

The 51st General Session of the Japanese Society for Dental Materials and Devices(JSDMD)

April 26th Sat. - April 27 Sun. 2008
Tsurumi University Memorial Hall (Yokohama)

April 26th Saturday Hall A

8:55-9:00 Opening Remark

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

9:00-10:00

Chairpersons: H. Arikawa (Kagoshima University) and H. Aoki (Nippon Dental University)
[Resins 1]

A-01 Influence of PMMA on viscoelasticity of trial tissue conditioners

○T. Maeda, G. Hong, S. Sadamori, T. Hamada
Hiroshima University

A-02 Vinyl ester/Polymer mixture system (Part 5) - Multi-functional denture liners based on VE/PEMA system -

○J. Tanaka¹, Y. Hashimoto², M. Nakamura², K. Suzuki¹
¹ Okayama University, ² Osaka Dental University

A-03 Examination of antibacterial property and the change in color tone of self-cured acrylic resin added with organic composite antibacterial agent.

○K. Kuroki, Y. Takahashi, Y. Kominami, T. Hayashi, T. Asai, M. Asakura, Y. Sato, H. Kawai, K. Morimoto, T. Kawai
Aichi-Gakuin University

A-04 Development of FRP post Part 2. Characterization of prototype FRP post

○F. Teraoka, Y. Inaba, M. Nakagawa, T. Sohmura
Osaka University

10:00-11:00

Chairpersons: N. Nezu (Iwate Medical University) and T. Hayakawa (Nihon University at Matsudo)
[Resins 2 and Adhesion]

A-05 Preparation and mechanical properties of fiber reinforced resins with silk

○M. Uo, S. Abe, T. Akasaka, F. Watari
Hokkaido University

A-06 The effect of different mixing methods of self adhesive luting cements on bonding to ceramics

○T. Abo¹, S. Uno², Y. Nishitani¹, M. Yoshiyama¹
¹ Okayama University, ² Toranomon Hospital

A-07 A study on nanoleakage with resin bonding systems in 3 generations

○S. Uno, M. Morigami, J. Sugizaki, T. Yamada
Toranomon Hospital

A-08 New adhesion theory -Micromechanics of fracture strength-

○K. Wakasa¹, S. Uno², M. Okazaki¹
¹Hiroshima University, ² Toranomon Hospital

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

15:15-15:00

Chairpersons: K. Kakuta (Nippon Dental University at Niigata) and H. Kakigawa (Kyusyu Dental University)

[Metals and Corrosion 1]

A-09 Relationship between unique hardening mechanism and microstructure of low-carat noble alloy

for dental applications

OT. Kanno¹, M. Ninomi¹, T Akahori¹, M. Nakai¹, H. Fukui²
¹ Tohoku University, ² Aichi-Gakuin University

A-10 Inhibition of biofilm formation on titanium surface immobilized poly (ethylene glycol) with electrodeposition

OY. Tanaka, Y. Tsutsumi, H. Doi, M. Khairul, J. Tagami, T. Hanawa
Tokyo Medical and Dental University

A-11 Corrosion resistance of titanium in a basic peroxide-containing solution

OS. Takemoto, M. Hattori, M. Matsumoto, M. Yoshinari, E. Kawada, Y Oda
Tokyo Dental College

15:00-15:30

Chairpersons: K. Endo (Helth Science University of Hokkaido) and N. Horasawa (Matsumoto Dental University)

[Corrosion 2]

A-12 Released metal ions caused by galvanic corrosion between the magnetic stainless steels and titanium

OY. Takada, O. Okuno
Tohoku University

A-13 Improvement of corrosion resistance of bulk metallic glass for biomaterials

OY. Tsutsumi, H. Doi, T. Hanawa
Tokyo Medical and Dental University

15:40-17:10 Open Symposium

Moderator: Susumu Hirano

Professor, Department of Dental Engineering, Tsurumi University School of Dental Medicine

OS-1 Collaboration with physical science and engineering in clinical ophthalmology

Hideki Goto

Associate Professor, Department of Ophthalmology, Tsurumi University School of Dental Medicine

