



ANNOUNCEMENT 2002 AUTUMN

The 40th General Session of the Japanese Society for Dental Materials and Devices Conference Program

The 40th Annual Meeting and General Session of the JSDMD in autumn, 2002 will be held in accordance with following notations.

Term	08/31(Sat.) /2002 and 09/01(Sun.)/ 2002
Place	Raisin Hall, 8-7-4, Daimon, Shiojiri, Nagano, JAPAN zip-code 399-0738
President at the Meeting	Michio Ito (Department of Dental Materials, School of Dentistry, Matsumoto Dental University)
Chairman of the Arrangement Committee	Sakae Nagasawa
Contact to	1780, Gobara, Hirooka Shiojiri, Nagano, JAPAN zip-code 399-0781 Department of Dental Materials, School of Dentistry, Matsumoto Dental University Tel +81-263-51-2143 Fax +81-263-51-2143 e-mail : snagasawa@po.mdu.ac.jp

31 th , in August	9:30-11:00	Oral Presentation (Hall A,B)
	9:30-15:00	Study Encouragement Prize Application Poster Presentation (Hall C) (9:30-11:00 Examination) (11:00-12:00 Discussion)
	10:00-15:00	Poster Presentation (Hall C) (11:00-12:00) Discussion
	12:00-13:00	Meeting of Branch Office Councilors
	13:10-14:10	Special Lecture (Hall A) "The Regulatory Mechanism of Osteoclastic Bone Resorption"
	14:20-16:20	Oral Presentation (Hall A, B)
	17:00-19:00	Social Party (Hall Phoenix, Hotel Nakamura)
1 th , in September	9:30-10:30	A Homework Report (Hall A) [Rikou 21Century]
	10:00-14:00	Poster Presentation (Hall C) (11:00-12:00) Discussion
	12:00-13:00	Meeting of Councilors
	13:10-14:40	Oral Presentation (Hall A, B)

Conference Fee

Conference Fee : Member ¥6,000, Others ¥7,000 (Including Abstract collection charge)

Social Party

Date & Time	31 th , August (Saturday) 17:00-19:00
Place	Hall Phoenix, Hotel Nakamura
Charge	¥6,000

Special Lecture

31th(Saturday), in August Hall A 13:10–14:10

The Regulatory Mechanism of Osteoclastic Bone Resorption

Lecturer : Prof. Naoyuki TAKAHASHI (Institute for Oral Science, Matsumoto Dental University)

Chairman: Prof. Michio ITO (Department of Dental Materials, School of Dentistry, Matsumoto Dental University)

Report of Research Team of
Dental Materials and Devices in the 21st Century1th(Sunday), in September Hall A 9:30–10:30

Preventive Materials and Devices for Health Sciences –Pit and Fissure Sealants

Chairman| Prof.Minoru NISHIYAMA (President of the Jpn Soc for Dent Mater Dev, Dept of Dent Mater Sci, Sch Dent at Tokyo, Nihon Univ)

Team Leader| Hideo OGURA (Dept Dent Mater Sci, Sch Den at Niigata, Nippon Dent Univ)

H. NAKAJIMA, H. TAKAHASHI, T. SHYOJI, A. MIYAZAKI

Bone Regeneration and Reconstruction Materials for Next Generation

Chairman| Prof. Yutaka ODA (Dept Dent Mater Sci, Tokyo Dent Univ)

Team Leader| Masayuki OKAZAKI (Dept Biomat Sci, Hiroshima Univ)

K. ISHIKAWA, M. TAIRA, Y. DOI, S. BAN,
T. MASTUMOTO, K. YAMASITA, M.YOSHINARI

< Oral Presentation >

31th(Saturday), in August --- Hall A ---

A-01 Photooxidation of camphorquinone

○S.FUJISAWA¹, T.ATSUMI¹, Y.KADOMA²
Meikai Univ¹., Tokyo Med. and Dent.Univ².

