

EVALUATION OF CEMENTATION PROTOCOLS OF IPS EMPRESS II E MAX

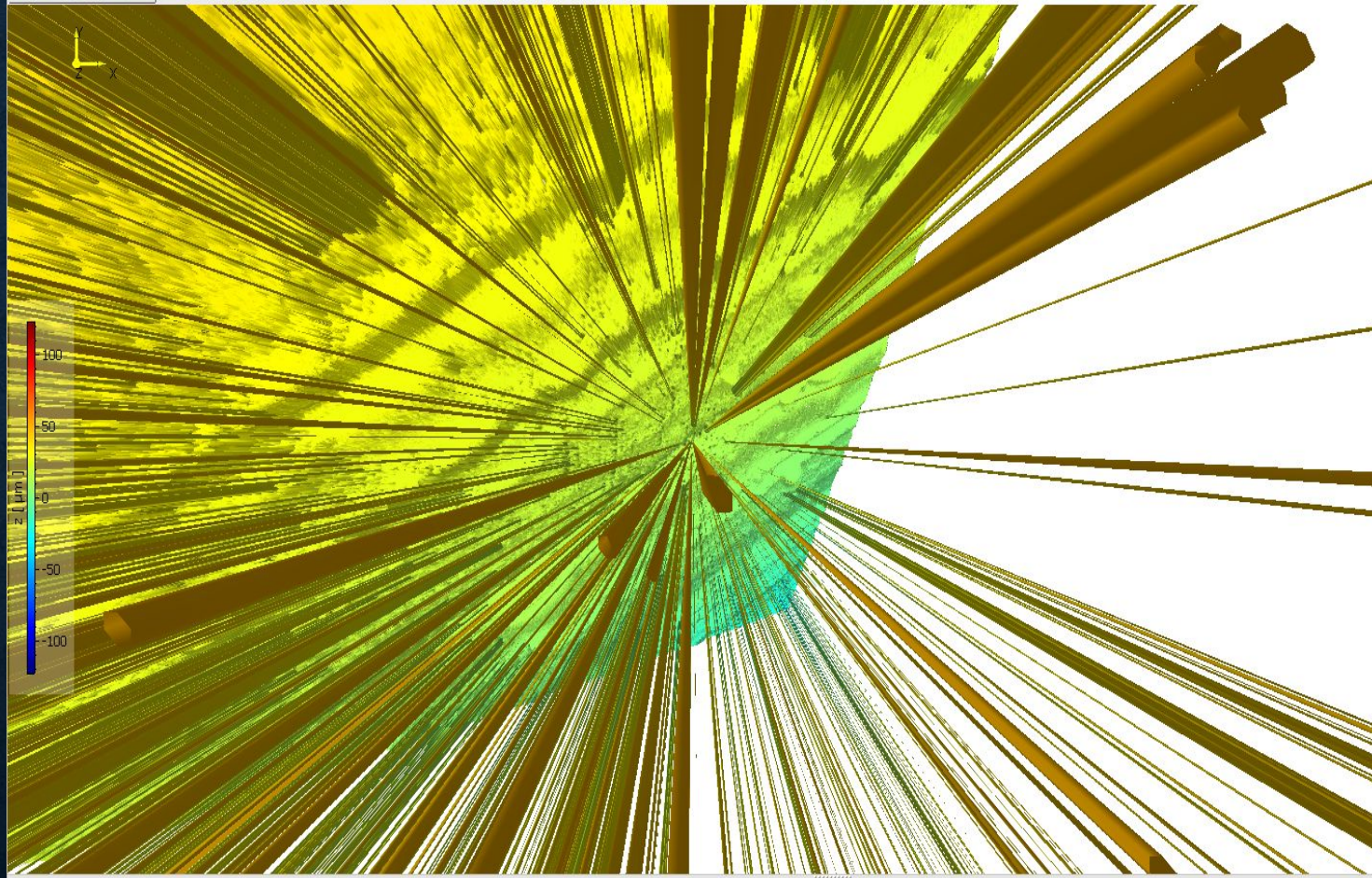
Dr EVANGELOS V. GKOGKAS DDS MSc PhD

MATERIAL SCIENCE AND ENGINEERING DEPARTMENT

IOANNINA UNIVERSITY

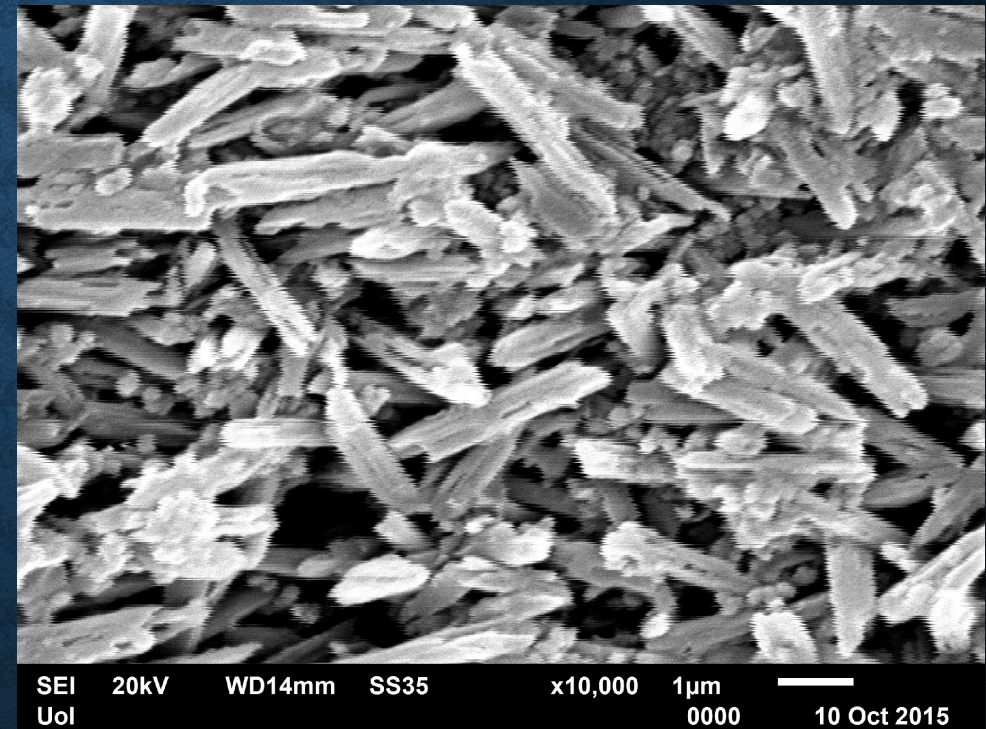
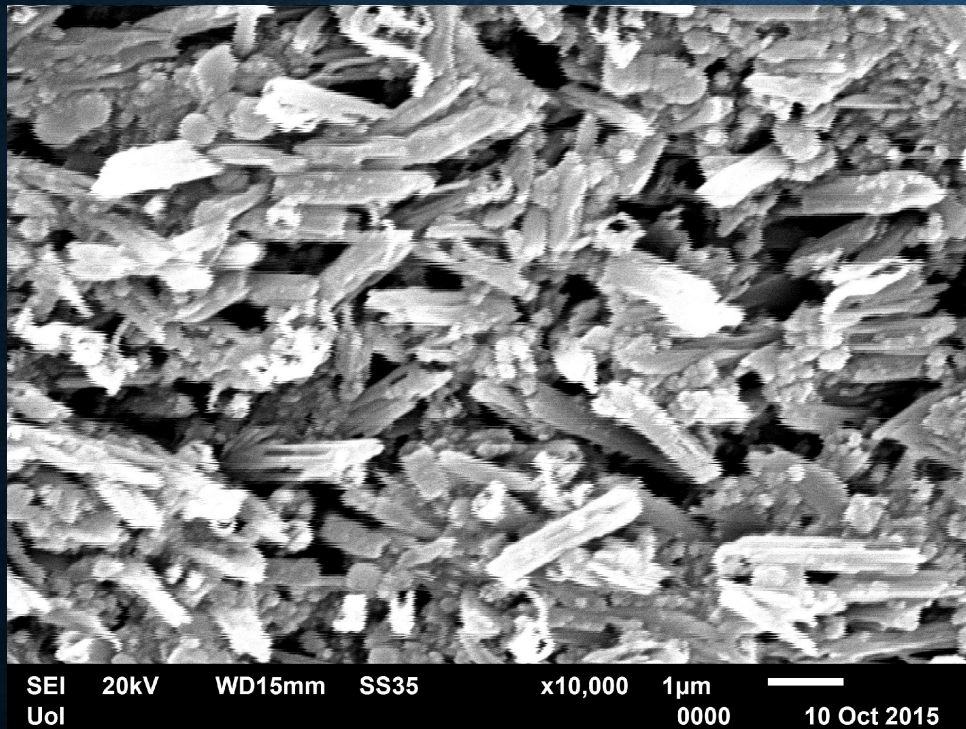
SHADE LIGHT TO THE DARK

PHOTO BY PROF. THEODOROS MATIKAS, DR T. DALLA



IPS EMPRESS II EMAX SURFACE PREPARED WITH HF 10% + SILANE (CERAMIC PRIMER PLUS)

