RWTH AACHEN UNIVERSITY

Fraunhofer IWM

JG|U JOHANNES GUTENBERG UNIVERSITÄT MAINZ

medical device testing mdt

RMS

UNIKLINIK KÖLN

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'5-year study to monitor the clinical performance of the ICX-templant ® Implant System'

Prof. Dr. Murat Yildirim
University Medical Centre Aachen
since 2011 private practice in Düren

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'6-year study to monitor the clinical performance of the ICX-templant® versus XIVE® Implant System'

Univ.- Prof. Dr. Dr. Joachim Zöller
Dr. Viktor Karapetian
University hospital Köln

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'Study on patient satisfaction two versus four implants on ICX Locator in the lower jaw'

Univ.- Prof. Dr. Dr. Wagner
Dr. Dr. Julia Karbach
University Hospital Mainz

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'Durability tests of ICX-templant (DIN ISO 14801)'

Fraunhofer Institute for Mechanics
of Materials IWM in Freiburg

‚Durability tests‘

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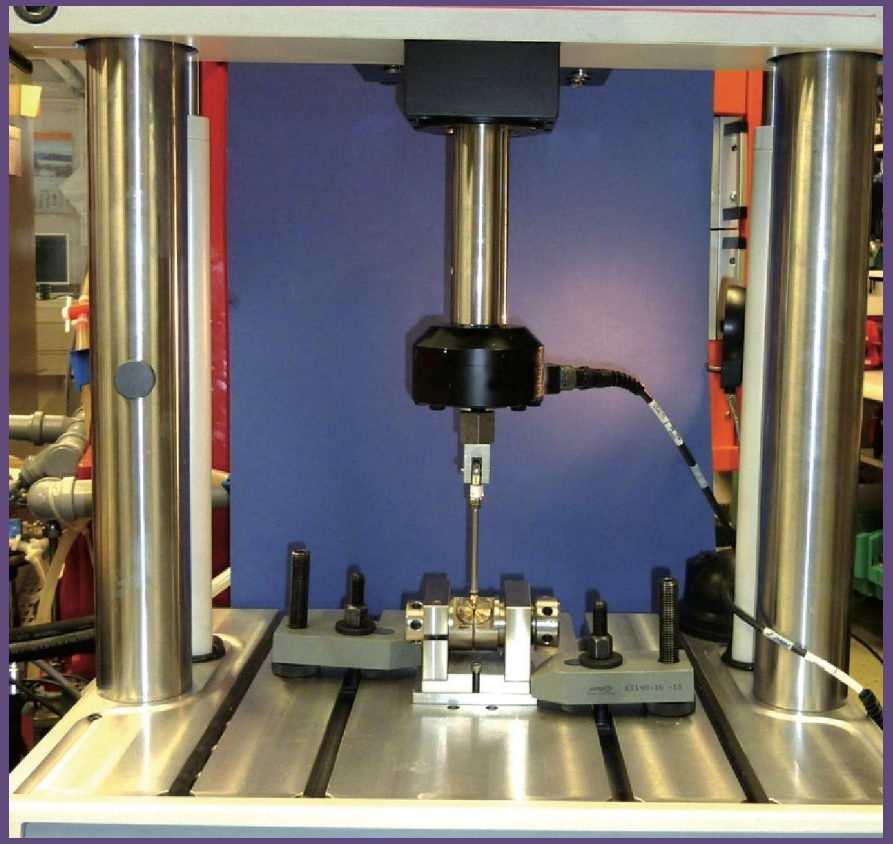
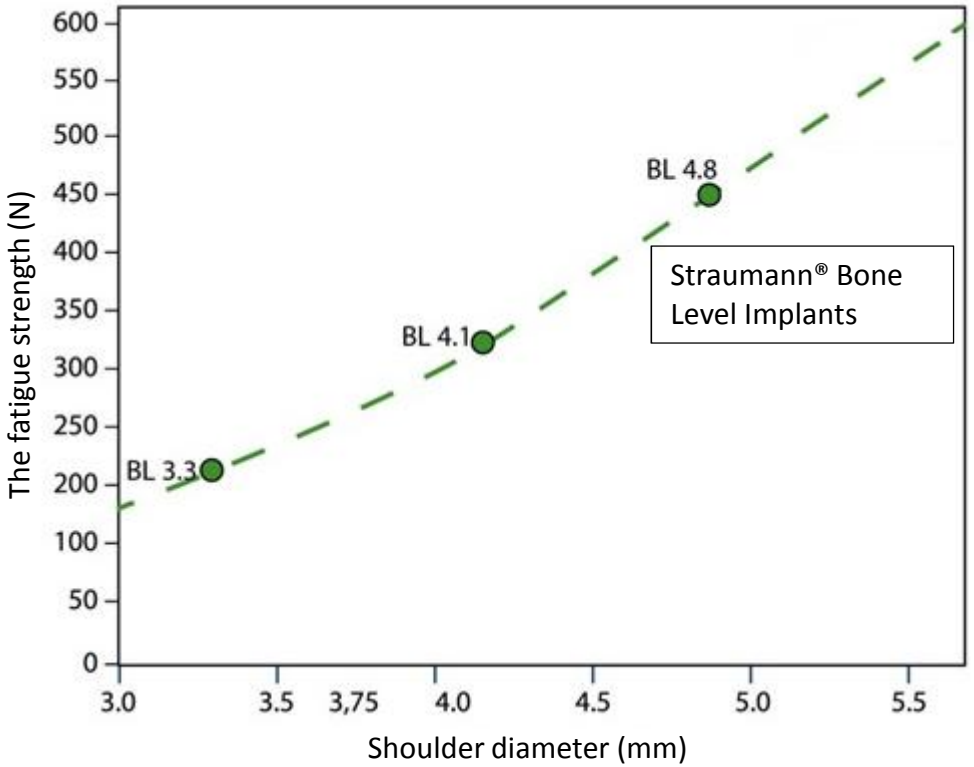