A-02 Effect of different functional monomers on dentin adhesion of self-etching priming systems

○Y.YOSHIDA, K.NAGAKANE¹, R.FUKUDA¹, S.INOUE², H.SHINTANI¹, M.OKAZAKI¹, H.SANO³, K.SUZUKI, B.V.MEERBEEK³
Okayama Univ., ¹Hiroshima Univ., ²Hokkaido Univ., ³Catholic Univ. of Leuven

A-03 Effect of etching time on shrinkage and expansion of dentin etched with phosphoric acid

○K.ITOU¹, Y.TORII¹, Y.YOSHIDA¹, K.SUZUKI¹, M.YOSHIYAMA¹, D.H.PASHLEY²
Okayama University Graduate School, ²Medical college of Geor

A-04 Influences of the quality of tooth surface ground on bond strength of one-step bonding systems

○S.HIRABAYASHI
Tsurumi Univ.

A-05 Dentine bonding system–Effect of microcrack (Adhesion theory)

○K.WAKASA, A.IKEDA, Y.NOMURA, M.OKAZAKI, H.SHINTANI, H.SANO
Hiroshima Univ.

A-06 A study on light-cured resin –Effect of pre-existed flaw on bond strength to bovine dentin–

○M.MIYAZAKI, J.HIGAKI, S.ANDO, H.ONOSE
Nihon Univ.

A-07 Effect of alkaline treatment on bonding strength of pure titanium to veneering resin

–An evaluation of bonding durability–

○A.KADOKAWA, S.BAN, K.FUJII, T.KANIE, H.ARIKAWA, N.SHINOHARA, Y.MINESAKI, T.ONIZUKA, T.TANAKA
Kagoshima Univ.

A-08 Bond strength of denture adhesives and home reliners

○T.FUJIMORI, H.TAKAHASHI, F.NAKANO, N.IWASAKI, I HAYAKAWA
Tokyo Medical and Dental University

A-09 The process of fracture in dental ceramics subjected to occlusal load

Part I, Is there any possibility of fracture from pre-existing cracks.

○N.WAKAMATSU, H.KAMEMIZU, M.IIJIMA, M.ADACHI, T.GOTO, Y. DOI
Asahi Univ.

A-10 Improvement of fatigue strength of cast dental Ag-Pd-Cu-Au alloy

○T.MIZUMOTO, M.SHINYA, T.FUKUI¹, Y.NAKANO

Dept. of Production Systems Engineering Toyohashi Univ. of Technology,¹Aichi-Gakuin Univ.

A-11 Melting method for biomedical Ti-Ta-Nb alloy with high melting point

(Part 4). -The change of surface property by casting investment-

○Y.FUJISHIRO, A.MORITA¹, M.TOYAMA, T.HIKOSAKA, H.FUKUI, T.KAWAI

Aichi-Gakuin Univ, ¹Fuji Thermo Systems Co.

A-12 HA thin film coating on Ti substrate by liquid phase deposition method

-Analysis of HA deposition mechanism-

○M. TAMURA, K.ENDO¹, H.OHNO¹, O.TANAKA

Institute of Medical Science, Health Sciences University of Hokkaido,¹Dept. of Dent. Mater. Sci., Sch. of Dentistry, Health Sciences University of Hokkaido

A-13 Effect of b stabilizing elements on machinability of titanium alloys

(Part 5) -Mechanical properties and microstructures of Ti-Nb alloys-

○M.KIKUCHI, M.TAKAHASHI, O.OKUNO

Tohoku Univ.

