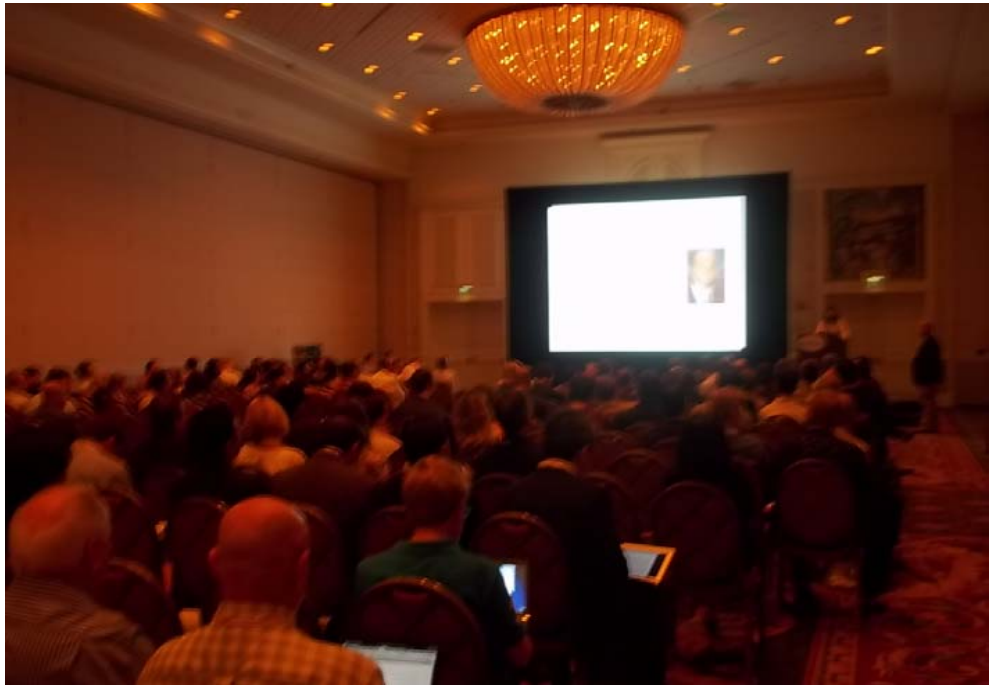
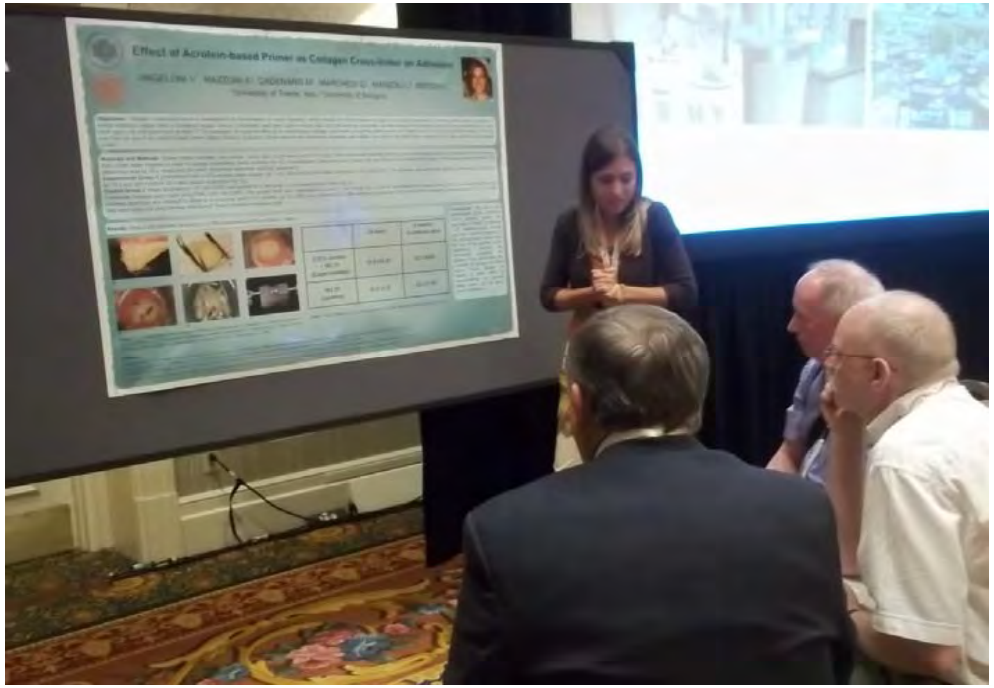
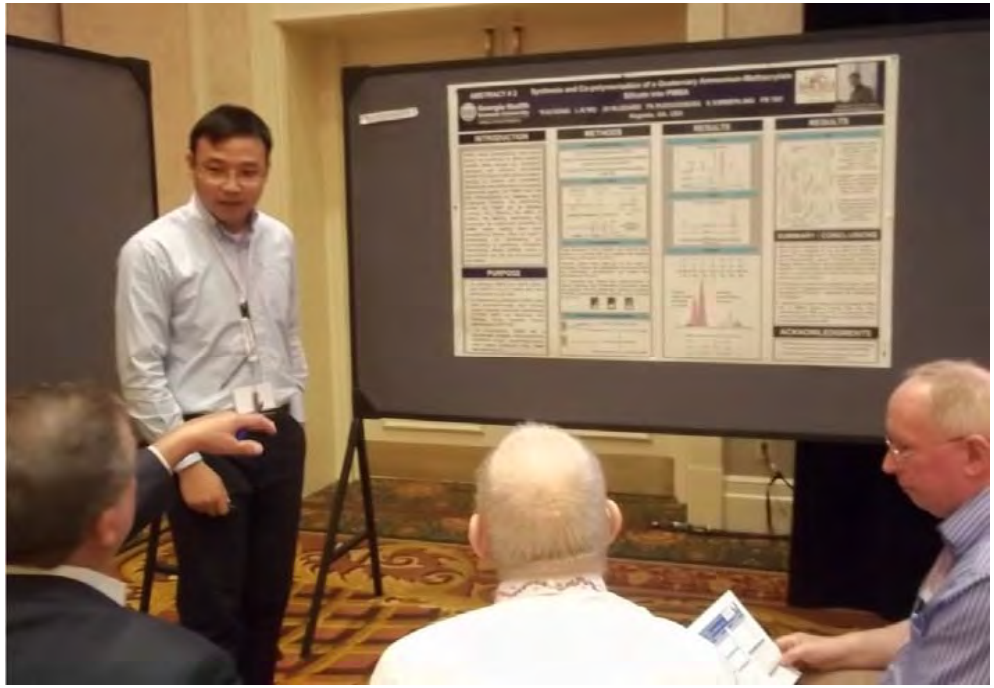
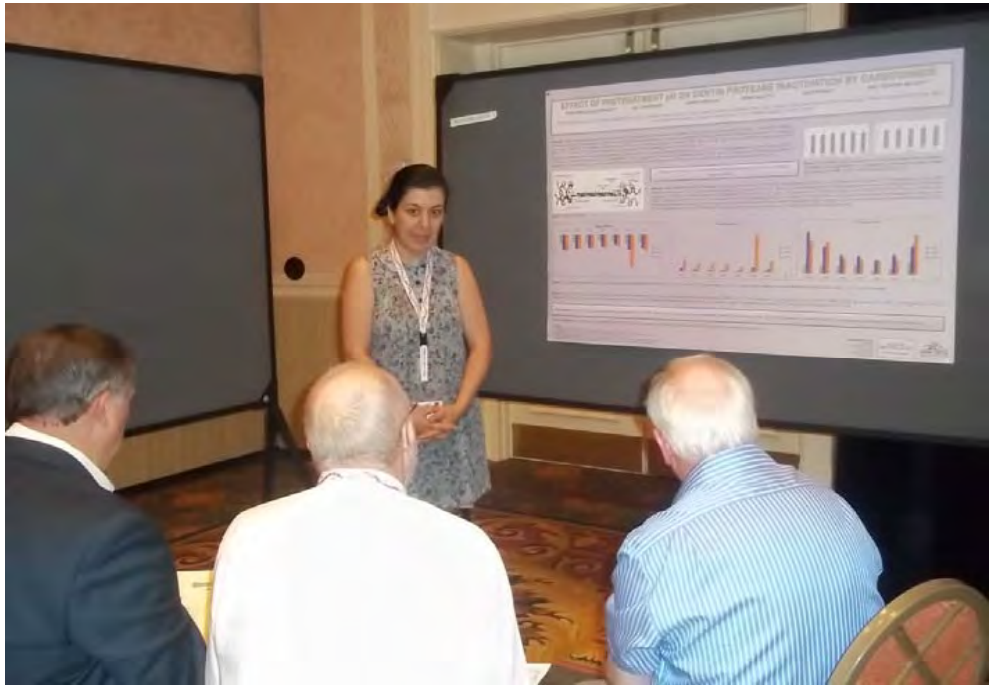


