**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.

<table>
<thead>
<tr>
<th>Term</th>
<th>08/31(Sat.) /2002 and 09/01(Sun.)/ 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>Raisin Hall, 8-7-4, Daimon, Shiojiri, Nagano, JAPAN zip-code 399-0738</td>
</tr>
<tr>
<td>President at the Meeting</td>
<td>Michio Ito (Department of Dental Materials, School of Dentistry, Matsumoto Dental University)</td>
</tr>
<tr>
<td>Chairman of the Arrangement Committee</td>
<td>Sakae Nagasawa</td>
</tr>
<tr>
<td>Contact to</td>
<td>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 : <a href="mailto:snagasawa@po.mdu.ac.jp">snagasawa@po.mdu.ac.jp</a></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>31th, in August</th>
<th>9:30–11:00</th>
<th>Oral Presentation (Hall A,B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9:30–15:00</td>
<td>Study Encouragement Prize Application Poster Presentation (Hall C) (9:30–11:00 Examination) (11:00–12:00 Discussion)</td>
</tr>
<tr>
<td></td>
<td>10:00–15:00</td>
<td>Poster Presentation (Hall C) (11:00–12:00) Discussion</td>
</tr>
<tr>
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<td>12:00–13:00</td>
<td>Meeting of Branch Office Councilors</td>
</tr>
<tr>
<td></td>
<td>13:10–14:10</td>
<td>Special Lecture (Hall A) &quot;The Regulatory Mechanism of Osteoclastic Bone Resorption&quot;</td>
</tr>
<tr>
<td></td>
<td>14:20–16:20</td>
<td>Oral Presentation (Hall A, B)</td>
</tr>
<tr>
<td>1th, in September</td>
<td>17:00–19:00</td>
<td>Social Party (Hall Phoenix, Hotel Nakamuraya)</td>
</tr>
<tr>
<td></td>
<td>9:30–10:30</td>
<td>A Homework Report (Hall A) [Rikou 21Century]</td>
</tr>
<tr>
<td></td>
<td>10:00–14:00</td>
<td>Poster Presentation (Hall C) (11:00–12:00) Discussion</td>
</tr>
<tr>
<td></td>
<td>12:00–13:00</td>
<td>Meeting of Councilors</td>
</tr>
<tr>
<td></td>
<td>13:10–14:40</td>
<td>Oral Presentation (Hall A, B)</td>
</tr>
</tbody>
</table>

**Conference Fee**

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

**Social Party**

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>31th, August (Saturday) 17:00–19:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>Hall Phoenix, Hotel Nakamuraya</td>
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<tr>
<td>Charge</td>
<td>¥6,000</td>
</tr>
</tbody>
</table>
Special Event

**Special Lecture**
31st (Saturday), in August Hall A 13:10–14:10
The Regulatory Mechanism of Osteoclastic Bone Resorption
Lecturer: Prof. Naoyuki TAKAHASHI (Institute for Oral Science, Mastumoto Dental University)
Chairman: Prof. Michio ITO (Department of Dental Materials, School of Dentistry, Mastumoto Dental University)

**Report of Research Team of Dental Materials and Devices in the 21st Century**
1st (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. TAKAHASI, 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. TAJIRA, Y. DOI, S. BAN, T. MASTUMOTO, K. YAMASITA, M. YOSHINARI

< Oral Presentation >
31th (Saturday), in August --- Hall A ---

A-01 Photooxidation of camphorquinone
OS. FUJISAWA¹, T. ATSUMI¹, Y. KADOMA²
Meikai Univ.¹, Tokyo Med. and Dent. Univ.²

A-02 Effect of different functional monomers on dentin adhesion of self-etching priming systems
OW. YOSHIDA, K. NAGAKANE¹, R. FUKUDA¹, S. INOUE², H. SHINTANI¹, M. OKAZAKI¹, H. SANO², K. SUZUKI, B. V. MEERBEEK³
Okayama Univ.¹, Hiroshima Univ.², Hokkaido Univ.³

A-03 Effect of etching time on shrinkage and expansion of dentin etched with phosphoric acid
OKITOU¹, Y. TORI¹, Y. YOSHIDA¹, K. SUZUKI¹, M. YOSHIYAMA¹, D. H. PASHLEY²
Okayama University Graduate School, Geor.¹, Medical college of Geor.²

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

A-05 Dentine bonding system--Effect of microcrack (Adhesion theory)
OK. 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--
OM. 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--
OK. KADOWAKA, 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
OT. 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.
OW. WAKAMATSU, H. KAMEMIZU, M. MIJIMA, M. MATACHI, T. GOTO, Y. DOI
Asahi Univ.
A-10 Improvement of fatigue strength of cast dental Ag–Pd–Cu–Au alloy

O.T.MIZUMOTO, M.SHINYA, T.FUKUI, 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–

O.Y.FUJISHIRO, A.MORITA, 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–

O.M. TAMURA, K. ENDO, H.OHNO, 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–

O.M.KIKUCHI, M.TAKAHASHI, O.OKUNO
Tohoku Univ.