A-14 Fabrication and evaluation of nitrided titanium/apatite functionally graded implants

○H.KONDO, A.YOKOYAMA, Y.TAMURA, T.KAWASAKI, M.UO, S.OHKAWA, T.SUGAWARA, F.WATARI

Hokkaido Univ. Graduate School of Dental Medicine

< Oral Presentation >

31th(Saturday), in August --- Hall B ---

B-01 The short-term clinical evaluation on resin modified-glass ionomer luting cement, Fuji Luting

○S.YONEDA, M.MORIGAMI, J.SUGIZAKI, T.YAMADA

Tranomom Hospital Dental Clinic

B-02 The short-term clinical evaluation on a light-curing resin composite "Filtek™ A110"

○M.MORIGAMI, S. HORIGUCHI, J.SUGIZAKI, T.YAMADA

Tranomom Hospital Dental Clinic

B-03 Surface roughness of stone casts obtained from agar/alginate combined impressions as a function of glass polyalkenoate cement lining

○H.UCHIDA, H.NAKAGAWA, H.HIRAGUCHI, N.TANABE

Nihon Univ.

B-04 Effect of fluoride on the hydrolysis of calcite in potassium dihydrogen phosphate

○S.MATSUYA, K.UDO, M.NAKAGAWA, K.ISHIKAWA

Kyushu Univ.

B-05 Fundamental study on application of Acidic Electrolyzed Water to Alginate impression

○Y.MARUTANI, A.SHIBA, TUKASAKI,H, A.KANAISHI, T.MATSUZAKI, A.OOYAMA, Y.TAMAKI, T.MIYAZAKI

Showa Univ.

B-06 Rapid analysis of intra oral metallic restoratives using X-ray scanning analytical microscope

○M.UO, T.SUGIURA, S.OHKAWA, F.WATARI

Hokkaido Univ.

B-07 Clinical study on discoloration of dental alloys: the effect of povidone iodine oral rinse

○K.FUJISE, K.INOUE, M.NAKAGAWA, K.TAKAHASHI, Y.TERADA

Kyushu Univ.

B-08 Corrosion of Ag-Pd-Cu-Au alloys during long-term practice in mouth

○H.HAMANAKA, H.DOI, M.KOTAKE

Inst. Of Biomaterials and Bioengineering, Tokyo Medical & Dental Univ.

B-09 Effects of chemical and heat treatments on sulfurization of Ag-Pd-Au-Cu based alloy

○S.SAITOH, Y.ARAKI, M.TAIRA, R.KON, H.KATSURA, T.HUKUOKA

Iwate, Medical University School of Dentistry

B-10 Corrosion and tarnish behaviors of Ag-In-Au-Pd alloys

OK.ENDO, H.OHNO, I.KAWASHIMA, Y.YAMANE
Health Sciences University of Hokkaido

B-11 Corrosion resistance of dental Ag-Pd-Cu-Au alloy in artificial saliva under stress condition

OS.MATSUSHITA, T.MIZUMOTO, M.SHINYA, T.FUKUJ¹

Dept of Production Systems Engineering Toyohashi Univ. of Technology, ¹Aichi-Gakuin Univ.

B-12 Increase of released ions in the galvanic corrosion between dental amalgams and titanium

OY.TAKADA, S.D.LIM¹, K.ASAMI, K.H.KIM², O.OKUNO

Tohoku Univ., ¹ Daegu Polytechnic College, ² Kyungpook National Univ.

B-13 In vitro embryotoxicity testing of mercury vapour by differentiation of ES cells into contracting cardiac myocytes

OK.IMAI, K.MASUDA, S.KURODA, M.NAKAMURA

Osaka Dental Univ

B-14 Studies on cell biocompatibility and elution of medical titanium alloys and stainless steels

OM.TAIRA, S.SAITOH, Y.ARAKI

Iwate Medial Univ.

< Study Encouragement Prize Application Poster Presentation >

31th(Saturday), in August --- Hall C ---

P-01 Fabrication of injectable biodegradable poly (L-lactic acid) particulates for topical bone filling biomaterial

!Study Encouragement Prize Winning!

OH.TAMASAKI, T.SOHMURA, J.TAKAHASHI

Osaka Univ.