EXIT

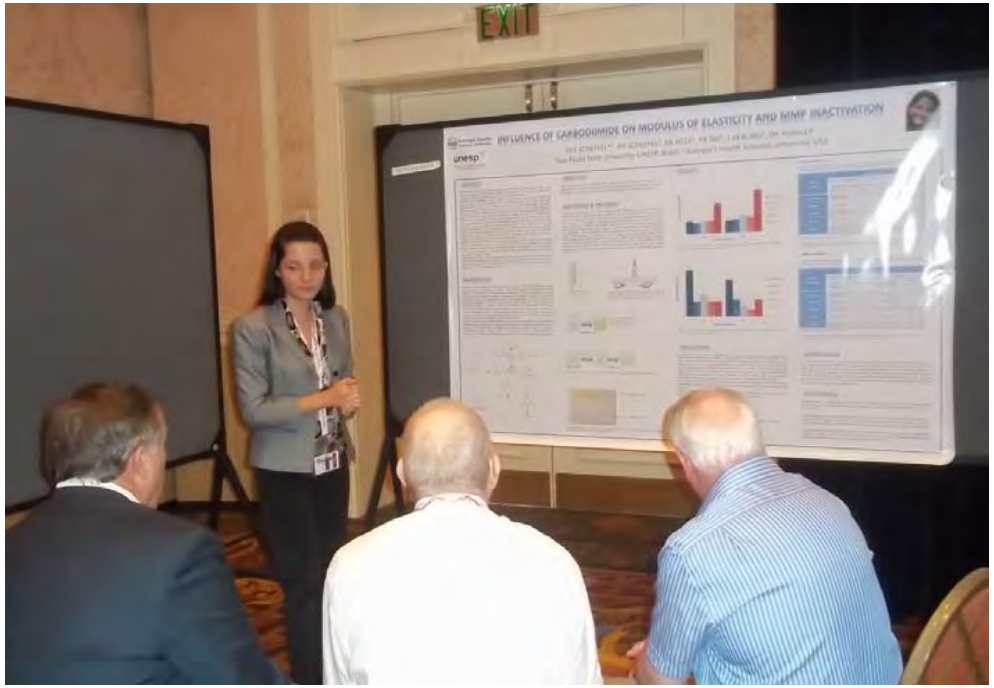
Objective
Methods and Materials
Results
Conclusion
References


Effect of Acrolein-based Primer on Collagen Cross-linker on Adhesion


INTRODUCTION
METHODS
RESULTS
PURPOSE



Walt Disney World
RESORT


EXIT
INFLUENCE OF CARBODIIMIDE ON MODULUS OF ELASTICITY AND MMP INACTIVATION

EXIT

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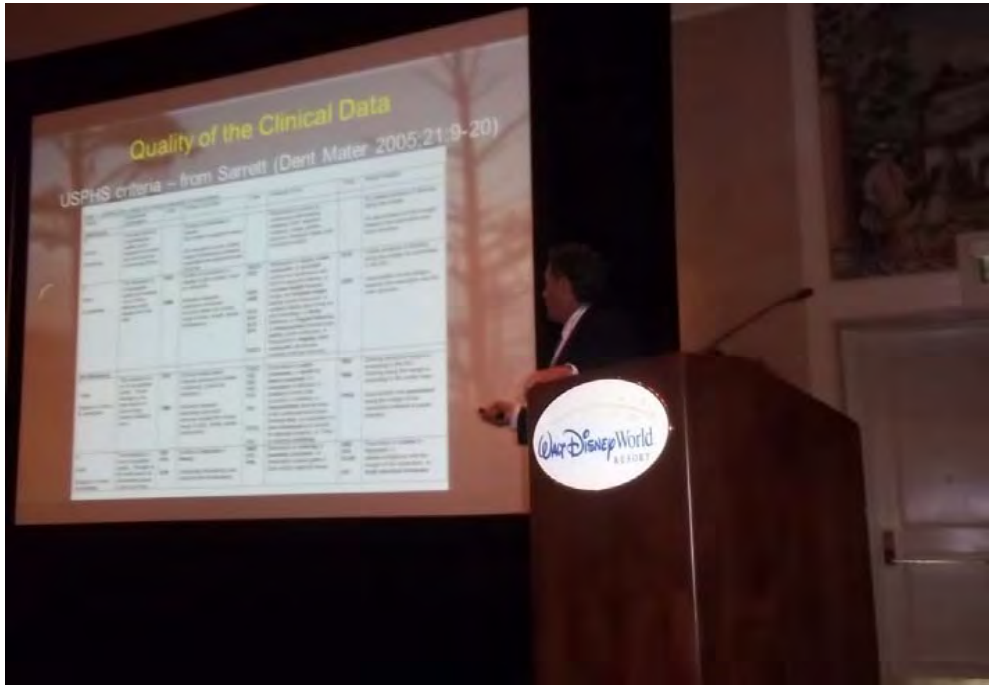
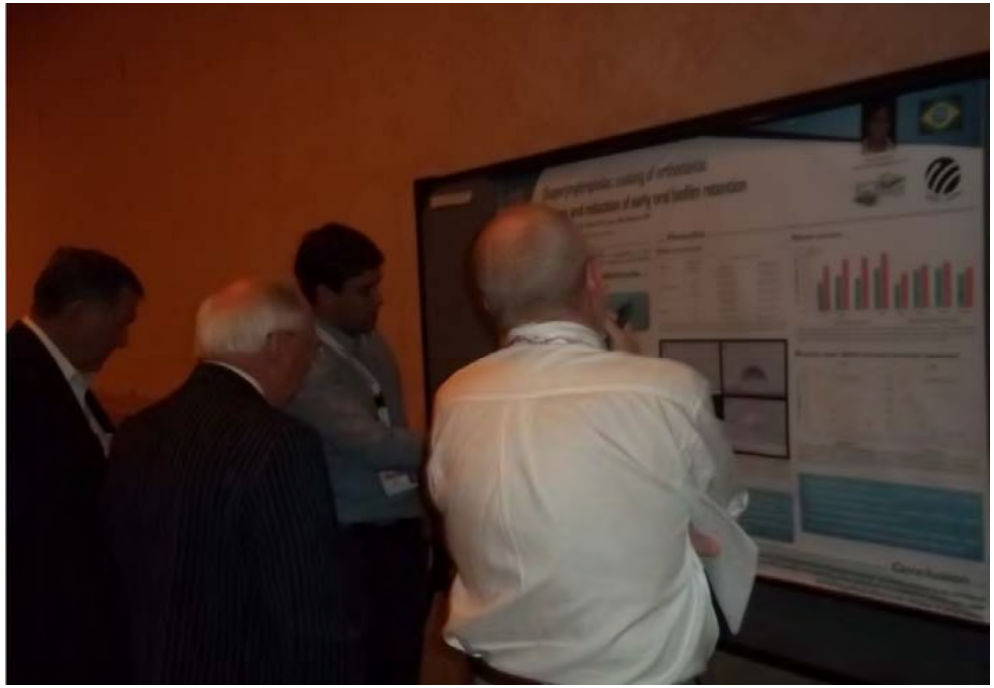
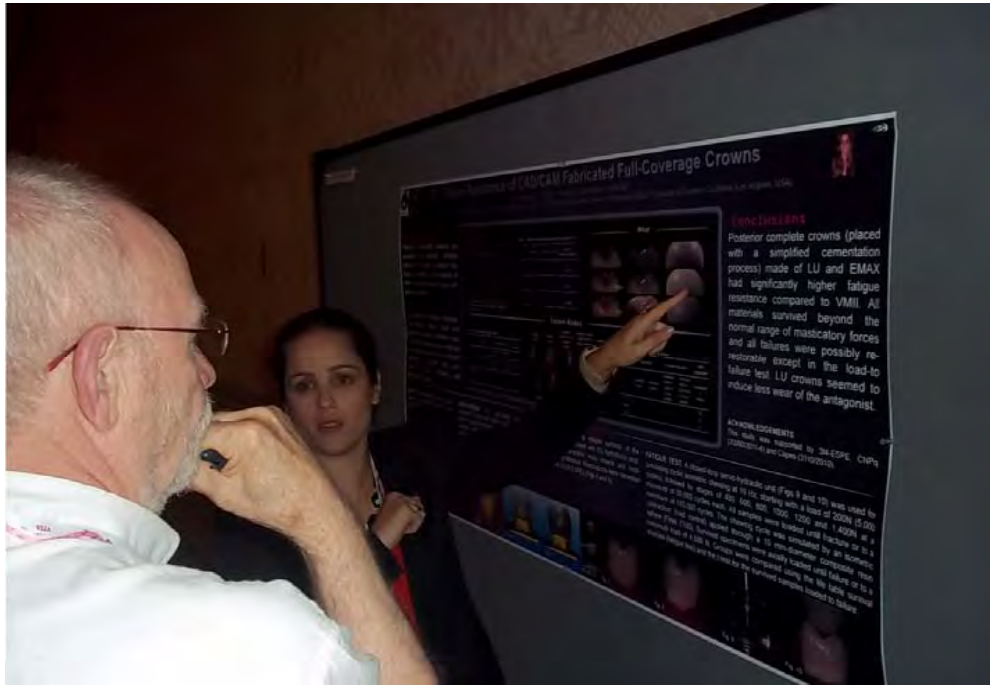
no etch
Walt Disney World