Determining fatigue of Bone Level® Implants by M. Wieland, H. Hornberger, Switzerland (ISO 14801)

Methodology

The construction was done in accordance with standard test for dental implants (ISO 14801). Overall, more than 140 implants were measured. The fatigue strength was determined by SN curves for Straumann® Bone Level implants Ø 3.3 mm, Ø 4.1 mm and 4.8 mm diameter, as well as 13 different competition implants.

The fatigue strength of the Straumann® Bone Level implants (green dots and regression line)



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Source: scientific evidence on the Straumann implant BoneLevel

Determine the fatigue strength of the BoneLevel® implant versus 13 competition implants measured by M. Wieland, H. Hornberger, Switzerland (ISO 14801)

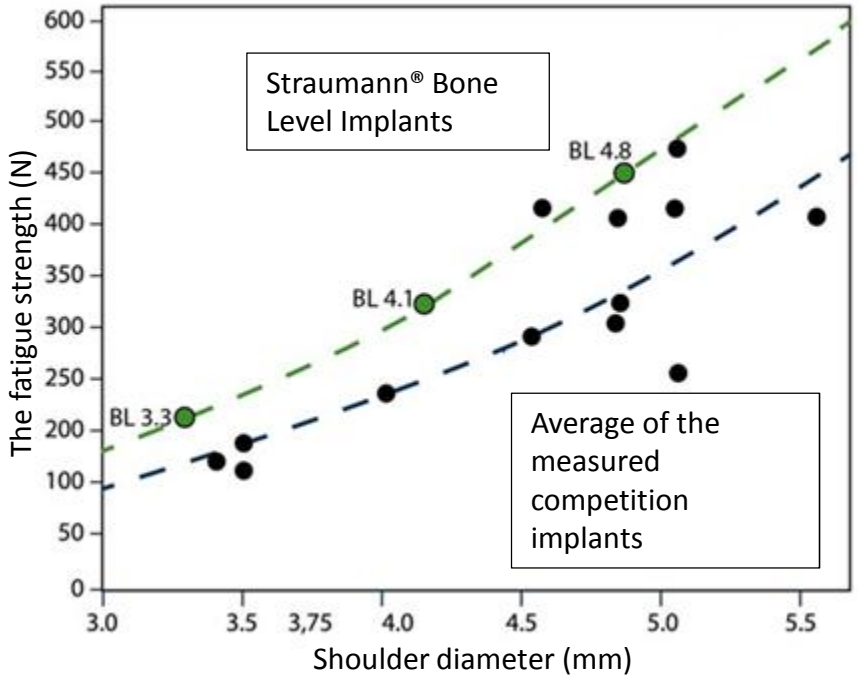
Methodology

The construction was done in accordance with standard test for dental implants (ISO 14801). Overall, more than 140 implants were measured. The fatigue strength was determined by SN curves for Straumann® Bone Level implants Ø 3.3 mm, Ø 4.1 mm and 4.8 mm diameter, as well as 13 different competition implants.

