Phidia

High Translucency Monolithic Multilayer and Monochromatic Zirconia

Nuevo Zr **Phidia**

+ BIOCOMPATIBILITY
+ ESTHETIC
+ RESISTANCE
+ TRANSLUCENCY

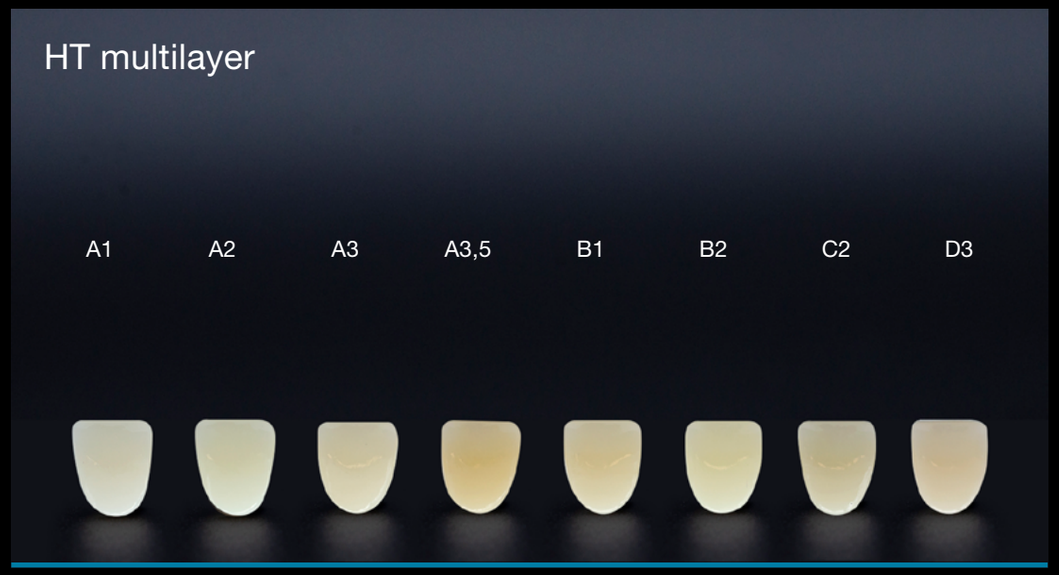
The new Phidia by Phibo has all of the benefits of ceramics, mainly biocompatibility and aesthetic appearance, coupled with increased mechanical resistance and high translucency. Through the two materials that we offer, **High Translucency Multilayer and Monochromatic Zirconia**, Phibo ensures that practitioners get the best results from their work.

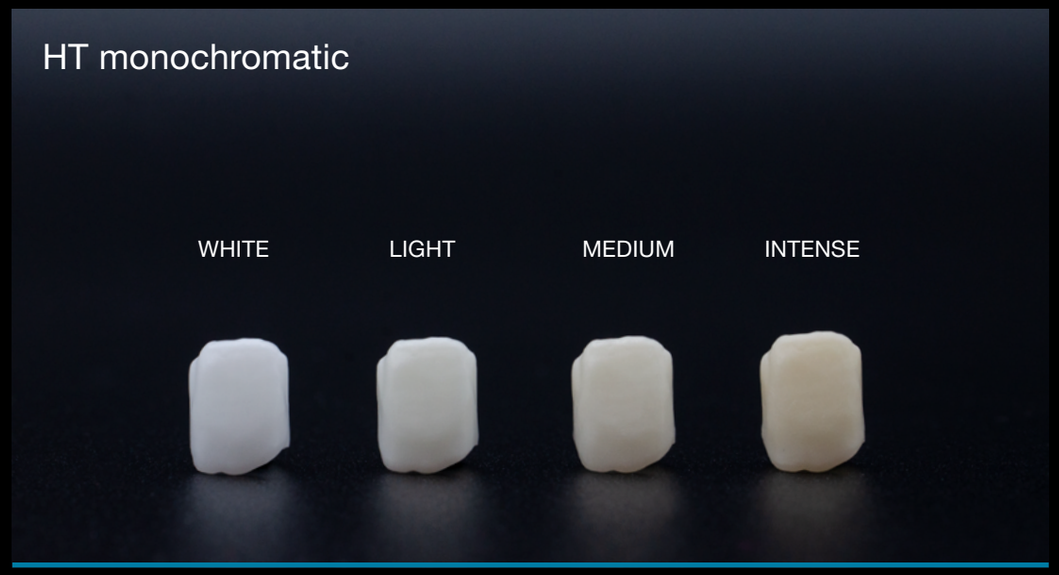
See the scientific studies in the references section.

