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Prof. Shahin Kasraei

Shahid Beheshti University of Medical Sciences
Department of Restorative Dentistry
Professor

Current institution

**Shahid Beheshti University of
Medical Sciences**

Department of Restorative Dentis...

Current position

Head of Department



56

Publications

7,792

Reads ⓘ

752

Citations

Skills and Expertise

Restorative Dentistry

Adhesives

Composite Resins

Dental Materials

Research Experience



September 2017 - present

Shahid Beheshti University of Medical Sciences

Department of Restorative Dentistry · Tehran, Iran

Position

Department Chair

Education



September 1999 - August 2002

Shahid Beheshti University of Medical Sciences

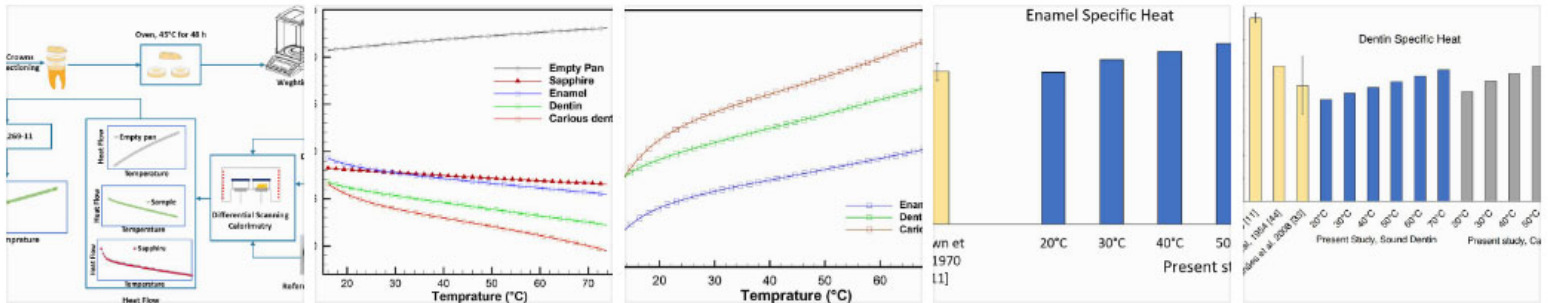
Field of study

RESTORATIVE DENTISTRY



Shahid Beheshti University of Medical Sciences
School of Dentistry, Department of
Restorative Dentistry

Publications (56)



Temperature Dependence of Specific Heat of Human Enamel and Dentin: An Experimental Study

Article [Full-text available](#) Sep 2021

Ahmad Soori · Farshad Kowsary · Shahin Kasraei

Knowledge about the thermal properties of human teeth is imperative for accurate understanding of heat transfer in dentistry. Despite the presence of specific heat in thermal conduction and heat transfer equations, and requiring this parameter for calculation of conductivity based on diffusivity, adequate attention has not been paid to experimental...

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5% confidence interval for mean	
Lower bound	Upper bound
306.6	321.3
206.2	221.2
254.1	278.5
257.2	284.2
271.0	301.5
295.4	319.6

by using POH Tukey HSD tests (*P*

Rehardening of Eroded Enamel with CPP-ACFP Paste and CO2 Laser Treatment

Article [Full-text available](#) Jul 2021

Shahin Kasraei · Parmis Kasraei · Sara Valizadeh · Mohadeseh Azarsina

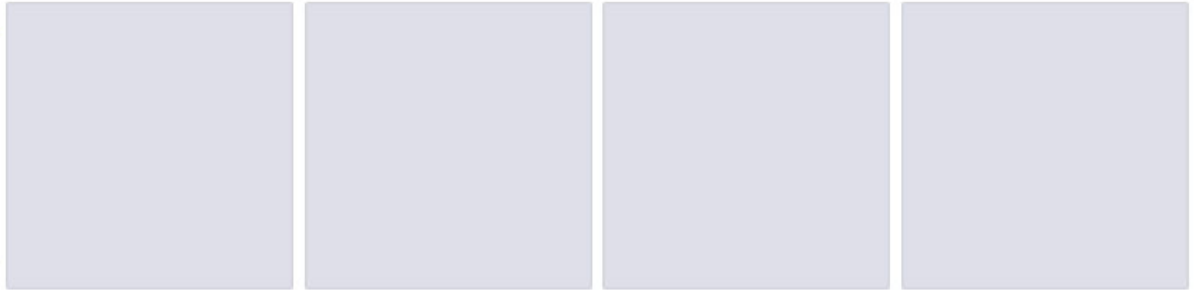
Background: Diet and lifestyle can destroy tooth structure due to the dissolution of enamel by acidic beverages. The present study evaluated the effect of CO2 laser irradiation and CPP-ACFP (casein phosphopeptide and amorphous calcium phosphate with fluoride) paste on the remineralization of enamel eroded by carbonated soft drinks. Methods: In t...

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Publications (56)

Toothpaste type	Mean
) Nano type	48.44
) F type	53.96
) Nano type	43.06
) F type	48.65
) Nano type	41.43
) F type	43.74
) Nano type	39.16
) F type	40.83

Standard deviation



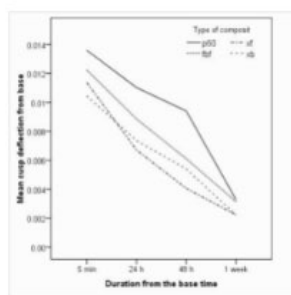
Comparison of the effects of toothpastes containing nanohydroxyapatite and fluoride on white spot lesions in orthodontic patients: A randomized clinical trial

Article Full-text available Sep 2020

Shahin Kasraei · Asghar Ebadifar · Nazila Ameli · [...] · Nima Jafari

Background: Studies show that fluoride (F) and nano-hydroxyapatite (nano-HA) would result in remineralization of white spot lesions (WSLs), which are among the most prevalent consequences of fixed orthodontic treatment. The present study evaluates and compares the clinical effects of an Iranian toothpaste containing nano-HA with F-containing one on...

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P	P-value*		
	5min	24h	48h
vs FBF	0.809	0.302	0.011
vs XF	0.470	0.005	<0.001
vs XB	0.176	0.021	0.001
vs XF	0.942	0.312	0.202
vs XB	0.646	0.621	0.901
sXB	0.929	0.952	0.564

*t test, FBF: Filtek Bulk-Fill; XF: X-tra fill; XB: X-t...



Comparative Assessment of Cuspal Deflection in Premolars Restored with Bulk-Fill and Conventional Composite Resins

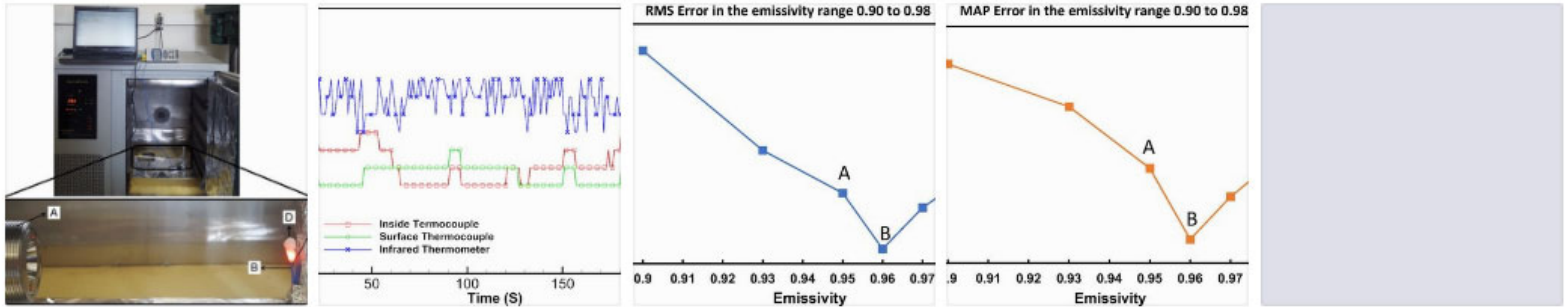
Article Full-text available Jun 2020

Ebrahim Yarmohammadi · Shahin Kasraei · Yasaman Sadeghi

Objectives: It has been reported that bulk-fill composites simplify tooth restoration with no adverse effect on the success rate. This study sought to assess the cuspal deflection of premolars with mesio-occluso-distal (MOD) cavities restored with bulk-fill and conventional posterior composite resins. Materials and Methods: This in-vitro experiment...

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Publications (56)



Experimental estimation of the emissivity of human enamel and dentin

Article [Full-text available](#) Feb 2020

Ahmad Soori · Farshad Kowsary · Shahin Kasraei

Heat transfer occurs frequently in numerous dental treatment procedures. In almost all of the related experimental studies, use of infrared camera for temperature measurement, is becoming more and more popular, considering the many advantages of this technique. This technique has been employed in some recent studies as a non-invasive method for dis...

