The 44th General Session of the Japanese Society for Dental Materials and Devices (JSDMD)

Kyoto Univ. (Place: Kyoto-TERRSA)

Hall A
Friday, 24 Sept 2004
9:25-9:30 Opening
9:30-10:30 General Presentaion (Oral)

Implant I

A-01 XAFS analysis of surrounding tissue of the implants

°UO Motohiro[1], AKASAKA Tsukasa[1], WATARI Fumio[1],
YOKOYAMA Atsuro[2], TAMURA Kazuchika[1], TOTSUKA Yasunori[1]
[1]Hokkaido Univ., [2]Hokkaido Univ. Hospital

A-02 The development of Quartz Crystal Microbalance sensor with hydroxyapatite coating using a pulsed laser depostion technique

°HASHIMOTO Yoshiya[1], KUSUNOKI Masanobu[2,3], KAWASHIMA Masami[2],
NISHIKAWA Hiroaki[2,3] HONTSU Shigeki[2,3], NAKAMURA Masaaki[1]
[1]Osaka Dental Univ, [2]Kinki Univ, [3]JST

Implant II

A-03 Surface properties of dental implants (Part 2) Surface analysis of the titanium implant extracted from a rat bone

°WATANABE Kouichi[1], HASHIMOTO Akihiko[1], NOMURA Syuichi[1], ENDO Miguel Masataka[2],
OKAWA Seigo[1], KANATANI Mitsugu[1], NAKANO Syuji[1], KOBAYASHI Masayoshi[1], MIYAKAWA Osamu[1]
[1]Niigata Univ., [2]Mizuho Ikakogyo Co.,Ltd.

A-04 Sintering of carbon nanotube and their biocompatibility

°WANG Wei[1], KONDO Hideomi[1], YOKOYAMA Atsuro[1], KAWASAKI Takao[1],
UO Motohiro[1], OHKAWA Shoji[1], AKASAKA Tsukasa[1], SUGAWARA Toshi[1],
WATARI Fumio[1], OHMORI Mamori[2]
[1]Hokkuaido Univ., [2]Tohoku Univ.

15:00 - 17:00 General Presentation (Oral)

Resin I

A-05 FE-SEM observation on the resin-dentin interface with the Clearfil DC Core Automix

°YAMADA Toshimoto, UNO Shigeru, SUGIZAKI Jumpei, MORIGAMI Makoto
Toranomon Hospital Dental Clinic

A-06 Effect of irradiation using violet LEDs on polymerization behavior of dental resins supplemented with various photoinitiators (Part 2) Reaction kinetic analysis of polymerization

°TESHIMA Wataru, NOMURA Yuji, ARAKAWA Makoto, SHIBATA Atsuki,
SHIRAI Kenichi, TANAKA Nobuyuki, OKAZAKI Masayuki, NAHARA Yukinori
Hiroshima Univ.

Resin II

A-07 Influence of MMA resin on mouse ATDC5 cells -A study of using DNA microarrays-

°ISHIKAWA Atsuko, ANDO Kimitoshi, HAYASHI Tatsuhide,
KAWAI Tatsushi, MORI Takashi, HATTORI Masami, TANAKA Takanobu
Aichi-Gakuin Univ.

A-08 Mechanical properties of denture base resins by compounding zirconium-containing glass short fibers.

°KON Masayuki[1], KOBAYASHI Masahiro[2], KAWANO Fumiaki[1], ASAOKA Kenzo[1]
[1]Tokushima Univ., [2]Chiba Insti. Tech.

Cell and Tissue

A-09 Biocompatibility research on nano-apatite/ collagen biomimetic composite used by

neutrophils and osteoblasts

°LIAO Susan, TAMURA Kazhuchika, WATARI Fumio
Hokkuaido Univ.

A-10 Interaction of angiogenesis of endothelial cells with peptide SVVYGLR in vivo.

°HAMADA Yoshinosuke, TAKETANI Satoshi, MIYAGAWA Shigeru, OGAMI Norihisa, YUUKI Kanako, FUJITANI Ayumu, MATSUMOTO Takuya, MATSUURANariaki, TAKAHASHI Junzo
Osaka Univ.

Detrimental effects and Wear

A-11 Detrimental effects of direct pulp capping agents on organic tissues

°NAKAMURA Mariko[1], YOSHIDA Yasuhiro[1], OKAZAKI Masami[1], SUZUKI Kazuomi[1], ISHIKAWA Kunio[2]
[1]Okayama Univ., [2]Kyushu Univ.

A-12 Friction and wear in the fretting and sliding dental alloys (part 3)

FUKUI Hisao[1], °KAIKAWA Kentarou,[1] TSURUTA Syouzou[1], YANG Wei[1], TOUYAMA Masashi[1], YAMADA Hisashi[1], NIINOMI Mitsuo[2]
[1]Aichi-Gakuin Univ., [2]Toyohashi Univ. of Technology

Hall B
Friday, 24 Sept 2004
9:25-9:30 Opening
9:30-10:30 General Presentaion (Oral)

Ceramics I

B-01 Formation of carbonated apatite from set gypsum containing calcite in sodium phosphate solution

°MATSUYA Shigeki, UDOH Koh-ichi, NAKAGAWA Masaharu, ISHIKAWA Kunio
Kyushu Univ.

B-02 Fabrication of carbonate apatite foam by hydrothermal treatment in ammonium carbonate solution.

°UDOH Koh-ichi, WAKAE Kimie, NAKAGAWA Masaharu, MATSUYA Shigeki, ISHIKAWA Kunio
Kyushu Univ.

