

The 77th General Session of the Japanese Society for Dental Materials and Devices (JSDMD)

April 10 (Saturday) – 11 (Sunday), 2021

Tower Hall Funabori

4-1-1 Funabori, Edogawa-Ku, Tokyo, 134-0091, Japan

April 10 (Saturday)

▪ Hall A

9:55 - 10:00 Opening Remark

10:00 - 10:30 Young Investigator Award Challenge

A - 1 Application of neutral electrolyzed water for cleaning fixed orthodontic appliances Part.1 Cleaning treatment and its bactericidal effect

○Akama Y, Nagamatsu Y, Ikeda H, Shimizu H
Kyushu Dental Univ.

A - 2 Fabrication of vascularized BMSC/DPSC scaffold-free constructs

○Li Aonan, Sasaki J, Abe G, Katata C, Imazato S
Osaka Univ.

10:30 - 11:00 General Presentation (Oral Session)

A - 3 Enhanced soft-tissue adhesiveness of acid-treated titanium by sandblast pretreatment

○Yabe A, Okada M, Taketa H, Hara ES, Torii Y, Matsumoto T
Okayama Univ. Hospital

A - 4 Evaluation of corrosion resistance of Co-Cr-Mo alloy containing high Cr and N using electrochemical impedance technique

○Manaka T, Tsutsumi Y, Hanawa T
Tokyo Medical and Dental Univ.

14:00 - 15:00 Special Lecture

Mini-review on dental materials & devices through Heisei period

○Tamaki Yukimichi
Asahi University

15:00 - 16:30 General Presentation (Oral Session)

A - 5 Evaluation of color change of zirconia immersed in pigment-containing food and beverage

○Matsumoto H, Yamamoto T, Hayakawa T
Tsurumi Univ.

A - 6 Microstructural changes of dental zirconia with fast firing

○Ban S, Matsubara M, Asakura M, Tsuruta S, Kawai T
Aichi Gakuin Univ.

A - 7 Histomorphometric analysis of bone regeneration by OCP/PLGA composites in rat standardized femur defects

○Suzuki O, Hamai R, Shiwaku Y, Anada T
Tohoku Univ.

A - 8 Observation of bone regeneration by implantation of octacalcium phosphate material mixed with autologous bone in rat calvarial bone defect model

○Ozaki H, Hamai R, Shiwaku Y, Suzuki O
Tohoku Univ.

A - 9 Bond strength of bonding agents with different polymerization modes at root canal dentin

○Shimizu S, Sawada T, Sasaki K, Saitoh S, Hatanaka A, Asakawa K, Noda M, Takemoto S
Iwate Medical Univ.

A - 10 Fabrication of novel tooth model mimicking human enamel for dental preparation training

○Tokunaga J, Ikeda H, Nagamatsu Y, Awano S, Shimizu H
Kyushu Dental Univ.

▪ Hall B

10:00 – 16:00 General presentation (Poster Session)

(11:05 - 11:50 Discussion)

