





<u>TOP</u> > <u>Available Issues</u> > <u>Table of Contents</u> > <u>Abstract</u>

ONLINE ISSN: 1881-1361 PRINT ISSN: 0287-4547

Dental Materials Journal

Vol. 27 (2008), No. 2 p.284-291

[Image PDF (515K)] [References]

Stability and Reproducibility of Radiometric Properties of Light Curing Units (LCUs). Part I: QTH LCUs

María del Mar PÉREZ¹⁾, Francisco PÉREZ-OCÓN, Cristina LUCENA-MARTÍN²⁾ and Rosa PULGAR²⁾

- 1) Department of Optics, Science Faculty, University of Granada
- 2) Department of Stomatology, Faculty of Dentistry, University of Granada

(Received June 17, 2007) (Accepted October 20, 2007)

Abstract:

The present study, divided into two parts, analyses the stability and reproducibility of the spectral and energy emission of the present light-curing units (LCUs), quartz tungsten halogen (QTH) and light-emitting diodes (LEDs). In part I, QTH LCUs were studied. The results showed that the QTH LCUs studied presented high stability and reproducibility in terms of their spectral emission with VAF (*variance accounting for*) values from the Cauchy-Schwarz inequality, all close to 100%. With respect to the energy stability, the QTH LCUs studied can be considered stable under practical clinical conditions, although for some devices the initial irradiance value is critical. This result should be taken into account in those works which is researched in polymerization kinetics of dental materials as well as in clinical practice.

Key words:

Quartz tungsten halogen light-curing unit (QTH LCUs), Radiometric properties, Spectral emission

[Image PDF (515K)] [References]

To cite this article:

María del Mar PÉREZ, Francisco PÉREZ-OCÓN, Cristina LUCENA-MARTÍN and Rosa PULGAR. Stability and Reproducibility of Radiometric Properties of Light Curing Units (LCUs). Part I: QTH LCUs. Dent. Mater. J. 2008; 27: 284-291.

doi:10.4012/dmj.27.284 JOI JST.JSTAGE/dmj/27.284

Copyright (c) 2009 The Japanese Society for Dental Materials and Devices











Japan Science and Technology Information Aggregator, Electronic

JSTAGE