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CG				
0.154				
0.005*				
008 by Post hoc analys.				

Effect of bromelain and trypsin on microleakage of etch-and-rinse adhesive systems

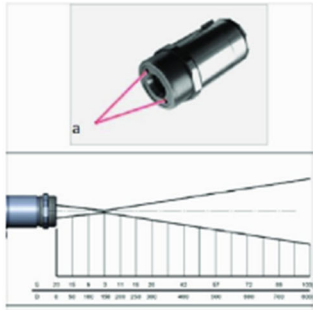
Article [Full-text available](#) Jan 2020

Shahin Kasraei · Ebrahim Yarmohammadi · Maryam Farhadian · Mona Malek

A B S T R A C T Introduction: The removal of collagen by chemical methods can effectively decrease the marginal microleak-age of composites used in restorative dentistry. Objectives: To present research focused on the assessment of the impact of surface treatment of dentin with 5% bromelain and 5% trypsin on the microleakage of composites. To presen...

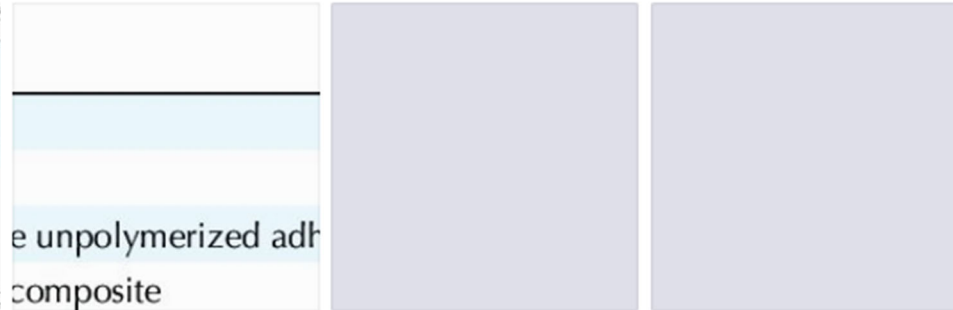
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Publications (56)



Adhesive Agent	Microleak	
	0	1
G-Premio	0 (0%)	13 (81.3%)
Scotch	7 (43.8%)	9 (56.3%)
Ambar	1 (6.3%)	10 (62.5%)
G-Premio	7 (43.8%)	9 (56.3%)
Scotch	1 (6.3%)	10 (62.5%)
Ambar	7 (43.8%)	7 (43.8%)
G-Premio	2 (12.5%)	9 (56.3%)
Scotch	2 (12.5%)	7 (43.8%)
Ambar	0 (0%)	7 (43.8%)
G-Premio	5 (31.3%)	9 (56.3%)
Scotch	1 (6.3%)	4 (25%)
Ambar	3 (18.3%)	9 (56.3%)

lowercase letters do not have a significant difference with th



Effect of Diode Laser (810 nm) Irradiation on Marginal Microleakage of Multi-mode Adhesive Resins in Class V Composite Restorations

Article Full-text available Oct 2019

Niusha Golbar · Shahin Kasraei · Anahit Afrasiabi · [...] · Seyed Masoud Mojahedi

Introduction: Some studies have shown that laser irradiation on unpolymerized adhesives can improve composite-dentin adhesion. The aim of the present study was to evaluate the effect of the diode laser (810 nm) on the microleakage of multi-mode adhesive systems at enamel and dentin margins of composite restorations. **Methods:** Classic class V boxes w...

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The effect of dentin pre-treatment with activated riboflavin on the bond strength of a two-step self-etch adhesive system

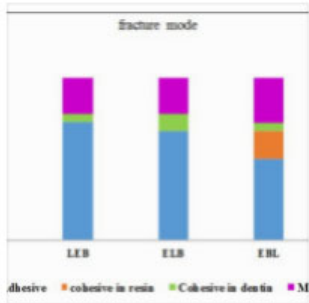
Article Full-text available Jun 2019

Shahin Kasraei · Maryam Mojtahedi · Mohammad Taghi Goodarzi · [...] · Zahra Khamverdi

Background: The cross-linking of collagen fibers in the hybrid layer has been suggested as a way to create more durable bonds. **Objectives:** This study evaluated the effect of visible light-activated riboflavin (RF) as a cross-linking agent on the durability of the dentin microtensile bond strength (μ TBS) in a 2-step self-etch (SE) adhesive system...

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Publications (56)



bond strength	95% con	
	Lower	
4.79) ^A		16.47
5.07) ^{AB}		20.37
5.11) ^{AB}		20.31
8.99) ^C		33.88
6.14) ^B		22.11

Mixed; CR, Cohesive in comp
ear model with HSD post hoc

Effect of 940nm Diode Laser Irradiation on Microtensile Bond Strength of an Etch and Rinse Adhesive (Single Bond 2) to Dentin

Article Full-text available Mar 2019

Shahin Kasraei · Ebrahim Yarmohamadi · Pegah Ranjbaran Jahromi · Mahdi Akbarzadeh

Statement of the problem: Laser can influence bonding mechanism by increasing the penetration depth of adhesive in smear layer. The effect of 940 nm diode laser on microtensile bond strength of adhesive to dentin has not been investigated in previous studies. Purpose: The aim of this study was to evaluate the effect of 940 nm diode laser irradiation...

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Micr	
Score 0	Score 1
6 (33.3%)	11 (61.1%)
11 (61.1%)	7 (38.9%)
4 (22.2%)	10 (55.6%)
8 (44.4%)	8 (44.4%)
10 (27.8%)	21 (58.3%)
19 (52.8%)	15 (41.7%)

Microleak	
Score 1	
18 (50.0%)	
18 (50.0%)	

Effect of Trypsin/EDTA Conditioning on Marginal Microleakage of Class V Composite Restorations Bonded With a One-Step Selfetch Adhesive

Article Full-text available Sep 2018

Shahin Kasraei · Matin Kordestani · Ebrahim Yarmohammadi · Hesamaldin Pashaei

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Publications (56)

Influence of CO₂ Laser Irradiation and CPPACP Paste Application on Demineralized Enamel Microhardness

Article Full-text available Apr 2018

Zahra Khamverdi · Matin Kordestani · N. Panahandeh · [...] · Shahin Kasraei

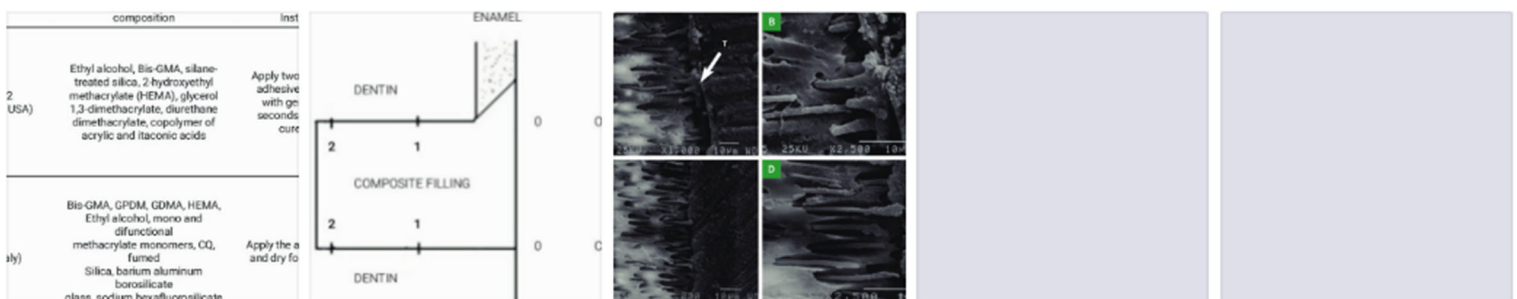
Introduction: It has been suggested that the application of casein phosphopeptide-amorphous calcium phosphate paste (CPP-ACP) and CO₂ laser irradiation on enamel could increase the resistance of enamel to caries and acid attacks. The aim of the current study was to compare the influence of CPP-ACP paste application and irradiation of CO₂ laser on m...

In vitro effect of changing the horizontal angulation of X-ray beam on the detection of proximal enamel caries in bitewing radiographs

Article Full-text available Mar 2018

Abbas Shokri · Shahin Kasraei · Elham Shokri · [...] · Bahareh Hekmat

Background: Bitewing radiography is an important modality useful for the evaluation of teeth in patients of various ages and in different stages of tooth eruption. Clinical examination of proximal surfaces for caries may result in false negative results, especially in tight contact areas. Thus, radiography, as an adjunct to clinical examination, i...