- P - 1 Development of the intra oral scanner using moire lens
○Igarashi K, Igarashi M, Ohkuma K
Nippon Dental Univ.
- P - 2 Evaluation on accuracies of 3-D facial image by hand-held scanner
○Tsuchida Y, Iwasaki N, Shiozawa M, Ha RB, Handa K, Takahashi H
Tokyo Medical and Dental Univ.
- P - 3 Semi-powered exoskeleton with regulation of jaw movement for oral functional rehabilitation and training
○Kameda T, Sakamoto M, Terada K
Nippon Dental Univ.
- P - 4 Application of neutral electrolyzed water for cleaning fixed orthodontic appliances Part.2 Dissolution of component elements from metal appliances
○Nagamatsu Y, Akama Y, Ikeda H, Shimizu H
Kyushu Dental Univ.
- P - 5 Effects of thickness on color appearance of multi-layer CAD/CAM composite resin blocks
○Ha Rou Bing, Tsuchida Y, Iwasaki N, Takahashi H
Tokyo Medical and Dental Univ.
- P - 6 Study on the discoloration of CAD/CAM resin blocks for anterior crowns
○ Shigeta H, Nagasawa Y, Eda Y, Matsumoto S, Wada K, Nakajima H, Hibino Y
Meikai Univ.
- P - 7 Fabrication of mechanically biocompatible CAD/CAM composite block
○Ikeda H, Nagamatsu Y, Shimizu H
Kyushu Dental Univ.
- P - 8 Study on hybrid resin composites using CAD/CAM (Part. 10) - Adhesion strength of resin composite blocks for molars to resin luting agent -
○Kuroda T, Katayama Y, Nakao S, Kameyama Y, Ohashi K, Nihei T
Kanagawa Dental Univ.
- P - 9 Color measurement of multilayered restoration materials for CAD/CAM
○Tsuruta S, Ban S, Mizuno M, Uematsu Y, Aimu K, Yamamoto I, Kawai T
Aichi Gakuin Univ.
- P - 10 Effect of abutment tooth color on aesthetics of CAD/CAM anterior crowns
○Kawata K, Teramae M
SHOFU Inc.
- P - 11 Characteristics of tooth bond strength of glass ionomer cements by saliva contamination: Comparison with composite resin systems
○Irie M, Maruo Y, Nishigawa G, Minagi S, Matsumoto T
Okayama Univ.
- P - 12 Bond strength of resin luting cement to dentin after resin coating
○Wada Y, Katayama Y, Ohashi K, Hirayama S, Nihei T
Kanagawa Dental Univ.
- P - 13 Shear bond strength to root dentin of 4-META/MMA-TBB resin containing antibacterial agents
○Yamamoto M, Inokoshi M, Shimizubata M, Nozaki K, Takahashi R, Yoshihara K, Minakuchi S
Tokyo Medical and Dental Univ.
- P - 14 Effect of double-layer application on the early enamel bond strength of universal adhesives
○Hirokane E, Takamizawa T, Kasahara Y, Ishi R, Yokoyama M, Tamura T, Tsujimoto A, Miyazaki M
Nihon Univ.
- P - 15 Influence of a primer resembling universal adhesive on the bonding effectiveness of an experimental two-step self-etch adhesive
○Tamura T, Takamizawa T, Kasahara Y, Ishii R, Yokoyama M, Hirokane E, Tsujimoto A, Miyazaki M
Nihon Univ.
- P - 16 Evaluation of wear resistance of bond layer with new 2-step bonding agent "G2-Bond Universal"
○Yamashita M, Hirano K, Fusejima F
GC Corp.

- P - 17 Influence of primer component on bond strengths of resin cements to zirconia
 ○Yoshida K, Sawase T
 Nagasaki Univ.
- P - 18 Bond strength of resin cement between cast titanium and bovine tooth or resin composite core
 ○Matsumoto S, Eda Y, Shigeta H, Nagasawa Y, Suzuki R, Ihi A, Kuroiwa A, Nakajima H, Hibino Y
 Meikai Univ.
- P - 19 Fibronectin immobilization on the zirconia surface using a tresyl chloride-activated method
 ○Furuya H, Hirota M, Hayakawa T
 Tsurumi Univ.
- P - 20 Effect of micro/nano-patterns to pit formation by osteoclasts
 ○Akasaka T, Nakanishi K, Yoshida Y
 Hokkaido Univ.
- P - 21 Recalcification of bioapatite used calcium-containing discarded eggshell
 ○Mochizuki C, Chiba T, Sakai Y, Nakamura H, Hirota M, Hayakawa T
 BIOAPATITE, Inc.
- P - 22 Study of cell viability by commercial denture lining material
 ○Yokoyama T, Nakai M, Hashimoto Y, Imai K
 Osaka Dental Univ.
- P - 23 Analysis of the initial stages of tooth mineralization from a Material Science viewpoint
 ○Anada R, Hara ES, Nagaoka N, Okada M, Kamioka H, Matsumoto T
 Okayama Univ.
- P - 24 Nanomechanical properties of peritubular and intertubular dentin in the mantle dentin layer
 ○Inoue T, Saito M, Nishimura F, Miyazaki T, Shibata Y
 Showa Univ.
- P - 25 Difference in cell viability between with and without visible light-irradiation by camphorquinone containing medium
 ○Shirai T, Hashimoto Y, Imai K
 Osaka Dental Univ.