P-02 New adhesive method between resin and an alloy

OM.KOMORIYAMA, R.NOMOTO, S.HIRANO

Tsurumi Univ.

P-03 The failure progress analysis of glass fiber reinforced photo cure composite resin

OY.TANIMOTO, T.NISHIWAKI¹, K.NOMOTO

Nihon Univ. at Matsudo, ¹Asics Corporation

P-04 Interaction of angiogenic behavior of endothelial cells with peptide IKVAV in vitro

OY.HAMADA, N.MATSUURA, J.TAKAHASHI

Osaka Univ.

P-05 Mechanical characteristics of the fluoride-releasing polyurethane elastomers

OX.Y.WANG, K.MIYAZAKI, W.MOTOKAWA

Fukuoka Dental College

< Poster Presentation >

31th(Saturday), in August --- Hall C ---

P-06 Dynamic mechanical properties of high elastic polyaddition-type silicone impression materials

OA.IZUMIDA, M.HOSOTANI¹, N.KATAKURA, M.YODA, K.KIMURA, O.OKUNO

Tohoku Univ., ¹Tohoku Employees' Pension Welfare Hospital

P-07 Study on the physicochemical property of alginate hydrogel capsule

OM.IHARA

Osaka Univ.

P-08 XMA and XPS analysis of the metallic restorations fixed for long term in the oral cavity

OI.KAWASHIMA, H.OHNO, N.KSARKAR¹, K.ENDO, Y.YAMANE

Health Sciences Univ. of Hokkaido, ¹Louisiana State Univ.

P-09 Shape memory alloy fiber reinforced resin matrix smart composite (Part 6)

- effect of fiber volume fraction on dimension change after repair -

OK.HAMADA, F.KAWANO, K.ASAOKA

Tokushima Univ.

P-10 Softening heat treatment of Sn-added 35Ag-30Pd-20Au-15Cu alloy

OP.CHURNJITAPIROM, S.GOTO, A.NAKAI, H.OGURA

Sch. of Dentistry at Niigata, The Nippon Dental Univ.

P-11 Sintering Inlay

-Powers of 65-85% silver, 5-25% copper, 10-30% iron alloy-

○K.OHKUMA

The Nippon Dental Univ., Sch. of Dentistry at Tokyo

P-12 Properties of low karat gold alloys contained with indium

○M.MATSUMOTO, M.HATTORI, K.HASEGAWA, M.YOSHINARI, E.KAWADA, Y.ODA

Tokyo Dental College

P-13 Influence of the plasma sputtering to the alloy for dental materials.

○S.NARUSE, Y.OKAMOTO¹, K.MIYAZAKI¹, S.YOSHIDA.

Tokuriki Honten Co.,Ltd. ¹Fukuoka Dental College

P-14 A possibility for new evaluating method of cytocompatibility by using real-time quantitative PCR

○Y.HASHIMOTO, Y.KOSADA, A.UEDA, H.OSHIMA, M.NAKAMURA

Osaka Dental Univ.

P-15 Cytotoxicity of experimental alloys as an alternative to gold-silver-palladium alloys

○S.TAKEDA, M.ZENNYU, M.NAKAMURA, T.YOSHIDA¹, T.MIYASAKA¹, H.OKAMURA¹

Osaka Dental Univ., ¹Nippon Dental Univ. at Tokyo

P-16 Effect of testing condition on flexural properties of composite resins

○Y.AOYAGI, J.JIN, K.BABASONO, N.IWASAKI, H.TAKAHASHI

Tokyo Medical and Dental Univ.

P-17 A study on surface roughness - 3.The effect of scanning direction -

○S.KASAI

Nihon Univ. Sch. of Dentistry

P-18 Effects of temperature of electrolyzed Water on its durability of bactericidal efficacy

○Y.NAGAMATSU, K.CHEN, K.TAJIMA, H.KAKIGAWA, Y.KOZONO.