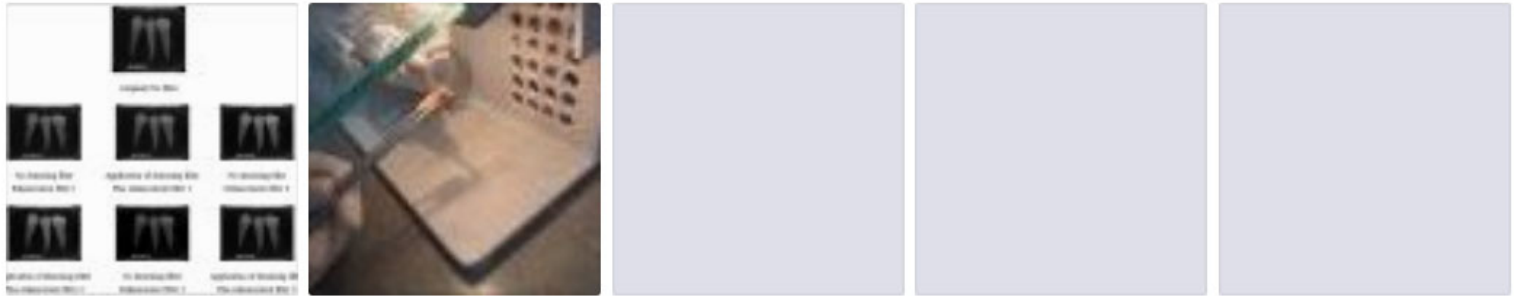
Effect of Proteolytic Agents on Microleakage of Etch and Rinse Adhesive Systems

Article Full-text available Mar 2018

Shahin Kasraei · Ebrahim Yarmohammadi · Maryam Farhadian · Mona Malek

Objective: this study aimed to assess the effect of treatment of phosphoric acid etched dentin surface with 5% bromelain enzyme and Nd:YAG laser prior to the use of etch and rinse adhesive systems on microleakage margins of class V composite restorations. **Materials and Methods:** sixty sound premolar teeth were selected. Standard class V cavities wer...

Publications (56)



Efficacy of denoising and enhancement filters for detection of approximal and occlusal caries on digital intraoral radiographs

Article [Full-text available](#) Mar 2018

Abbas Shokri · Shahin Kasraei · Sima Lari · [...] · Vahid Akheshteh

Background and Objectives Image processing and enhancement filters can significantly improve the diagnostic value of digital radiographs. Evidence shows that increasing the contrast and filtering improve the diagnostic accuracy for caries detection. This study sought to assess the diagnostic accuracy of original and enhanced digital radiographs for...

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ACE	N	MEAN±S	Bonding System	Adhesive	Mix
1	12	18.01±9.1	G-premio Bond	5	6
2	12	15.64±6.2	Single Bond Universal	8	3
3	12	12.83±7.9	Single Bond Universal	5	4
4	12	15.25±3.0	Single Bond Universal	4	5
5	12	14.22±5.5	Single Bond Universal	6	5
6	12	28.92±8.7	Single Bond Universal	5	6

Effect of Tubular Orientation on the Microtensile Bond Strength of Composite-dentin using Universal Bonding Agents

Article [Full-text available](#) Mar 2018

Zahra Khamverdi · Shahin Kasraei · Nafiseh Fazelian · Mahdi Akbarzadeh

The aim of this study was to evaluate the effect of dentinal tubules orientation on the composite-dentin microtensile bond strength using universal adhesives. A total of 36 caries-free third molars were selected. The teeth were allocated to (axial, wall) and (occlusal, floor) groups and each group was divided into three subgroups based on the type...

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Publications (56)



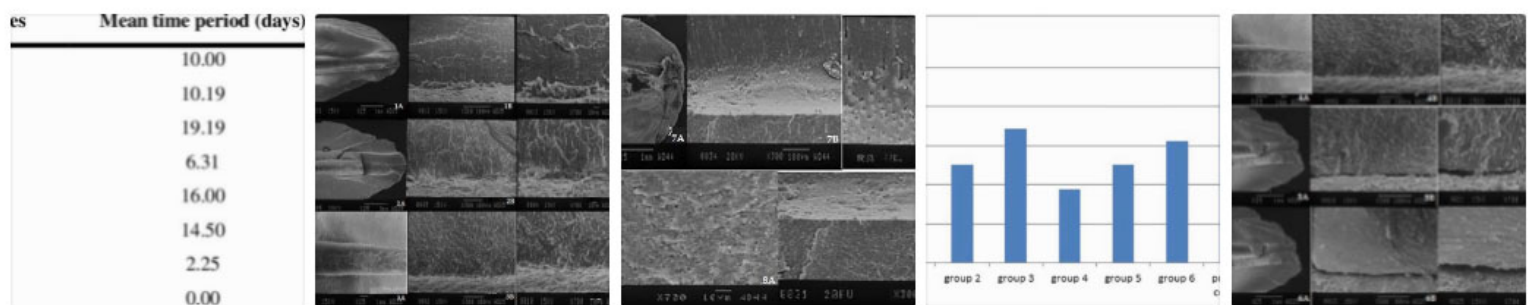
Low-level laser therapy with 940 nm diode laser on stability of dental implants: a randomized controlled clinical trial

Article Full-text available Feb 2018

Parviz Torkzaban · Shahin Kasraei · Sara Torabi · Maryam Farhadian

Low-level laser therapy (LLLT) is a non-invasive modality to promote osteoblastic activity and tissue healing. The aim of this study was to evaluate the efficacy of LLLT for improvement of dental implant stability. This randomized controlled clinical trial was performed on 80 dental implants placed in 19 patients. Implants were randomly divided into...

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Effect of Nd:YAG and Diode Lasers on Apical Seal of Root Canals Filled with AH Plus and Mineral Trioxide Aggregate-Based Sealers

Article Full-text available Jan 2018

Elham Khoshbin · Zakiyeh Donyavi · Erfan Abbasi Atibeh · [...] · Faranak Amani

Objectives: Laser irradiation, as an adjunct to root canal preparation, may increase the success rate of endodontic treatments. This study aimed to assess the effect of neodymium-doped yttrium aluminum garnet (Nd:YAG) and diode lasers on the apical seal of the root canals filled with AH Plus® and mineral trioxide aggregate (MTA)-based sealers. Ma...

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Publications (56)

Position	Mean ± SD	95% CI Lower Bound	P Value ^a	Group
Er, Cr: YAG laser	± 1.68	5.8286	0.000	Er, Cr: YAG
Er, Cr: YSGG laser	± 1.16	8.3897	0.693	Er, Cr: YSGG
CO ₂ laser	± 1.27	6.5440	0.508	CO ₂
Control	± 1.16	6.7401		Nd: YAG

^a P = 0001.

Effect of Various Laser Surface Treatments on Repair Shear Bond Strength of Aged Silorane-Based Composite

Article Full-text available Sep 2017

Parnian Alizadeh Oskoei · Siavash Savadi Oskoei · Sahand Rikhtegaran · [...] · Shahin Kasraei

Introduction: Successful repair of composite restorations depends on a strong bond between the old composite and the repair composite. This study sought to assess the repair shear bond strength of aged silorane-based composite following surface treatment with Nd:YAG, Er, Cr:YSGG and CO₂ lasers. Methods: Seventy-six Filtek silorane composite cylinder...

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95% Wald Conf
Lower
-2.53
-2.55

riboflavin; SD, Standard Deviation.

The Efficacy of Riboflavin for Collagen Cross-Linking and Optimizing the Bond Strength of an Etch and Rinse Adhesive System to Dentin

Article Full-text available May 2017

Shahin Kasraei · Mona Malek · Zahra Khamverdi · Maryam Mojtahedi

Background and Objectives: Previous studies have shown that increasing collagen resistance to degradation stabilizes the resin-dentin interface and collagen cross-linkers can prevent the degradation of collagen fibrils as such. This study sought to assess the efficacy of light-activated riboflavin for collagen cross-linking and optimizing the micro...