OS-2 Recent advances in anti-aging medicine for dentistry

Ichiro Saito

Professor, Department of Pathology, Tsurumi University School of Dental Medicine

April 27th Sunday

Hall A

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

9:00-10:00

Chairpersons: M. Adachi (Asahi University) and H. Kikuchi (Nihon University)

[Ceramics and Technology]

A-15 Blackening and crack formation of zirconia by Nd:YAG Laser irradiation

OS. Ban¹, Y. Minesaki¹, Y. Takenouti²
¹ Kagoshima University, ² A Dental Labo

A-15 Initial attachment of osteoblast-like cells on zirconia

OD. Yamashita, M. Machigashira, K. Kanbara, M. Miyamoto, H. Satoh, K. Noguchi, S. Ban
Kagoshima University

A-16 Octacalcium phosphate cement as a root canal filling material

OY. Imamura, Y. Tanaka, K. Yamashita
Tokyo Medical and Dental University

A-17 A study of a biocompatibility plastic bracket for orthodontics

ON. Sato, K. Miyazawa, T. Kawai, Y. Sato, T. Masuda, S. Goto
Aichi-Gakuin University

10:00-11:00

Chairpersons: Y. Hotta (Showa University) and M. Yoshinari (Tokyo Dental College)

[Measurements and Controls]

A-18 Dental hand skill training system for student using VR haptic device (Part I) Development of haptic training system

○T. Sohmura¹, Y. Yoshida¹, F. Takeshige¹, T. Nagashima¹, K. Wakabayashi¹, Y. Kamisaki¹, T. Tatsumi², Y. Kawamoto², T. Katoh³, H. Noborio³
¹Osaka University, ²TGL Inc., ³Osaka EC University

A-19 Direct 3-D morphological measurements of silicone rubber impression by using a micro-focus X-ray CT

○M. Kamegawa^{1,2}, M. Nakamura^{1,3,4}, T. Fukui⁴, S. Tsutsumi¹

¹ Kyoto University, ² Shimadzu Co., ³ Kanagawa Dental University, ⁴ Ichiyoshi Dental Care Clinic

A-20 Machinability evaluation of titanium alloys using the cutting temperature

○M. Kikuchi, O. Okuno
Tohoku University

A-21 A physical evaluation on Implantation - Dynamic finite element analysis between different loading periods -

○Y. Fukase¹, M. Kaketani¹, M. Sasao¹, T. Sato¹, T. Yamamoto², T. Yoneyama¹
¹ Nihon University, ² Yamamoto Dental Office

13:15-14:45 Special Lecture

Chairperson: Hiroshi Nakajima

(Professor, Division of Dental Biomaterials Science, Department of Restorative and Biomaterials Sciences, Meikai University School of Dentistry)

SL-1. Quality and safety management to dental materials with consideration for chemical substance and medical device regulations Ryoji Nakazato

Executive Manager, Department of Quality Control, GC Corporation

Chairperson: Hidekazu Takahashi

(Associate Professor, Advanced Biomaterials, Department of Restorative Sciences, Division of Oral Health Sciences, Graduate School, Tokyo Medical and Dental University)

SL-2. Surface treatments on titanium to enhance titanium-porcelain bonding

Lee, Hae-Hyoung

Chief and Associate Professor, Department of Dental Biomaterials Science, School of Dentistry, Dankook University

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

15:00-15:55

Chairpersons: S. Takeda (Osaka Dental University) and T. Hongo (Tokyo Medical and Dental University)

[Biological Reaction I]

A-22 Deformation Analysis of Periodontium with Load-Displacement Curve under Dental Occlusion

○Y. Morita¹, M. Uchino², K. Arakawa¹
¹ Kyushu University, ² Fukuoka Industrial Technology Center

A-23 Fabrication of multi-functional gel scaffold for tissue engineering

○T. Matsumoto, S. Nakamura, T. Matsumoto Jr., T. Sohmura
Osaka University

A-24 Octacalcium phosphate(OCP)/sodium alginate complex as a bone substitute material

○T. Fuji, T. Anada, Y. Honda, K. Sasaki, O. Suzuki
Tohoku University

15:55-16:30

Chairpersons: M. Kawaguchi (Fukuoka Dental University) and J. Tanaka (Okayama University)

[Biological Reaction 2]

A-25 Titanium-surface modification with conjugated molecules consisting of antimicrobial and titanium-binding peptides