April 11 (Sunday)

▪ Hall A

9:30 - 10:30 General Presentation (Oral Session)

- A - 11 Bone response of thin zirconia film coated implant with same surface conditions as substrate
 ○Tokunaga Y, Hirota M, Sato M, Hayakawa T
 Tsurumi Univ.
- A - 12 Microstructural evolution of LSD-YSZ Composites Prepared by Solid State Reaction Method
 ○Kazi Gulsanarasathi
 Yamagata Univ.
- A - 13 Effects of PEEK surfaces modified with supramolecular polyrotaxanes via photoinduced self-initiated graft polymerization on osteoblast differentiation
 ○Arisaka Y, Tamura A, Yui N
 Tokyo Medical and Dental Univ.
- A - 14 Comparison of cell viability by CAD/CAM hybrid resin fine powder
 ○Nakai M, Yokoyama T, Hashimoto Y, Imai K
 Osaka Dental Univ.

▪ Hall A

10:30 - 11:10 Sponsored Seminar/ Seminar for Dental Materials Adviser, Senior Adviser

Mechanical features and clinical applications of dental lasers

~Features of Er:YAG Lasea 「Erwin AdvErL EVO」 and clinical application~

○Shioya Kimitaka
 Noel Dental Clinic

13:00 - 14:30 Symposium

1. What do you need for future dental bonding?

○Nihei Tomotaro
Kanagawa Dental University

2. Shift from "invisible" dental adhesion to "attractive" dental adhesion

○Kameyama Atsushi
Matsumoto Dental University

3. Adhesion in Pediatric Dentistry

○Yawaka Yasutaka
Hokkaido University

4. Clinical capability of zirconia resin-bonded prostheses

○Komine Futoshi
Nihon University School of Dentistry

5. Realize adhesion to protect tooth substance

○Tanoue Naomi
Nagasaki University Hospital

14:30 Closing Remark

▪ Hall B

9:30 - 14:00 General Presentation (Poster Session)

(11:15 - 12:00 Discussion)

P - 26 Development of electrically-debondable dental cements (Part 6) - The effects of ionic liquids on cytotoxicity

○Kajimoto N, Sato T, Maruta M, Uyama E, Sekine K, Hamada K, Tsuru K
Fukuoka Dental College

P - 27 Effect of hydroxyapatite/collagen addition on the properties of the carbonate apatite cement

○Sato T, Maruta M, Kajimoto N, Kikuchi M, Tsuru K
Fukuoka Dental College

P - 28 Characteristic evaluation of multi-layer zirconia blocks

○Iwasaki N, Tsuchida Y, Ha RB, Shiozawa M, Takahashi H
Tokyo Medical and Dental Univ.

P - 29 Investigation of antibacterial molecule supporting effect of commercially available high translucent zirconia

○Kono H, Sugiura Y, Higashinakao T, Kikuchi M
Kagoshima Univ.

P - 30 Improved mechanical properties of highly-translucent zirconia by fusing monoclinic zirconia and silica on its surface

○Okada M, Matsumoto T
Okayama Univ.

P - 31 Crystal orientation and biaxial flexural strength of pressed lithium disilicate

○Matsubara M, Ban S, Tsuruta S, Asakura M, Kawai T
Aichi Gakuin Univ.

P - 32 CAD/CAM fabricated prosthetic accuracies of two different Lithium Disilicate Blocks

○Yamamoto K, Fusejima F
GC Corp.

P - 33 Effect of building direction on bending strength of FDM-formed PEEK

○Miura D, Ishida Y, Aoki H, Shinya A
Nippon Dental Univ.