Ceramics II

B-03 Interaction between poled hydroxyapatite and streptococcus mutans

°KUMADA Misato[1,2], SEKIJIMA Yasutaka[1], NAKAMURA Satoshi[1], YAMASHITA Kimihiro[1]
[1]Tokyo Medical and Dental Univ., [2]Hosei Univ.

B-04 Effects of calcium oxide and phosphoric acid on expansion of dental stone (Part 5) Examination of thermal behavior

°YAMADA Mikiko[1], MORISHITA Kumiko[1], KURATA Shigeaki[1], UMEMOTO Kozo[1], JOHSHIN Kazuhiko[2]
[1]Kanagawa Dental College, [2]Takatsuki-shi

15/00 - 17:00 General Presentation (Oral)

Titanium

B-05 Surface modification of titanium by etching in concentrated acid -Effect of acid type and concentratio-

°BAN Seiji, KONO Hiroshi, SATO Hideo, IWAYA Yukari, YUDA Akihiko, IZUMI Yuichi
Kagoshima Univ.

B-06 Machinability and mechanical properties of Ti-Nb-Cu alloys

°TAKAHASHI Masatoshi, KIKUCHI Msafumi, TTAKADA Yukyo, OKUNO Osamu
Tohoku Univ.

Corrosion

B-07 Corrosion resistance of dental Ag-Pd-Cu-Au-Zn alloy under tensile stress

°NAKANISHI Toru[1], NIINOMI Mitsuo[1], TODA Hiroyuki[1], AKAHORI Toshikazu[1], TAKEDA Junji[1], FUKUI Hisao[2], MORI Masaki[1]
[1]Toyohashi Univ. of Technology, [2]Aichi Gakuin Univ.

B-08 Effects of heat treatment on anodic behavior of magnetic stainless steel castings in electrochemical evaluations

°TAKADA Yukyo, NAKAMURA Keisuke, KIMURA Kohei, OKUNO Osamu
Tohoku Univ.

B-09 Structure and protectiveness of passive film on Ag-based and Pd-based alloys
°ENDO Kazuhiko, OHNO Hiroki, KAWASHIMA Isao, YAMANE Yuro
Health Sciences Univ. of Hokkaido

Machine and Technology

B-10 Elemental distribution of laser-weld zones of titanium and precious metals
°IWASAKI Keiji, OHKAWA Shoji, AKASAKA Tsukasa, SUGAWARA Toshi, UO Motohiro, WATARI Fumio
Hokkaido Univ.

B-11 Development of a robot for low reactive level laser treatment
°KOZONO Yoshio[1], KAKIGAWA Hiroshi[1], MAKIHARA Masato[1], NAKAJIMA Atsushi[2], OKAMOTO Osamu[2], MASUDA Takashi[3], TSUDA Kunihiro[4]
[1]Kyushu Dental College, [2]Naional Aeospace Laboratory of Japan, [3]Konan Engineering Co., [4]ASA Systems Co.

B-12 Observations of tooth demineralization an using ultra sonic device and FE-SEM
°YAMAGUCHI Kanako, INAGA Hirohiko, MIYAZAKI Masashi, TAKAMIZAWA Toshiki, ANDO Susumu, KURODA Takashi
Nihon Univ.

Hall A
Friday, 24 Sept 2004
10:30-12:00

Symposium 1:
Industry-government-academie cllaborations in dental materials sciences

Studies on the evaluation method for the biocompatibility of biomaterials including metals etc.
TSUCHIYA Toshie (National Institute of Health Sciences)

Collaboration between triborogy and dentistry
IWABUCHI Akira (Iwate University)

HAp-agarose composites prepared by a novel alternate soaking process
AKASHI Mitsuru (Osaka Univ.)

Hall A
Friday, 24 Sept 2004
13:00-14:00

Invited Lecture

Technique sensitivity – The last challenge in bonding to tooth structure?
POWERS John M. (The University of Texas Dental Branch at Houston)

Hall C
Friday, 24 Sept 2004
10:00-15:00 General Presentation (Poster)

Award challenge posters(No.P-01 – No.P-07)

P-01 Surface modification of titanium by etching in concentrated acid –Effect of temperature and etching time in concentrated sulfuric acid–
°IWAYA Yukari, YUDA Akihiko, KONO Hiroshi, SATO Hideo, IZUMI Yuichi, BAN Seiji
Kagoshima Univ.

P-02 Corrosion behavior of dental alloys in mouth-wash
°TAKEMOTO Shinji, HATTORI Masayuki, YOSHINARI Masao, KAWADA Eiji, ODA Yutaka
Tokyo Dental College

P-03 Effect of the cyclic loading on fatigue properties of injectable ceramics
°JIN Jingyue, TAKAHASHI Hidekazu, IWASAKI Naohiko

Tokyo Medical and Dental Univ.

P-04 Effect of peptide SVVYGLR on smooth muscle cells in vitro

°OGAMI Norihisa, HAMADA Yoshinosuke, MATSUMOTO Wataru, NAKAMURA Takashi, TAKAHASHI Junzo, YATANI Hirofumi
Osaka Univ.

P-05 A new surface modification of titanium with phospho-amino acids

°TAKEUCHI Maho, MATSUURA Ayumu, ABE Yasuhiko, OKAZAKI Masayuki, AKAGAWA Yasumasa
Hiroshima Univ.

P-06 Cytocompatibility and bacterial attachment on nitrogen and carbon implanted or diamond-like carbon coated on titanium.