Kyushu Dental College

P-19 Disinfection of impressions in dental treatment for elderly patients at home

-Effect of type of tray for alginate impressions on the reproducibility of stone models-

○H.HIRAGUCHI, H.NAKAGAWA, H.UCHIDA, N.TANABE

Nihon Univ.

P-20 Scratch hardness of stone models after immersing in sodium hypochlorite solution

○N.TANABE, H.NAKAGAWA, H.UCHIDA, H.HIRAGUCHI

Nihon Univ., Sch. of Dentistry

P-21 Functional polymer for dental use (I)

Antibacterial activity of silver methacrylate/methyl methacrylate copolymer

○K.MORISHITA, S.KURATA, K.SHI

Kanagawa dental college

P-22 Functional polymer for dental use (II)

Modification of PMMA surface using a hydrophobic fluorine-substituted monomer

○S.KURATA, K.MORISHITRA, K.SHIMOYAMA, K.UMEMOTO, T.NIHEI, N.OMOTO, K.OHASHI, T.TERANAKA

Kanagawa dental college

P-23 Impact strength of acrylic denture base resin reinforced with the woven glass fibers

○T.KANIE, H.ARIKAWA, K.FUJII, S.BAN

Kagoshima univ. dental sch.

P-24 Stress analysis of restoration of endodontically treated teeth using finite element method (Part 2)

-Effects of elastic modulus of endodontic posts-

○Y.TANINO, Y.IIJIMA, N.SATOH, K.TACHIBANA, T.KUROE, Y.MITAMURA, N.OHATA

Hokkaido Univ.

P-25 Development of the Biofunctional Implant Materials Part (9)

Influence of implant shape on new bone

○T.KUNII, T.HAYASHI, T.ITOU, H.TANIGAWA, T.KAWAI

Aichi-gakuin Univ.

P-26 The expression of bone matrix protein around the composite bone substitute implanted into bone

○R.KON, Y.ARAKI, S.HATAKEYAMA

Iwate Medical Univ.

P-27 Imparting storage/release functions to a cross-linked polymer

-Preparation of a cross-linked collagen model and its properties-

OT.NEZU, T.MORIKAWA, K.FUKUDA, Y.TERADA
Kyushu Univ.

P-28 Biological examination of apatite-collagen sponges for hard tissue regeneration

OM.ITOH, A.SHIMAZU, I.HIRATA, Y.YOSHIDA¹, H.SHINTANI, M.OKAZAKI
Hiroshima Univ., ¹Okayama Univ.

P-29 Covering dental metal materials with polyethylene terephthalate (PET) plastic
-Bond strength between PET plastic and titanium-

OS.TSURUTA, M.ARIMOTO, T.WATANABE, T.ITOH, K.KAIKAWA, Y.IIDA
Aichi-Gakuin Univ.

P-30 A study on the multipurpose primer of resin modified glass ionomer cement
-Effect of thermal cycling stress on dentin bond strength-

OS.ANDO, A.IROKAWA, H.INAGE, M.MIYAZAKI, H.ONOSE
Nihon Univ. Sch. of Dentistry

P-31 Bonding Properties of All-in-one Adhesive
System Applied to Cervical Tooth Substance

OY.NAGAKURA
The Nippon Dental Univ.

P-32 Effect of combination stress on marginal sealing property and dentin strength of all-in-one adhesive system

OI.KIZUKI
Nippon Dental Univ.

P-33 Water durability of the resin bond to precious metal alloys treated by thiirane monomers

OY.KADOMA
Tokyo Medical and Dental Univ.

P-34 Electrodeposition of a functional monomer on dental metal

-Evaluation commercially adhesive monomer for Electrodeposition-
K.KAKETANI, K.ENOMOTO, S.YUI, K.MIYAZAKI, J.HAYASHI, Y.IGARASHI, M.NISHIYAMA
Nihon Univ.

P-35 Trial Production of Expansive Temporary Sealing Material (Part 2)

OS.SUGASIMA, H.OKADA, H.NOGUCHI, K.NAGAYAMA
Ohu Univ.