Quality of the Clinical Data
USPHS criteria – from Sarrett (Dent Mater 2005;21:9-20)
Walt Disney World
RESORT

Caries adjacent to restoration




Fabricated Full-Coverage Crowns
Conclusions
Posterior complete crowns (placed with a simplified cementation process) made of LU and EMAX had significantly higher fatigue resistance compared to VMII. All materials survived beyond the normal range of masticatory forces and all failures were possibly re-restorable except in the load-to failure test. LU crowns seemed to induce less wear of the antagonist.
ACKNOWLEDGEMENTS

surface treatments
Walt Disney World

Results
Methods

of all-
storations
complicate calculations of success
grades of chipping fractures[1]:
resin-based composite
t (4 additional criteria later proposed[2])
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RESORT

ADM 2012
Thank you
For better dentistry
VITA
SHOFU
DENTSPLY
septodont
ivoclar vivadent
passion vision innovation
ELSEVIER
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eat treatment on surface roughness
B
C
Aged 1H
Aged 1H + 850°C/1 m
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RESORT

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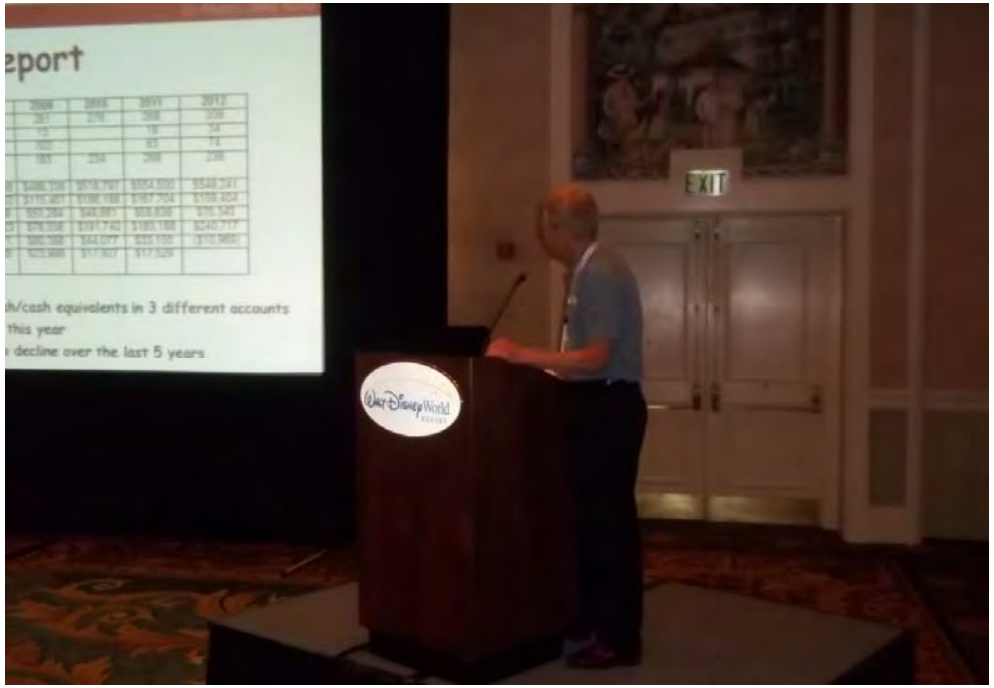
RESORT

ements for Fellows
five years of leadership in
field
at least five years
ship
endation by two current
& quantity of publications

David W. Ber
Julian Satter

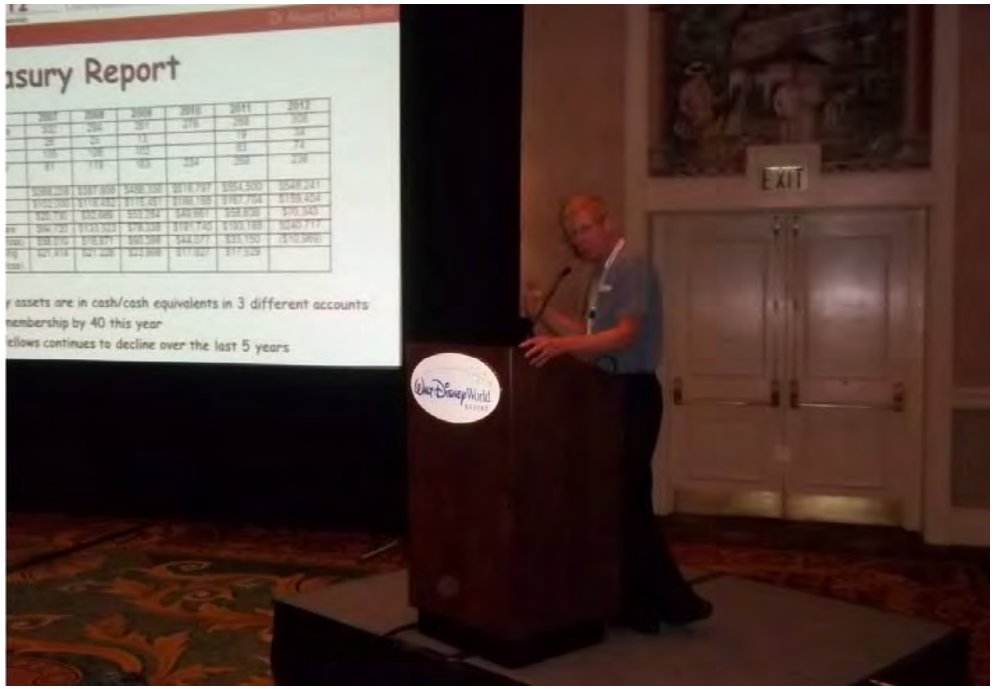
2011
ACADEMY OF
DENTAL MATERIALS
October 13-15
Costa do Saulpe, Bahia, Brasil
70 YEARS
269 participants from 16 Countries
3- Finland (1.1%)
3- Japan (1.1%)
4- United Kingdom (1.4%)
6- German (2.2%)
14- Italy (5.2%)
24- USA (8.9%)
204- Brazil (75.8%)

Jettrey W. Stansbury
Josette Camilleri
W. Berzins
Satterthwaite


eport
h/cash equivalents in 3 different accounts
this year
decline over the last 5 years
EXIT

Journal
EXIT

David W. Ber
Julian Sattert


asury Report
assets are in cash/cash equivalents in 3 different accounts
membership by 40 this year
ellows continues to decline over the last 5 years
EXIT

EXIT

EXIT

EXIT

What did the Founders do?
Re-structured "Academy for Plastics Research in Dentistry"
1941 1983
Academy for Dental Materials
- Created new memberships: From 2 active members to >300 in 1 year.
- Started annual meetings – Often held 2 or more meetings/year.
- Initiated the journal, "Dental Materials" and the "Transactions."
- Started newsletters, lapel pins, and ties, Advertised everywhere.
- Created a bank account capable of supporting ADM's missions.
- Focused on international members, independence from other organizations, the best science, and cutting edge topics.