°ZENNYU Masayuki, TAKEDA Syoji, NAKAMURA Masaaki
Osaka Dental Univ.

P-07 Effect of Er:YAG laser irradiation on bonding, structural and mechanical properties of enamel

°MINE Atsushi[1], SUZUKI Kazuomi[1], YATANI Hirohumi[2], YOSHIDA Yasuhiro[1], KUBOKI Takuo[1]
[1]Okayama Univ., [2]Osaka Univ.

10:00 - 15:00 General Presentation (Poster)

Titanium

P-08 Feasibility of titanium casting using ceramic mold with high thermal conductivity

°KANATANI Mitsugu, OKAWA Seigo, WATANABE Kouichi, MIYAKAWA Osamu, NAKANO Syuji, HOTTA Noriyasu, KOBAYASHI Masayoshi
Niigata Univ.

P-09 Anodic oxidation of titanium and its alloys in solution containing Ca and P - Structure of anodic oxide layer under low voltages

°OKAWA Seigo, NAKANO Syuji, KANATANI Mitsugu, WATANABE Kouichi, MIYAKAWA Osamu
Niigata Univ.

P-10 Surface modification of titanium by etching in concentrated acid -Effect on alkaline treatment

°KONO Hiroshi, SATO Hideo, YUDA Akihiko, IWAYA Yukari, BAN Seiji
Kagoshima Univ.

P-11 Influence of oxidation treatment temperature and time on adhesion durability of light-cured facing resin to titanium castings part 2 x-ray analysis

°ISHIDA Yoshinori, HOSHINO Takumi, OKADA Hidetoshi, NOGUCHI Hiroshi, OIKAWA Hitoshi, IZUMI Toshirou, KUMAKURA Manabu, NAGAYAMA Katsuya
Ohu Univ.

Casting

P-12 Thermogravimetry of casting ring liners

°HIROSE Hideharu, KOJIMA Taishi, YAGIHARA Kenji, USUI Nobuyuki, NARIKAWA Masashi, INOUE Taro, NISHIYAMA Minoru
Nihon Univ.

P-13 Casting of MOD inlay using the rings a hole on both sides -12-18wt%Au-20-26Pd-14.48-26.48Cu-40Ag-1.5Zn-0.02Ir alloys-

°OHKUMA Kazuo[1], WADA Hiroki[2], NOMURA Yujiro[2], NAGATANI Yasuko[2]
[1]Nippon Dental Univ., [2]Wada Precision Dental Laboratories

Resin I

P-14 Light-curing type reinforcement used a glass cloth for denture base resin.-the effect of test specimen thicknesses on the deformation and the flexural strength-

°KANIE Takahito, ARIKAWA Hiroyuki, FUJII Koichi, BAN Seiji
Kagoshima Univ.

P-15 Physical and mechanical properties and bonding strength of silicone-based resilient liners for denture

°FUJII Koichi, ARIKAWA Hiroyuki, KANIE Takahito, INOUE Mitsuko, BAN Seiji
Kagoshima Univ.

P-16 Shape memory alloy fiber reinforced resin matrix smart composite (part 10) - effects of interface property -

°HAMADA Kenichi, KAWANO Fumiaki, ASAOKA Kenzo
Tokushima Univ.

P-17 Dependence of dynamic viscoelastic properties on frequency for denture adhesives

°MURATA Hiroshi, YAMAKADO Chiaki, HAMADA Taizo
Hiroshima Univ.

Impression Materials

P-18 Effect of storage of alginate impressions following spray with disinfectant solution on the dimensional accuracy and deformation of stone models -W/P ratio of alginate impression materials-

°HIRAGUCHI Hisako, WAKASHIMA Mitsuru, MIYANAGA Kohichi, NAKAJIMA Yoshio, YOSHIHASHI Kazue, NISHIYAMA Minoru
Nihon Univ.

P-19 Mechanical properties of polyaddition-type silicone impression materials for implant

°IZUMIDA Akio[1], HOSOTANI Makoto[2], YODA Masanobuq, KIMURA Kohei[1], KATAKURA Naoyuki[1], OKUNO Osamu[1]
[1]Tohoku Univ., [2]Tohoku Employees' Pension Welfare Hospital

Adhesive I

P-20 Comparison between effects of self-etching primer and phosphoric acid treatments for adhesion of orthodontic bracket

°FURUKAWA Tetsu, HIRABAYASHI Shigeru, HIRASHITA Ayao
Tsurumi Univ.

P-21 Performance of 4-META/MMA-TBB resin when combined with various powders.

°SHIMOZONO Akari[1], ARATA Masami[1], KANEMATSU Akihito[1], ZENG Weiping[2], IRIE Masao[3], SUZUKI Kazuomi[3]
[1]Sunmedical, [2]Mitsui Chemicals, [3]Okayama Univ.

P-22 Adhesion to precious metal alloys using resins containing adhesion promoting monomers for precious metals

°KADOMA Yoshinori
Tokyo Medical and Dental Univ.

P-23 Hydrophilic and hydrophobic characteristics of adhesive monomers and dentine adhesion.

°EBIHARA Kei, HANAOKA Koji, OSHIKAWA Akihiro, KURATA Shigeaki, UMEMOTO Kozo, TERANAKA Toshio
Kanagawa Dental College

P-24 Bond strength of one-bottle resin bonding systems

°HANABUSA Masao, AKIMOTO Naotake, MOMOI Yasuko
Tsurumi Univ.