P-36 Non-destructive evaluation of specimens using X-ray micro CT

OR.NOMOTO, M.KOMORIYAMA, S.HIRANO, J.F.MCCABE¹
Tsurumi Univ., ²Univ. of Newcastle upon Tyne

P-37 Composition of hydraulic temporary sealing materials.

OY.OGURA, IKASTUUMI
The Nippon Dental Univ., Sch. of Dentistry at Tokyo

P-38 Study on acid resistance of cavity margin restored with fluoride release composite resins

-LSM observation of morphological changes of cavity walls on artificial caries model-
OY.TATE, Y.SHIGETANI, L.HAN, A.OKAMOTO, M.IWAKU
Niigata Univ.

< Oral Presentation >

1th(Sunday), in September --- Hall A ---

A-15 Pulse-shaped laser welding of dental metals (Part 1) Effect of top position of pulse profile on shape of weld pool

OT.TOGAYA
Inst. for Frontier Medical Sciences, Kyoto Univ.

A-16 Model study on whitening of stained teeth with laser beam and visible-light-responsive-titania photocatalyst

OH.ARAI, S.NAKAMURA, K.YAMASHITA
Inst. of Biomaterials & Bioengineering, Tokyo Medical & Dental Univ.

A-17 Detection of reactive oxygen species (ROS) from titanium dioxide photocatalyst using electron spin resonance (ESR) spectroscopy

- The novel possibility of dental application with titanium dioxide -
OM-C. LEE, F.YOSHINO, T.TERANAKA, T.KAWASE
Kanagawa Dental College.

A-18 Denture cleaning with TiO₂ photocatalyst

OT.NONAMI, H.HASE, T.KUMAGAI, N.MATSUSHITA¹, Y.AKETA¹, S.OYAGI¹
AIST, ¹Nissin Dental Products Inc.

A-19 Organic thin film coating with plasma CVD technique

OT.HAYAKAWA, H.YOSHIDA, M.NAGAI, M.YOSHINARI¹, K.NEMOTO
Nihon Univ., Sch. of Dentistry at Matsudo, ¹Tokyo Dental College

A-20 Influence of surface free energy of the dental restoration plasma treatment on

OH.KIBAYASHI, F.TERAOKA, M.IKENO, M.NAKAGAWA, J.TAKAHASHI
Osaka Univ.

< Oral Presentation >

1th(Sunday), in September --- Hall B ---

B-15 Cell functional test of Metallic particles and thier size effect

OK.TAMURA, N.TAKASHI, M.UDO, S.OOKAWA, T.SUGAWARA, Y.TOTUKA, F.WATARI
Hokkaido Univ.

B-16 Wettability of polylactide with different crystallinity in contact with a simulated body fluid

OF.TERAOKA, M.NAKAGAWA, T.HAMADA, J.TAKAHASHI
Osaka Univ.

B-17 Control of cell adhesion activity of polylactide composite (Part 1) Trehalose addition effects

OM.IKENO, F.TERAOKA, M.NAKAGAWA, Y.HAMADA, J.TAKAHASHI
Osaka Univ.

B-18 Effect of multi-grooved surfaces on fibroblast behavior

OM.YOSHINARI, J.LIU, A.TAKAGI, T.ABE, H.SESHIMA, Y.ODA
Tokyo Dental College

B-19 Emdogain^(R) evaluated by the osteoblastic differentiation of rat bone marrow cells (RBMC) cultured on the enamel matrix proteins of scaffold

OT.KAWASE, H.NEGISHI, S.DEGUCHI, K.UMEMOTO
Kanagawa Dental College

< Poster Presentation >

1th(Sunday), in September --- Hall C ---

P-39 Effect of the addition of chlorhexidine on the fluoride release from glass ionomer cements