Range of colours

TABLE OF COLOURS		
MATERIALS	**COLOURS**	**OPTIONS**
HT MULTILAYER	A1	
	A2	
	A3	
	A3.5	
	B1	
	B2	
	C2	
	D3	
HT MONOCHROMATIC	WHITE	-
	LIGHT	A1, A2, B1, B2, C1
	MEDIUM	A3, B3, B4, C2, C3, D2, D3, D4
	INTENSE	A3.5, A4, C4

Both materials are available in cement-retained and screw-retained restorations (with Titanium base).

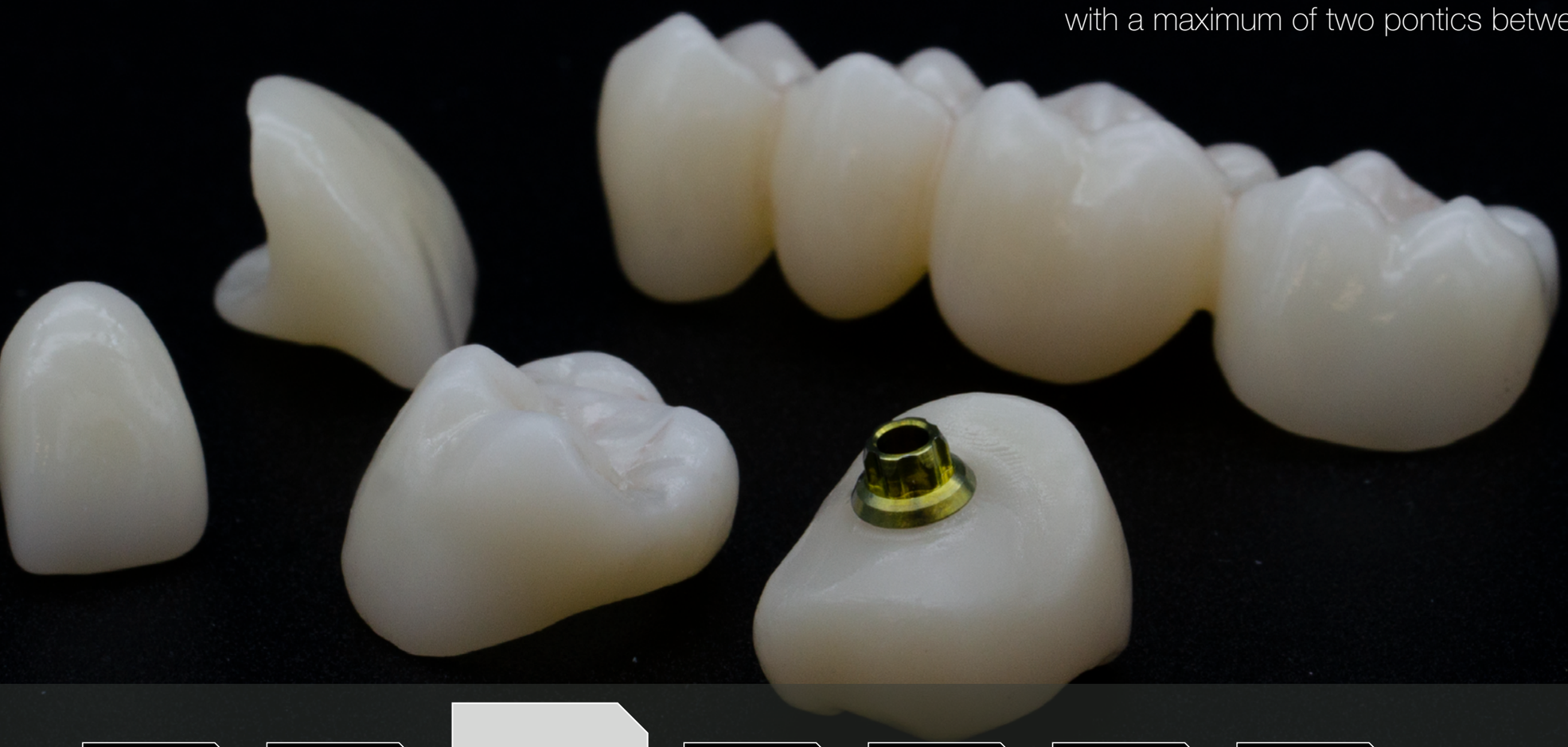




Indications

Phidia Multilayer can be used for structures with up to 4 units in the rear section, including molars, with a maximum of one pontic between stumps/abutments or up to 6 units on stumps in the front section.