P-25 Nanohardness of one-bottle resin bonding systems

°HARA Mayuko, AKIMOTO Naotake, MOMOI Yasuko
Tsurumi Univ.

P-26 Adhesive strength of resins for crown and bridge - The effect of primers and surface roughness -

°YOSHIDA Takaichi, MIYASAKA Taira, OKAMURA Hiroyuki
Nippon Dental Univ.

P-27 Electrodeposition of adhesive monomer on dental metal - Adhesive durability between titanium andcrown; bridge composite resin by commercial adhesive resin cement liquid

°KAKETANI Masahiro, KOJIMA Taishi, FUKASE Yasumasa, YUI Shinji, MIYAZAKI Kiyomi, SAITOH Masahiro, NISHIYAMA Minoru
Nihon Univ.

P-28 A study on 4-META/MMA-TBB resin -Hardning characteristics-

°WAKAMATSU Shogo, YAMAMOTO Norihiro, HIRAYAMA Satoshi, KAMIYA Naotaka, SHIO Hideaki, WATANABE Yasuo, IKEMI Takuji
Nihon Univ. at Matsudo

Implants

P-29 Development of bioabsorbable organic/inorganic composite materials aiming at the bone reconstruction

°KOYAMA Yoshihisa, TAKAKUDA Kazuo
Tokyo Medical and Dentai Univ.

Tissue

P-30 Application of rhbmp-2 to the bone supplementation materials

°SAKU Seitarou, TAKAGI Kouta, ITOU Noriaki, TAMOTO Akio, FUKUOKA Yukinobu, DOI Yutaka, YAMAMOTO Kohji
Asahi Univ.

Biological Reaction

P-31 Studies of biological reaction of macrophage-like RAW264 cells against Ti particles

°TAIRA Masayuki, SASAKI Kaori, SAITOH Setsuo, ARAKI Yoshima
Iwate Medical Univ.

Dissolution

P-32 Degradation of methacrylate monomers in human saliva

°KAWAGUCHI Minoru, TAKAHASHI Yutaka, MIYAZAKI Koji
Fukuoka Dent. Coll.

P-33 Migration of dibutyl phthalate from resinous temporary filling materials into food

°HONGO Toshio[1], HIKAGE Sakari[2], SATO Atsushige[3]
[1]Tokyo Medical and Dental Univ.,
[2]Health Sciences Univ. of Hokkaido, [3]Showa Univ.

Surface Modification

P-34 Adhesion of L929 cell on the HMDSO surfaces with different wettability

°WEI Jianhua, TAKEMOTO Shinji, HATTORI Masayuki, KAWADA Eeji, YOSHINARI Masao, ODA Yutaka
Tokyo Dental College

P-35 Control of physical properties and surface modification of polymer scaffold

°HARA Masashi, TERAOKA Fumio,TAKAHASHI Junzo
Osaka Univ.

P-36 Cell adhesion on mixed self-assembled monolayers carrying surface hydroxyl and methyl groups

°FUSE Yoshihiko, HIRATA Isao, NOMURA Yuji, WAKASA Kunio, OKAZAKI Masayuki
Hiroshima Univ.

P-37 Preparation of porous DNA/chitosan gel - Effect of treatment with buffers on porosity-

°FUKUSHIMA Tadaof[1], HAYAKAWA Tohru[2], OKAMURA Kazuhiko[1], TAKEDA Shoji[3], INOUE Yusuke[4], MIYAZAKI Koji[1]
[1]Fukuoka Dental College, [2]Nihon Univ. at Mtsudo,
[3]Osaka Dental Univ., [4]Fukuoka College of Health Sciences

P-38 Surface modification of carbon nanotubes by biomimetic coating

°AKASAKA Tsukasa, UO Motohiro, OHKAWA Shoji, SUGAWARA Toshi, WATARI Fumio
Hokkaido Univ.

Sterilization

P-39 Sterilization of alginate impression by electrolyzed neutral water

°NAGAMATSU Yuki, TAJIMA Kiyoshi, CHEN Ker-Kong, KAKIGAWA Hiroshi, KOZONO Yoshio
Kyushu Dental College

P-40 Antibacterial and antifungal characteristics of denture base resins containing DNA/lipid complexes

°TAKAHASHI Miyuki[1], GONDOH Mika[1], INOUE Yusuke[1], FUKUSHIMA Tadao[2], HAYAKAWA Tohru[3], MIYAZAKI Koji[1]
[1]Fukuoka College of Health Sciences, [2]Fukuoka Dental College,
[3]Nihon Univ. at Matsudo

Laser

P-41 Laser welding of cobalt-chromium alloy -Effect of irradiation-

°KIKUCHI Hisaji, HAGINO Norihito, SHIMOMURA Kazunori, NAKANO Toshiaki, KUROTANI Tomoko, KASAI Souichirou, NISHIYAMA Minoru
Nihon Univ.

P-42 Output fluctuation of CO_2 laser and its influence

°KAKIGAWA Hiroshi, MAKIHARA Masato, CHEN Kerkon, NAGAMATSU Yuki,

TAJIMA Kiyoshi, TERASHITA Masamichi, KOZONO Yoshio
Kyushu Dental College

Photocatalyst

P-43 The development of the ozone sterilization system for the prevention of being infected in the hospital.

°ARAI Koichi
Meikai Univ.