OK.TAKAHASHI, Y.OGURA, T.EGURO, A.SEKIGUCHI, K.YOSHIDA, Y.YAMADA, M.MAEDA, I.KATSUUMI
The Nippon Dental Univ., Sch. of Dentistry at Tokyo

P-40 Physical properties of glass-ionomer cements: effect of the spherical filler

OM.IRIE, R.TJANDRAWINATA, K.SUZUKI
Okayama Univ. Graduate Sch. of Medicine and Dentistry

P-41 Mechanical properties and bonding characteristics of resin-modified glass ionomer cements for luting material

OA.FUJISHIMA, F.HIROSHIMA, S.MAEHARA, T.MIYAZAKI
Showa Univ.

P-42 Evaluation of effect of silane coupling agents using new heating device

OK.BABASONO, N.IWASAKI, J.JIN, Y.AOYAGI, H.TAKAHASHI
Tokyo Medical and Dental Univ.

P-43 Discharging in artificial body fluid forms thin crystalline hydroxyapatite coating on titanium plates processed by wire-type electric discharge machining.

OY.SHIBATA, T-Y KIM, H.YAMAMOTO, H.KAWAI, T.MIYAZAKI
Showa Univ. Sch. of Dentistry

P-44 Bond strength of thermosetting facing resin and titanium treated with titanates by heat spray method

OH.KATSURA, T.FUKUOKA, Y.ARAKI
Iwate Medical Univ.

P-45 Chemical mechanical polishing for titanium

Effects of polishing pressure and slurry pH on the polished surface

OS.OKAWA, S.NAKANO, K.WATANABE, M.KANATANI, A.HOSSAIN, O.MIYAKAWA, M.KOBAYASHI
Niigata Univ.

P-46 Fracture life of titanium under sustained tensile-loading test in acidic and neutral fluoride solutions

OK.YOKOYAMA, K.KANEKO, Y.MIYAMOTO, K.ASAOKA

Tokushima Univ.

P-47 Estimation for osteoconductivity of surface-modified and sintered porous titanium materials

○M.KON, L.M.HIRAKATA, T.YUASA, Y.MOMOTA, M.TAKECHI, Y.MIYAMOTO, K.HAMADA, K.ASAOKA
Tokushima Univ.

P-48 Corrosion behavior and bioactivity of the high corrosion resistant titanium alloys

○M.NAKAGAWA, L.ZHANG, S.MATSUYA, K.UDOH, K.ISHIKAWA
Kyushu Univ.

P-49 Fracture of beta-titanium orthodontic wire in fluoride solutions

○K.KANEKO, K.YOKOYAMA, K.ASAOKA, K.MORIYAMA
Tokushima Univ.

P-50 Macroscopic segregation of Ti-6Al-7Nb by centrifugal casting

○K.WATANABE, H.HONMA, S.OKAWA, M.KANATANI, S.NAKANO, O.MIYAKAWA, M.KOBAYASHI
Niigata Univ.

P-51 Study on the surface reaction layer of titanium castings -On the wedge shaped pattern-

○H.KIKUCHI, M.ONOUCHI, T.KUROTANI, T.KANEDA, O.OKUNO¹, M.NISHIYAMA
Nihon.Univ., ¹Tohoku Univ.

P-52 A Study on the fitness of titanium product restoration

Part 1 -The measurement was made by a laser displacement meter-

○M.ANZAI, A.KUROIWA, T.UDA, T.MINEYAMURA, A.YAMAMOTO, E.KASAHARA, Y.IGARASHI, M.ITO
Matsumoto Dental Univ.

P-53 IR and WDX analyses of new three casting ring liners and classification into sub groups

○H.HIROSE, T.KORENAGA, M.SASAO, N.HAGINO, Y.SHIOTA, T.IGARASHI, M.NISHIYAMA
Nihon Univ. Sch of Dentistry

P-54 Recycling of dental investments for cast

○Y.TAMAKI, Z.ZHANG, R.M.ISLAM, S.TAKASHIBA, Y.OKAZAKI, Y.HOTTA, T.MIYAZAKI, H.HISAMITSU
Showa Univ.