Who is this awardee for 2012?

ADM 2012
Founders' award

Early Award of the Acad
Bumble Bee Award
Academy for Plastics Research in Dentistry
EXIT

Great contributions.
Leadership, loyalty to the Academy, and top science
ADM Meeting-Hawaii, 1989

EXIT

Our awardee for 2012 rarely if ever missed an ADM meeting, or...
a party with NU friends!

Jack L. Ferracane
2012 ADM Founders Award
(President, 1998-2000)
CONGRATULATIONS JACK!

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Membership
Susanne Scherrer
2012 Local Organizer

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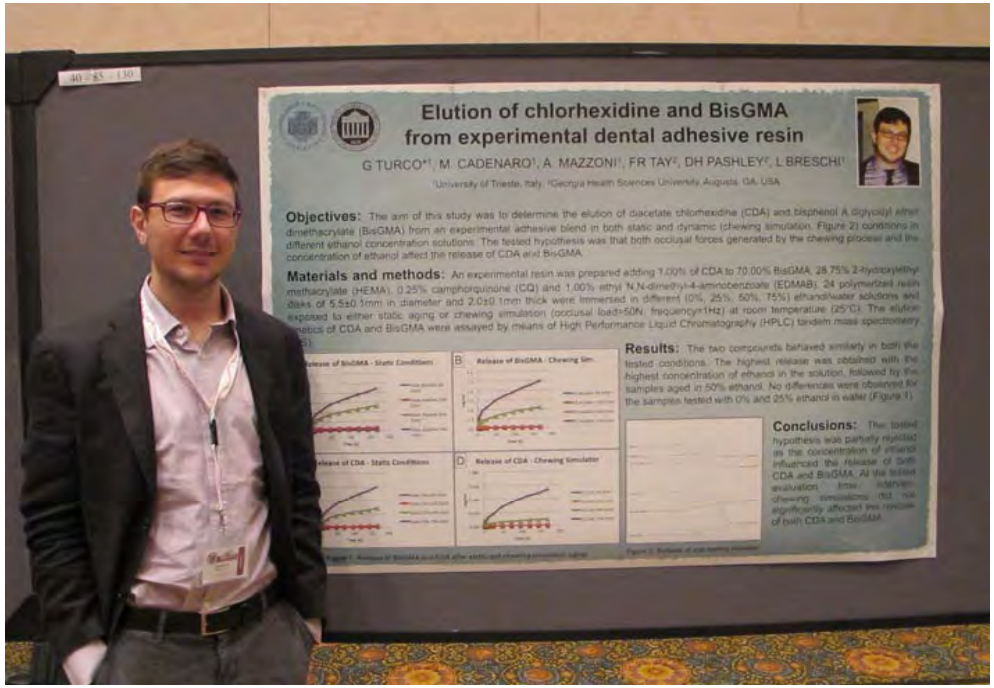
Jack L. Ferracane
2012 ADM Founders Award
(President, 1998-2000)
CONGRATULATIONS JACK!

Why do you want to go to Vancouver?
Ranked the best city to live in the world for several times in a row
Sun bathing in the morning and snow-skiing in the afternoon
Beaches, parks and mountains
Rich cultural activities and splendid international cuisine
Vibrant downtown area with lots of entertaining, day and night

GRAND FLORIDIAN BALLROOM
WELCOME TO THE
ADM 2012
Academy of Dental Materials
Annual Meeting

Effect of Acrolein-based Primer as Collagen Cross-linker on Adhesion

EXIT


Elution of chlorhexidine and BisGMA
from experimental dental adhesive resin
G TURCO*[1], M. CADENARO[1], A. MAZZONI[1], FR TAY[2], DH PASHLEY[2], L BRESCHI[1]
[1]University of Trieste, Italy, [2]Georgia Health Sciences University, Augusta, GA, USA
Objectives: The aim of this study was to determine the elution of diacetate chlorhexidine (CDA) and bisphenol A diglycidyl ether dimethacrylate (BisGMA) from an experimental adhesive blend in both static and dynamic (chewing simulation, Figure 2) conditions in different ethanol concentration solutions. The tested hypothesis was that both occlusal forces generated by the chewing process and the concentration of ethanol affect the release of CDA and BisGMA.
Materials and methods: An experimental resin was prepared adding 1.00% of CDA to 70.00% BisGMA, 28.75% 2-hydroxyethyl methacrylate (HEMA), 0.25% camphorquinone (CQ) and 1.00% ethyl N,N-dimethyl-4-aminobenzoate (EDMAB). 24 polymerized resin disks of 5.5±0.1mm in diameter and 2.0±0.1mm thick were immersed in different (0%, 25%, 50%, 75%) ethanol/water solutions and exposed to either static aging or chewing simulation (occlusal load=50N, frequency=1Hz) at room temperature (25°C). The eluted metabolic of CDA and BisGMA were assayed by means of High Performance Liquid Chromatography (HPLC) tandem mass spectrometry (HPLC-MS).
Results: The two compounds behaved similarly in both the tested conditions. The highest release was obtained with the highest concentration of ethanol in the solution, followed by the samples aged in 50% ethanol. No differences were observed for the samples tested with 0% and 25% ethanol in water (Figure 1).
Conclusions: The tested hypothesis was partially rejected as the concentration of ethanol influenced the release of both CDA and BisGMA. At the tested evaluation time, intensive chewing simulations did not significantly affected the release of both CDA and BisGMA.

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RESORT

ADM – 2013
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Walt Disney World
RESORT

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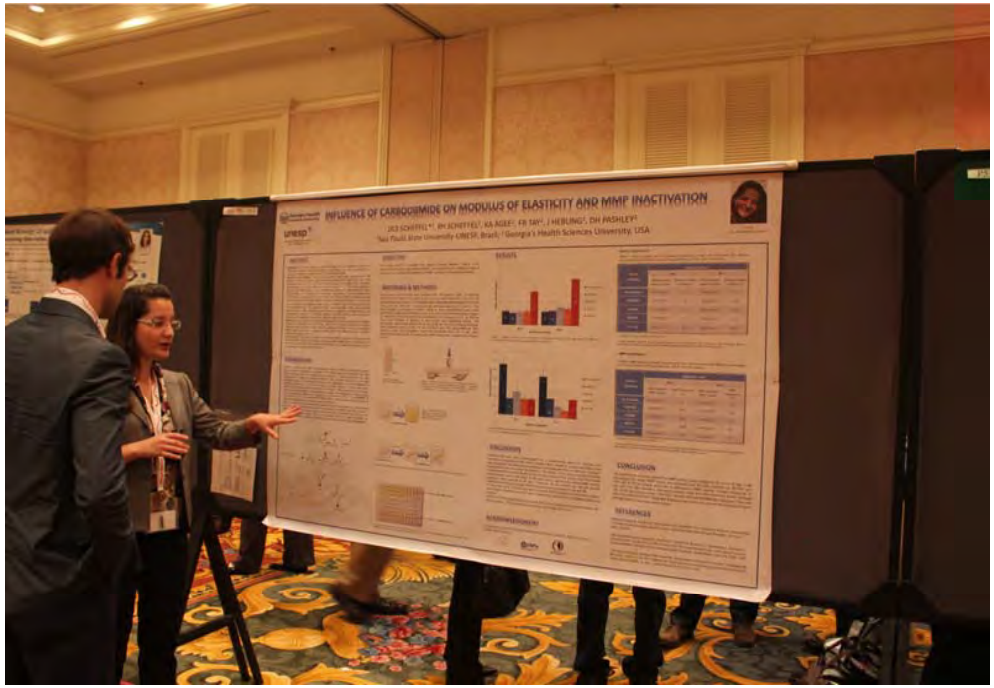
Walt Disney World
RESORT