PHOTO BY PROF. SYMEON AGATHOPOULOS, DR EVANGELOS GKOGKAS

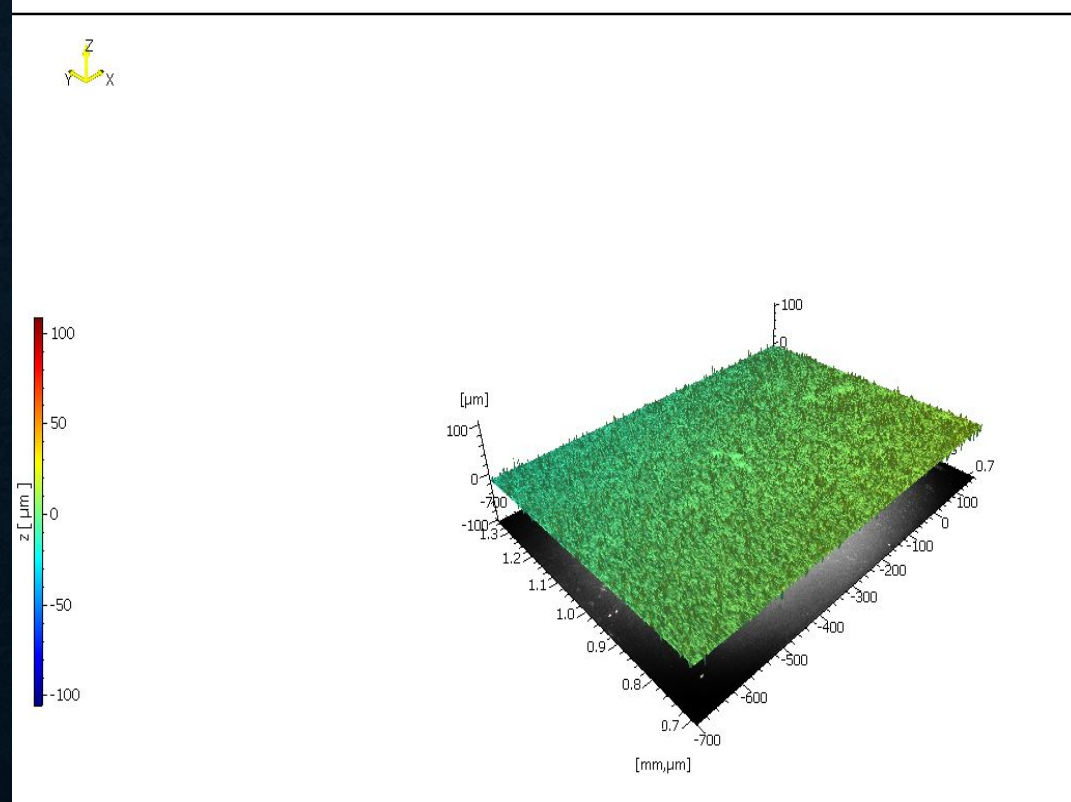


OPTICAL RUGOMETER INCREASE OF SURFACE ROUGHNESS

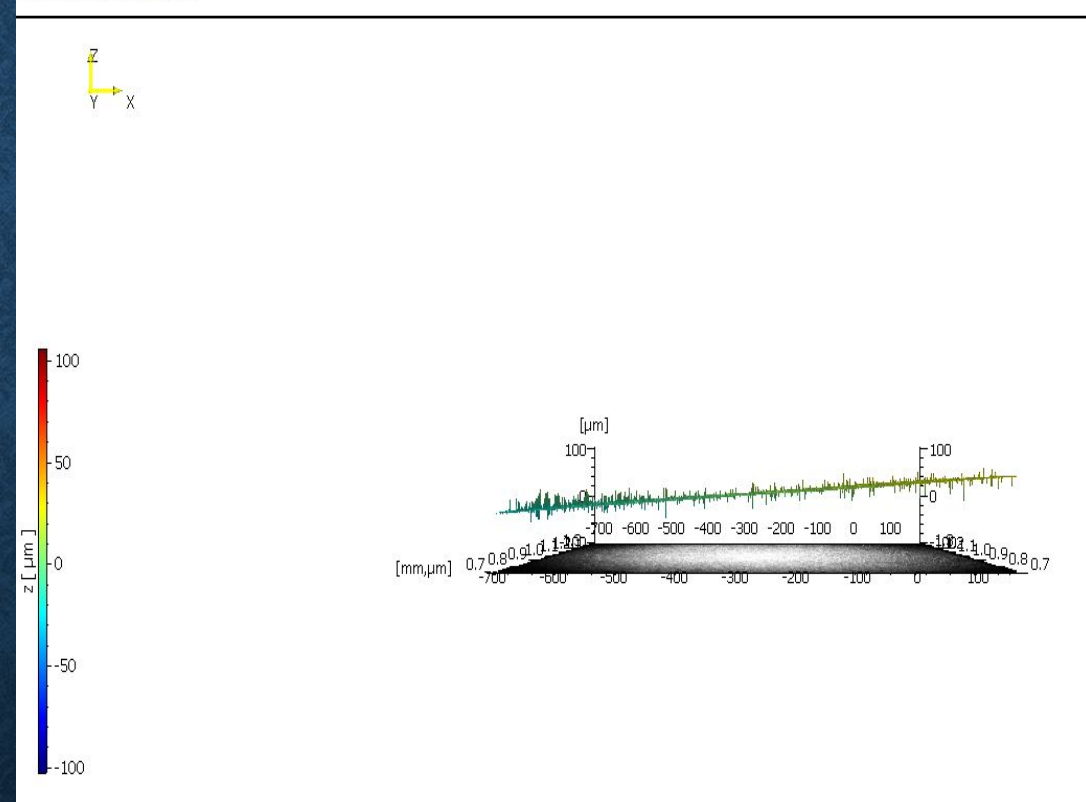
PHOTO BY PROF. THEODOROS MATIKAS, PROF. SYMEON AGATHOPOULOS, DR T.DALLA, DR EVANGELOS GKOGKAS

KEY ENGINEERING MATERIAL, 2017

File Name: X10CPP-20-15HF_1



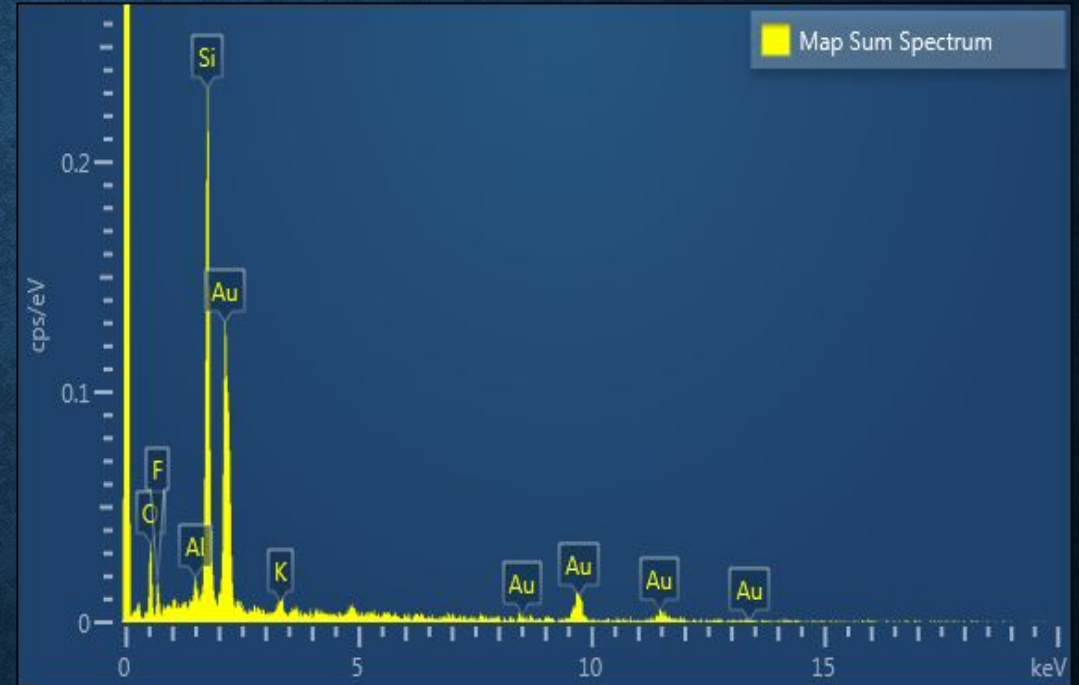
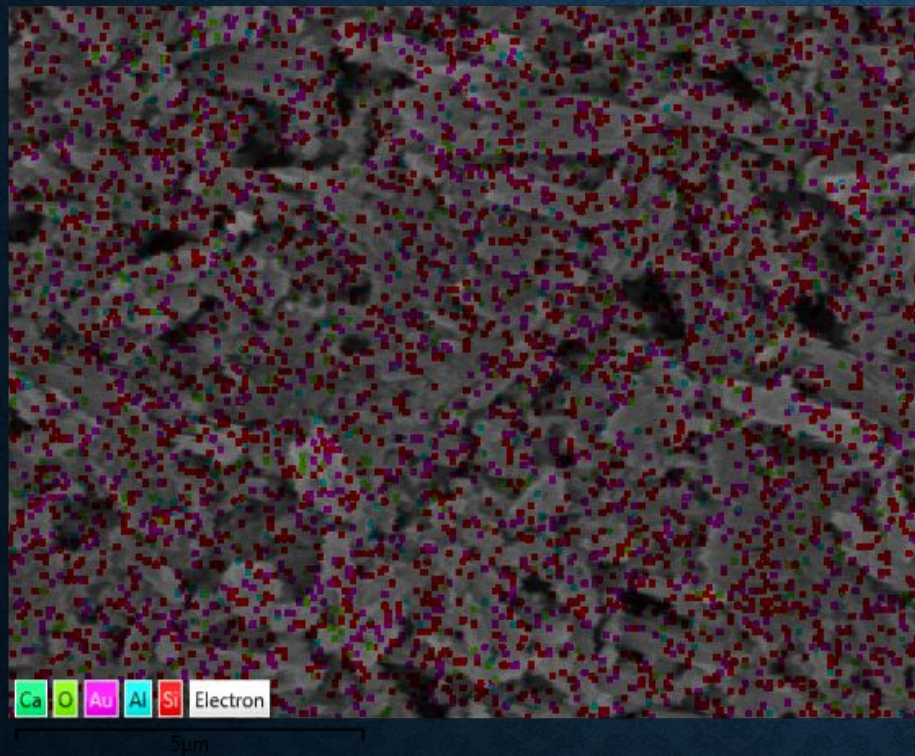
File Name: 10XCPP-20-30HF_2