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

O.H.KONDO, A.YOKOYAMA, Y.TAMURA, K.KAWASAKI, M.UO, S.OHKAWA, T.SUGAWARA, F.WATARI
Hokkaido Univ. Graduate School of Dental Medicine

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

O.S.YONEDA, M.MORIGAMI, J.SUGIZAKI, T.YAMADA
Tranomon Hospital Dental Clinic

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

O.M.MORIGAMI, S. HORIGUCHI, J.SUGIZAKI, T.YAMADA
Tranomon Hospital Dental Clinic

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

O.HUCHIDA, H.NAKAGAWA, H.HIRAGUCHI, N.TANABE
Nihon Univ.

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

O.S.MATSUYA, K.UDO, M.NAKAGAWA, KISHIKAWA
Kyushu Univ.

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

O.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

O.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

O.K.FUJISE, K.KNOUE, M.NAKAGAWA, K.TAKAHASHI, Y.TERADA
Kyushu Univ.

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

O.H.HAMANAHA, 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

O.S.AIHO, 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
B-11 Corrosion resistance of dental Ag-Pd-Cu-Au alloy in artificial saliva under stress condition
OS.MATSUSHITA, T.MIZUMOTO, M.SHINYA, T.FUKUI
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.LIM, K.KASAMI, K.H.KIM, O.OKUNO
Tohoku Univ., 1Daegu Polytechnic College, 2Kyungpook National Univ.

B-13 In vitro embryotoxicity testing of mercury vapour by differentiation of ES cells into contracting cardiac myocytes
OKIMAL, 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.TAIROA, S.SAITOH, Y.ARAKI
Iwate Medical 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
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.NISHIWAKI, K.NOMOTO
Nihon Univ. at Matsudo, 1Asics Corporation

P-04 Interaction of angiogenic behavior of endothelial cells with peptide IKVAV in vitro
OH.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
OAIZUMIDA, M.HOSOTANI, 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
OL.KAWASHIMA, H.OHNO, N.KSSARKAR, 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)
O K.HAMADA, F.KAWANO, K.ASAOKA
Tokushima Univ.

P-10 Softening heat treatment of Sn-added 35Ag-30Pd-20Au-15Cu alloy
O P.CHURNJITAPIROM, S.GOTO, A.NAKAI, H.OGURA
Sch. of Dentistry at Niigata, The Nippon Dental Univ.
P-11 Sintering Inlay
-Powders of 65–85% silver, 5–25% copper, 10–30% iron alloy-
OKOHIMA
The Nippon Dental Univ., Sch. of Dentistry at Tokyo

P-12 Properties of low karat gold alloys contained with indium
OMATSUMOTO, 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.
OS.NARUSE, Y.OKAMOTO, K.MIYAZAKI, S.YOSHIDA.
Tokuriki Honten Co.,Ltd. Fukuoka Dental College

P-14 A possibility for new evaluating method of cytocompatibility by using real-time quantitative PCR
OY.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
OS.TAKEDA, M.ZENNYU, M.NAKAMURA, T.YOSHIDA, T.MIYASAKA, H.OKAMURA
Osaka Dental Univ., 1Nippon Dental Univ. at Tokyo

P-16 Effect of testing condition on flexural properties of composite resins
OY.AOYAGI, J.JIN, K.BABASONO, M.IWASAKI, H.TAKAHASHI
Tokyo Medical and Dental Univ.

P-17 A study on surface roughness – 3. The effect of scanning direction –
OS.KASAI
Nihon Univ. Sch. of Dentistry

P-18 Effects of temperature of electrolyzed Water on its durability of bactericidal efficacy
OY.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–
OH.HIRAGUCHI, H.NAKAGAWA, H.UCHIDA, N.TANABE
Nihon Univ.

P-20 Scratch hardness of stone models after immersing in sodium hypochlorite solution
ONTANABE, 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
OK.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
OS.KURATA, K.MORISHITA, K.SHIMOMOTO, K.DOMOTO, T.NIHEI, N.OHATA, K.OHASHI, T.TERANAKA
Kanagawa dental college

P-23 Impact strength of acrylic denture base resin reinforced with the woven glass fibers
OT.KANIE, HARIKAWA, K.FUJI, 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–
OY.TANINO, Y.IIJIMA, N.SATO, T.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
OT.KUNI, T.HAYASHI, T.TITOU, H.TANIGAWA, T.KAWAI
Aichi-gakuin Univ.

