kozo¹
¹Kanagawa Dental College, ²The University of Tokushima, ³Tokyo Medical and Dental University
- P-39** Improvement of fatigue strength of filler hybrid type resin composite
 ○Yamanaka Keita¹, Nishikawa Izuru¹, Takahashi Hidekazu²
¹Osaka Institute of Technology, ²Tokyo Medical and Dental University
- P-40** Bonding durability against water of a fluorinated adhesive resin to pure gold
 ○Kadoma Yoshinori
 Tokyo Medical and Dental University
- P-41** Evaluation of adhesive strength between titanium and resin with primer containing silane
 coupling agent
 ○Kimura Hiroaki, Kato Takahiro, Yamada Bunichirou, Yamauchi Junichi, Yamamoto Sigenari
 Yamamoto Precious Metal Co., Ltd
- P-42** Suppression of the film thickness of cement on the dynamic visco-elastic behavior control
 ○Tanaka Jiro, Bo rido, Irie Masao, Suzuki Kazuomi
 Okayama University

P-43 A study on the adhesion of orthodontic adhesives to human tooth enamel

○Aoyagi Yusuke¹, Miyasaka Taira¹, Suzuki Iwao¹, Daisaku Takehiko², Arai Kazuhito¹
¹Nippon Dental University, ²Kokonoe Dental Clinic

P-44 Effect of silver-doped bioglass on MMPs inhibition and activity of cell

○Hashimoto Masanori, Tojima Hirokazu, Nagano Futami, Ida Yuusuke, Kado Takasi, Endo Kazuhiko
Health Sciences University of Hokkaido

P-45 Morphological analysis of bone in cartilage calcification insufficient rats

○Inoue Toshiko, Saito Makoto, Yamamoto Masato, Nishimura Fumio, Miyazaki Takashi
Showa University

P-46 Development of a novel SEM observation method using an ionic liquid

○Abe Shigeaki, Hyono Atsushi, Akasaka Tsukasa, Watari Fumio, Yonezawa Tetsu
Hokkaido University

P-47 Influence of acidic and slightly electrolyzed water on human tooth

○Aoki Harumi, Miyasaka Taira, Ando Nobuo
Nippon Dental University

P-48 Characterization of octacalcium phosphate/gelatin composites

○Anada Takahisa¹, Handa Takuto¹, Yamazaki Hajime², Honda Yoshitomo¹, Kanda Naonori¹,
Echigo Seishi¹, Suzuki Osamu¹

¹Tohoku University, ²The Forsyth Institute

P-49 Trial quantitative evaluation of drug permeability through the matrix of a biofilm-related polymer

○Nezu Takashi, Sasaki Kaori, Saitoh Setsuo
Iwate Medical University