○M. Yoshinari¹, S. Takemoto¹, M. Hattori¹, E. Kawada¹, Y. Oda¹, T. Hayakawa²
¹ Tokyo Dental College, ² Nihon University at Matsudo

A-26 Effect of microstructures of biomaterials on bone-related cells *in vitro*

○X. Li, M. Uo, T. Akasaka, F. Watari
Hokkaido University

A-27 Evaluation on phagocytosis of titanium sub-micron particles by PMA-stimulated THP-1 (macrophage) cells

○M. Taira, K. Sasaki, S. Saitoh, T. Nezu, Y. Araki
Iwate Medical University

April 26th Saturday

Hall B

9:30-15:30 General Presentation (Poster Session) (11:00-12:00 Discussion)

[Award Challenge Posters P-01~P-08] (9:40-11:00 Judgment, 11:00~12:00 Discussion)

P-01 Change in Color of Esthetic Restorative Materials with Experimental Resin Cements

○Y. Hasegawa, Y. Takahashi, Y. Nagasawa, T. Yamaga, Y. Hibino, H. Nakajima
Meikai University

P-02 Microbiological evaluation of glycine type amphoteric surfactant on denture-base acrylic resin

○M. Hashiguchi, Y. Nishi, T. Kanie, E. Nagaoka, S. Ban
Kagoshima University

P-03 Application of carbon nanotube coated collagen sponge for 3D scaffold

○E. Hirata, M. Uo, A. Yokoyama, F. Watari
Hokkaido University

P-04 Difference in bone differentiation property of MC3T3-E1 cells on titanium, zirconium, and gold

○K. Oya, H. Sakamoto, Y. Tsutsumi, H. Doi, T. Hanawa
Tokyo Medical and Dental University

P-05 Effect of mechanical stress to osteoblast about HSC niche related genes

○J. Sasaki, T. Matsumoto, H. Egusa, T. Sohmura, H. Yatani
Osaka University

P-06 Antibacterial effect of CPC immobilized in the resin matrix

○N. Namba, Y. Yoshida, N. Nagaoka, K. Suzuki, S. Takashiba
Okayama University

P-07 Effects of titanium ion on the gene expression related with bone resorption

○Y. Mine¹, S. Makihira¹, H. Murata², H. Nikawa¹
¹ Hiroshima University, ² Nagasaki University

P-08 Effects of grazing on flexural strength of dental ceramics ground by a CAD/CAM system

○R. Nonogaki, M. Uno, M. Kurachi, N. Wakamatsu, Y. Doi
Asahi University

[General Poster: 11:00~12:00 Discussion]

[Ceramics]

P-09 Anodic oxidation of Nb, Ta and Zr by polarity inversion - Effect of pH of electrolyte on morphology of deposited calcium phosphate -

○S. Okawa, K. Homma, S. Nakano, M. Kanatani, K. Watanabe
Niigata University

P-10 Three-point bending strengths of zirconia and alumina

H. Sato¹, ○Y. Okuda, S. Ban
Kagoshima University

P-11 In-vitro research about the bending- and the fatigue strength of veneered Y-TZP specimen depending on the surface treatment

OG. Christoph¹, J. Kunii², A. Fujishima², D. Higuchi², Y. Hotta², WS. Ri², Y. Tamaki², T. Miyazaki², K. Baba²

¹ Eberhard-Karls University, ² Showa University

P-12 Preparation of zirconia ceramics with high durability in wet conditions by using electrical surface modification method

○Y. Tanaka, K. Yamashita

Tokyo Medical and Dental University

P-13 Study on the protein adsorption onto hydroxyapatite particles

○H. Mohammad, T. Matsumoto, T. Sohmura

Osaka University

P-14 Tensile bond strength of resin-modified glass ionomer cement to zirconia ceramics

○S. Nakahara, S. Kurata, K. Umemoto

Kanagawa Dental College

[Composite Resins]

P-15 The influence to flowable resin surface properties by an long-term stored in water or grinding

○L. Han, A. Okamoto, M. Fukushima, T. Okiji

Niigata University

P-16 Thermal expansion of opaque resins of prosthodontic composite and cast dental alloys for crowns and bridges

○S. Sakaguchi, H. Hirose, Y. Satoh, T. Yoneyama

Nihon University

P-17 Radiopacity of experimental composite resins containing radiopaque

○Y. Aoyagi¹, N. Iwasaki², H. Takahashi², K. Umemoto¹

¹ Kanagawa Dental College, ² Tokyo Medical and Dental University

P-18 A reinforcement effect by a new type of composite resin core buildups with fiber post and additional sleeve

○K. Sasaki, Y. Tsubota, Y. Tikiniwa, H. Yamazaki, S. Kitamura, R. Nomoto, S. Hirano, S.