INFLUENCE OF CARBODIIMIDE ON MODULUS OF ELASTICITY AND MMP INACTIVATION

EXIT
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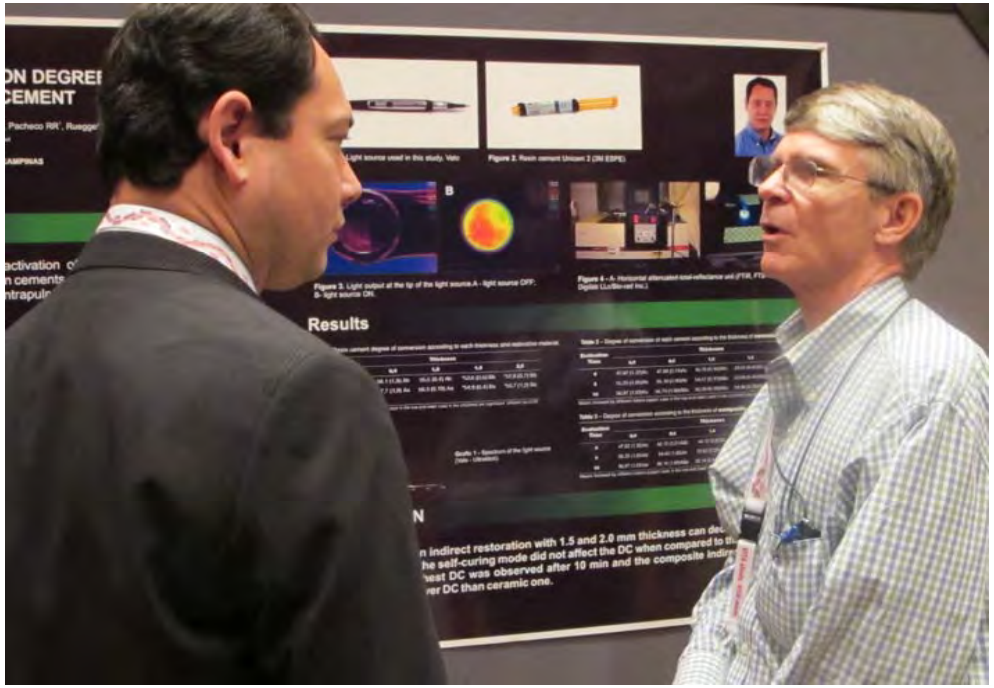
Walt Disney World
RESORT


Results

Walt Disney World
RESORT

Walt Disney World

EXIT

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RESORT

Jack L. Ferracane
2012 ADM Founders Award
(President, 1998-2000)
CONGRATULATIONS JACK!

EXIT
Walt Disney World
RESORT

P13. Photoinitiator and Filler Affect
and Optical Properties of Composites. VE
, PP ALBUQUERQUE, LM CAVALCANTE, LFJ
(Federal Fluminense University, Brazil,
Almeida University, Brazil).
free registration next year

P4. Influence of Carbodiimide on Modulus of
and MMP Inactivation. DLS SCHEFFEL*, RH
, K AGEE, FR TAY, J HEBLING, DH PASHLEY
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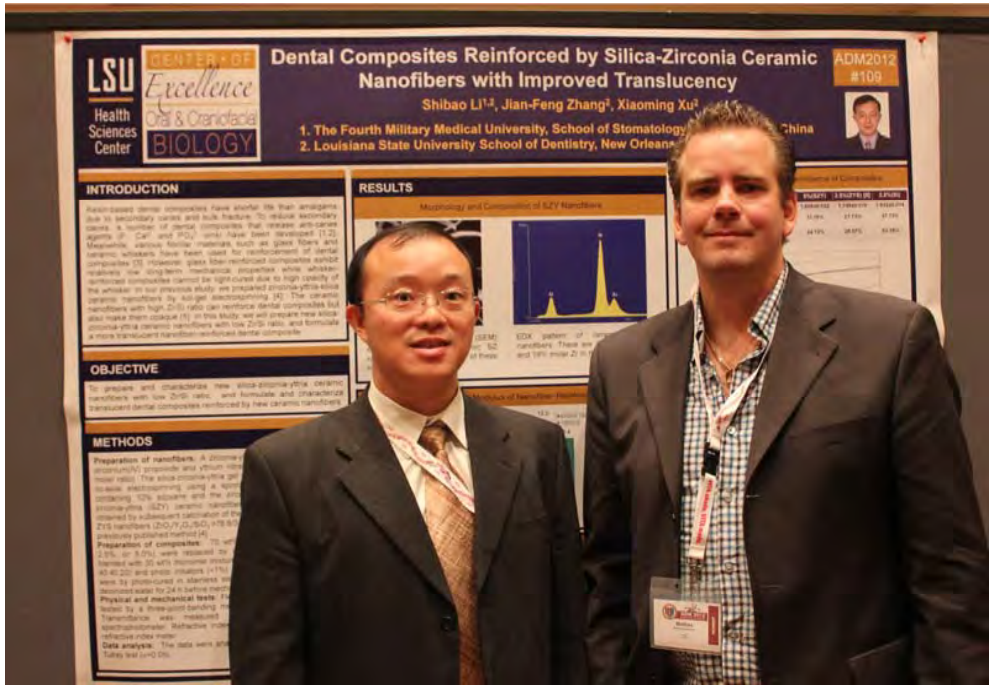
ciences University, USA).


LSU
Health Sciences Center
CENTER OF Excellence Oral & Craniofacial BIOLOGY
Dental Composites Reinforced by Silica-Zirconia Ceramic Nanofibers with Improved Translucency
ADM2012 #109
Shibao Li, Jian-Feng Zhang, Xiaoming Xu
1. The Fourth Military Medical University, School of Stomatology
2. Louisiana State University School of Dentistry, New Orleans
INTRODUCTION
RESULTS
OBJECTIVE
METHODS

P13. Photoinitiator and Filler Affect
ical and Optical Properties of Composites. VE
O*, PP ALBUQUERQUE, LM CAVALCANTE, LFJ
DER (Federal Fluminense University, Brazil,
de Almeida University, Brazil).
0+ free registration next year

ADM 2012
Paffenbarger Awards
Winner– P4. Influence of Carbodiimide on Modulus of Elasticity and MMP Inactivation. DLS SCHEFFEL*[1], RH SCHEFFEL, K AGEE[2], FR TAY[2], J HEBLING[1], DH PASHLEY[2] ([1]Sao Paulo State University-UNESP, Brazil; [2]Georgia's Health Sciences University, USA).
2nd place– P13. Photoinitiator and Filler Affect Mechanical and Optical Properties of Composites. VE SALGADO*[1], PP ALBUQUERQUE[1], LM CAVALCANTE[1], LFJ SCHNEIDER[1,2] ([1]Federal Fluminense University, Brazil, [2]Veiga de Almeida University, Brazil).
3rd place– P9. (Super)-hydrophobic Coating of Orthodontic Devices and Early Oral Biofilm Retention. AS OLIVEIRA*, MR KAIZER; FA OGLIARI, MS CENCI, RR MORAES (Federal University of Pelotas, Brazil).

4. Influence of Carbodiimide on Modulus of
d MMP Inactivation. DLS SCHEFFEL*[1], RH
K AGEE[2], FR TAY[2], J HEBLING[1], DH PASHLEY[2]
State University-UNESP, Brazil; [2]Georgia's
ences University, USA).