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Publications (56)

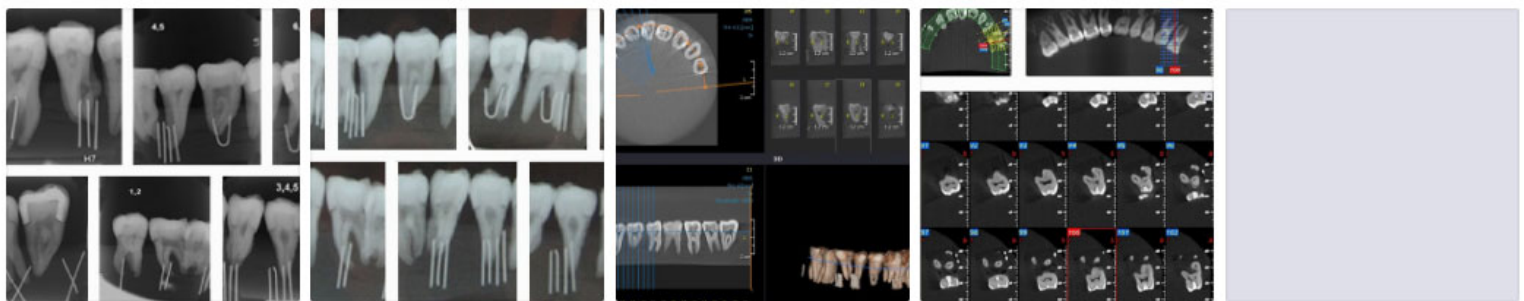
	<table border="1"> <tr> <th>Compressive Strength (MPa)</th> <th>Surface Hardness (Kg/mm²)</th> </tr> <tr> <td>47.71 ± 6.92^a</td> <td>24.39 ± 0.4</td> </tr> <tr> <td>48.11 ± 10.72^a</td> <td>20.74 ± 0.2</td> </tr> <tr> <td>47.13 ± 8.44^a</td> <td>17.13 ± 0.6</td> </tr> </table>	Compressive Strength (MPa)	Surface Hardness (Kg/mm ²)	47.71 ± 6.92 ^a	24.39 ± 0.4	48.11 ± 10.72 ^a	20.74 ± 0.2	47.13 ± 8.44 ^a	17.13 ± 0.6	<table border="1"> <tr> <td></td> <td>Max</td> </tr> <tr> <td></td> <td>363</td> </tr> <tr> <td></td> <td>304</td> </tr> <tr> <td></td> <td>154</td> </tr> </table>		Max		363		304		154		
	Compressive Strength (MPa)	Surface Hardness (Kg/mm ²)																		
	47.71 ± 6.92 ^a	24.39 ± 0.4																		
	48.11 ± 10.72 ^a	20.74 ± 0.2																		
	47.13 ± 8.44 ^a	17.13 ± 0.6																		
	Max																			
	363																			
	304																			
	154																			
<p>Letters in superscripts had significant differences (p < 0.05). Number of samples in each group was 5. Hardness: 8; Degree of Conversion: 10.</p>																				

Evaluation of the Major Properties of Composite Resin Containing Zinc-Oxide Nano-Particles

Article Full-text available Apr 2017

Mohadese Azarsina · Shiva Yazdani · Mahsa Jalali · [...] · Shahin Kasraei

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Comparison of Cone-Beam Computed Tomography and Intraoral Radiography in Detection of Recurrent Caries under Composite Restorations

Article Full-text available Feb 2017

Shahin Kasraei · Abbas Shokri · Jalal Poorolajal · [...] · Hamid Rahmani

Secondary caries is the most common cause of dental restoration failures. This study aimed to compare the diagnostic accuracy of conventional and digital intraoral radiography and cone beam computed tomography (CBCT) for detection of recurrent caries around composite restorations. mesio-occluso-distal (MOD) cavities were prepared using bur on 45 ex...

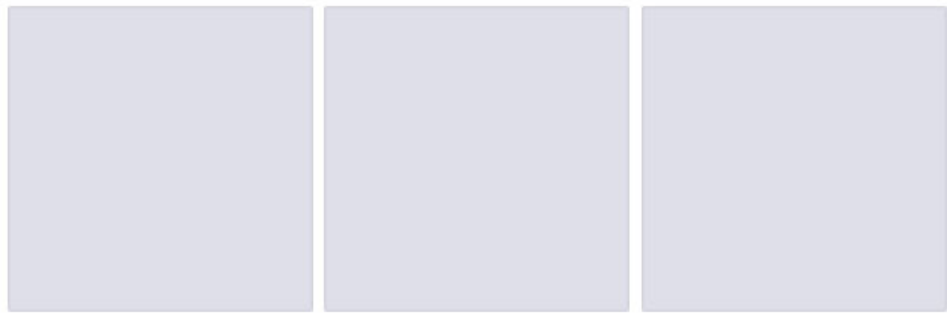
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Groups	Areas	Mean Score	SD	P Value
Control	Coronal	1.37	0.49	0.0
	Middle	1.67	0.66	
	Apical	1.87	0.82	
NaOCl LAI	Coronal	2.87	0.9	0.0
	Middle	3.50	0.82	
	Apical	3.70	0.84	
5% NaOCl LAI	Coronal	2.27	0.98	<0.001
	Middle	3.73	1.17	
	Apical	4.23	0.57	
NaOCl LAI	Coronal	1.93	0.78	0.0
	Middle	2.70	0.99	
	Apical	2.83	1.09	

Abbreviation: SD, standard deviation.
Statistical significance: Kruskal-Wallis tests.

Overall
<0.001
<0.001
0.98
<0.001
<0.001



Efficacy of Sodium Hypochlorite Activated With Laser in Intracanal Smear Layer Removal: An SEM Study

Article Full-text available Jan 2017

Shahriar Shahriari · Shahin Kasraei · Ghodrattollah Roshanaei · [...] · Hossein Davanloo

Introduction: The purpose of the present study was to evaluate the different concentrations of sodium hypochlorite activated with laser in removing of the smear layer in the apical, middle, and coronal segments of root canal walls by scanning electron microscopy analysis. **Methods:** Sixty single-rooted human mandibular teeth were decoronated to a sta...

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In vitro Comparison of the Effect Cola Beverage on Surface Hardness of Siloran-Based (p90) and Methyl Methacrylate-Based (p60) Composites

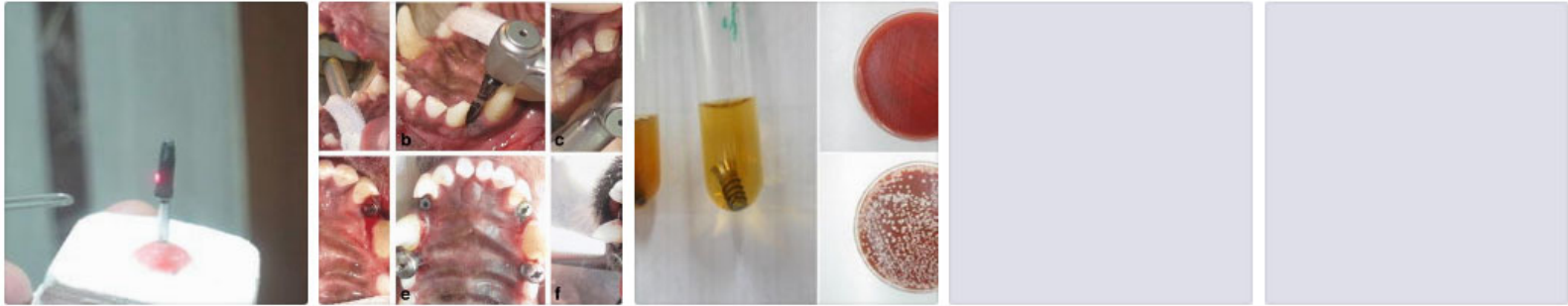
Article Full-text available Dec 2016

Zahra Khamverdi · Ebrahim Yarmohammadi · Shahin Kasraei · Mahsa Khazaei

Introduction: The characteristics of a suitable restoration material is having acceptable mechanical properties, protecting teeth against decay and ease of use in clinics. Diet can affect properties of restorative materials in the mouth. Since amongst important properties of composite restorations are mechanical properties such as hardness, the aim...

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Publications (56)



CO2 laser surface treatment of failed dental implants for re-implantation: an animal study

[Article](#) [Full-text available](#) Jul 2016

Shahin Kasraei · Parviz Torkzaban · Bahar Shams · [...] · Maryam Farhadian

The aim of the present study was to evaluate the success rate of failed implants re-implanted after surface treatment with CO2 laser. Despite the widespread use of dental implants, there are many incidents of failures. It is believed that lasers can be applied to decontaminate the implant surface without damaging the implant. Ten dental implants th...

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Microshear Bond Strength of OptiBond All-in-One Self-adhesive Agent to Er:YAG Laser Treated Enamel After Thermocycling and Water Storage

[Article](#) [Full-text available](#) Jul 2016

Shahin Kasraei · Ebrahim Yarmohammadi · Mohammad Vahid Ghazizadeh

Introduction: This study aimed to compare the microshear bond strength of composite to enamel treated with Erbium-Doped Yttrium Aluminum Garnet (Er:YAG) laser using a self-etch one step bonding agent. Methods: Seventy-six enamel surfaces were prepared from 38 sound human third molar teeth. Specimens were randomly divided into four groups of 18. The...