EDX /SEM ELEMENT ANALYSIS OF IPS EMPRESS II E MAX # OXYGENE EXISTANCE

EC NEUROLOGY, ECRONICON GAMBRIDGE
PHOTO BY DR ANTHI POULIA, DR EVANGELOS GKOGKAS

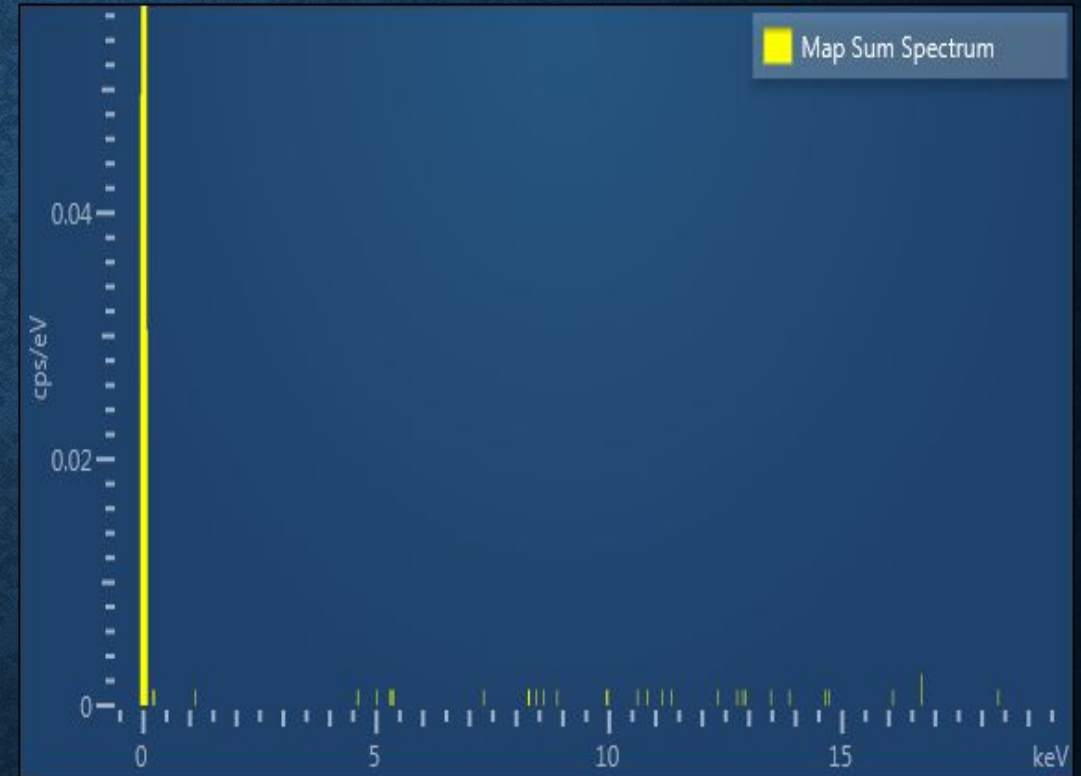
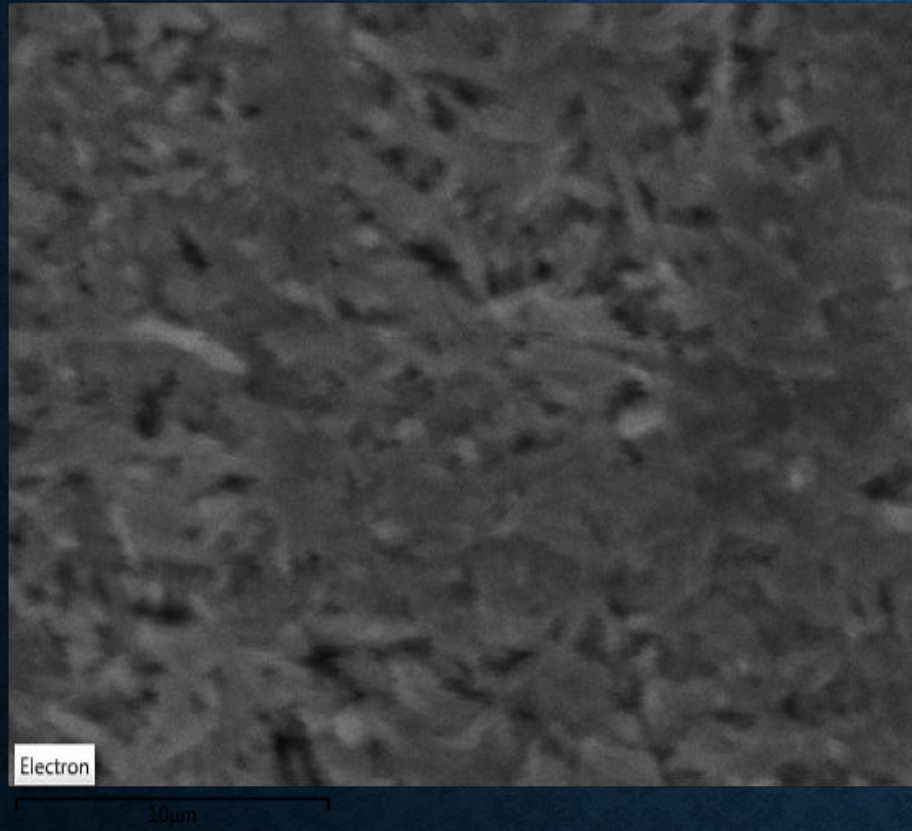
EDS Layered Image 1



FALSE DRY OF CERAMIC OPTION

PHOTO BY MICHAEL PETSIOS, DR ANTHI POULIA

EDS Layered Image 5



ΠΡΩΤΟΚΟΛΛΑ / ΥΛΙΚΑ ΣΥΓΚΟΛΛΗΣΗΣ

“

1. PANA VIA F 2.0 / HF ACID 10% 30sec / CERAMIC PRIMER 20sec / H₃PO₄ ACID 15sec / ED PRIMER II
2. PANA VIA F 2.0 / HF ACID 10% 30 sec / CERAMIC PRIMER 24 Hours / H₃PO₄ ACID 15 sec / ED PRIMER II
3. PANA VIA F 2.0 / HF ACID 10% 30sec / BMG Laboratories 20 sec / H₃PO₄ ACID 15sec / ED PRIMER II
4. PANA VIA F 2.0 / HF ACID 10% 30sec / BMG Laboratories 24 Hours / H₃PO₄ ACID 15 sec / ED PRIMER II
5. PANA VIA V5 / HF ACID 10% 30sec / CERAMIC PRIMER PLUS 20sec / H₃PO₄ ACID 15sec/ TOOTH PRIMER
6. PANA VIA V5 / HF ACID 10% 30sec / CERAMIC PRIMER PLUS / H₃PO₄ ACID 15sec / ΧΩΡΙΣ TOOTH PRIMER
7. HFO ENAMEL PLUS FLOW RESIN / HF ACID 10% 30sec / CERAMIC PRIMER PLUS / H₃PO₄ ACID 15sec/ OPTIBOND FL

”

PANA VIA F 2.0 , PANA VIA V5, KURARAY , TOKIO, JAPAN.

HF ACID 10% , ULTRADENT,

IPS EMPRESS II E MAX , IVOCCLAR, SAAH, LICHNESTHAIN

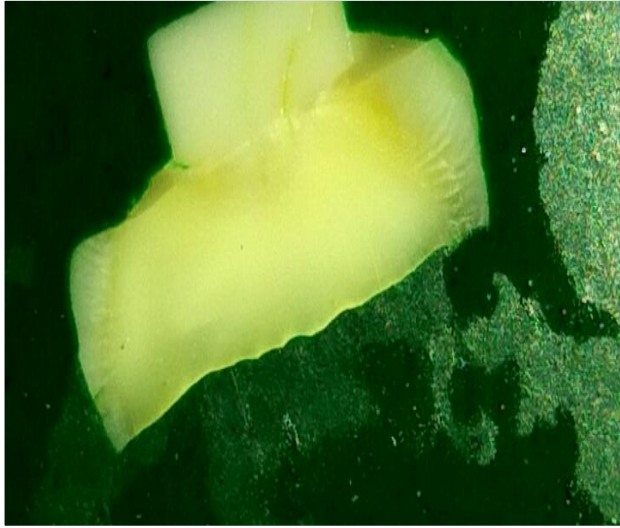
CERAMIC PRIMER, CERAMIC PRIMER PLUS, KURARAY , TOKIO, JAPAN

OPTIBOND FL, KERR, GERMANY

HFO ENAMEL PLUS, MICERIUM , ITALY

95% *IN VIVO*

ALL EXTRACTIONS BY DR KONSTANTINOS SIOCHOS, DDS MSC ΓΝΑΘΟΧΕΙΡΟΥΡΓΟΣ



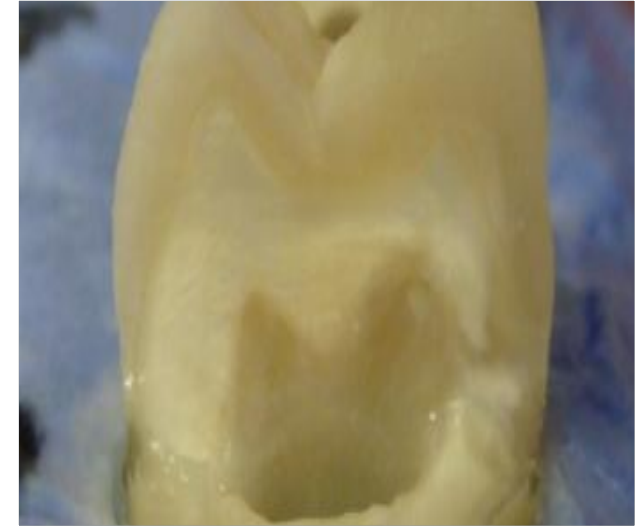
1.

IPS EMPRESS II e max CORES CEMENTED
ON DENTINE OBSERVED UNDER A
SAVERIAL SECTION



2.

PREPARATION AND CEMENTED OF
IPS EMPRESS II E MAX PORCELAIN
VENEERS ON 3rd MOLARS
DENTAL TECHNICIAN
ALPHA DENTAL
ALEXANDER ALEXIOU



3.

SAVERIAL SECTION OF IPS EMPRESS
II EMAX PORCELAIN VENEER WITH
TOOTH DENTINE OF 3RD MOLAR

PROTOCOL 1.