ADM 2012
Thank for all your support!
Lorenzo Breschi
Bob Kelly
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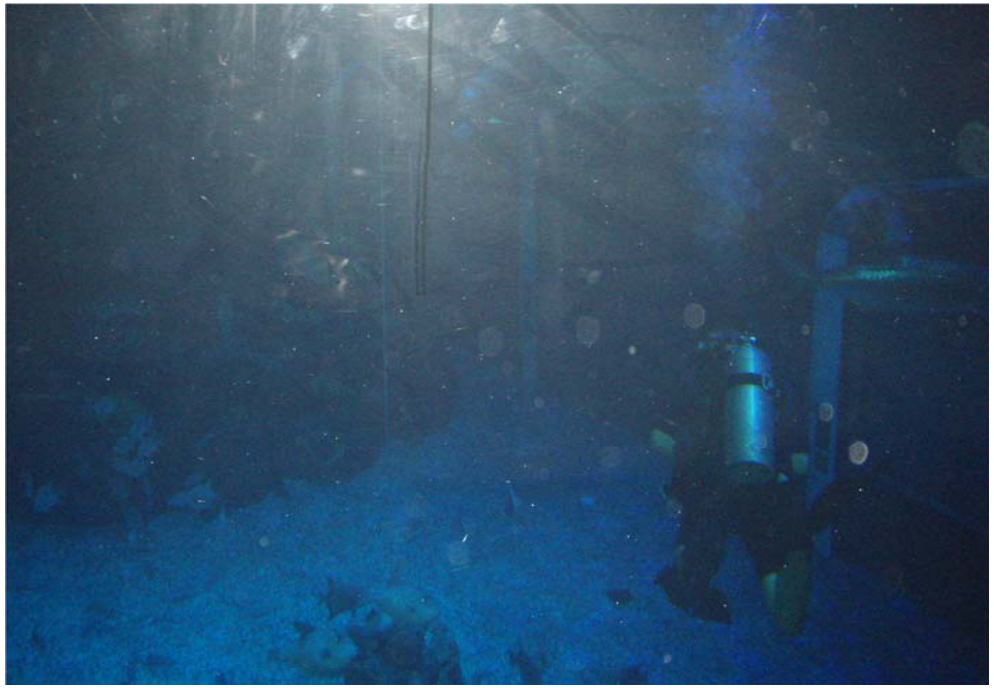
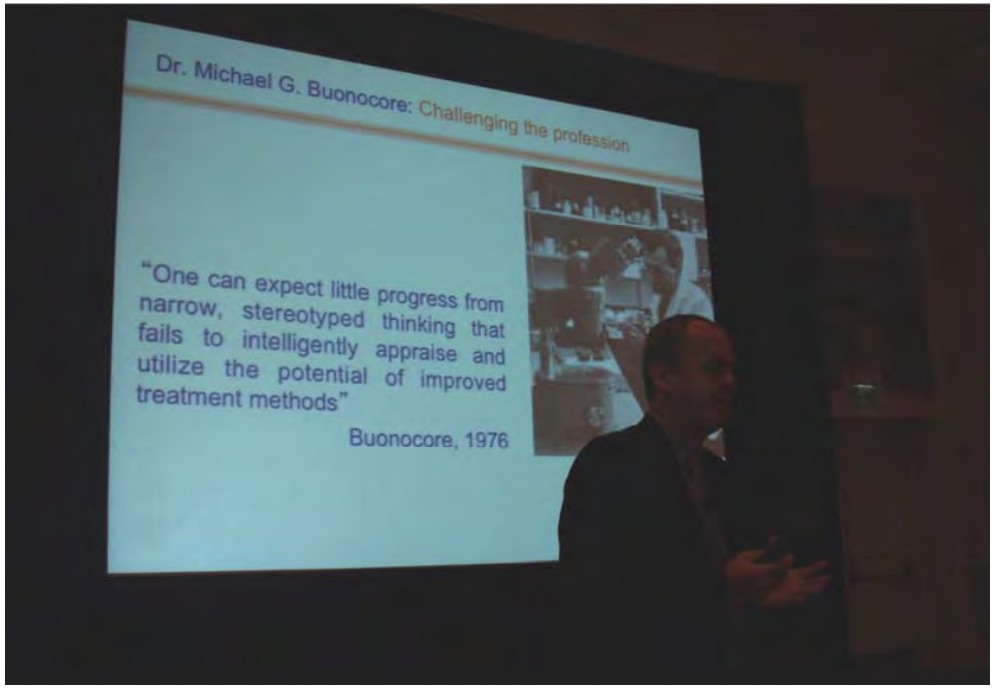
Burak Taskonak
Milena Cadenaro
Steve Bayne
Ric van Noort
Susanne Scherrer



ADM 2012
Lorenzo Breschi
President (2012-2014)
Thank you all for sharing your time with the Academy.
See you all next year in Vancouver, Canada
October 9-12


Dr. Michael G. Buonocore: Challenging the profession
"One can expect little progress from narrow, stereotyped thinking that fails to intelligently appraise and utilize the potential of improved treatment methods"
Buonocore, 1976

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If we can learn to design
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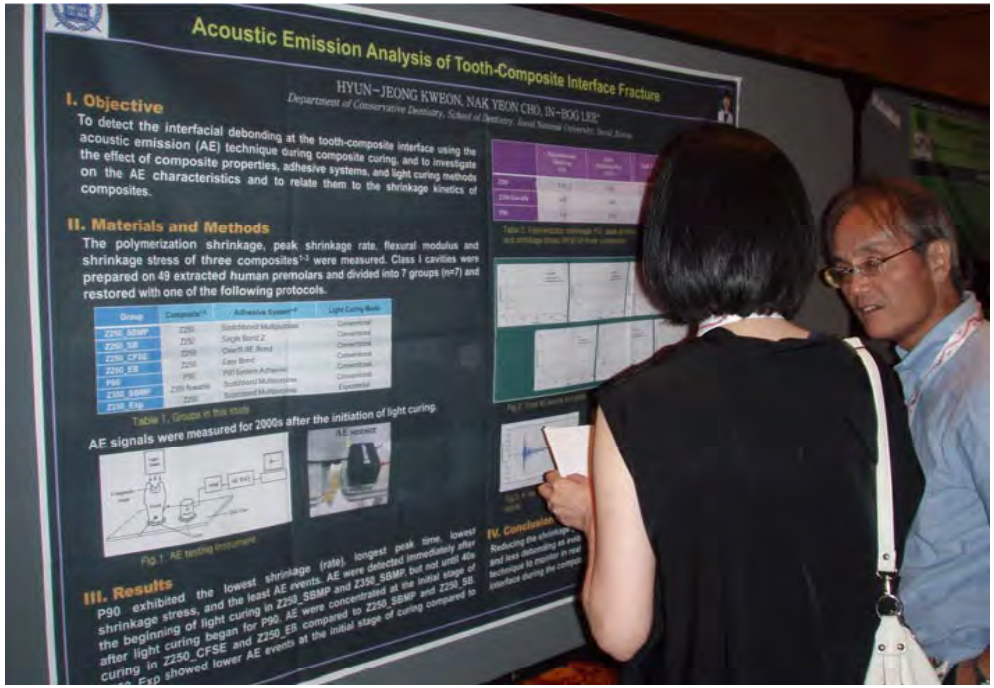
it should clear the way
many scientific fields,
technologies.
Walt Disney World
RESORT


Acoustic Emission Analysis of Tooth-Composite Interface Fracture
HYUN-JEONG KWEON, NAK YEON CHO, IN-BOG LEE*
I. Objective
To detect the interfacial debonding at the tooth-composite interface using the acoustic emission (AE) technique during composite curing, and to investigate the effect of composite properties, adhesive systems, and light curing methods on the AE characteristics and to relate them to the shrinkage kinetics of composites.
II. Materials and Methods
The polymerization shrinkage, peak shrinkage rate, flexural modulus and shrinkage stress of three composites were measured. Class I cavities were prepared on 49 extracted human premolars and divided into 7 groups (n=7) and restored with one of the following protocols.
AE signals were measured for 2000s after the initiation of light curing.
III. Results
P90 exhibited the lowest shrinkage (rate), longest peak time, lowest shrinkage stress, and the least AE events. AE were detected immediately after the beginning of light curing in Z250_SBMP and Z350_SBMP, but not until 40s after light curing began for P90. AE were concentrated at the initial stage of curing in Z250_CFSE and Z250_EB compared to Z250_SBMP and Z250_SB.