Results

The fatigue strength of the Straumann® Bone Level implants is well above the average of the 13 measured competition implants.

After the dynamic tests at any Straumann®Bone Level Implant screw loosening was found.



The fatigue strength of the Straumann® Bone Level implants (green dots and regression line) in relation to the fatigue strength Of 13 competition implants (black dots and regression line) shown on the diameter of the implant shoulder.

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Source: scientific evidence on the Straumann implant BoneLev

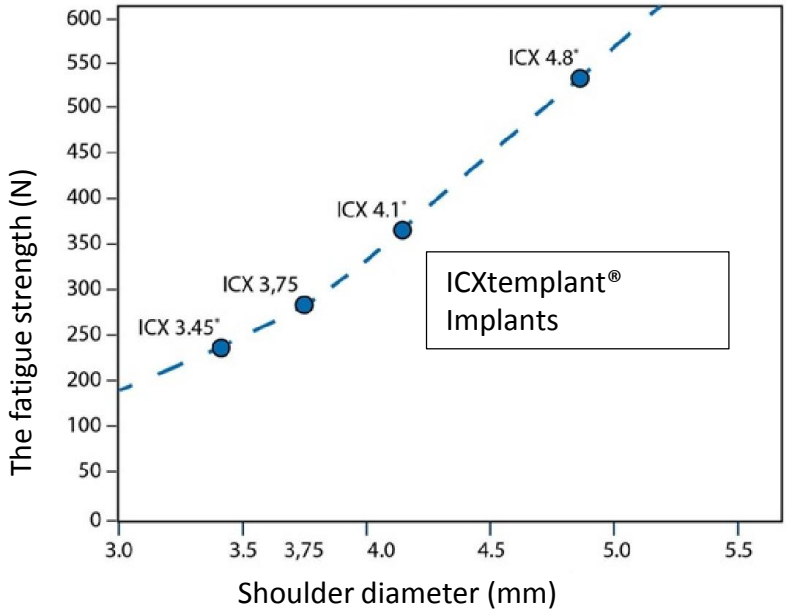
Determination of fatigue strength of the implant ICXtemplant® by the Fraunhofer Institute for Mechanics of Materials IWM Biomedical Materials and Implants, Freiburg (ISO 14801)

Methodology

The construction was done in accordance with standard test for dental implants (ISO 14801). Overall, more than 140 implants were measured. The fatigue strength was determined by SN curves for ICXtemplant® implants Ø 3.75 mm diameter

Results

The fatigue strength of the ICXtemplant® Implants is well above the average of the 13 measured competition implants by the Straumann® company



The fatigue strength of ICXtemplant implants (blue dots UDN regression line) of Ø3, 75 mm has been tested in real terms. The asterisked diameter were simulated digitally