Polishing

P-44 Surface modification of dental alloy by electron-beam system (Part 2) -Application for cast titanium-

°KOJIMA Tetsuya[1], TOKUNAGA Junko[1], SOHMURA Taiji[1], NOMURA Yujiro[2], KINUTA Soichiro[1], WAKABAYASHI Kazumichi[1], HIRATA Tetsuya[1], NAKAMURA Takashi[1], TAKAHASHI Junzo[1], YATANI Hirofumi[1]
[1]Osaka Univ., [2]Wada Precision Dental Laboratories

Numerical Analysis

P-45 Immediate collecting/analysis system from student answering device of using personal computer / cellular phone

°KAWAI Tatsushi, KABUTOMORI Masamichi, KAWAI Hideki, UEMATSU Yasuaki, ITOU Takashi, ITOU Toshiki, SUZUKI Tomoo, HIKOSAKA Tatsuya, HIGA Teruo, OoHASHI Hideya
Aichi-gakuin Univ.

Cements

P-46 Effect of silanized spherical silica filler addition on the properties of glass ionomer cements (Part 2)

°TJANDRAWINATA Rosalina, IRIE Masao, SUZUKI Kazuomi
Okayama Univ.Tjandrawinata

Clinical Applications II

P-47 Stress analysis of minimal invasive ceramic inlay restorations

°YAMAMOTO Takatsugu[1], TAKEISHI Shinichi[2], HARA Mayuko[1], MOMOI Yasuko[1]
[1]Tsurumi Univ., [2]Fuji Techno Service

P-48 The influence of the acid, alkaline and mixed waters on the human teeth -Discoloration of tooth surface and histological observation-

°AOKI Harumi, YOSHIDA Takaichi
The Nippon Dental Univ.

P-49 Trial production of expannsive temporary sealinng-After sealing on bond strenngh of cement-

°NOGUCHI Hiroshi, OKADA Hidetoshi, ISHIDA Yoshinori, KAKUMOTO Yoshimi, OIKAWA Hitoshi, NAGAYAMA Katsuya
Ohu Univ.

P-50 Fatigue strength and the change in figure of engine-driven root canal instruments

°SEKIGUCHI Akihiro
The Nippon Dental Univ.

Hall A
Saturday, 25 Sept 2004
10:00 - 12:00 General Presentation (Oral)

Surface Modificaton I

A-13 Hydroxyapatite thin film formation on a Ti substrate by molecular precursor method part 2 - Adhesiveness of coated thin film-

°TAKAHASHI Kenichi[1], HAYAKAWA Tohru[1], HARA Hiroki[2], YOSHINARI Masao[3], MOCHIZUKI Chihiro[2], SATO Mitsunobu[2], NEMOTO Kimiya[1]
[1]Nihon Univ. at Matsudo, [2]Kogakuin Univ., [3]Tokyo Dental College

A-14 Conjugation of hydroxyapatite to polymer scaffold using non-chlorinated acidic water

°TERAOKA Fumio, HARA Masashi, TAKAHASHI Jyunzo
Osaka Univ.

Surface Modificaton II

A-15 Immobilization of antimicrobial peptide "Histatin-5" on PMMA

°YOSHINARI Masao[1], SESHIMA Hesashi[1], USHIGOME Toshiaki[1], KONO Takashi[1], NOGUCHI Tatsumi[1], ODA Yutaka[1], HAYAKAWA Tohru[2]
[1]Tokyo Dental College, [2]Nihon Univ. at Matsudo

A-16 Initial attachment and proliferation of osteoblast-like cell on the high corrosion resistance titanium alloys hydrothermally treated with $CaCl_2$

°NAKAGAWA Masaharu, ZHANG Lei, UDOH Koichi, MATSUYA Shigeki, ISHIKAWA Kunio
Kyushu Univ.

Adhesive I

A-17 Dentine bonding system -Definition of fracture mode(Adhesion theory model)-

°WAKASA Kunio[1], IKEDA Atsuharu[1], NOMURA Yuuji[1], HIRATA Isao[1], OKAZAKI Masayuki[1], SANO Hidehiko[2]
[1]Hiroshima Univ., [2]Hokkaido Univ.

A-18 Dentin bonding performance of new one step adhesive systems

°UMINO Ayuko[1], IKEDA Masaomi[1], NIKAIDO Toru[1], TAGAMI Jyunji[1,2]
[1]Tokyo Med Dent Univ., [2]21st COE program

Adhesive II

A-19 Effect of smeared layer on all-in-one adhesive/dentin bonding -TEM observation of bonsing interface-

°YOSHIDA Eiji[1], UNO Shigeru[2], NODASAKA Yoshinobu[1], YAMADA Toshimoto[2], KAGA Masayuki[1]
[1]Hokkaido Univ., [2]Toranomon Hospital Dental Clinic

A-20 Effect of griding status on microtensile bond strength to dentin treated with all-in-one adhesives

°UNO Shigeru[1], YOSHIDA Eiji[2], YAMADA Toshimoto[1], KAGA Masayuki[2]
[1]Toranomon Hospital Dental Clinic, [2]Hokkaido Univ.

Hall B
Saturday, 25 Sept 2004
10:00 - 11:00 General Presentaion (Oral)

Clinical Applications I

B-13 Analysis of internal and external forces of a human mandible invested by strength of materials: Influence of variation of biting force.

°KUSANO Masaaki, KIRITA Tadaaki
Nara Medical Univ.

B-14 An evaluation of new bone formation by three-dimensional X-ray Micro Focus CT -4. Three-dimensional finite element analysis of tooth implantation -

°FUKASE Yasumasa, HONDA Masahiko, HONDA Kazuya, KAKETANI Masahiro, SASAO Michiaki, KANEDA Terumasa, MATSUMOTO Mitsuhiko, NISHIYAMA Minoru
Nihon Univ.