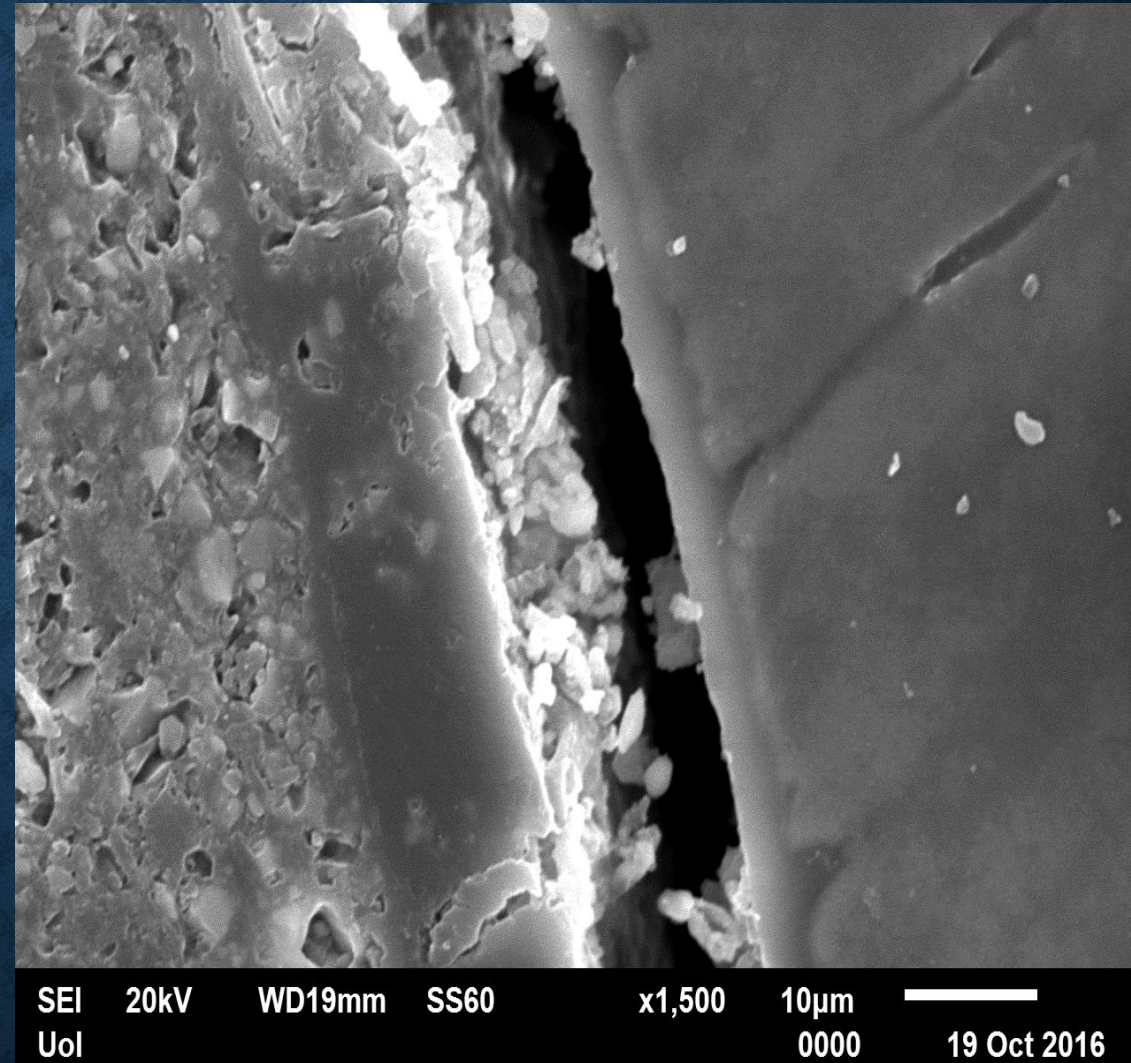
**PANAVIA F 2.0 /
HF ACID 10% 30SEC /
CERAMIC PRIMER 20SEC
/ H3PO4 ACID 15SEC/
ED PRIMER II**

PHOTO BY

Dr ANTHI POULIA,

Dr EVANGELOS GKOGKAS

*JOURNAL TRANSLATION SIENCE,
OATEX,2021*



PROTOCOL 2.

**PANAVIA F 2.0 /
HF ACID 10% 30 SEC/
CERAMIC PRIMER
24 HOURS/
H3PO4 ACID 15SEC /
ED PRIMER II**

GUP ABSENCE

CEMENTATION WITH PANAVIA F 2.0

AFTER 24 HOURS OF SILINASATION WITH
CERAMIC PRIMER

THE OXYGEN APPEARS AT

0,001 cps/eV

WHEN 20 seconds OF SILINASATION WITH
CERAMIC PRIMER

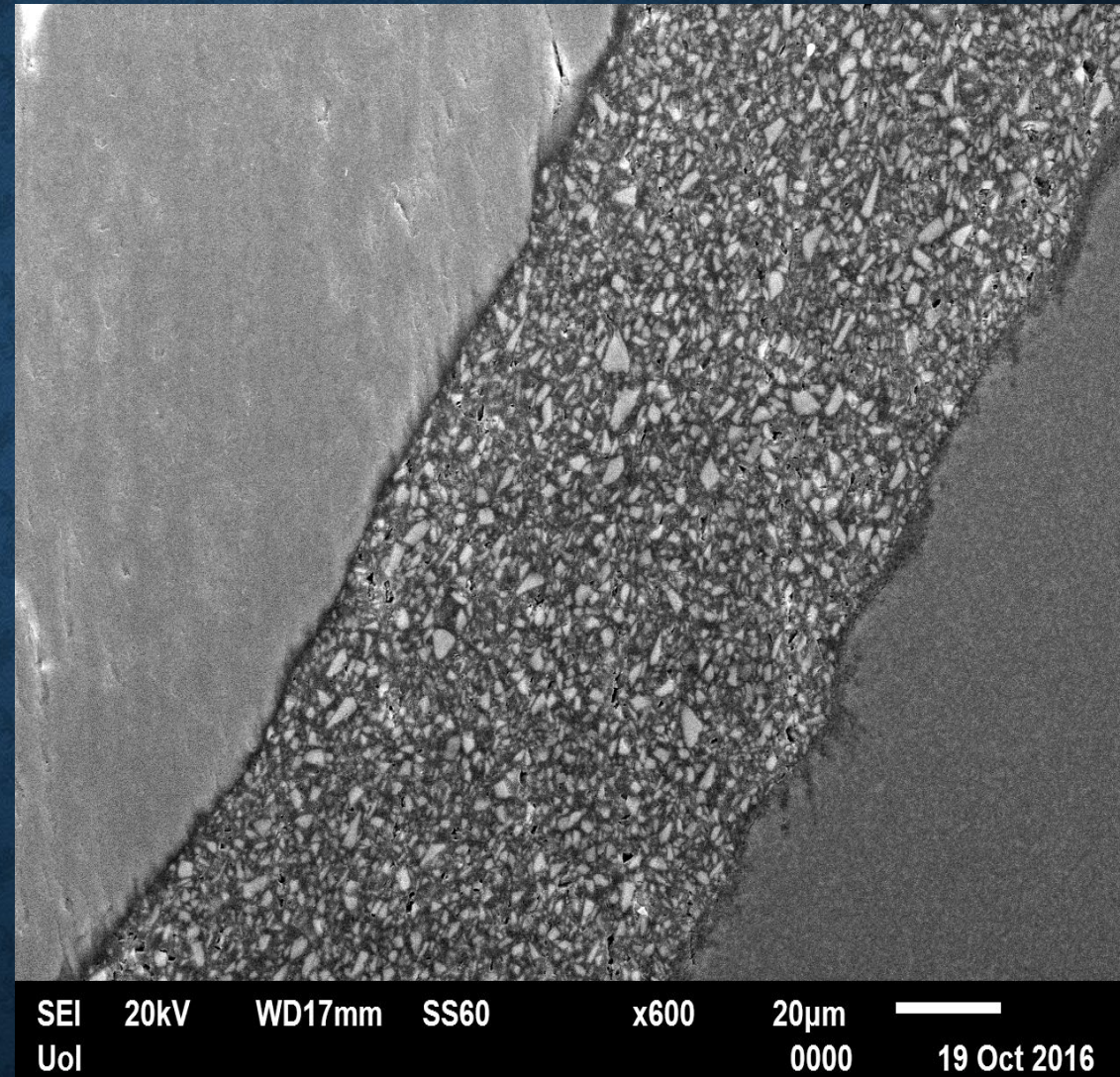
OXYGEN APPEARS AT

0.1 cps/Ev

KURARAY,TOKIO

PHOTO BY Dr ANTHI POULIA

Dr EVANGELOS GKOGKAS



PROTOCOL 3.

**PANAVIA F 2.0 /
HF ACID 10% 30SEC /
BMG LABORATORIES 20
SEC / H3PO4 ACID 15SEC/
ED PRIMER II**

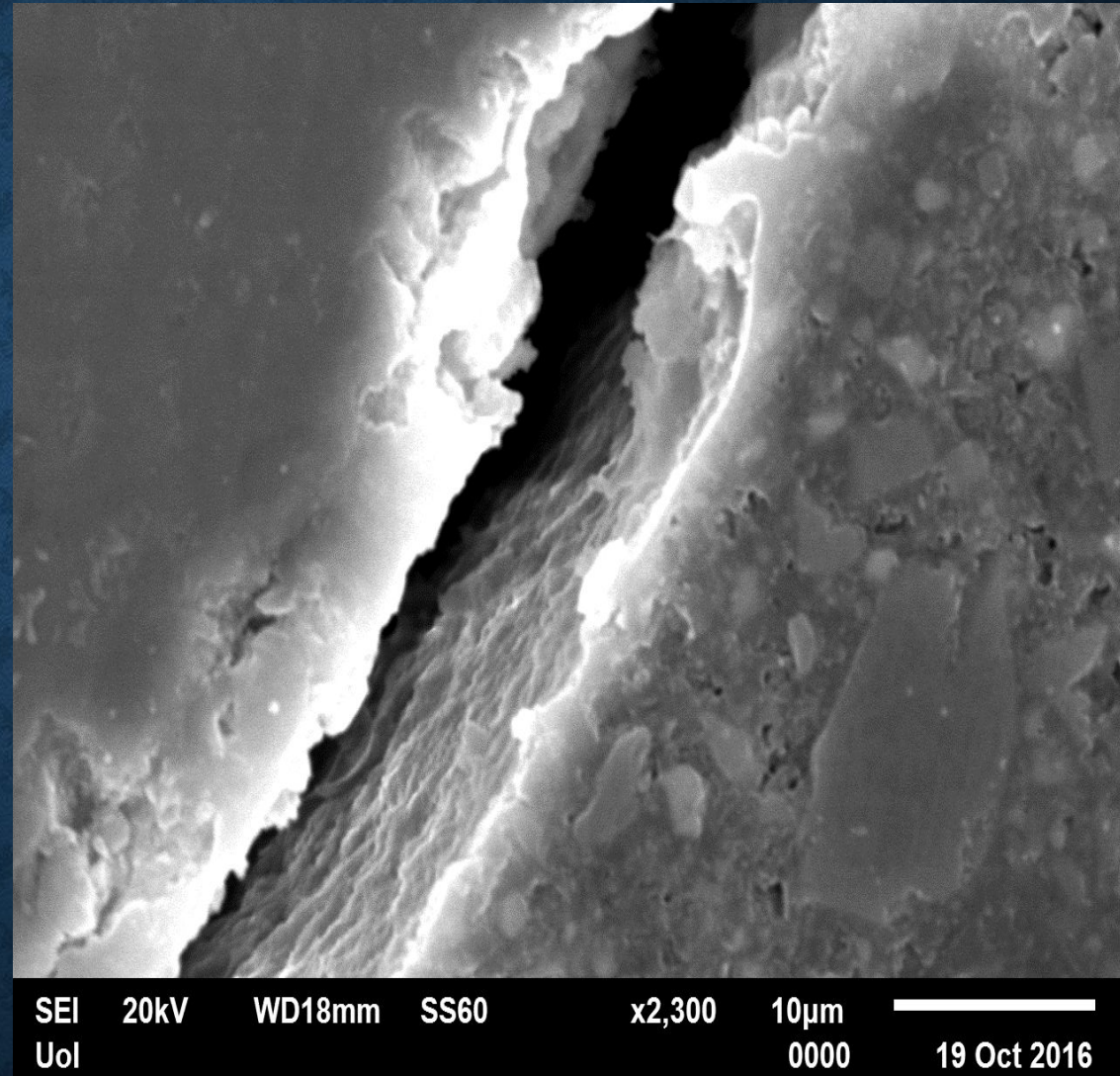
PHOTO BY

Dr ANTHI POULIA

Dr EVANGELOS GKOGKAS

JOURNAL TRANSLATION SCIENCE,

OATEX 2021



PROTOCOL 4.