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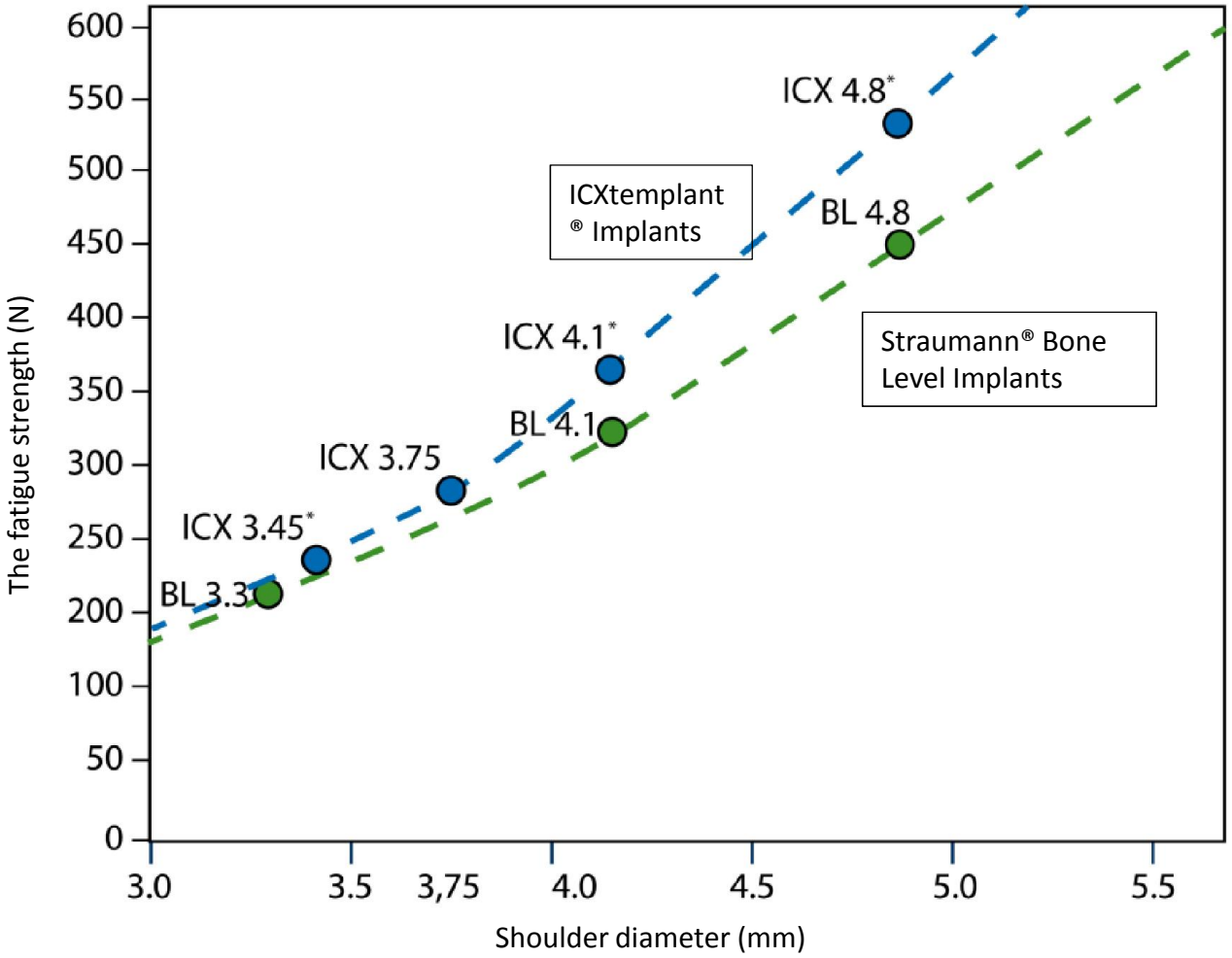
Source: scientific evidence on the Straumann implant BoneLevel

Determining fatigue of ICXtemplant® against Straumann® Bone Level (ISO 14801)