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Non thermocycled	T	st				
23.35± 3.12						
18.95± 3.46						
14.00± 1.96						

s were significantly differ
h the same superscripted lett

Effect of CO2 and Nd:YAG Lasers on Shear Bond Strength of Resin Cement to Zirconia Ceramic

Article Full-text available Sep 2015

Shahin Kasraei · Loghman Rezaei-Soufi · Ebrahim Yarmohamadi · Amanj Shabani

Objectives: Because of poor bond between resin cement and zirconia ceramics, laser surface treatments have been suggested to improve adhesion. The present study evaluated the effect of CO2 and Nd:YAG lasers on the shear bond strength (SBS) of resin cement to zirconia ceramic. Materials and methods: Ninety zirconia disks (6×2 mm) were randomly di...

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material	Batch number	p value*			
al zirconia ceramic	37360	0.0001			
	N395226				
ve resin cement	Liquid A: 00295 Liquid B: 00173				
	Paste A: 00489, Paste B: 00022				
	61173				

icate a significant diff

Bond strength of resin cement to CO 2 and Er:YAG laser-treated zirconia ceramic

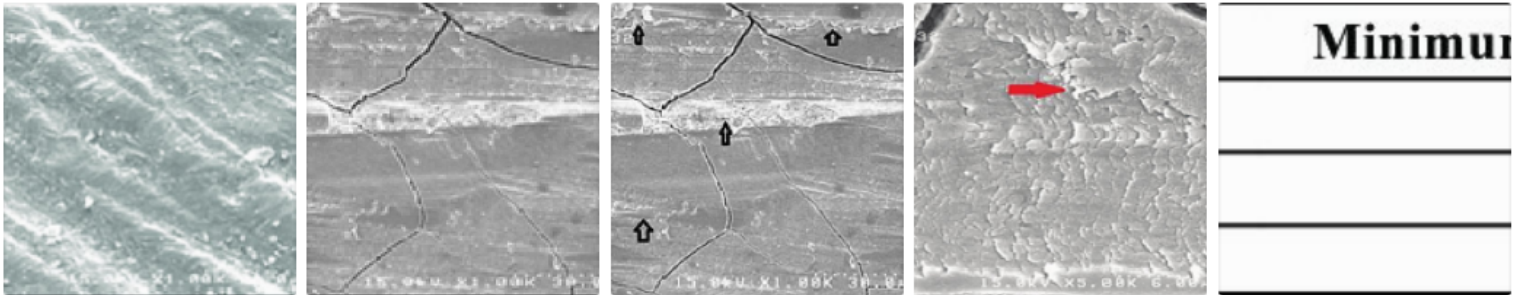
Article Full-text available Nov 2014

Shahin Kasraei · Loghman Rezaei-Soufi · Bijan Heidari · Fariborz Vafae

Objectives It is difficult to achieve adhesion between resin cement and zirconia ceramics using routine surface preparation methods. The aim of this study was to evaluate the effects of CO2 and Er:YAG laser treatment on the bond strength of resin cement to zirconia ceramics. Materials and Methods In this in-vitro study 45 zirconia disks (6 mm in d...

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Publications (56)



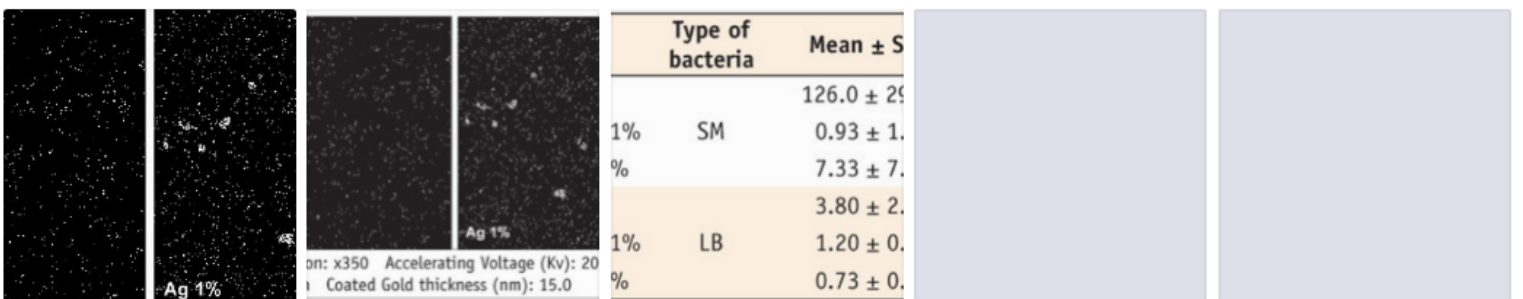
Effect of Surface Treatment with Carbon Dioxide (CO2) Laser on Bond Strength between Cement Resin and Zirconia

Article Full-text available Jul 2014

Shahin Kasraei · Mohammad Atefat · Maryam Beheshti · [...] · Loghman Rezaei-Soufi

Since it is not possible to form an adequate micromechanical bond between resin cement and zirconia ceramics using common surface treatment techniques, laser pretreatment has been suggested for zirconia ceramic surfaces. The aim of this study was to evaluate the effect of Carbon Dioxide (CO2) Laser treatment on shear bond strength (SBS) of resin ce...

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Antibacterial properties of composite resins incorporating silver and zinc oxide nanoparticles on Streptococcus mutans and Lactobacillus

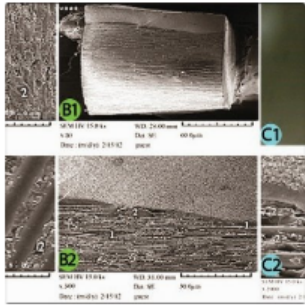
Article Full-text available May 2014

Shahin Kasraei · Lida Sami · Seyedeh Sareh Hendi · [...] · Zahra Khamverdi

Recurrent caries was partly ascribed to lack of antibacterial properties in composite resin. Silver and zinc nanoparticles are considered to be broad-spectrum antibacterial agents. The aim of the present study was to evaluate the antibacterial properties of composite resins containing 1% silver and zinc-oxide nanoparticles on Streptococcus mutans a...

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	Sum o
een Groups	715
in Groups	80
Total	796

$P < 0.05$



Effect of ascorbic acid on bond strength between the hydrogen peroxide-treated fiber posts and composite resin cores

Article Full-text available May 2014

Reza Talebian · Zahra Khamverdi · Maryam Nouri · Shahin Kasraei

Aim: This study evaluated the effect of 10% ascorbic acid on the bond strength between fiber post and composite resin core after applying 24% hydrogen peroxide. **Materials and Methods:** Twenty-four hydrogen peroxide-treated fiber posts were divided into 4 groups (n = 6). Group 1 was the control group with no treatment. In groups 2-4, post surfaces we...

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Mechanical Cycling	
Adhesive	Mixed
0	0
0	0
0	2
0	0



Effect of Cyclic Loading on Bond Strength of Fiber Posts to Root Canal Dentin

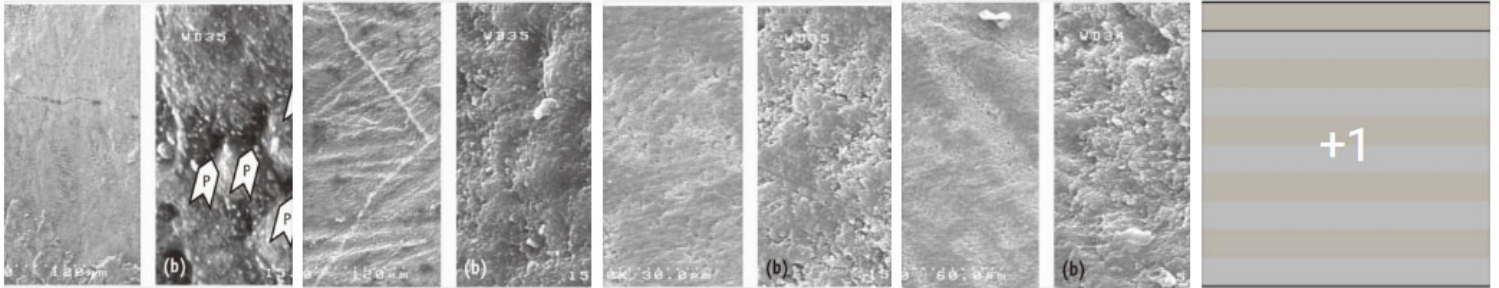
Article Full-text available Jan 2014

Zahra Khamverdi · Leila Yazdani Damavandi · Shahin Kasraei

Objective: The aim of this study was to evaluate the effect of cyclic loading on the bond strength of quartz fiber posts to root canal dentin after different surface treatments of different regions of root canal dentin. **Materials and Methods:** Forty-eight single-rooted human teeth were selected. Post spaces were prepared and then the teeth were div...