**PANAVIA F 2.0 /
HF ACID 10% 30SEC
BMG LABORATORIES 24
HOURS/
H3PO4 ACID 15SEC /
ED PRIMER II**

THIS SILANE AGENT DIDN'T HAVE ANY EFFECT AT
OXYGEN APPEARANCE ON THE CERAMIC SURFACE
WHEN AT THE SAME TIME IT WAS INCREASING THE
SURFACE ROUGHNESS OF PORCELAIN

KEY ENGINEERING MATERIAL, SCIENTIFIC NET, 2017

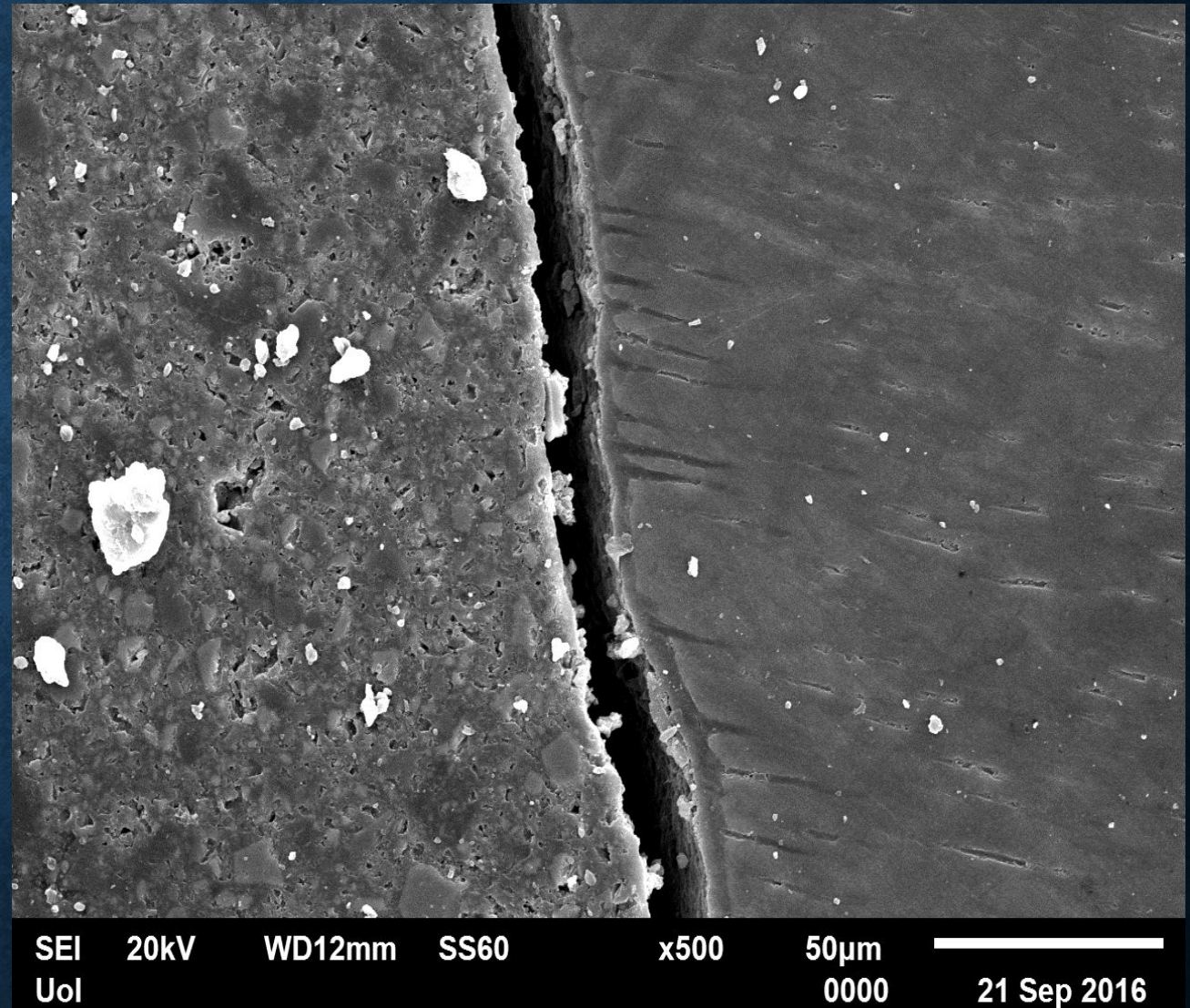
PHOTO BY

PROF. ALEXANDROS KARANTZALIS

Dr ANTHI POULIA

Dr EVANGELOS GKOGKAS

JOURNAL TRANSLATION SCIENCE, OATEX, 2021



PROTOCOL 5.

**PANAVIA V5 /
HF ACID 10% 30SEC /
CERAMIC PRIMER PLUS
20SEC /
H3PO4 ACID 15SEC /
TOOTH PRIMER**

GUP ABSENCE

OXYGEN APPEARS AT

0,001 cps/eV AFTER 20 seconds OF SILANASITATION WITH

CERAMIC PRIMER PLUS, KURARAY, TOKIO

PHOTO BY

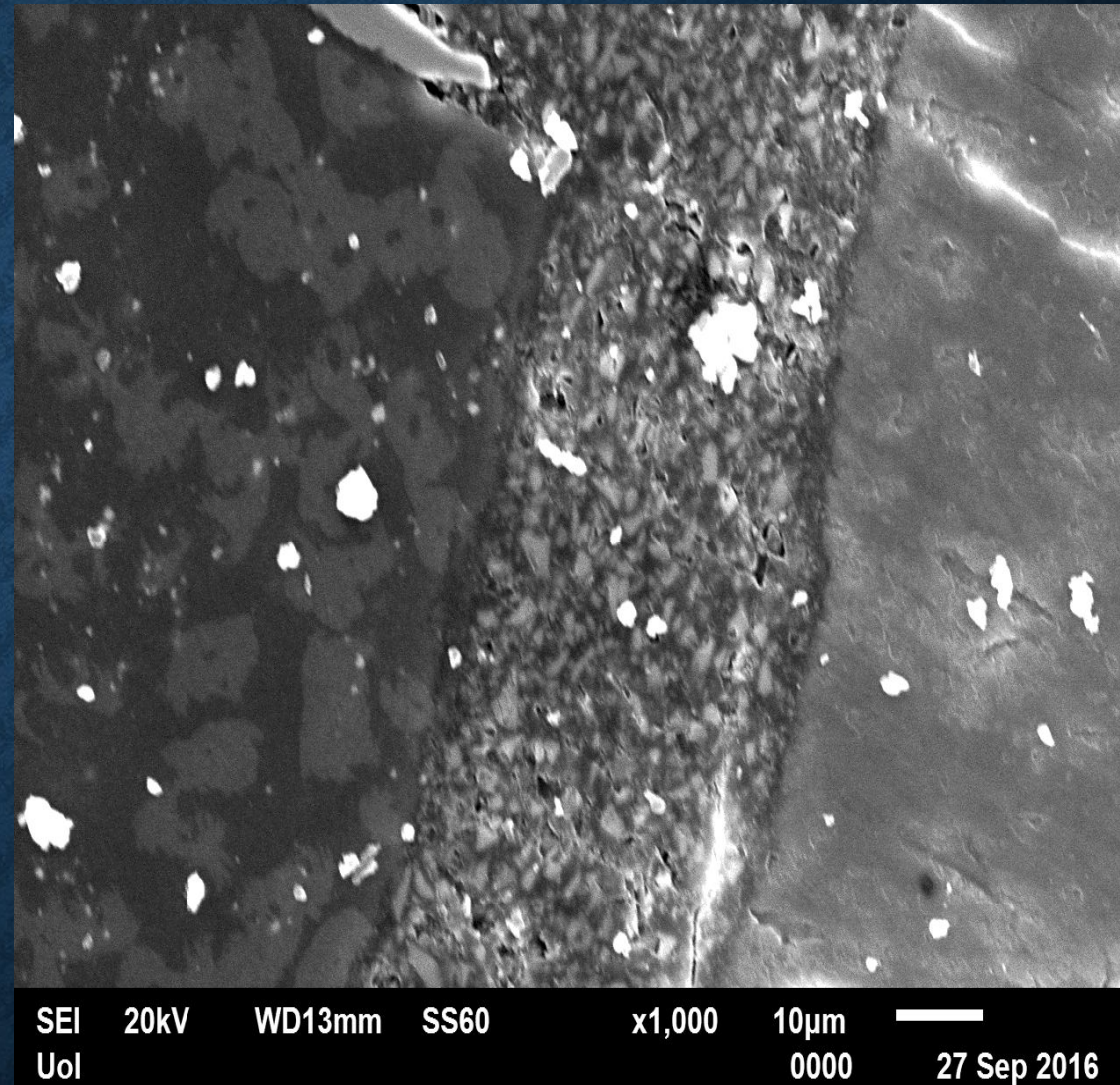
PROF. SYMEON AGATHOPOULOS

Dr ANTHI POULIA

Dr EVANGELOS GKOGKAS

JOURNAL TRANSLATION SCIENCE

OATEX, 2021



PROTOCOL 6.