As for the **Phidia Monochromatic material**, structures can be built with no limit to the number of units, including molars, with a maximum of two pontics between stumps/abutments.



Properties and composition

PROPERTIES		
PROPERTY	**MONOCHROMATIC ZIRCONIA**	**MULTILAYER ZIRCONIA**
DENSITY ($g \cdot cm^{-3}$)	> 6.0	> 6.0
FLEXURAL STRENGTH (MPa)	1200	≥ 800
C. OF THERMAL EXPANSION (K^{-1})	10.5 x 10^5	$10 \cdot 10^{-6}$
YOUNG'S MODULUS (GPa)	> 200	> 210

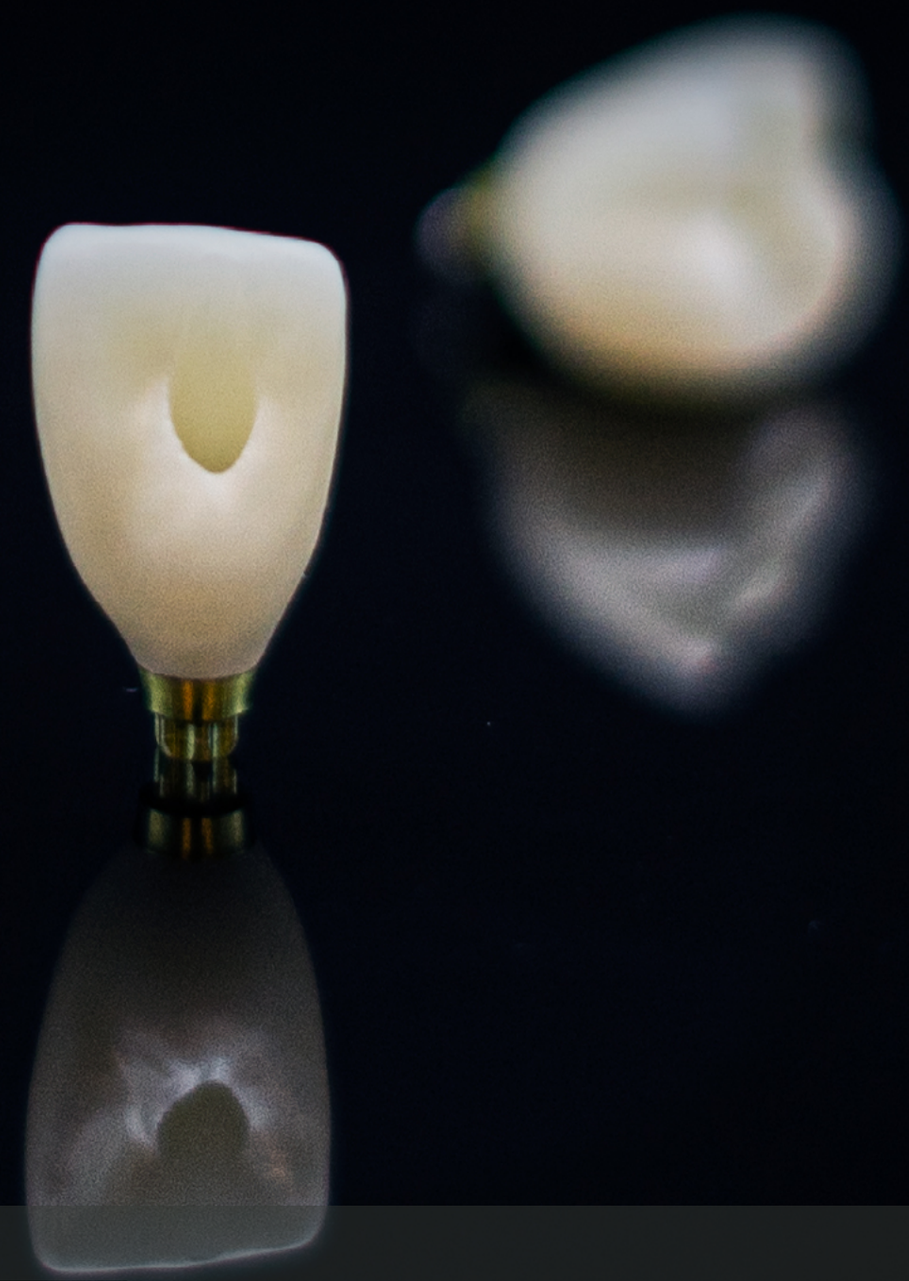
CHEMICAL COMPOSITION - MULTILAYER	
Elemento	**Masa %**
ZrO_2+HfO_2	≥ 90
Y_2O_3	< 10
Al_2O_3	< 0.1
Other oxides	< 0.15

