



## Benefit of Light vs No Light

in vitro study

# Effect of Light Treatment on *in vitro* Tooth Bleaching Efficacy

Li Y, Lee SS, Zheng M, Forde CA, Carino CM. Effect of Light Treatment on *in vitro* Tooth Bleaching Efficacy. J Dent Res 86 (Spec Iss A), 0275, 2007

### Objective

To evaluate the effects of light treatment on tooth bleaching efficacy of Zoom! 2 gel using extracted human incisors.

### Materials

- 20 extracted human incisors stored in 10% formalin solution
- Zoom! 2 Gel (Discus Dental)
- Zoom! 2 Light (Discus Dental)

### Methodology

Twenty extracted human incisors were randomized into two groups of ten each. The roots were embedded in denture resin to form a gingival contour. Each tooth was assessed for a baseline shade (Vitapan Classical Shade Guide, Vita Zahnfabrick GmbH, Sackingen, Germany) and L\*a\*b values (Shade Vision, X-Rite, Inc., Grandville, MI). Both groups of specimens were treated with Balancing Pre-Treatment Gel (Discus Dental) then covered with Zoom! 2 Gel (Discus Dental). Group A was exposed to Zoom! 2 Light (Discus Dental) for 15 minutes, while Group B did not receive light exposure. The gel application and light exposure (Group A) was repeated two additional times. Satin Finish Gel (Discus Dental) was applied to the enamel surfaces for five minutes after the final bleaching treatment. Post procedure Shade and L\*a\*b values were measured again and the data analyzed.

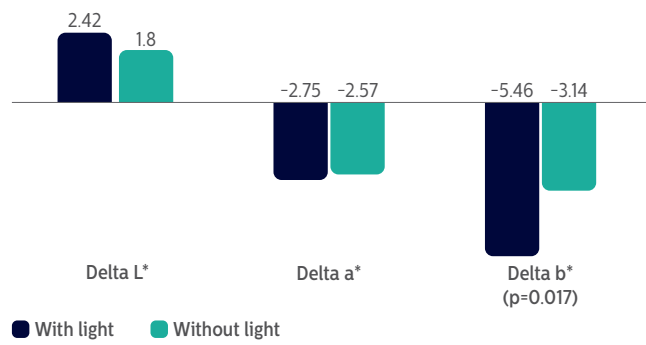
### Results

The shade reduction was 4.50 and 3.80 for Groups A and B respectively. The Shade Vision data showed significant differences between the two groups in delta b\* and delta E\*ab.

### Conclusion

Under the conditions of the study, Zoom! 2 Light exposure significantly enhances the efficacy of Zoom! 2 Gel in reducing the b\* and increasing the delta E\*ab.

#### Post Treatment L\*, a\* and b\* Change



#### Post Treatment Delta E and Shade Change