**PANAVIA V5 /
HF ACID 10% 30SEC /
CERAMIC PRIMER PLUS 20
SEC /
H3PO4 ACID 15 SEC/
WITHOUT TOOTH PRIMER**

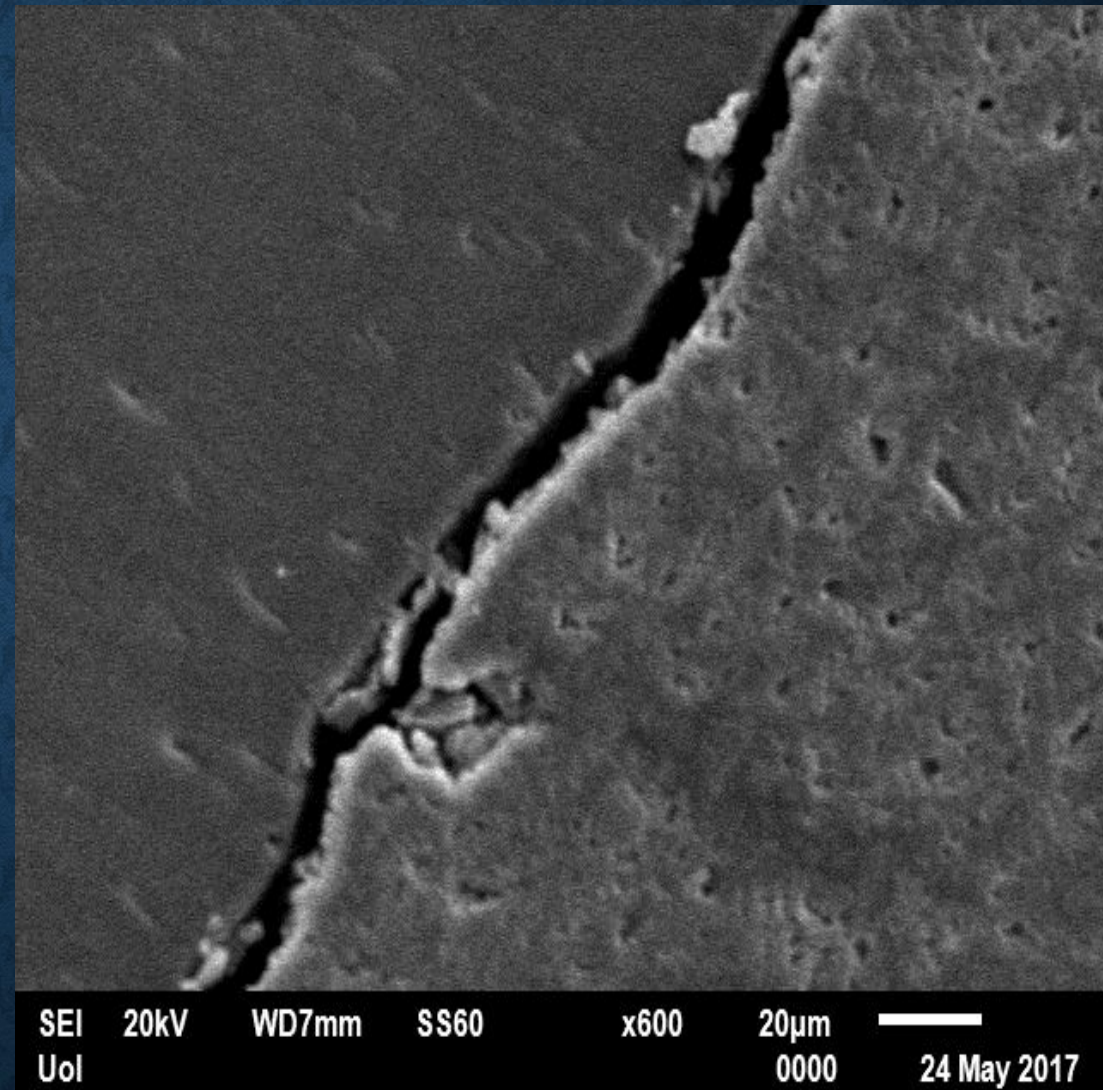
PHOTO BY

Dr ANTHI POULIA

Dr EVANGELOS GKOGKAS

JOURNAL TRANSLATION SCIENCE

OATEX,2021



PROTOCOL 7.

**HFO ENAMEL PLUS FLOW
RESIN /
HF ACID 10% 30SEC /
CERAMIC PRIMER PLUS
20SEC /
H3PO4 ACID 15SEC
/ OPTIBOND FL**

PHOTO BY

Dr, Post Doc DIMITRIS MOSCHOVAS

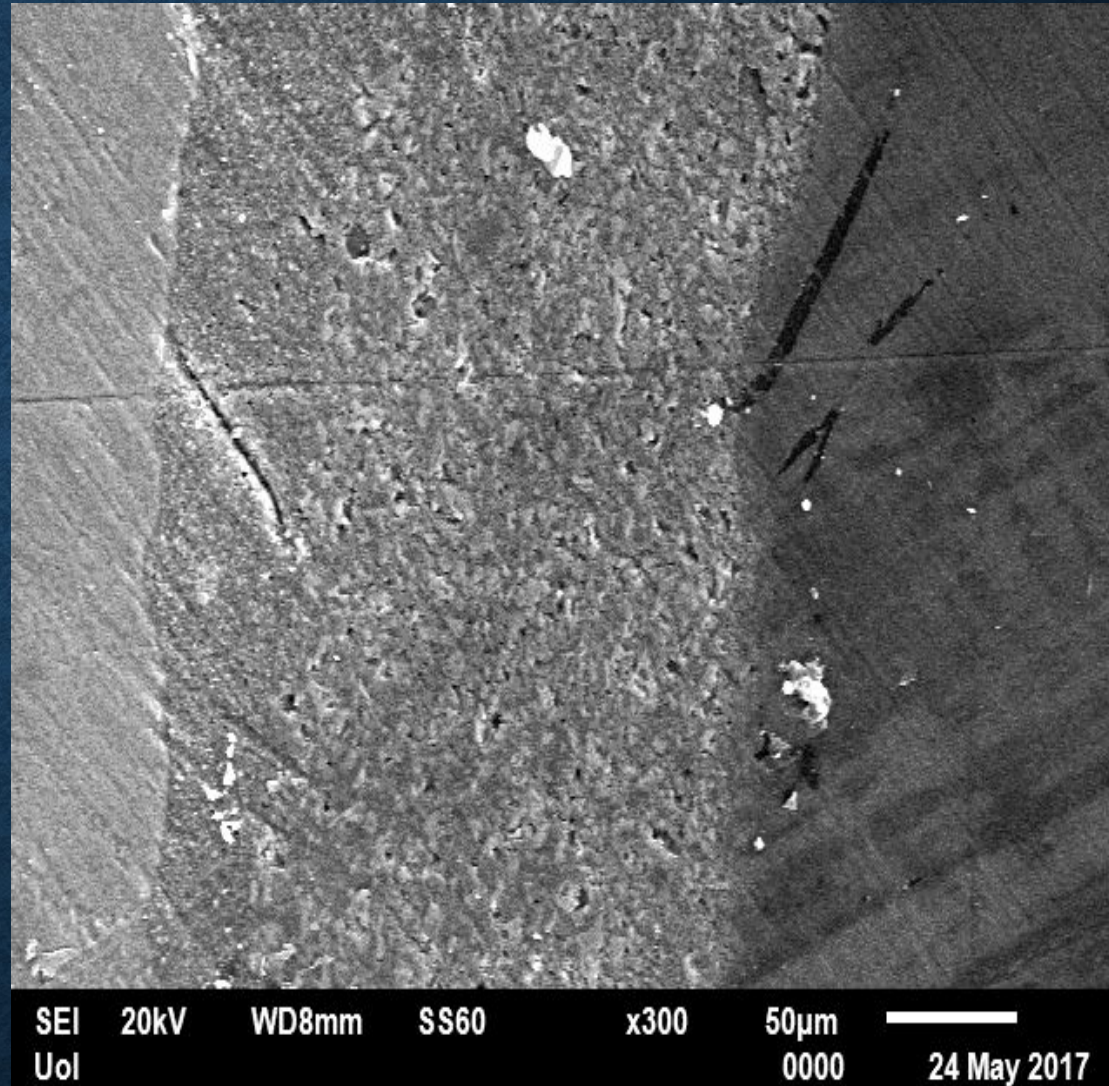
Dr EVANGELOS GKOGKAS

“CEMENTATION PROTOCOL GKOGKAS”