Fukushima

Tsurumi University

P-19 Immediate gap formation in Class I composite restoration: Effect of setting shrinkage and shear bond strength

○M. Irie, R. Oh, M. Oka, Y. Maruo, G. Nishigawa, S. Minago, K. Suzuki

Okayama University

P-20 A study on color of composite resin core buildups by a dental color analyzer

○H. Yamazaki, Y. Tsubota, K. Sasaki, Y. Tokiniwa, Y. Nishimura, N. Fukagawa, K. Hashimoto, S.

Fukushima

Tsurumi University

P-21 Effect of light-exposed time on viscoelastic properties of a resin for crown and bridge

○K. Fujii, H. Minami, H. Arikawa, T. Kanie, S. Ban

Kagoshima University

P-22 Flexural properties of multi-layer of resin composites

○E. Yoshida, R. Nomoto, S. Hirano

Tsurumi University

P-23 Influence of filler/monomer on fatigue strength of dental composite resin

○T. Toyama¹, I. Nishikawa¹, H. Takahashi²

¹ Osaka Institute of Technology, ² Tokyo Medical and Dental University

P-24 Mechanical properties of fiberpost using various resins

○Y. Asakawa¹, H. Takahashi², N. Iwasaki², M. Kobayashi¹, K. Kousaka¹

¹ Chiba Institute of Technology, ² Tokyo Medical and Dental University

P-25 Development of FRP post Part 1. Effects of surface treatment of FRP post

○Y. Inaba, F. Teraoka, M. Nakagawa, T. Sohmura,

Osaka University

P-26 Some properties of coating resins for esthetic dental material

○Y. Kato, A. Fujishima, Y. Shimada, K. Takeuchi, R. Tanaka, A. Manabe, H. Hisamitsu, T. Miyazaki
Showa University

P-27 Evaluation of shrinkage displacement fields in light cure resin composites by digital image correlation method

○T. Furukawa¹, K. Arakawa¹, Y. Morita¹, M. Uchino², H. Kaida²
¹ Kyushu University, ² Fukuoka Industrial Technology Center

P-28 Thermal deformation measurement of resin composites in artificial cavity

○T. Nakanishi¹, K. Arakawa¹, Y. Morita¹, M. Uchino²
¹ Kyushu University, ² Fukuoka Industrial Technology Center

[Impression Materials]

P-29 Effects of disinfection of combined agar/alginate impressions on the dimensional accuracy and deformation of stone model simulated full crown preparation with adjacent teeth

○N. Hagino, H. Hiraguchi, M. Yui, T. Yoneyama
Nihon University

P-30 Influence of auto-mixing on the characteristics of alginate impression material

○H. Hiraguchi, M. Wakashima, H. Koizumi, H. Matsumura, T. Yoneyama
Nihon University

P-31 Effect of swelling/shrinking of collagen hydrogels on the drug uptake/release properties

○T. Nezu, K. Sasaki, S. Saitoh, M. Taira, Y. Araki
Iwate Medical University

P-32 Basic properties of polyaddition-type silicone impression materials with titanium dioxide

○A. Izumida, M. Yoda
Tohoku University

[Cells]

P-33 Culture of osteoblast-like cells on transparent conductive single-walled carbon nanotube thin films

○T. Akasaka, S. Abe, M. Uo, F. Watari
Hokkaido University

P-34 H₂O₂ production of human polymorphonuclear leukocytes on titanium plate

○K. Moriguchi, Y. Takahashi, T. Kawai
Aichi-Gakuin University

P-35 Selective collection trial of mesenchymal stem cells using specific antibody labeled magnetic micro-beads