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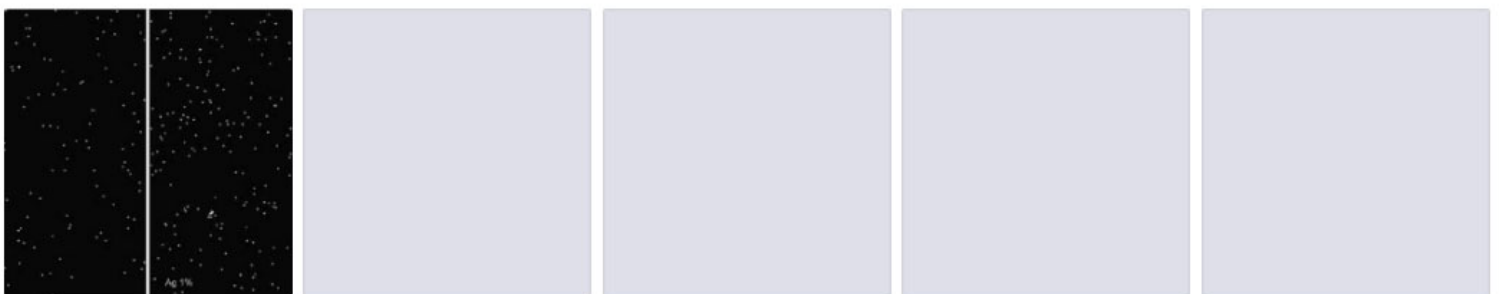


Effect of Epigallocatechin Gallate on shear bond strength of composite resin to bleached enamel: an in vitro study

[Article](#) [Full-text available](#) Nov 2013

Zahra Khamverdi · Loghman Rezaei-Soufi · Shahin Kasraei · [...] · Shiva Rostami

The aim of this study was to determine the effect of epigallocatechin gallate (EGCG) on the shear bond strength of composite resin to bleached enamel. Ninety enamel surfaces of maxillary incisors were randomly divided into 9 groups as follows: G1: control (no bleaching); G2: bleaching; G3: bleaching and storage for seven days; G4 - 6: bleaching and...

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The Antibacterial Properties of Composite Resin Containing Nanosilver against Streptococcus mutans and Lactobacillus

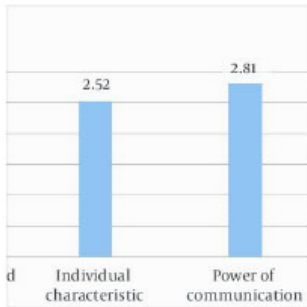
[Article](#) [Full-text available](#) Nov 2013

Mohadese Azarsina · Shahin Kasraei · Rasoul Yousef-Mashouf · [...] · Mehdi Shirinzad

Aim: The aim was to evaluate the antibacterial properties of composite resin containing nanosilver against Streptococcus mutans (SM) and Lactobacillus (L). Materials and methods: Nanosilver was added to Z250 composite at 0.5 and 1% by weight. In order to confirm the homogenous distribution of the nanoparticles in the composite resin, SEM-EDX ana...

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Evaluation of the Importance of Effective Teaching Method Indicators From Dental Students' Prospects

Article Full-text available Jun 2013

Ebrahim Yarmohammadi · Mina Jazayeri · Zahra Khamverdi · [...] · Loghman Rezaei-soufi

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Group	EDTA	Conditioner 2	Mean c
		ean ± SD	(M
		Control	7
b	32.6	04 ± 10.39	
b, c, d	(7.7) ^b	Control	1
		04 ± 10.39	
f	31.6	Control	7
a, g	(7.7) ^c	04 ± 10.39	

Effect of Ethylene diamine tetra acetic acid and sodium hypochlorite solution conditioning on microtensile bond strength of one-step self-etch adhesives

Article Full-text available May 2013

Shahin Kasraei · Mohadese Azarsina · Zahra Khamverdi

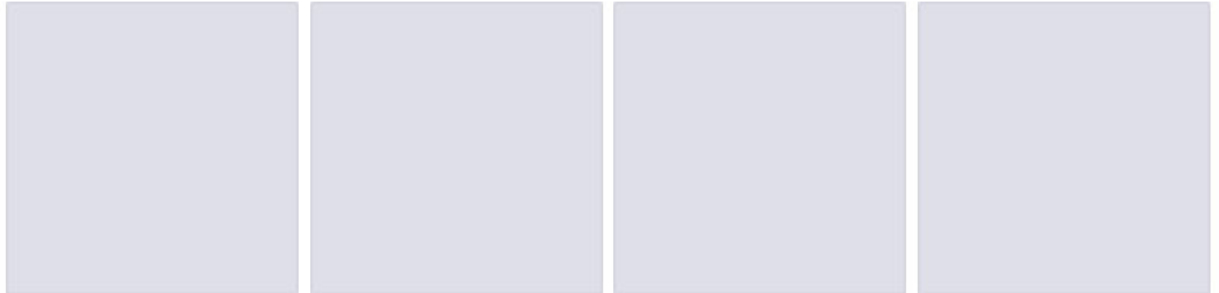
Attempts to improve bond strength of self-etch adhesives can enhance the durability of composite restorations. The aim of the present study was to evaluate the effect of collagen and smear layer removal with sodium hypochlorite solution (NaOCl) and EDTA on micro-tensile bond strength (μ TBS) of self-etch adhesives to dentin. It was an in-vitro study...

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Female (n= 25)	Male (n=25)	Total (n=50)
95.95±15.48	59.72±12.15	50.53
16.16±11.88	41.32±9.92	40.74
55.55±13.63	50.52±14.38	45.58
0.84	0.000	0.000

sex groups
CA and CF groups



Total antioxidant capacity of saliva and dental caries

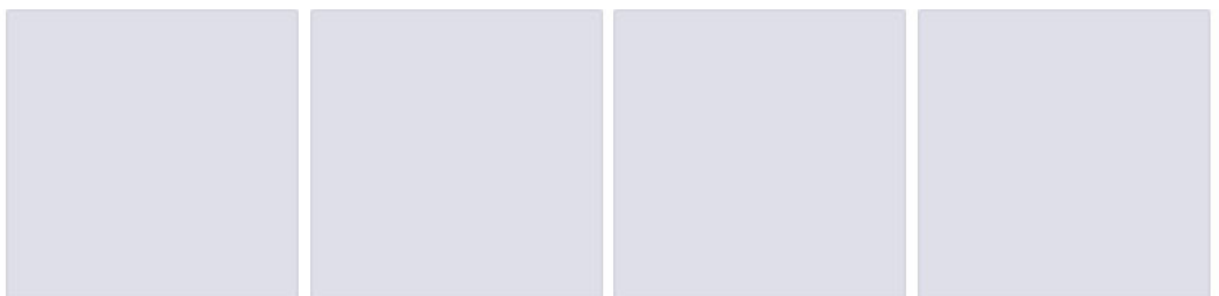
Article Full-text available Mar 2013

Fatemeh Ahmadi-Motamayel · Mohammad Taghi Goodarzi · Seyedeh Sareh Hendi · [...] · Abbas Moghimbeigi

Objective: Dental caries is one of the most common infectious diseases worldwide. Saliva has many functions in the oral cavity and is the first line defense against dental caries. Oxidative stress can affect initiation and progression of many inflammatory and infectious diseases such as dental caries. Thus the aim of this study was to evaluate the...

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Size 2 (Mean±SD)* (N)
58.07±24.1 8
110.34±53.8 15



Effect of Eugenol containing sealer and post diameter on the retention of fiber reinforced composite

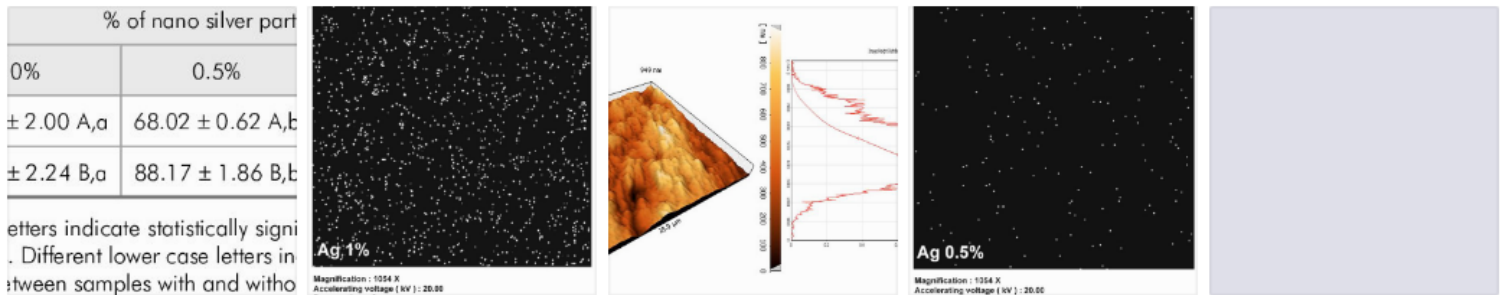
Article Full-text available Mar 2013

Alireza Izadi · Mohadese Azarsina · Shahin Kasraei

Fiber reinforced composite (FRC) posts are cemented with resin cements. It is reported that using resin cements in canals sealed with eugenol-containing sealers reduces the post retention. However, there is controversy on the subject. The aim was to investigate the influence of eugenol-containing sealers and the amount of dentin removal from root c...