*EC NEUROLOGY, ECRONICON
CAMBRIDGE, 2022*

JOURNAL TRANSLATION SCIENCE

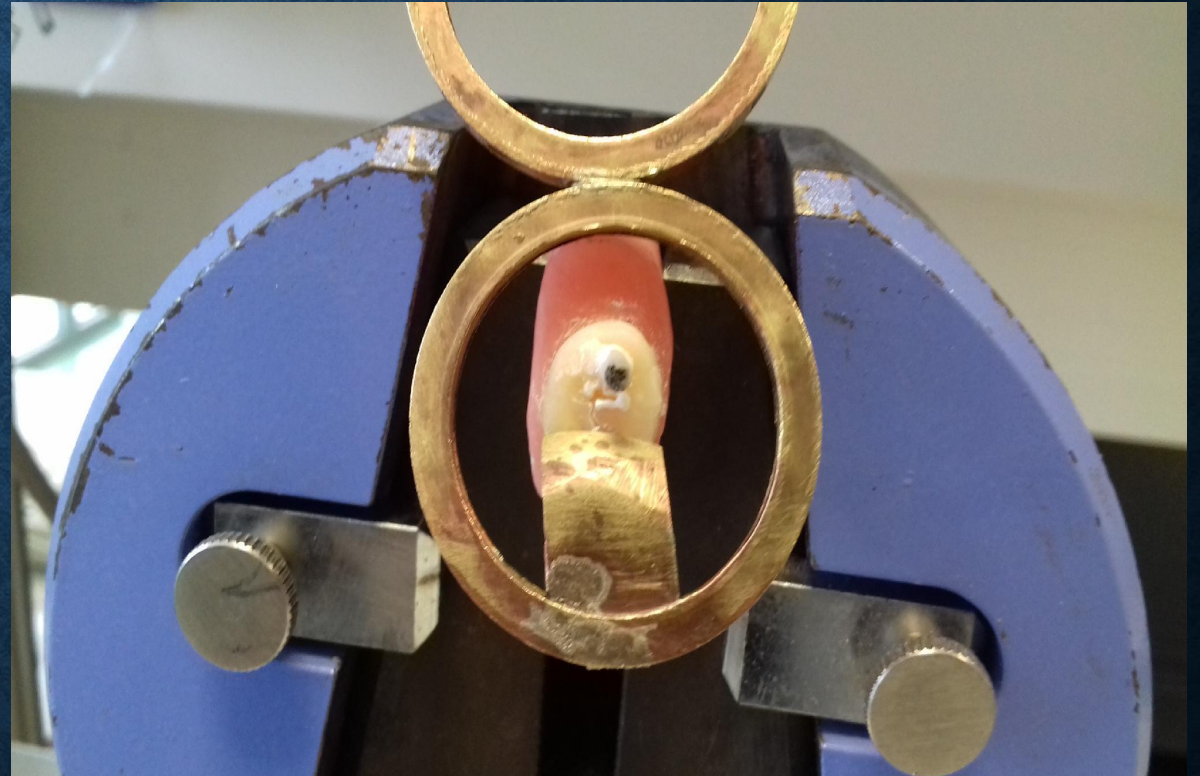
OATEX, 2021



TENSILE BOND STRENGTH DEVICE

ORIGINAL“O RING” MECHANISM

BY MASTRO PETSIOS ,STEEL ART MECHANIC

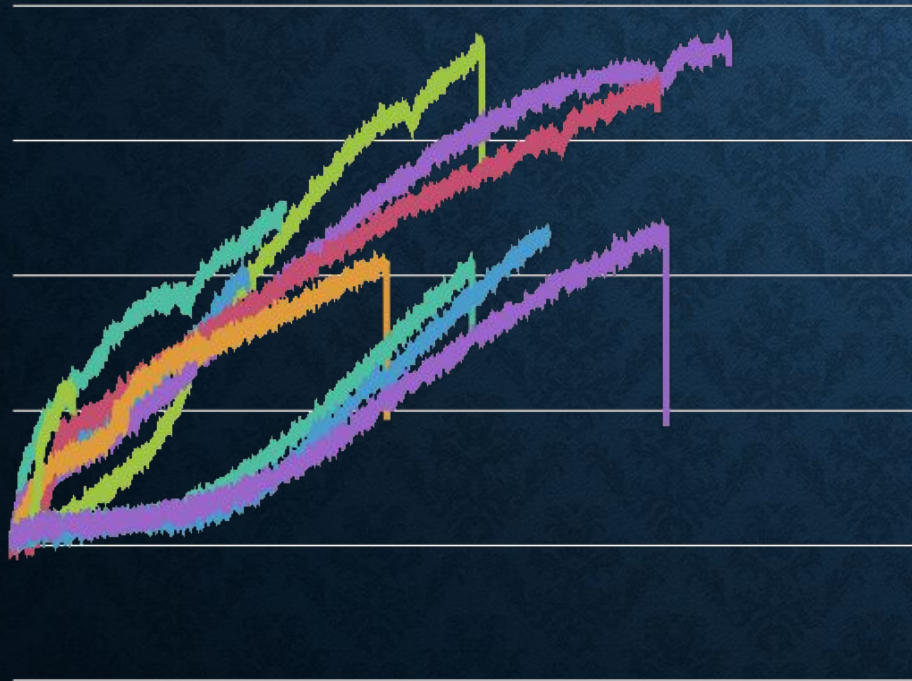


TENSILE BOND STRENGTH TEST EVALUATION POWER- TIME UP TO THE BREAKING POINT

EC NEUROLOGY, ECRONICON CAMBRIDGE, 2022

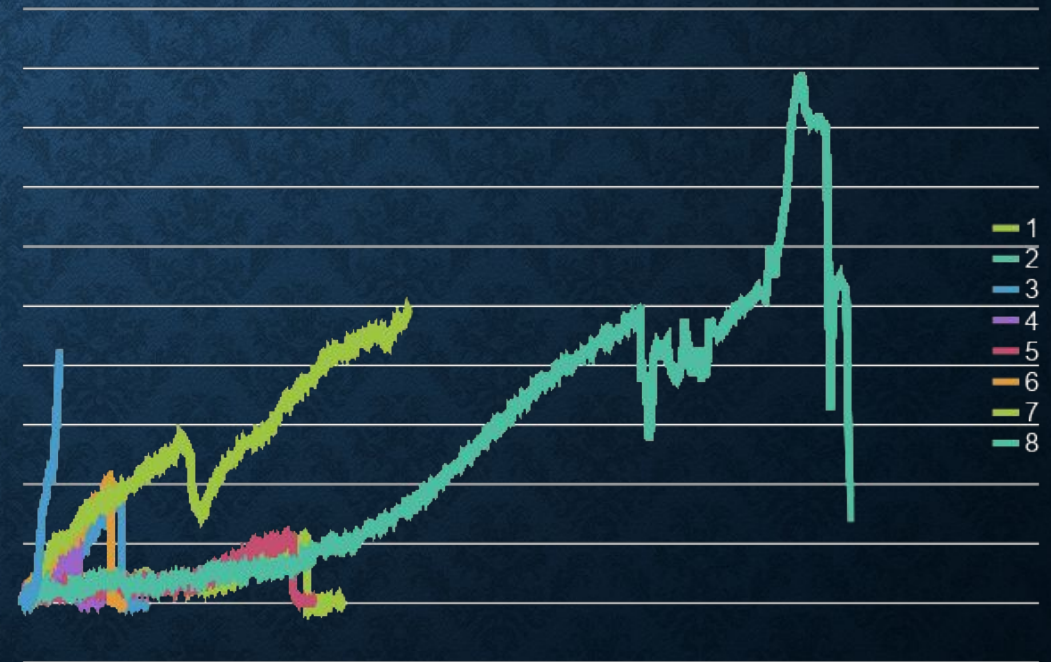
PANAVIA V5/HF 10% 30s/CPP 20s/H3PO4 15s/