Clinical Applications II

B-15 Material design of orthodontic FRP wires by compounding zirconium-containing glass fibers.

°KOBAYASHI Masahiro[1], KON Masayuki[2], WATARI Fumio[3], IIDA Junichiro[3]
[1]Chiba Insti. Tech., [2]Tokushima Univ., [3]Hokkaido Univ.

B-16 Application of haptic device to dentistry (Part 7)-Spport for implant surgery: Application of CAD/CAM bone stent-

°SOHMURA Taiji[1], KUSUMOTO Naoki[1], OTANI Takafum[1]i, WAKABAYASHI Kazumichi[1], YAMADA Shinichi[1], NAKAMURA Takashi[1], YATANI Hirofumi[1],TAKAHASHI Junzo[1], YAMAGUCHI Atsushi[2], HIGUCHI Shizuo[2]
[1]Osaka Univ., [2]Wada Prec. Dent. Lab.

Hall A
Saturday, 25 Sept 2004
14:00-17:00

Symposium 2:

University-launched venture companiies in dentistry

Right and wrong of hydroxyapatite coating implant
AOKI Hideki (Tokyo Denki Univ.)

Strategy of PIRM Ltd., a dental venture company
KASUGAI Shohei (Tokyo Medical and Dental University)

Regeneration of bone and periodontal tissues using mesenchymal stem cells
TSUJI Koichiro (Two Cells Co.Ltd.) KATO Yukio (Hiroshima University)

Bio-venture BMG Inc. which started from Kyoto University
HYON Suong-Hyu (Kyoto University)

Implant Navigation System from the Dignosis till the Operation support
SOGO Motofumi (Osaka University)

Application of TiO_2 photocatalyst
NONAMI Toru (Chukyo University)

Hall C
Saturday, 25 Sept 2004
10:00 - 15:00 General Presentation (Poster)

Dental Alloys

P-51 Physical properties and solidification structure of the dental metals in the high temperature (Part 5) -The ingredient element distribution at melting and solidifying times-
°NAGASAWA Sakae, YOSHIDA Takamitsu,TERASHIMA Nobuyoshi, MIZOGUCHI Toshihide, NIRO Toru, HAYANO Keigo, ITO Michio
Matsumoto Dental Univ.

P-52 Cytotoxicity of experimental alloys containing In
°TAKEDA Shoji[1], GOTOU Shinichi[2], IMAI Koichi[1], NAKAMURA Masaaki[1], OGURA Hideo[2]
[1]Osaka Dental Univ., [2]The Nippon Dental Univ. at Niigata

P-53 Mechanism of color of Au-Pt-based dental alloys
°SHIRAISHI Takanobu, TAKUMA Yasuko, TANAKA Yasuhiro, MIURA Eri, HISATSUNE Kunihiro
Nagasaki Univ.

P-54 Effects of different hardening heat treatments on the mechanical properties of 35Ag-30Pd-20Au-15Cu alloys containing different dditives
°CHUNJITAPIROM Pornkiat, GOTO Shin-ichi, KON Mihoko, MIYAGAWA Yukio, OGURA Hideo
The Nippon Dental Univ. at Niigata

Corrosion

P-55 Research for corrosion and corrosion loss in quantity of dental casting silver alloy.
°OKAMOTO Yoshizo[1], NARUSE Shigeyasu[2], UKON Shinichi[1], MIYAZAKI Kouji[1]
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P-56 Hydrogen absorption characteristics of pure titanium in acidulated phosphate fluoride solutions
°YOKOYAMA Ken'ichi, ASAOKA Kenzo
Tokushima Univ.

Bioceramics

P-57 Study on fiber reinforced ceramics (Forth report)-Preparation of alumina fiber reinforced alumina based ceramics-
°TANIMOTO Yasuhiro, NEMOTO Kimiya
Nihon Univ. at Matsudo

P-58 Effect of diameter and amount of fiber on flexural properties of fiber-post.
°IWASAKI Naohiko[1], TAKAHASHI Hidekazu[1], KOBAYASHI Masahiro[2], KON Masayuki[3]
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P-59 Transformation of 3-D printing gypsum model to HAp by treating in ammonium phosphate solution
°LOWMUNKONG Rungnapa[1], SOHMURA Taiji[1], TAKAHASHI Junzo[1],

SUZUKI Yumiko[2], MATSUYA Shigeki[2], ISHIKAWA Kunio[2]
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P-60 Fabrication of calcium phosphate porous ceramics using laser micro-layering production. Part I, laser sintering of apatite.

°WAKAMATSU Nobukazu, IIJIMA Mayumi, HORIGUCHI Takashi, KAMEMIZU Hideo, ADACHI Masanori, GOTO Takayasu, DOI Yutaka
Asahi Univ.

P-61 Relationship between physical properties and crystal orientations after superplastic deformations of sintered carbonate apatites

°ADACHI Masanori, WAKAMATSU Nobukazu, KAMEMIZU Hideo, IIJIMA Mayumi, DOI Yutaka
Asahi Univ.

P-62 Preparation of porous carbonate apatite with high porosity

°KANAYAMA Keiichi, WAKAMATSU Nobukazu, IIJIMA Mayumi, KAMEMIZU Hideo, ADACHI Masanori, SHIBUTANI Toshiaki, DOI Yutaka
Asahi Univ.