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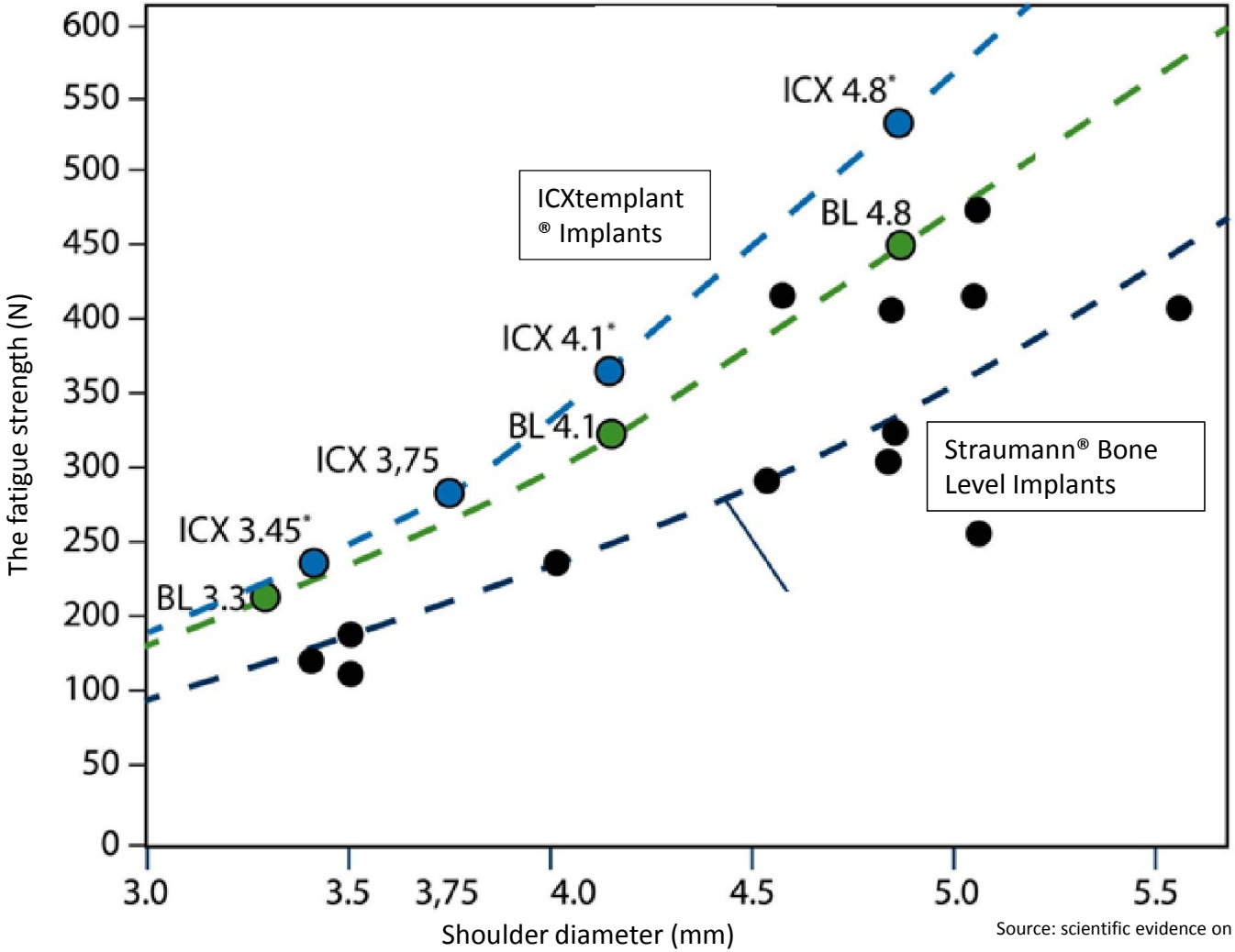
Source: scientific evidence on the Straumann implant BoneLevel

Determining fatigue of ICXtemplant® against Straumann® Bone Level an 13 13 competition implants measured after ISO 14801



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Source: scientific evidence on the Straumann implant BoneLevel

'Results of gap measurement on the conical density, accredited by the Robert Mathys Institute Bettlach, Switzerland, on ICX templant-abutment interface'

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Dr. Dr. Stefan Wolf Schermer, Berlin, Orale Implantologie 01/07

‘The gold solution for the micro-gap’

Impla-System	ca. 63,0µm
Astra	ca. 7,40µm
IMZ	ca. 2,40µm
Frialit	ca. 2,40µm
Ankylos	ca. 0,71µm

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Results of gap measurement on the conical density, accredited by the Robert Mathys Institute Bettlach, Switzerland, on ICX templant-abutment interface

How dense is the ICX templant-abutment connection?

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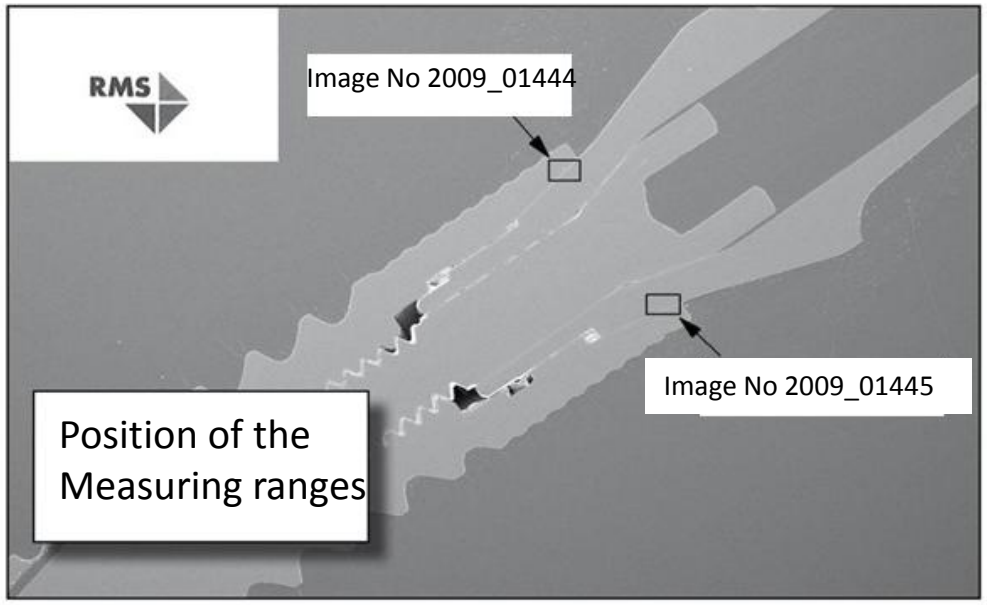