WITH TOOTH PRIMER



PANAVIA V5/HF 10% 30s /CPP 20s/ H3PO4 15s/

NO TOOTH PRIMER

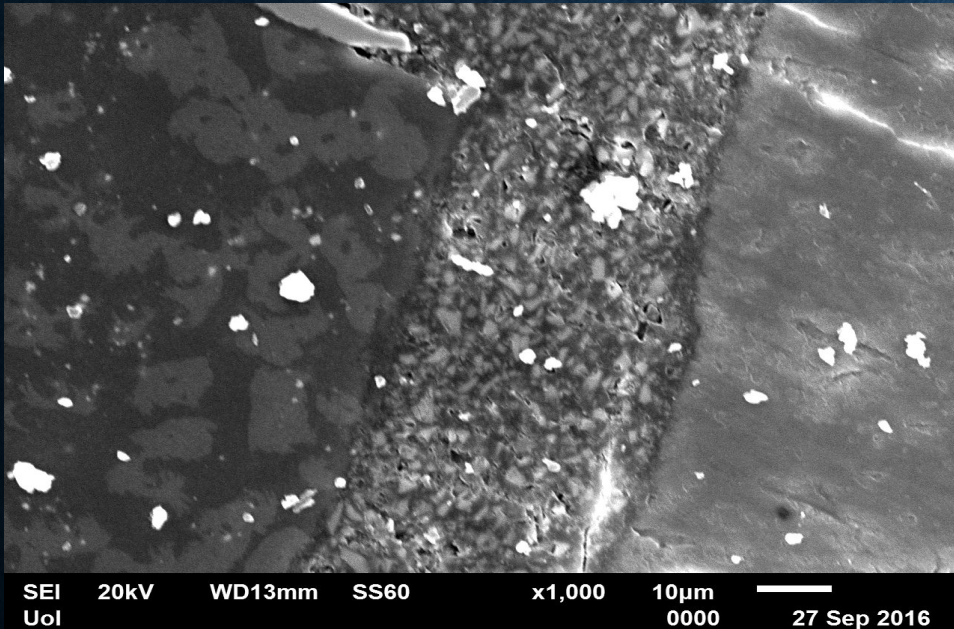


STATISTICAL ANALYSIS POWER- TIME R FACTOR OF PEARSON

(ANALYSIS BY DR KONSTANTINOS KRIKONIS / DATA ANALYSIS LTD)
EC NEUROROGY , ECRONICON CAMBRIDGE, 2022

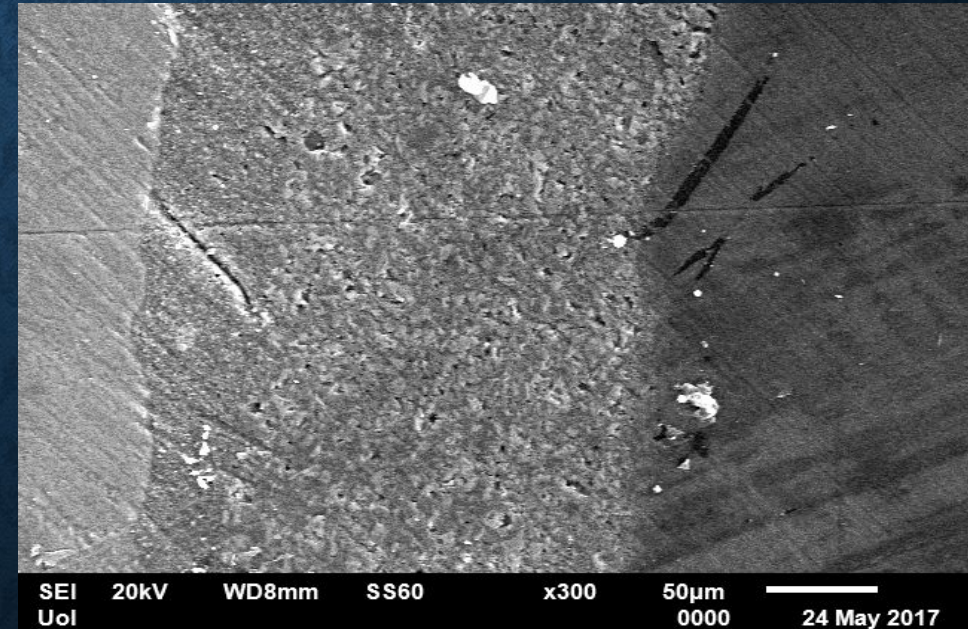
MOST POWERFULL CEMENTATION

*PANAVIA V5/ HF ACID 10% 30s/ CCP 20s/
H3PO4 ACID 15s/TOOTH PRIMER*



POWERFULL CEMENTATION

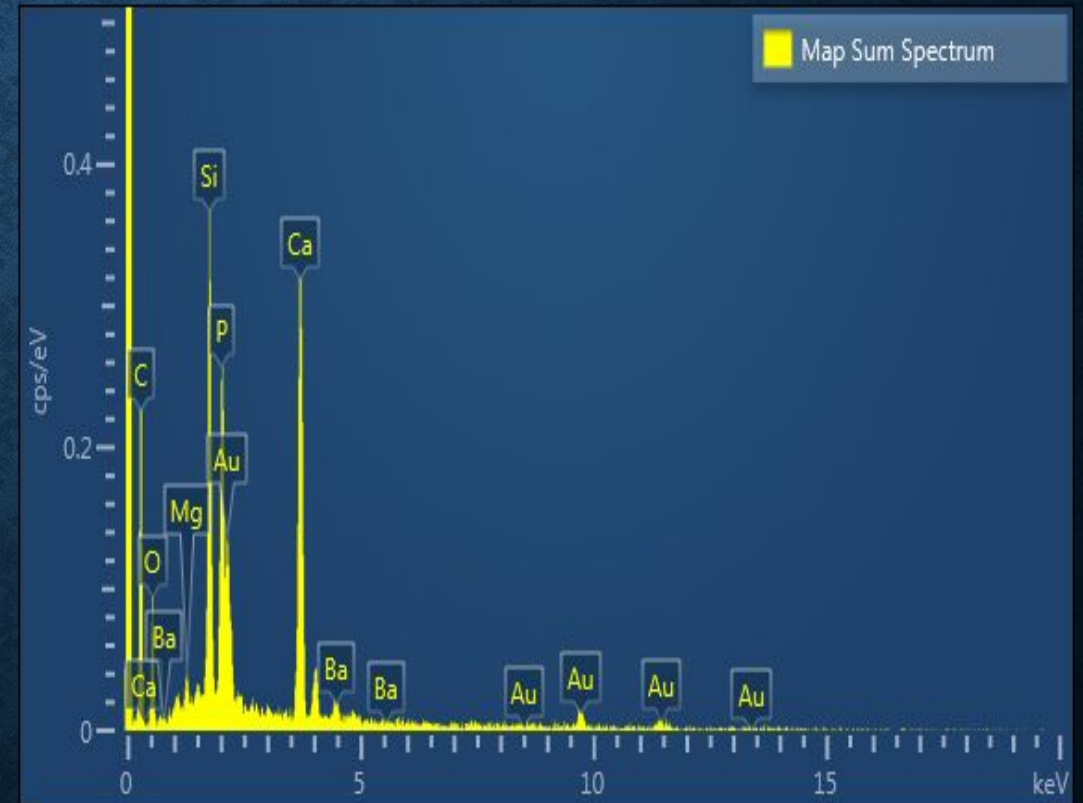
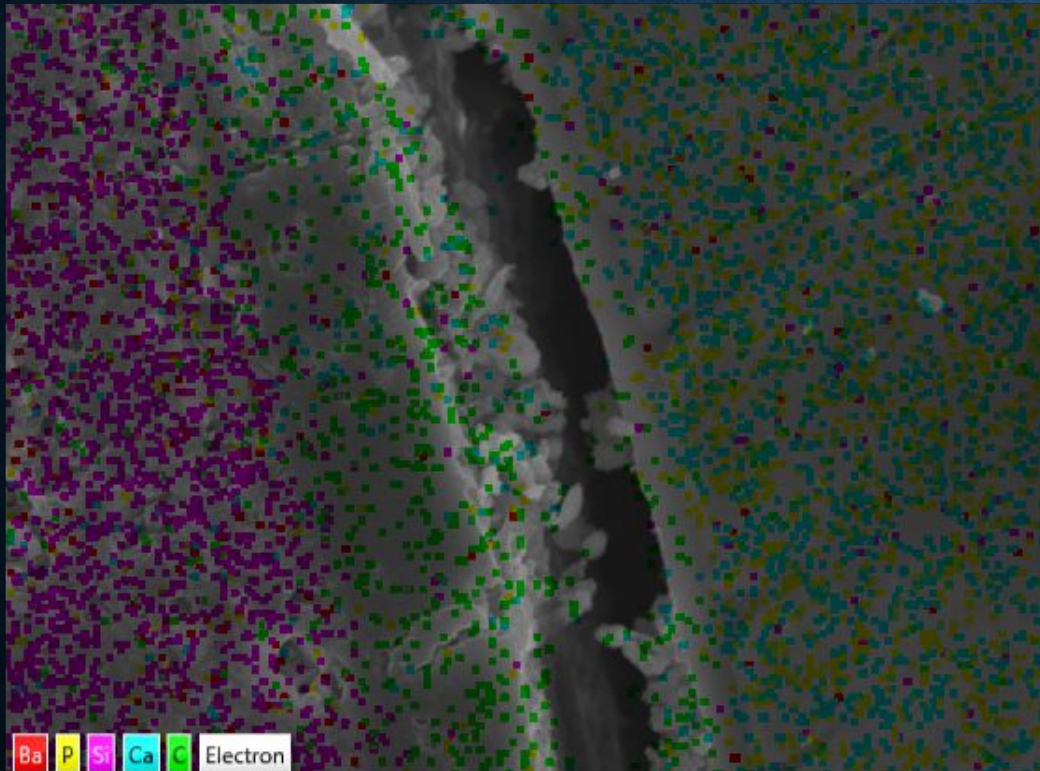
*HFO ENAMEL PLUS FLOW RESIN/ HF ACID 10% 30s/ CCP 20s/
H3PO4 ACID 15s/ OPTIBOND FL*



EDX/SEM ELEMENT PROOF OF EXISTANCE OF CA (CALSIUUM) AND C (COAL) DENTINE TUBES (HYDROXIAPATITE) COLLAGEN FIBER LAYER (ORGANIC FACTOR)

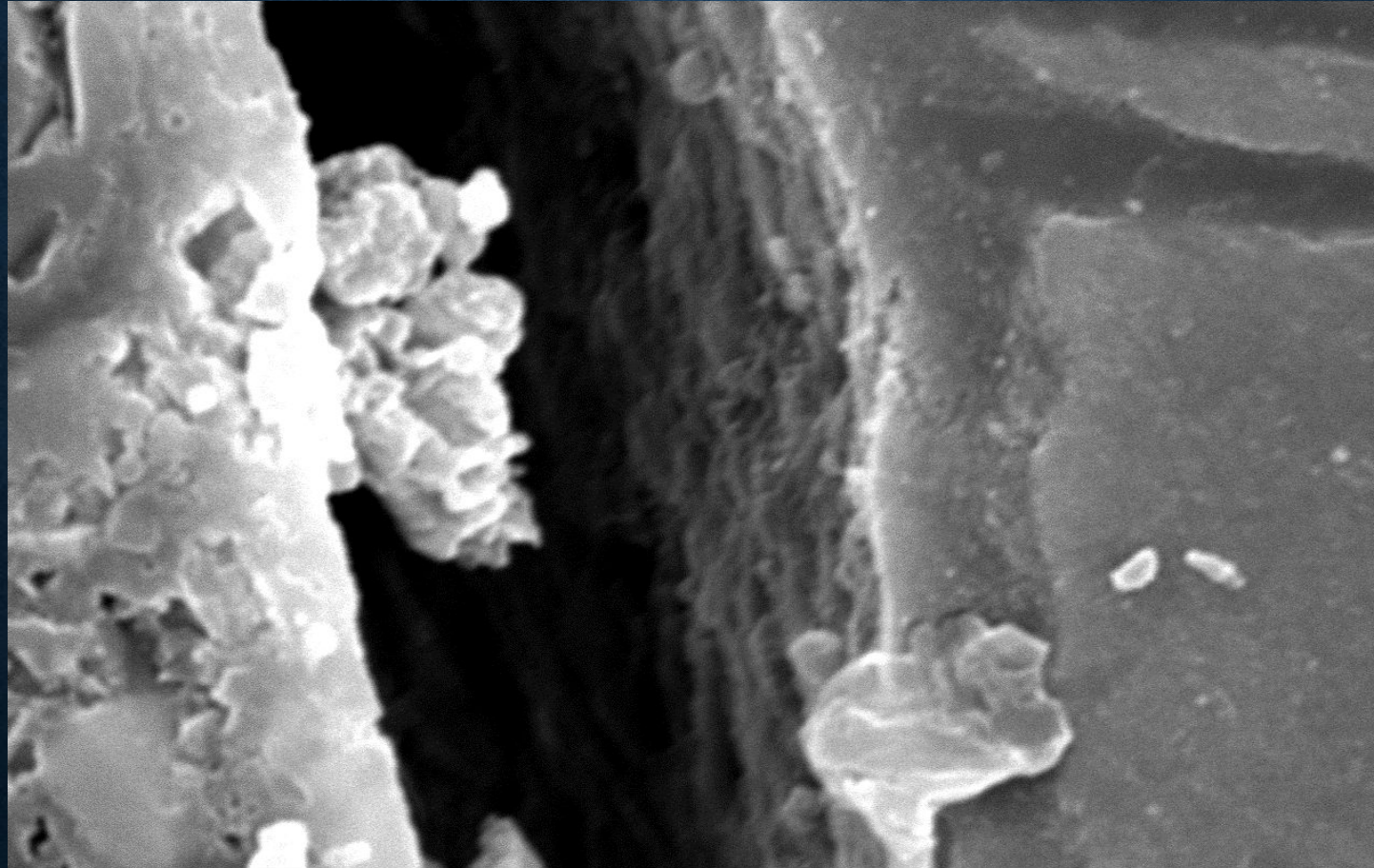
EC NEUROLOGY, ECRONICON CAMBRIDGE, 2022 EC DENTAL SCIENCE, ECRONICON CAMBRIDGE, 2023

EDS Layered Image 9



COLLAGEN FIBER LAYER OF TOOTH DENTINE

WORLD DISCOVERY
EC DENTAL SCIENCE, ECRONICON CAMBRIDGE, 2023



SEI 20kV WD12mm SS60
UoI

x4,000 5μm
0000

21 Sep 2016

APPRECIATE OF YOUR ATTENTANCE

IOANNINA, MY HOME TOWN
UP AT THE NORTH WEST MOUNTAINS OF
GREECE
-THE TOWN OF SILVER ART CREATORS-