Dr. Michael G. Buonocore: Challenging the profession
"One can expect little progr
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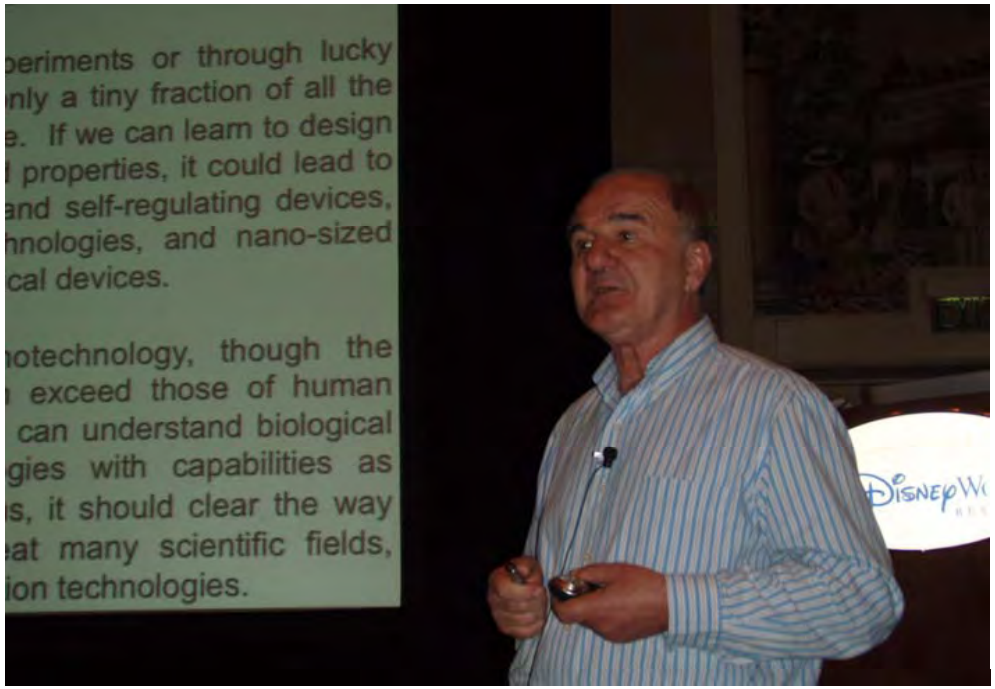
utilize the poten
treatment methods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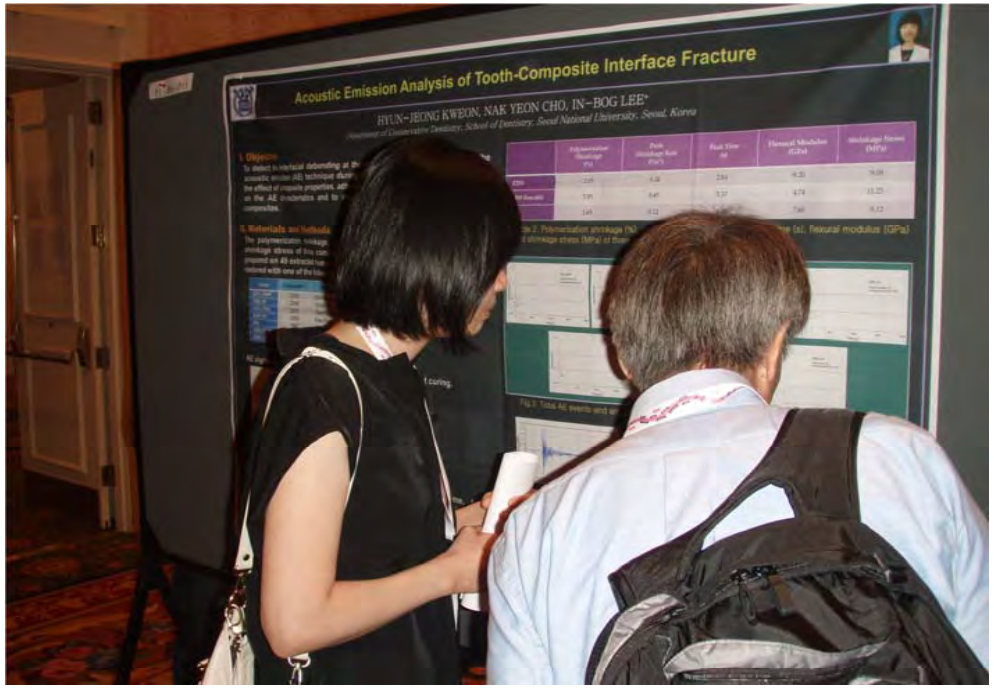
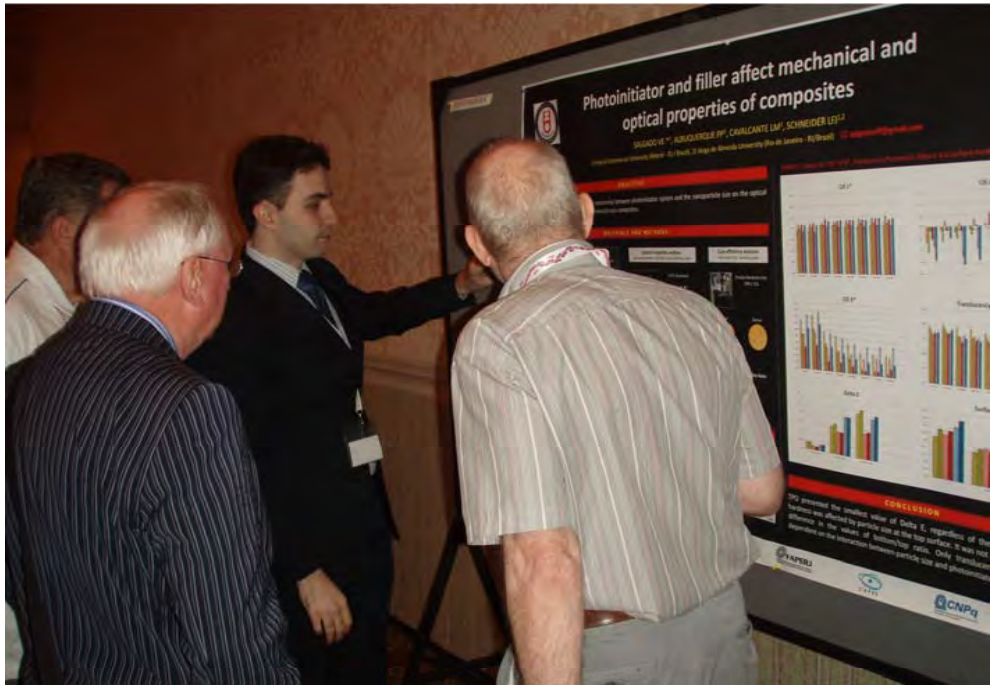
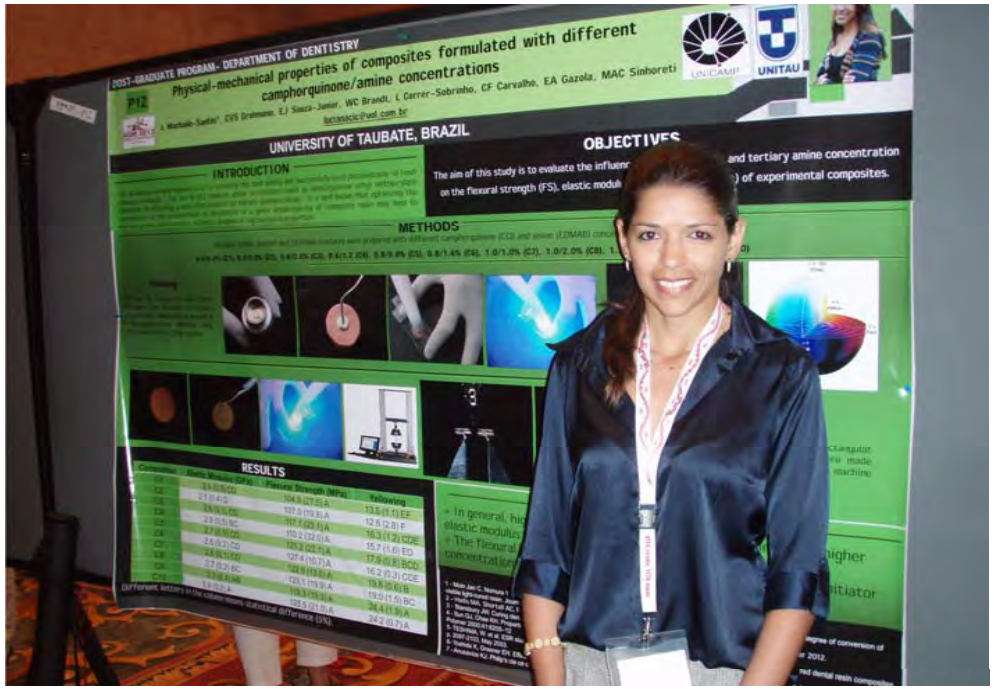