CHEMICAL COMPOSITION - MULTILAYER	
Element	**Mass %**
$ZrO_2+Hf_2O_3+Y_2O_3$	≥ 99
Y_2O_3	< 6
Al_2O_3	≤ 0.15
Other oxides	< 0.15

Axis: we bend towards a perfect smile

The innovative angulated screw channel solution.

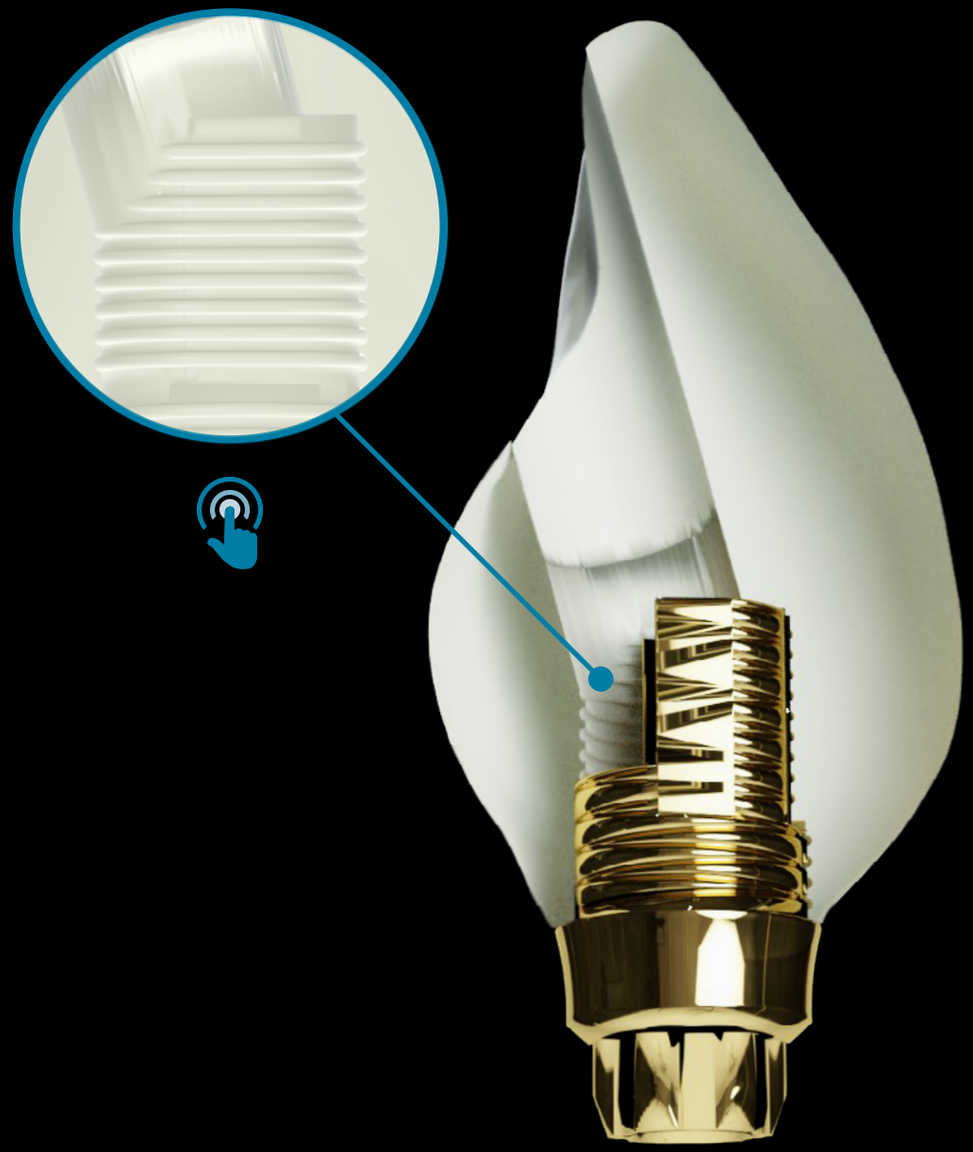
- Up to 20º in any direction.
- Together with Axis interphases.
- Both for single- and multiple-unit restorations.
- Easy managment and higher aesthetic results in the anterior area.
- Better access at posterior sites thanks to angled chimney.
- Better patient comfort.
- Same screw tightening torque (35Ncm) as straight chimneys.



La Interfase Axis:

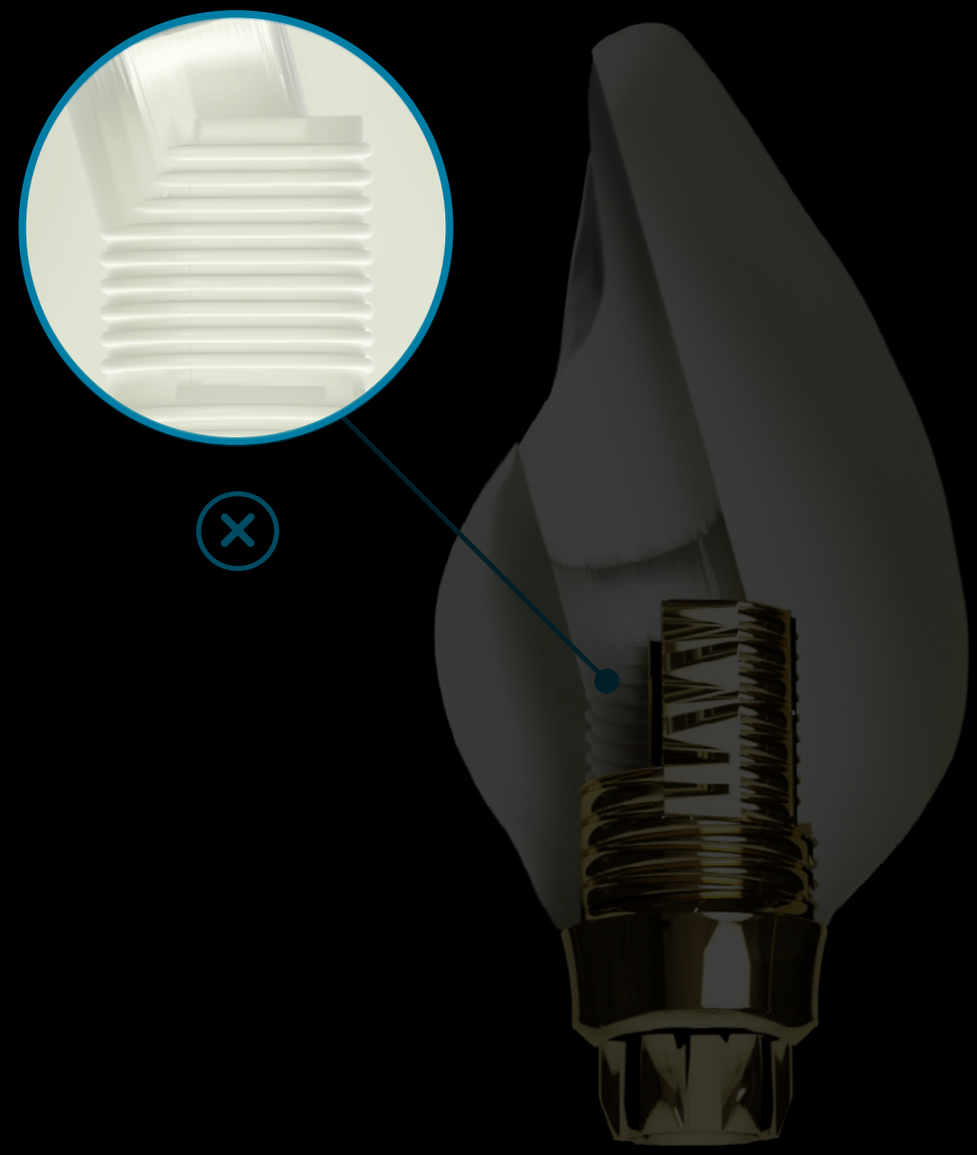
The innovative angulated screw channel solution.

- 5 mm height.
- Angled solution up to 20º thanks to lateral window and Axis screws for angled solutions.
- Use together an Axis screwdriver.
- Heliochoidal-crossed scratching on the inner surface to increase crown adhesion.
- Three flat sides to avoid crown rotation.



La Int… Axis:

The **scratching**
of the inner part of
the **Phidia Zirconia**
crown is designed for a
better adhesion
to the **Axis Interphase**



Scientific references

Forcen, S (2020). Interfases: Cementado de Interfases. Estudio de tracción del cementado de interfases. Informe interno Phibo: no publicado.

[Nae15] Nadja Naennia, Andreas Bindl, Caroline Sax, Christoph Hämmerle, Irena Sailer. A randomized controlled clinical trila of 3-unit posterior zirconia-ceramic fixed dental by prostheses (FDP) with layered or pressed veneering ceramics: 3-year results. Journal of Dentistry 43(2015) 1365-1370.

[Nae18] Nadja Naennia, Andreas Bindl, Caroline Sax, Christoph Hämmerle, Irena Sailer. Aging resistance, mechanical properties and translucency of different yttria- stabilized zirconia ceramics for monolithic dental crown applications. Dental Materials 34 (2018) 879-890.

[Har16] Husain Harianawala, Mohit Kheur, Supriya Kheur, Tania Sethi, Abhilasha Bal, Murtuza Burhanpurwala, Farhath Sayed, Biocompatibility of Zirconia. Journal of Advanced Medical and Dental Sciences Research, May/Jun 2016.

[Loa16] Alexis Ioannidis, Andreas Bindl, Clinical prospective evaluation of zirconia-based three-unit posterior fixed dental prostheses: Up-to ten-year results. Journal of Dentistry 47 (2016) 80-85.

[Ört12] Anders Örtorp, Maria Lind Kihl, Gunnar E. Carlsson. A 5-year retrospective study of survival of zirconia single crowns fitted in a private clinical setting. ScienceDirect (2012).