○M. Taira, K. Sasaki, S. Saitoh, T. Nezu, Y. Araki
Iwate Medical University

[Biological Tissue]

P-36 Apatite deposition on the DNA/chitosan film in body simulated fluid

○M. Kawaguchi¹, J. Ohno¹, T. Hayakawa², Y. Inoue³, T. Fukushima¹
¹ Fukuoka Dental College, ² Nihon University, ³ Fukuoka College of Health Science

P-37 Development of the implant biomaterial -Osteoinductive activity of Dextrin-Hydroxyapatite-BMP complex-

○T. Asai, T. Hayashi, K. Kuroki, M. Okano, S. Hamajima, Y. Uematsu, M. Tomino, T. Kawai
Aichi-Gakuin University

P-38 Hardness of dentin related to anisotropic structure

○T. Inoue, M. Saito, M. Yamamoto, F. Nishimura, T. Miyazaki
Showa University

[CAD/CAM]

P-39 The three dimensional teeth models part 2 -caries tooth model-

○S. Nagasawa¹, T. Yoshida¹, K. Tamura¹, Y. Arai¹, M. Yamazoe^{1,2}, K. Hayano¹, M. Ito¹
¹ Matsumoto Dental University, ² Yamamoto Precious Metal Co.Ltd.

P-40 Development of CAD/CAM denture manufacturing system

OS. Kinuta, T. Miyamoto, S. Miwa, M. Wake, T. Nakamura, H. Yatani, T. Sohmura
Osaka University

P-41 CAD of prostheses on the implant using 3D-CT bone image (part 1) Prefiguration of FGVP trace using jaw bone

OS. Ono¹, Y. Kumazawa², Y. Kawamoto³, T. Katoh⁴, T. Ohta⁴, K. Mizushino⁴, A. Nagano⁴, H. Noborio⁴, T. Sohmura¹

¹ Osaka University, ² Bionic Co.,Ltd, ³ TGL Inc., ⁴ Osaka EC University

P-42 Ceramic bridge fabricated by CAD/CAM - Influence of abutment position to the fitting accuracy

OJ. Kunii, Y. Hotta, Y. Tamaki, A. Ozawa, A. Fujishima, T. Fujiwara, T. Miyazaki
Showa University

P-43 Development of dental practical training system using VR haptic device (Part 2) -Improvement of haptic device for dental practical training-

OK. Wakabayashi¹, F. Takeshige¹, S. Kinuta¹, H. Noborio², T. Nakamura¹, H. Yatani¹, T. Sohmura¹

¹ Osaka University, ² Osaka EC University

[Laser]

P-44 Tensile strength by laser welding between cobalt chromium alloy and gold alloy

OH. Kikuchi, T. Kurotani, T. Sato, M. Miyasawa, T. Nakano, K. Miyanaga, T. Yoneyama
Nihon University

P-45 Influence of laser welding condition on deformation of titanium frame

OK. Kobayashi, M. Ota, S. Yamada, M. Shimakura,
Ohu University

April 27th Sunday
Hall B

9:30-15:30 General Presentation (Poster Session)

(11:00~12:00 Discussion)

[Dental Alloys and Casting]

P-46 Anodic oxidation of Ni-Ti orthodontic wire in calcium hydroxide solution

OK. Homma, S. Okawa, M. Kanatani, K. Watanabe
Niigata University

P-47 Properties of titanium material produced by metal injection molding method

OK. Tamura, T. Yoshida, M. Yamazoe, T. Mizoguchi, K. Mori, T. Onizawa, T. Niro, Y. Kawase, S. Nagasawa, M. Ito
Matsumoto Dental University

P-48 Mechanical properties on diverse porous sintered titanium packages

OW. Lee, Y. Shibata, Y. Kataoka, Y. Tamaki, T. Miyazaki
Showa University

P-49 Spectrophotometric Colorimetry of Tarnish Resistance of Dental Alloys

OY. Takuma, T. Shiraishi, T. Fujita, E. Miura, K. Hisatsune
Nagasaki University

P-50 X-ray analysis and SEM observation for surface of fusing porcelain to gold alloy