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Results of gap measurement on the conical density, accredited by the Robert Mathys Institute Bettlach, Switzerland, on ICX templant-abutment interface

The conical density of ICX templant-abutment interface is:

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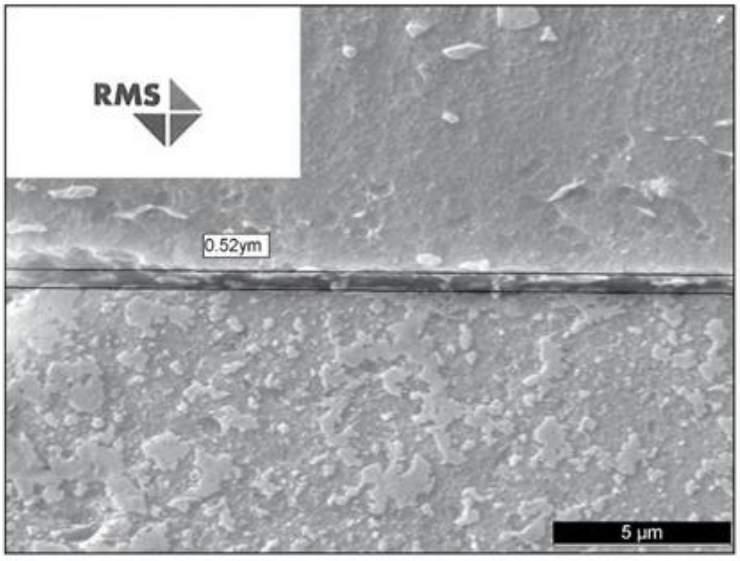
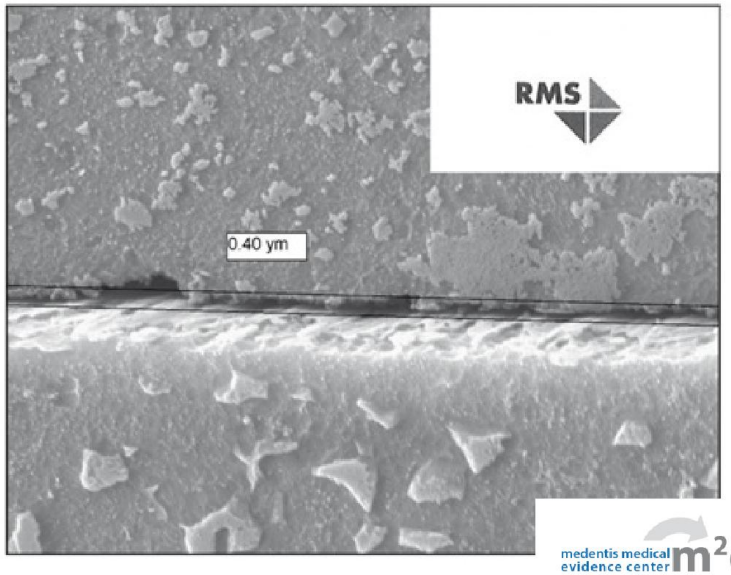
Results of gap measurement on the conical density, accredited by the Robert Mathys Institute Bettlach, Switzerland, on ICX templant-abutment interface

The conical density of ICX templant-abutment interface is:

* Fit 1 Image No 2009_01444
Fit Result in Measuring Region:
0.52µm



* Fit 2 Image No 2009_01445
Fit Result in Measuring Region:
0.40µm



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