Mold Materials

P-63 Fit of crowns cast by experimental reusable investments

°TAMAKI Yukimichi, ZHANG Zutai, HOTTA Yasuhiro, MIYAZAKI Takashi
Showa Univ.

P-64 Sinter process of phosphate bonded investment

°INOUE Taro, FUJIOKA Sonosuke, KOISHI Atuhusa, KAKIMOTO Kazutoshi, OKAZAKI Joji, KOMASA Yutaka
Osaka Dental Univ.

P-65 Study on the recycling of gypsum bonded investment - Part 2 Suitable pulverization conditions -

°UDA Go, KUROIWA Akihiro, KAIDA Takehiko, SAKOH Mitsuo, IGARASHI Yoshimasa, ITO Michio
Matsumoto Dental Univ.

Composite Resin

P-66 Density and polymerization shrinkage of indirect composites

°KAWAMOTO Yoshikazu, HIROSE Hideharu, SAITOH Masahiro, SAIGO Masataka, MATSUMURA Hideo, NISHIYAMA Minoru
Nihon Univ.

P-67 Flexural strength of resin composites for core build-up after degradation test.

°HARASHIMA AtsushiI, YAMAZAKI Atsushi, HONDA Muneaki, NAGASAWA Yuko, KURAMOCHI Ken-ichi, NIIKURA Minako, TAKAHASHI Yoko, YAMAGA Taniichirou, HIBINO Yasushi, NAKAJIMA Hiroshi
Meikai Univ.

P-68 Flexural strength of compomers immersed in ethanol

°HIBINO Yasushi, YAMAZAKI Atsushi, HARASHIMA Atsushi, HONDA Muneaki, NAGASAWA Yuko, KURAMOCHI Ken-ichi, NIIKURA Minako, TAKAHASHIYoko, YAMAGA Taniichiro, NAKAJIMA Hiroshi
Meikai Univ.

P-69 Improvement of dental resins in properties (Part 11) - Long-term fluoride releasing characteristic of a novel compomer using UDMA/MAA matrix resin -

°HASHIMOTO Toshiaki, TANAKA Jiro, SUZUKI Kazuomi
Okayama Univ.

P-70 Adhesion to dentin of the resin composed post using an optical fiber

°WATANABE Akihiko, KAH En-Sheng, AKIBA Norihisa, AKIYOSHI Kazunari
Tokyo Medical and Dental Univ.

P-71 A study on a new type of composite resin core material by three point bending test

°MATSUMOTO Yukifumi, TSUBOTA Yuji, ONE Takatoshi, OHTSUKA Masanori, FUKAGAWA Nao, HASHIMOTO Koh, NOMOTO Rie, HIRANO Susumu, FUKUSHIMA Shunji
Tsurumi Univ.

Resin II

P-72 Development of fluoride-releasing resin responsive to pH -Effects of fluoride treated with various concentration of tertiary amine on response to pH and physical property-

°NAKABO Satoshi, TORII Yasuhiro, ITOTA Toshiyuki,
SUZUKI Kazuomi, YOSHIYAMA Masahiro
Okayama Univ.

P-73 Light transmittance characteristics of crown and bridge resins

°ARIKAWA Hiroyuki, KANIE Takahito, FUJII Kouichi, BAN Seiji
Kagoshima Univ.

P-74 Improvement of dental resins in properties (Part 10) – Influence of polymerization conditions on the mechanical properties of UDMA/MAA resin –

°TANAKA Jiro, SUZUKI Kazuomi
Okayama Univ.

P-85 Cytotoxicity of UDMA/acidic monomer resins

°TAKEDA Shoji[1], TANAKA Jiro[2], SUZUKI Kazuomi[2], NAKAMURA Masaaki[1]
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Adhesive II

P-76 Influence of adhesion durability on thickness of flowable resin composite

°OKADA Hidetoshi, ISHIDA Yoshinori, NOGUCHI Hiroshi, NAGAYAMA Katsuya
Ohu Univ.

P-77 Degradation of seif-etching primer by hydrolysis

°FUJITA Kou, SUGIYAMA Michinori, OKADA Tamami,
IKEMI Takuji, NISHIYAMA Norihiro, NEMOTO Kimiya
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P-78 SEM observations of artificial secondary caries around dentin/resin cement interface

°SHIMURA Rena[1], TAKAGAKI Tomohiro[1], NIKAIDO Toru[1], TAGAMI Junji[1,2]
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P-79 Modification effect of silane coupling agents containing poly(fluoro)alkyltrimethoxysilane (Part 14) –Coupling effect of silane coupling agents containing double bonded group at long term

°NIHEI Tomotaro[1], KURATA Shigeaki[1], OHASHI Katsura[1], KONDO Yukishige[2],
UMEMOTO Kozo[1], YOSHINO Norio[2], TERANAKA Toshio[1]
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P-80 Hydrophobicity of adhesive components affecting the structural stability of collagen

°NEZU Takashi, MORIKAWA Tomohiro, TERADA Yoshihiro
Kyushu Univ.

P-81 Effect of the hydrophobic group on hydrophobic silane/3MPS mixture coupling agents

°MORISHITA Kumiko[1], YAMANAKA Hajime[2], KURATA Sigeaki[1],
SHIMOYAMA Kazuo[1], NIHEI Tomotarou[1], OHASHI Katsura[1],
TERANAKA Toshio[1], YOSHINO Norio[2], UMEMOTO Kouzo[1]
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P-82 Control of adhesive durability of adhesive layer by waterproof coating treatment

°TANAKA Mitsuru, SASAKI Kaori, SAITOH Setsuo, FUKUOKA Tsuneo,
TAIRA Masayuki, ARAKI Yoshima
Iwate Medical Univ.