P-55 Studies on binder materials of dental phosphate-bonded investments

○Y.TAMAKI, Z.ZHANG, R. MD ISLAM, S.TAKASHIBA, Y.OKAZAKI, Y.HOTTA, T.MIYAZAKI, H.HISAMITSU¹
Showa Univ.

P-56 Dental investment material using new expansion mechanism

(Part 2) - Examination of quick heating method -

○H.KAMEMIZU, T.HORIGUCHI, M.IIJIMA, N.WAKAMATSU, M.ADACHI, T.GOTO, Y.DOI
Asahi UnivD

P-57 Effect of the time elapsed from investing to heating start of gypsum-bonded investments for quick heating on casting accuracy of crown

-Evaluation of Dimensional Change by Three-dimensional Coordinates Measuring System-

○Y.ISHIDA, H.NOBUCHI, K.NAGAYAMA
Ohu Univ.

P-58 Study on the recycling of gypsum bonded investment

Part 2. Changes of physical properties of the added recycled components

○G.UDA, A.KUROIWA, T.MINEMURA, Y.MATSUYAMA, Y.SEKIGUTI, A.SUZUKI, Y.IGARASHI, M.ITO
Matsumoto Dental Univ.

P-59 Characteristics of a newly developed phosphate-bonded dental investment for quick heating

○Y.HIBINO, A.HARASHIMA, A.MORIYAMA, K.KURAMOCHI, T.YAMAGA, H.NAKAJIMA
Meikai Univ. Sch. of Dentistry

P-60 Combined wear testing machine

○K.KAKUTA, A.YARA, S.GOTO, P.CHURNJITAPIROM, H.OGURA
The Nippon Dental Univ., Niigata

P-61 Tooth brush abrasion of paint type resin for shade modification of crown and bridge resins

○K. FUJII, H. ARIKAWA, T. KANIE, S.BAN
Kagoshima Univ.

P-62 Leaching of bisphenol A from Bis-GMA-based composite resins immersed in human saliva.

○T. HONGO, S. HIKAGE¹, A. SATO²
Tokyo Medical & Dental Univ., ¹Health Sciences Univ. of Hokkaido, ²Showa Univ.

P-63 Intra oral laser welding

Part 2 The measurement of rising temperature of tooth substance

O.I.SHIBUYA, S.YASUDA, Y.TANIMOTO, N.NISHIYAMA, K.NOMOTO
Nihon Univ. Sch. of Dentistry at Matsudo

P-64 Properties of titanium irradiated with CO₂ laser

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P-65 Modification effect of silane coupling agents containing poly (fluoro) alkyltrimethoxysilane (Part II)

-Coupling effect of the silane with hydrophobic poly(fluoro)alkyl group-

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P-66 In fluence of powder / liquid ratio on mechanical properties of resin cement

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P-67 The machinability of commercial composite resins for core built-up

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P-68 Study on the development of dental organic-inorganic hybrid filler (II)

-Filler synthesized by use organosilicon compound and their application to composite resin-

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P-69 Working time and setting time of metal-resin composite using Ag-Cu particles

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P-70 Effect of repeated bending stress on hybrid composite resin with glass fiber reinforcement

(Part 2) Effect of water immersion

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P-71 A method newly designed for measuring polymerization shrinkage of light-activated restoratives

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P-72 Resin hardening capacity using LED light curing unit

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P-73 Light cure apparatus establish in oral cavity -Water cooling effect of blue color LED-

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P-74 An estimate of physical properties of light-cured resins using various photo-sensitizers

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P-75 Mechanical properties and polymerization characteristics of trial type light curing composite resins

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P-76 Improvement of dental resins in properties (part 5)

- Application of UDMA/acidic monomer resins to the matrix resin for compomer -

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