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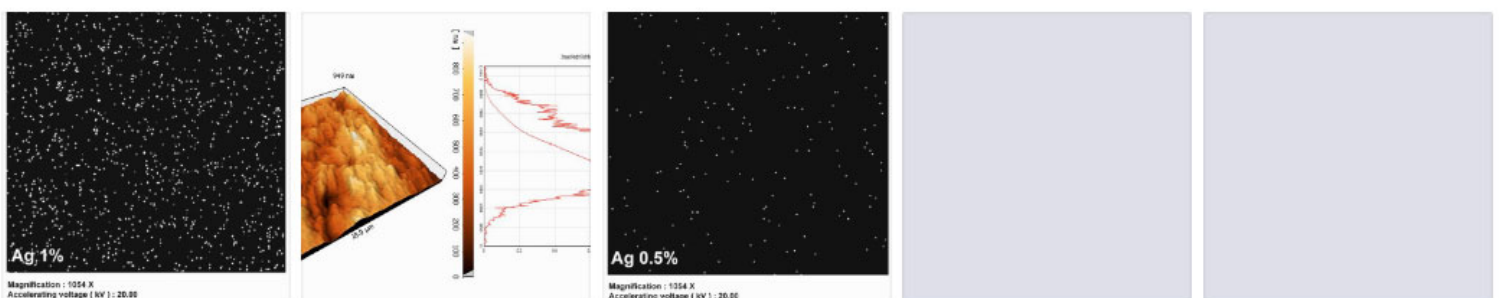
Addition of silver nanoparticles reduces the wettability of methacrylate and silorane-based composites

Article Full-text available Dec 2012

Shahin Kasraei · Mohadese Azarsina

Incorporation of silver nanoparticles into composite resins is recommended for their reported antibacterial properties, but this incorporation can affect the wettability of such materials. Therefore, this study evaluated the effect of nano-silver addition to silorane-based and methacrylate-based composites on their contact angle. Nano-silver partic...

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Addition of silver nanoparticles reduces the wettability of methacrylate and silorane-based composites

Article Full-text available Nov 2012

Shahin Kasraei · Mohadese Azarsina

Addition of silver nanoparticles reduces the wettability of methacrylate and silorane-based composites
Abstract: Incorporation of silver nanoparticles into composite resins is recommended for their reported antibacterial properties, but this incorporation can affect the wettability of such materials. Therefore, this study evaluated the effect of n...

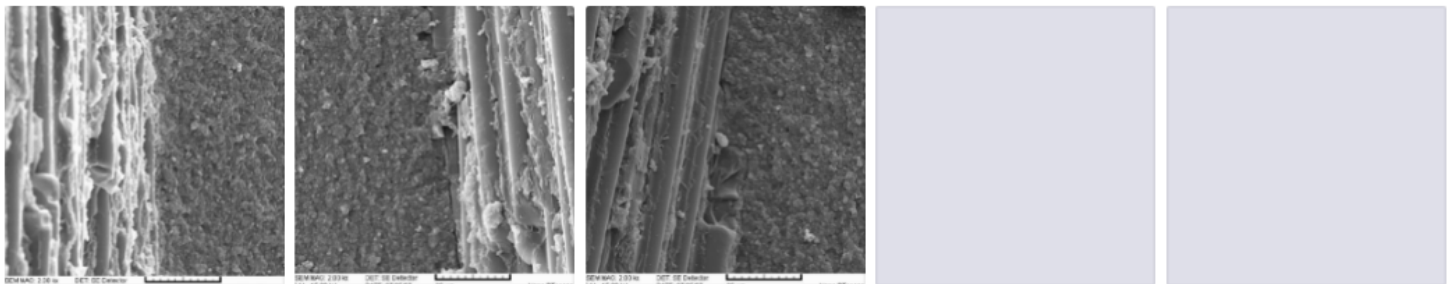
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Publications (56)

Effect of epigallocatechin gallate on the shear bond strength of composite resin to bleached enamel

Article Sep 2012

Shahin Kasraei · Lqman Ruzaybi Sofy · Zehra Khamverdi · [...] · Shiva Rostami

**Effect of Silane Solvent on Microtensile Bond Strength of Hy-drogen Peroxide-Treated Fiber Post and Composite Core**

Article Full-text available Apr 2012

Shahin Kasraei · Sh Ebadi · Mohammad Atai · [...] · Shenay Khajeh

Objective: The aim of this in vitro study was to evaluate the effect of the type of solvent in silane solution on microtensile bond strength of fiber posts to composite resin cores af-ter application of 24% hydrogen peroxide. Materials and Methods: Eighteen white fiber posts, immersed in 24% hydrogen peroxide were divided into three groups (n=6). I...

	Surface treat Hydro			
	Mean ± SD (MPa)			
	26.79 ± 3.91			
nd6)	15.37 ± 3.19			
d7)	12.52 ± 3.43			
nd8)	10.68 ± 4.54			

Effect of storage time on microtensile bond strength between quartz fiber post and composite core after different post surface treatments

Article Full-text available Oct 2011

Zahra Khamverdi · Samane Abbasi · Elahe Habibi · [...] · Sh Ebadi

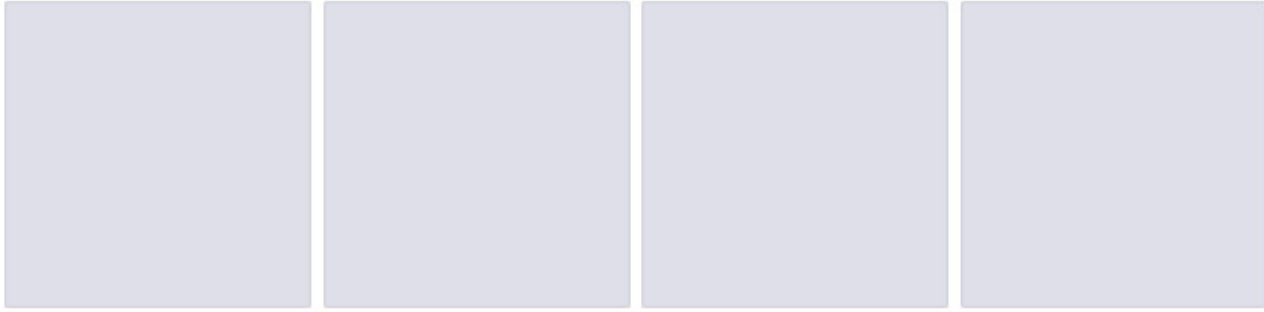
The aim was to evaluate the influence of water storage on fiber post-resin composite adhesion after different postsurface treatments. Forty-two fiber posts were used. Half of them were treated by hydrogen-peroxide and the other half were sandblasted. The adhesive (Single Bond, 3M, USA) was applied on the post. Core was built-up using flowable compo...

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Groups	N	Bond Strength (Mean ± SD)
1	12	32.41 ± 3.21
2	12	34.21 ± 3.12
3	12	21.25 ± 2.15
4	12	29.35 ± 2.85
5	12	21.55 ± 2.55

Superscripts indicate statistically significant differences and b.

