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Physical, Chemical and Mechanical Properties of Aesthetic Materials Used for Manufacturing Monolithic Crowns via CAD/CAM

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The increasing interest for aesthetics in dental prosthesis has led to an increased use and research of biomaterials that mimic as much as possible the natural teeth behavior, both from the functional point of view and from the aesthetic one. The modern CAD/CAM technology is rapidly growing up, and with it a lot of brand new materials are being proposed on the market.

CAD/CAM blocs are being made of almost all the materials that are available for dental ceramics.

Materials such as E-Max Cad (Ivoclar), Suprinity (VITA), Enamic (VITA), Lava Ultimate (3Mesp) and Lava Plus (3Mesp) are nowadays the most used in dental practice, and a little confusion may occur when comes the time to choose one of them with a specific aim.

All of them present very good aesthetic characteristics, but they are pretty different concerning the mechanical, chemical and physical properties. Although the producer recommendation, there is a necessity in the literature to clarify the aesthetic, mechanical and physical properties of these CAD/CAM materials.

Here we present the differences in chemical composition and mechanical behavior of these new biomaterials used for daily dental practice.

Biography:

Francesco Saverio Ludovichetti was born in Padova in 1988 and graduated in dentistry in 2013 at the Padova University. In 2015 he started his "tri-lateral" international PhD in material engineering and dental material at the Universities of Sao Paulo (UNESP), Amsterdam (ACTA) and Padova (UNIPD). He has a specialization in Periodontics. Nowadays, he is one among the youngest Adjunct Professor at the UNIPD, he is working in his dental offices and his research line is about biomaterials in the oral environment. Speaker at national and international events, Visiting Researcher at the ACTA University (Amsterdam) and Visiting Professor at the Unievangelica University (Brasil).

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