OY. Ishida, H. Okada, H. Noguchi, I. Ryukata, I. Kawashima
Ohu University

P-451 Attempt of paste type dental investment with special liquid

OY. Tamaki¹, R. Yoshida¹, Y. Aida¹, Y. Kataoka¹, Z. Zhang^{1,2}, H. Cho¹, Y. Hotta¹, T. Miyazaki¹

¹ Showa University, ² Capital University of Medical Sciences

[Corrosion]

P-52 Rest potentials and released ions of Ti-Ag alloys in lactic acid solution

○M. Takahashi, Y. Takada, M. Kikuchi, O. Okuno,
Tohoku University

P-43 Polarization-corrosion behavior of dental precious metal alloys

○ Sakaiharu ¹, M. Yamazoe ^{1,2}, T. Anraku ^{1,3}, T. Yoshida ², K. Tamura ², S. Nagasawa ², M. Ito ²
¹ Yamamoto Precious Metal Co., Ltd, ² Matsumoto Dental University, ³ Kochi University of
Technology

P-54 Corrosion behavior of Ti and Ti alloys in acidic fluoride solution

○K. Endo, H. Kamezawa, M. Ochi, H. Ohno, Y. Yamane
Health Sciences University of Hokkaido

[Cements]

P-55 Fluoride release from experimental temporary cement containing PRG filler

○Y. Nagasawa, T. Yamaga, Y. Hasegawa, K. Wada, Y. Hibino, H. Nakajima
Meikai University

P-56 Fluoride ion release and recharge from a new hydroxyapatite-glass ionomer cement

○A. Kimura, K. Arita
Tokushima University

P-57 Handling of resin-modified glass polyalkenoate cements

○H. Saitou, A. Izumida, S. Kasahara, M. Yoda, K. Kimura
Tohoku University

P-58 Properties of apatite cement containing titanium phosphate

○H. Kamemizu, S. Saku, M. Iijima, N. Wakamastu, M. Adachi, Y. Doi, K. Yamamoto
Asahi University

P-59 Effect of powder-liquid ratio on fracture toughness of conventional glass ionomer cements for luting

○Y. Hibino, Y. Nagasawa, J. Omatsu, Y. Hasegawa, T. Yamaga, H. Nakajima
Meikai University

[Resins]

P-60 Influence of plasticizer and polymer on dynamic viscoelasticity of tissue conditioner

○H. Tsuka ¹, G. Hong ¹, T. Maeda ¹, T. Hamada ¹, H. Murata ²
¹ Hiroshima University, ² Nagasaki University

P-61 Dynamic viscoelastic properties, absorption and solubility of commercial liner type denture adhesives

○H. Murata ¹, T. Kurogi ¹, H. Kano ¹, G. Hong ², W. Mizumachi ², T. Hamada ²
¹ Nagasaki University, ² Hiroshima University

P-62 Optical properties of light-activated fissure sealant

○H. Arikawa, T. Kanie, K. Fujii, S. Ban
Kagoshima University

P-63 Bonding strength of soft type urethane polymers for PMMA

○T. Kanie ¹, M. Akita ², S. Katsura ², H. Arikawa ¹, K. Fujii ¹, S. Ban ¹
¹ Kagoshima University, ² Yamahachi Dental MFG.

P-64 Determination of viscosity of commercial glue type denture adhesives using a sine-wave vibro viscometer

○K. Kurogi, H. Kano, H. Murata
Nagasaki University

P-65 Discoloration of bonding resin

○K. Nishimura, M. Ikeda, T. Nikaido, J. Tagami
Tokyo Medical and Dental University

P-66 Chemical properties of a new resin applying bisfunctional siloxane oligomer - MMA copolymer

○Y. Aoyagi, K. Umemoto, S. Kurata
Kanagawa Dental College

P-67 Surface analysis of fluorine and silver deposited acrylic resin

○Y. Shinonaga¹, K. Arita¹, K. Endo²

¹ University of Tokushima, ² Health Science University of Hokkaido

P-68 Development of adhesive resin cement for orthodontic

○J. Li, I. Shibuya, Y. Tanimoto, T. Hayakawa, I. Teshima, M. Nomura, M. Aida, N. Nishiyama
Nihon University at Matsudo

P-69 A study on structure and composition of various glass-fiber posts

○Y. Aosaki, Y. Tsubota, K. Sasaki, Y. Tokiniwa, S. Fukushima
Tsurumi University

[Adhesion]