Sum of squares	df	Mean Square	F
1761.222	4	440.306	16.114
1502.822	55	27.324	
3264.044	59		



Microtensile bond strength of quartz fiber posts to different composite cores

Article Full-text available Aug 2011

Zahra Khamverdi · Shahin Kasraei · Mohadese Azarsina · Faeze Gheysari

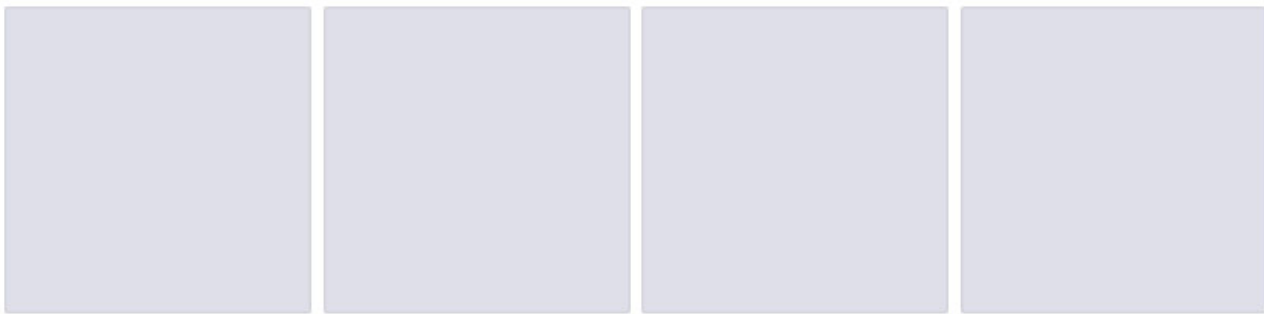
The aim of this in vitro study was to assess the microtensile bond strength of quartz fiber posts to different composites, and to composite combinations used as core materials. Thirty fiber posts were treated with a 24% hydrogen peroxide solution and silanized. The posts were divided into 5 groups according to the resin composite used as follows (n...

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1	12	32.41 ± 3.21
2	12	34.21 ± 3.12
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3264.044	59		



Microtensile bond strength of quartz fiber posts to different composite cores

Article Full-text available Jul 2011

Zahra Khamverdi · Shahin Kasraei · Mohadese Azarsina · Gheysari F.

The aim of this in vitro study was to assess the microtensile bond strength of quartz fiber posts to different composites, and to composite combinations used as core materials. Thirty fiber posts were treated with a 24% hydrogen peroxide solution and silanized. The posts were divided into 5 groups according to the resin composite used as follows...

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In Vitro Comparison of Microleakage of Posterior Resin Composites With and Without Liner Using Two-Step Etch-and-Rinse and Self-etch Dentin Adhesive Systems

Article Full-text available Jun 2011

Shahin Kasraei · Mohadese Azarsina · Somayeh Majidi

Composite restorations frequently have gingival margins apical to the cemento-enamel junction (CEJ). Microleakage at the cementodentinal margins is one of the most important causes of failure in these restorations. The current study evaluated microleakage at the occlusal and gingival margins of Class II packable composite restorations using resin-m...

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Effect of Surface Polishing on Mercury Release from Dental Amalgam After Treatment 16% Carbamide Peroxide Gel

Article Full-text available Mar 2011

Mohadese Azarsina · Shahin Kasraei · T Masoum · Zahra Khamverdi

This study evaluated the effect of surface polishing on mercury release from dental amalgam after treatment with 16% carbamide peroxide gel. Ninety-six samples from two different amalgam brands were prepared in truncated cone-shaped PVC polymer molds with an external surface area of 195 mm². Half of the specimens were polished with green and red...

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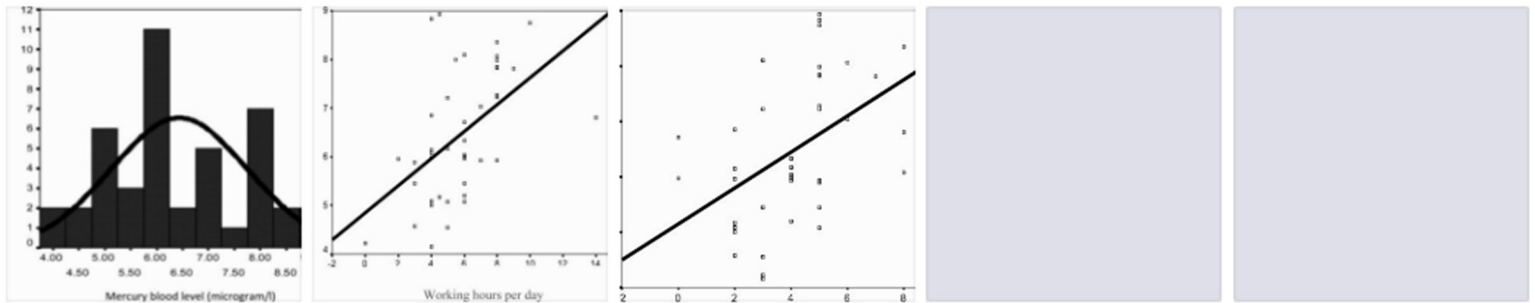
Publications (56)

The Effect of a 16% Carbamide Peroxide Gel on Mercury and Silver Ion Release from Admixed and Spherical Dental Amalgams

Article Full-text available Dec 2010

Shahin Kasraei · Loghman Rezaei-Soufi · Mohadese Azarsina

The aim of this study was to investigate the effect of 16 percent carbamide peroxide gel on mercury and silver ions released from admixed and spherical dental amalgams. A total of 96 amalgam discs were prepared from two different types and brands of dental amalgam (admixed and spherical). The samples were stored at room temperature in glass tubes c...

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Blood Mercury Level and Its Determinants among Dental Practitioners in Hamadan, Iran

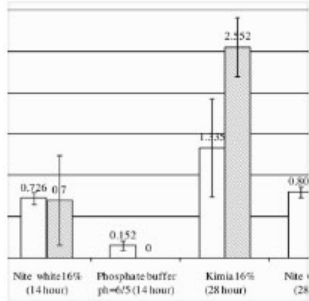
Article Full-text available Jun 2010

Shahin Kasraei · Hamed Mortazavi · M Vahedi · [...] · Mj Assary

Exposure to mercury can occur in occupational and environmental settings. During clinical work with dental amalgam, the dental personnel are exposed to both metallic mercury and mercury vapor. The aim of the present study was to investigate blood mercury level (BML) and its determinants among dentists practicing in Hamadan city, Iran. This cross se...

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Groups(2)	
Name	Mean
Kimia	1.217
Nite White	0.764
Nite White	0.764
Kimia	2.167
Nite White	0.867
Nite White	0.867

Effect of Two Bleaching Agent Products on Mercury and Silver Ion Release from Dental Amalgam

Article Full-text available Dec 2009

Zahra Khamverdi · Sh Ebadi · M Movahhed Rad · Shahin Kasraei

Objective: Bleaching of the teeth is considered as a safe, effective, and conservative pro-cedure to treat discolored teeth. The aim of the present study was to compare the amount of mercury and silver released from amalgam after applying two brands of carbamide pe-roxide 16% bleaching gel. Materials and Methods: For this experimental study, 384 am...

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Effect of Nanofiller Addition to an Experimental Dentin Adhesive on Microtensile Bond Strength to Human Dentin

Article Full-text available Jun 2009

Shahin Kasraei · Mohammad Atai · Zahra Khamverdi · S Khalegh Nejad





Objective: The purpose of the study was to evaluate the influence of adding nanofiller particles to a dentin-bonding agent on bond strength. Materials and Methods: Fifty-four human intact premolar teeth were divided in to 6 groups of nine. The teeth were ground on occlusal surfaces and were polished with a 320 and 600 grit silicon carbide papers, r...

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PMMA-grafted nanoclay as novel filler for dental adhesives


Article Oct 2008

 Mohammad Atai ·  Laleh Solhi ·  Azizollah Nodehi · [...] ·  Samal Babanzadeh

The aim of this study was to investigate the benefits of incorporation of poly(methyl methacrylate)-grafted-nanoclay on the bond strength of an experimental one-bottle dentin bonding system. The effect of the modification on the stability of the nanoparticle dispersion in the dilute adhesive was also studied. Poly(methyl methacrylate) was grafted o...

[View](#)**The effect of collagen removal on the microleakage of four single-component adhesive systems in class V composite restorations**

Article Dec 2007



 Shahin Kasraei ·  Hamid Reza Abdosamadi ·  Mohammad Ataie[View](#)**Retention of Fiber and Cast Posts with Different Lengths: A Comparative Study**Article [Full-text available](#) Dec 2007 Zahra Khamverdi ·  Shahin Kasraei

Objective: There is no definitive data on the strength of glass fiber and cast posts with different length. This in vitro study was designed to investigate and compare the effect of length on the retentive strength of glass fiber and cast posts. Materials and Methods: Sixty recently extracted intact maxillary canine teeth were cut 1 mm above the CE...

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Effect of Mechanical Load Cycling on Microtensile Bond Strength of Self-Etch Systems to Dentin

[Article](#) [Full-text available](#) Nov 2007 Shahin Kasraei ·  Zahra Khamverdi

Objective: Optimal dentin bonding is not always obtained in clinical practice due to functional forces. These forces may provide stresses throughout the tooth and restorative system, which in turn may affect the adhesive bond. This experimental study evaluated the effect of load cycling on bond strength of self-etch systems. Materials and Methods...

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The effect of BTDMA and different concentration of it on shear bond strength of an experimental dentin bonding system

[Article](#) Jan 2004 Zahra Jaberi Ansari ·  Shahin Kasraei[View](#)