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## The effect of crude khat extract on the color change of nanocomposite resin material

**Mohammed Ahmed Dubais**

University of Science and Technology, Yemen

**Background:** The use of resin composite for restoring teeth has been increased greatly in recent years; manufacturers are claiming that the nanofilled composite technology has been improved to be similar to the ceramics in shade selection and color stability. In Yemen, khat chewing habits may affect the color of esthetic restoration and it is always accompanied by drinking water and cola.

**Aim:** The aim of this study is to evaluate the effect of crude khat extract on color stability of nanocomposite compared to micro hybrid composite resin.

**Materials & Methods:** A total of 54 specimens were prepared from each of the composite resin material in the form of circular discs; the prepared specimens were representing the two main groups (I and II), these were subdivided randomly into 6 equal sub groups (a-f). Standing solutions were crude (khat extract, cola-mineral water and artificial saliva as a control group). The specimens will be immersed in the corresponding staining solutions for four hours daily and kept in an incubator (37 °C) for a total of 180 hours. The solutions were changed every 24 hours. Colorimeter was used for color change testing and then collected data was analyzed using SSPSS version 22.

**Results:** Micro hybrid composite resin showed higher degree of discoloration than nanofilled composite resin.

**Conclusion:** Khat and drinking solutions were significant factors that affected the color stability of composite restorative materials, nanofilled composite showed the least color change.

### Biography

Mohammed Ahmed Dubais has completed his Bachelor's degree from King Saud University, Saudi Arabia. He has completed his PhD from University of Khartoum Sudan. He was the Vice Dean, College of Dentistry, UST and Lecturer of Prosthodontics. He was also the Member of the Editorial Board of the *Yemeni Dental Journal*. He has served as a Dean at College of Dentistry UST till 2011.

drdubais@yahoo.com

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