P-70 Influence of CPP-ACP paste on dentin bond strength of single-step self-etch system

○A. Rikuta, H. Tsuchiya, Y. Chiba, K. Yamaguchi, K. Tsubota, H. Kurokawa, S. Ando, M. Miyazaki
Nihon University

P-71 Changes in dentin bond strength of core foundation resins as a function time

○T. Oto, S. Oooka, T. Yoshida, S. Uekusa, A. Yamamoto, A. Irokawa, T. Takamizawa, M. Miyazaki
Nihon University

P-72 Bonding durability against water of fluorine-containing resin for precious metal alloys

○Y. Kadoma
Tokyo Medical and Dental University

P-73 Degradation of single bottle type one step adhesives

○S. Ma, K. Fujita, Y. Tanimoto, T. Hayakawa, H. Teshima, T. Ikemi, N. Nishiyama
Nihon University at Matsudo

P-74 Influences of thermal cycling on the tensile and shear bond strengths of several luting cements to cp titanium after thermal cycling

○A. Kusano^{1,2}, A. Fujishima², K. Takeuchi², T. Shimizu², Y. Shimakura², Y. Kataoka², M.
Miyazaki²

¹ Japan Air Self Defence Force, ² Showa University

[Implants]

P-75 Micromechanical properties of interfacial structure on nano calcium phosphate coated titanium

○Y. Shibata, Y. Kataoka, A. Murakami, K. Yamaiki, T. Miyazaki
Showa University

P-76 Chemical deposition of carbonate Apatite coatings on Ti substrate with sulfonated SAM

- 5. Calcium and phosphorus distributions in the coating film estimated by XPS -

○Y. Yamaguchi, Y. Doi, K. Yamamoto
Asahi University

P-77 A torque removal study on the primary stability of the hydroxyapatite immobilized titanium implants via polymer coating to tooth extraction socket in rats

○J. Okazaki¹, K. Matsumura², SH Hyon², D. Sakai¹, M. Nomura¹, A. Kawamoto¹, K. Kakimoto¹, Y. Komasa¹

¹ Osaka Dental University, ² Kyoto University

[Toxicity]

P-78 Development of in vitro embrotoxicity test including the human metabolic factor

○K. Imai, M. Nakamura
Osaka Dental University

P-79 Evaluation of resin monomer's cytotoxicity using induced ciliated epithelial cells of trachea from murine embryonic stem cells

T. Hamazaki¹, ○T. Hongo²

¹ Research Institute, International Medical Center of Japan, ² Tokyo Medical and Dental University

P-80 Determination of administered micro/nano-particulate materials in mice and its visualization

○S. Abe¹, M. Esaki¹, T. Akasaka¹, M. Uo¹, Y. Kuboki^{1,2}, F. Watari¹

¹ Hokkaido University, ² Koken Bioscience Institute

[Test Methods]

P-81 Impact force recorded under mouth guard materials using load cells and film sensor system

○F. Reza¹, H. Takahashi¹, N. Iwasaki¹, J. Tanaka²

¹ Tokyo Medical and Dental University, ² Okayama University

[Grinding and Polishing]

P-82 The cutting efficiency by diamond points that are developed for advanced ceramics

○K. Ohkuma, H. Ogura

Nippon Dental University at Niigata

P-83 Development of a dental therapy training patient robot

○F. Takahashi¹, H. Takanobu¹, K. Maki², A. Takanishi³

¹ Kogakuin University, ² Showa University, ³ Waseda University

[Clinical Applications]

P-84 Sterilization effect on the newly produced running water power generation type ozone disinfection vessel

○K. Arai¹, M. Nomura², N. Ando³

¹ Meikai University, ² Nihon University at Matsudo, ³ Nippon Dental University at Tokyo

P-85 Effect of Nd:YAG laser irradiation on dentin mineral

○A. Ito, M. Iijima, S. Kawano, M. Nakashima, K. Hirata, Y. Doi, I. Sekine
Asahi University

P-86 Effect of etching treatment of long-stored one-step type bonding agent on the bond strength to dentin

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P-87 Fracture analysis of fiber-reinforced composite retainer in the metal-free telescopic overdentures

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