P-26 The expression of bone matrix protein around the composite bone substitute implanted into bone
ORKON, Y.YARAKI, 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.YOSHIYA, 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
OY.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.MCCABE
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.INAKU
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
OHARAI, 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
< Oral Presentation >
1th(Sunday), in September --- Hall B ---

B-15 Cell functional test of Metallic particles and their size effect
OT.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
OT.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® 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
OT.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
OT.BABASONO, N.NIWASAKI, 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.YAMAMOTO, K.ASAOKA
<table>
<thead>
<tr>
<th>Paper Number</th>
<th>Title</th>
<th>Authors</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-48</td>
<td>Corrosion behavior and bioactivity of the high corrosion resistant titanium alloys</td>
<td>O. Nakagawa, L. Zhang, S. Matsuya, K. Udo, K. Ishikawa</td>
<td>Kyushu Univ.</td>
</tr>
<tr>
<td>P-50</td>
<td>Macroscopic segregation of Ti-6Al-7Nb by centrifugal casting</td>
<td>O. Watanabe, H. Honma, S. Okawa, M. Kanatani, S. Nakano, O. Miyakawa, M. Kobayashi</td>
<td>Niigata Univ.</td>
</tr>
<tr>
<td>P-53</td>
<td>IR and WDX analyses of new three casting ring liners and classification into sub groups</td>
<td>O. Hirose, T. Korenaga, M. Sasao, N. Hagine, Y. Shiota, T. Igarashi, M. Nishiyama</td>
<td>Showa Univ. Sch. of Dentistry</td>
</tr>
<tr>
<td>P-56</td>
<td>Dental investment material using new expansion mechanism (Part 2) — Examination of quick heating method—</td>
<td>O. Kamemizu, T. Horiguchi, M. Iijima, N. Wakamatsu, M. Madachi, T. Goto, Y. Doi</td>
<td>Asahi Univ. D</td>
</tr>
<tr>
<td>P-57</td>
<td>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-dimentional Coordinates Measuring System—</td>
<td>O. Ishida, H. Noguchi, K. Nagayama</td>
<td>Ohu Univ.</td>
</tr>
<tr>
<td>P-59</td>
<td>Characteristics of a newly developed phosphate-bonded dental investment for quick heating</td>
<td>O. Hibino, A. Harashima, A. Moriyama, K. Kuramochi, T. Yamaga, H. Nakajima</td>
<td>Meikai Univ. Sch. of Dentistry</td>
</tr>
<tr>
<td>P-60</td>
<td>Combined wear testing machine</td>
<td>O. Kakuta, A. Yara, S. Goto, P. Churnjitapirom, H. Ogura</td>
<td>The Nippon Dental Univ., Niigata</td>
</tr>
<tr>
<td>P-61</td>
<td>Tooth brush abrasion of paint type resin for shade modification of crown and bridge resins</td>
<td>O. Fujii, H. Arikawa, T. Kanie, S. Ban</td>
<td>Kagoshima Univ.</td>
</tr>
<tr>
<td>P-62</td>
<td>Leaching of bisphenol A from Bis-GMA-based composite resins immersed in human saliva.</td>
<td>O. Hongo, S. Hikage1, A. Sato2</td>
<td>Tokyo Medical &amp; Dental Univ., 1Health Sciences Univ. of Hokkaido, 2Showa Univ.</td>
</tr>
<tr>
<td>P-63</td>
<td>Intra oral laser welding Part 2 The measurement of rising temperature of tooth substance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
P-64 Properties of titanium irradiated with CO₂ laser  
O.Y. OKAMOTO, K. HORIE, X.Y. WANG, K. MIYAZAKI and S. NARUSE  
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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-  
O.T. NIHEI, S. KURATA, K. OHASHI, Y. KONDO, K. UMEMOTO, N. YOSHINO, T. TERANAKA  
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P-66 Influence of powder / liquid ratio on mechanical properties of resin cement  
O.H. UEKI, M. MARATA, H. TANAKA, T. YAMAMOTO, M. IRIE, K. SUZUKI  
Sun Medical Co., Ltd., Okayama Univ.

P-67 The machinability of commercial composite resins for core built–up  
O.N. IWASAKI, T. TAKAHASHI, T. TONAMI, F. NISIMURA  
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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-  
O.T. INOUE, M. ANZAI, Y. ISIKAWA, M. SAITOU, K. SIMOMURA, H. KOJIMA, M. NISHIYAMA  
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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-  
O.K. SIMIZU, Y. ISHIH, H. GOMI, A. SHINYA  
Nippon Dental Univ. at Tokyo

P-71 A method newly designed for measuring polymerization shrinkage of light-activated restoratives  
O.I. IKEJIMA, N. MATSUZAWA, Y. MOMOI  
Tsurumi Univ., Sch. of Dental Medicine

P-72 Resin hardening capacity using LED light curing unit  
O.T. SUZUKI  
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P-73 Light cure apparatus establish in oral cavity –Water cooling effect of blue color LED–  
O.T. YOSHIDA  
Nippon Dental Univ.

P-74 An estimate of physical properties of light–cured resins using various photo–sensitizers  
O.T. KAWAHARA, Y. NOMURA, W. TESIMA, N. TANAKA, K. WAKASA, H. SHINTANI, M. OKAZAKI  
Hiroshima Univ.

P-75 Mechanical properties and polymerization characteristics of trial type light curing composite resins  
O.T. YOSHIDA, S. NAGASAWA, N. TERASHIMA, N. HORASAWA, T. MIZOGUCHI, M. ITO  
Matsumoto Dental Univ.

P-76 Improvement of dental resins in properties (part 5)  
-Application of UDMA/acidic monomer resins to the matrix resin for compomer-  
O.J. TANAKA, T. HASHIMOTO, K. SUZUKI  
Okayama Univ.