Acoustic Emission Analysis of Tooth-Composite Interface Fracture
HYUN-JEONG KWEON, NAK YEON CHO, IN-BOG LEE*


Photoinitiator and filler affect mechanical and optical properties of composites


POST-GRADUATE PROGRAM- DEPARTMENT OF DENTISTRY
Physical-mechanical properties of composites formulated with different camphorquinone/amine concentrations
UNIVERSITY OF TAUBATE, BRAZIL
UNICAMP
UNITAU
INTRODUCTION
OBJECTIVES
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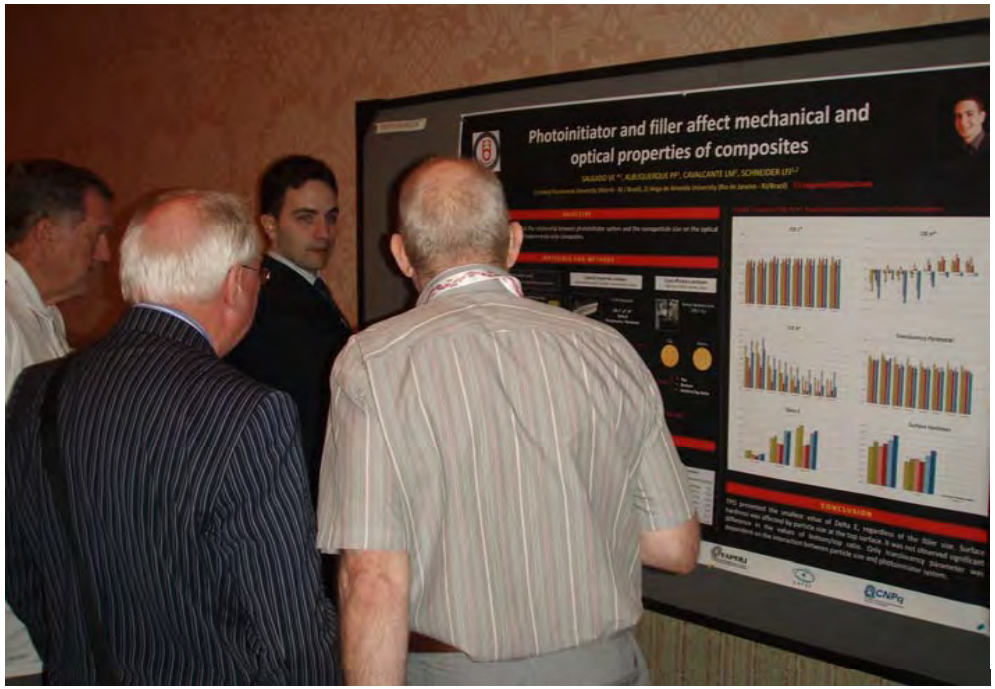
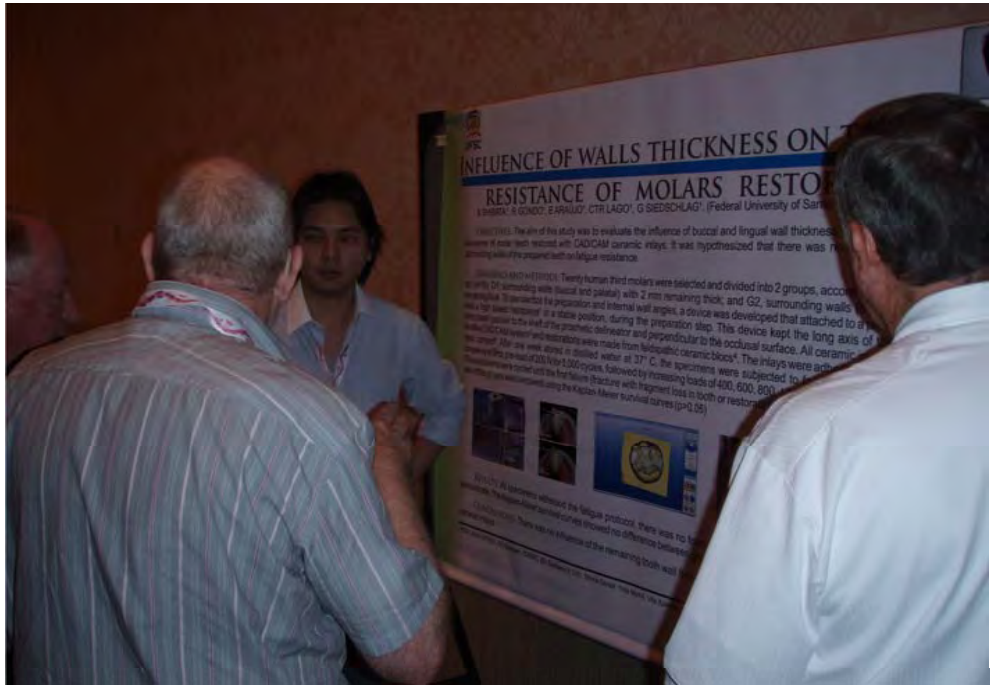
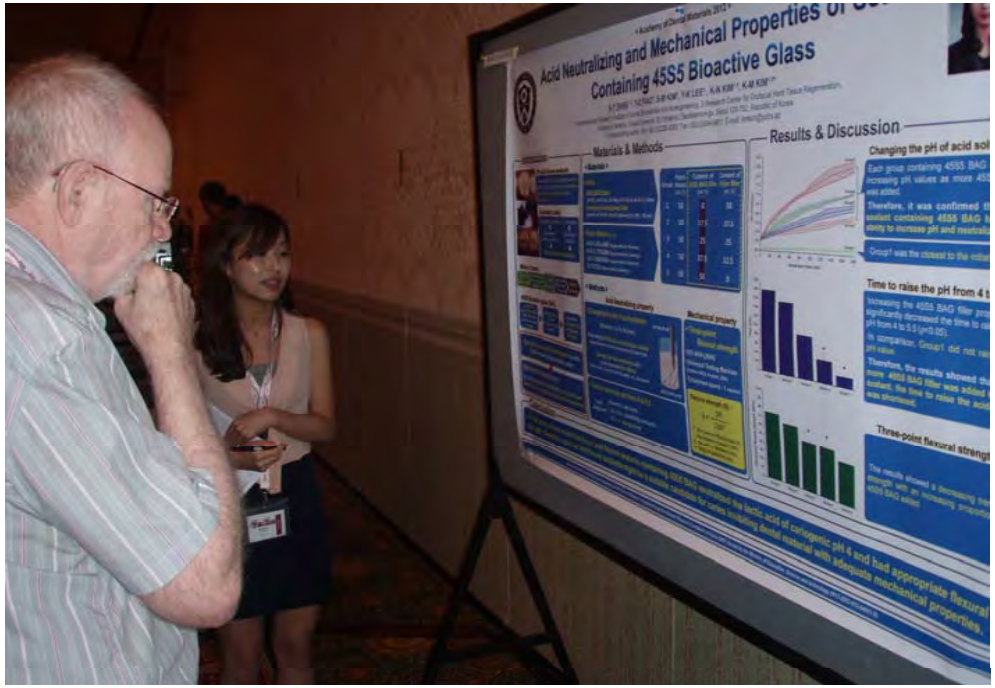
RESULTS


Photoinitiator and filler affect mechanical and optical properties of composites

INFLUENCE OF WALLS THICKNES
RESISTANCE OF MOLARS

Acid Neutralizing and Mechanical Properties of Sealant
Containing 45S5 Bioactive Glass
Introduction


INFLUENCE OF WALLS THICKNESS ON
RESISTANCE OF MOLARS RESTO


Acid Neutralizing and Mechanical Properties
Containing 45S5 Bioactive Glass
Materials & Methods
Results & Discussion

EXIT