Cell

P-83 Apatite Coating on titanium mesh using hydrothermal –electrochemical method –Effect to mineralized nodule fomation on osteoblast-like cell–

°YUDA Akihiko, IWAYA Yukari, KONO Hiroshi,
SATO Hideo, IZUMI Yuichi, BAN Seiji
Kagoshima Univ.

P-84 Evaluation of a differentiation screening method using ES cells

°IMAI Koichi, UEDA Akihiro, NAKAMURA Masaaki
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P-85 Cell proliferation change by eluate of glass ceramic

°MIZOGUCHI Toshihide[1], NAGASAWA Sakae[1], YOSHIDA Takamitsu[1],
NIIRO Toru[1], HAYANO Keigo[1], SHIRATORI Norihico[1], YAGASAKI Hiroshi[1],
JONATHAN Knowles[2], ITO Michio[1]
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P-86 Cell attachment on cell-adhesive protein immobilized titanium using tresyl chloride

activation technique

°HAYAKAWA Tohru[1], TAKAHASHI Kenichi[1], NAGAI Megumi[1],
MAKIMURA Masaharu[1], YOSHINARI Masao[2], NEMOTO Kimiya[1]
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P-87 Development of the Biofunctional Implant Materials Part(10) development of scaffold for oseocyte

°NAKANO Kenjiro, HAYASHI Tatuhide, TAKEI Yukiko, KUROKI Kenjiro,
SATO Yousuke, ANDOU Kimitoshi, JINNO Satoshi, NAKAMURA Ayami,
ITO Michie, KAWAI Tatushi
Aichi-Gakuin Univ.

P-88 Development of HAP carrier with micro-porosities Part 3 A cell culture examination

°NEMOTO Kimiya[1], NISHIYAMA Norihiro[1], MAEDA Takahide[1],
OGATA Yorimasa[1], ISHIZAKI Tsutomu[4]
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P-89 Reinforcement of CO_3 apataite-collagen sponges with a porous hydroxyapatite frame

°TIELIEWUHAN Yilinuer, HIRATA Isao, NOMURA Yuji,
WAKASA Kunio, OKAZAKI Masayuki
Hiroshima Univ.

Computer Aided

P-90 Application of rapid prototyping to dentistry (Part 3) -Fabrication of jaw bone model andbone stent by FDM (Fused deposition modeling)-

°OHTANI Takafumi[1], LOWMUNKONG Rungnapa[1], SOHMURA Taiji[1], KUSUMOTO Naoki[1],
WAKABAYASHI Kazumichi[1], YAMADA Shinichi[1], NAKAMURA Takashi[1],
YATANI Hirofumi[1], TAKAHASHI Junzo[1], MORISHIMA Masaharu[2], NOMURA Yuujirou[2]
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P-91 Study of ceramic machining by dental CAD/CAM system -Comparison of the fit accuracy with machining methods-

°SHIMAKURA Yusuke, HOTTA Yasuhiro, FUJIWARA Toshihisa,
MIYAZAKI Takashi, KAWAWA Tadaharu
Showa Univ.

P-92 Correlation between accuracy of crowns using CAD/CAM and elasticity of materials.

°YARA Atushi, NAKAI Akira, KAKUTA Kiyoshi
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Test and Measuring Methods

P-93 Observation of the polymerization behavior of a light-cured resin using the laser speckle correlation method

°SATO Tomomi, MIYAZAKI Masashi, RIKUTA Akitomo, ANDO Susumu, KURODA Takasi
Nihon Univ.

P-94 Measurement of polymerization shrinkage of cold-curing resin using laser analogue sensor

°TSURUTA Shozo, YAMAMOTO Iichiro, MORIMOTO Keita, SHINODA Koshin,
TAKAHASHI Kenta, ARIMOTO Michitoshi, KAWAI Tatsushi, MATSUNAMI Ichiro
Aichi-Gakuin Univ.

P-95 Establishment place of a sonic speaker-Thickness from the skin surface to a bone in the head to measure by a supersonic wave thickness measuring instrument

°OHKUMA Kazuo
The Nippon Dental Univ.

P-96 Effect of fixing method on impact strength of toothbrush handle

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Clinical Applications II

P-97 Surface properties of stone model obtained from new polyether rubber impression immersed in disinfectant

°TANABE Naoki
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P-98 Abutment build up using prototype FRP-Examination of adhesive quality-

° HOSONO Naoko, KAMAKURA Masayoshi, SHIMAKURA Michio, OKADA Hidetoshi, NAGAKURA Katsuya
Ohu Univ.

P-99 Compartion on dynamic behaviors of various post-core constructions -Static study on abutments poor residual alveolar bone-

°KAITO Tomoyoshi[1], SHINYA Akikazu[1], YOKOYAMA Daiichiro[2], MATSUDA Tetsuji[2], HANDA Isao[2], SHINYA Akiyoshi[2]
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P-100 Compartion on dynamic behaviors of various post-core construstions -Effect of various loading condition-

°SHINYA Akikazu[1], KAITO Tomoyoshi[1], YOKOYAMA Daiichiro[2], MATSUDA Tetsuji[2], GOMI Harunori[2], IWAMA Nobuhito[2], HASEBE Shinich[2]i, SHINYA Akiyoshi[2]
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