P - 34 Shear bond strength of high-performance thermoplastic resin PEKK to root canal dentin

○Kasahara M, Someya T, Kagoura H, Munakata R, Hattori M
Tokyo Dental College

P - 35 Basic experiment on X-ray impermeableness of PEEK crown

○Nishio F, Morita K, Doi K, Hirata I, Kimura H, Abekura H, Tsuga K, Kakimoto K
Hiroshima Univ.

- P - 36 Preparation of PMMA-based resin for 3D-printing and its application to a temporary crown
 ○Hata K, Ikeda H, Nagamatsu Y, Masaki C, Hosokawa R, Shimizu H
 Kyushu Dental Univ.
- P - 37 Reversible hydrophilicity/hydrophobicity transition of a resin surface caused by thermal switching -
 environmental polarity and transition temperature -
 ○Nezu T, Nagano-Takebe F, Hasan G-M, Endo K
 Health Sciences Univ. Hokkaido
- P - 38 Mechanical properties and buffering capacity of auto-polymerizing resin incorporated with S-PRG filler
 ○Kaga N, Morita S, Tashiro S, Kawaguchi T
 Fukuoka Dental College
- P - 39 Evaluation based on 3-point bending strength of high-strength hard resin bridge
 ○Matsumoto K
 Shiken Co., Ltd.
- P - 40 Evaluation of color matching ability of experimental flowable resin composite applying structural coloration
 ○Saegusa M, Kurokawa H, Arai Y, Takahashi N, Shibasaki S, Miyazaki M
 Nihon Univ.
- P - 41 Evaluation of color matching ability of resin composite applying structural coloration -Influence of cavity depth
 on color adaptation-
 ○Shiratsuchi K, Kurokawa H, Saegusa M, Sugimura R, Suda S, Miyazaki M
 Nihon Univ.
- P - 42 Research on prototype resin composites with different filler particle sizes
 ○Nakao S, Kuroda T, Katayama Y, Ohashi K, Nihei T
 Kanagawa Dental Univ.
- P - 43 Study on characteristics of temporary resin composite (Part 3) – Color changes of each resin composite -
 ○Katayama Y, Ohashi K, Kameyama Y, Wada Y, Aoki K, Midono T, Tanimoto Y, Nihei T
 Kanagawa Dental Univ.
- P - 44 Study on novel wash type alginate impression material (Part 2) - The tear strength to the impression materials -
 ○Nihei T, Kuroda T, Wada Y, Ohashi K, Kimoto K
 Kanagawa Dental Univ.
- P - 45 Evaluation of impression accuracy of Aroma Injection
 ○Shibuya Y, Fusejima F
 GC Corp.
- P - 46 Effect of post-heat treatments on metal-ceramic bond properties of Co-Cr-Mo-W alloy fabricated by selective
 laser melting
 ○Hein Linn Htat, Kajima Y, Takaichi A, Hla Htoot Wai Cho, Kamijo S, Hanawa T, Wakabayashi N
 Tokyo Medical and Dental Univ.
- P - 47 Low temperature-PTFE coating can improve metallic appearance of orthodontic titanium wires without
 changing their mechanical property
 ○Kameda T, Terada K, Ohkuma K
 Nippon Dental Univ.
- P - 48 The inhibition of root dentine demineralization by hydraulic temporary sealing material containing biounion
 glass
 ○Hoshino T, Mori D, Fusejima F
 GC Corp.
- P - 49 Effects for ion-diffusion and inhibition of demineralization in dentin by low concentration of titanium fluoride
 solution
 ○Okuyama K, Matsuda Y, Yamamoto H, Shintani K, Komada Y, Horiguchi T, Saito T, Hayashi M, Tamaki Y
 Asahi Univ.
- P - 50 Effects of surface treatment and lamination temperature on bonding strength of polyolefin-polystyrene
 mouthguard sheet materials
 ○Churei H, Tanabe G, Wada T, Uo M, Takahashi H, Ueno T
 Tokyo Medical and Dental Univ.