

This document provides a listing of published articles in the field of dentistry that refer to Fotona laser systems and technologies. For more information on these publications contact us at info@fotona.com.

1. Lasers in Dentistry

Lukac "Laser Physics", Composite, Vol II, Jan 2007, pp. 5-7

Bader, Krejci, "Indications and limitations of Er:YAG laser applications in dentistry", American Journal of Dentistry, Vol 19, No 3, June, 2006, pp. 178-186

Flucke, "Double Down", Dental Practice Report July/August 2005

Luc C. Martens, A Laser-assisted Paediatric Dentistry: Review and Outlook, J Oral Laser Applications 2003, Vol 3, No 4, pp. 203-209

LTH P. Verheyen, "Laser Applications in Oral Medicine and Dentistry", J Oral Laser Applications 2002, Vol 2, No 4, pp. 239-248

Michael D. Wheeler, "Dentistry: Buyers Waver on Lasers' Superiority", Photonics Spectra, August 1998, pp.95-100

2. Hard Dental Tissue Applications

Perhavec, Daci, "Comparison of Er:YAG and Er,Cr:YSGG Dental Lasers", J Oral Laser Applications 2008, Vol 8, No 2, pp. 87-94

Birang, Yaghini, Shirani, "Comparative Study of Dentin Surface Changes Following Nd:YAG and Er:YAG Lasers Irradiation and Implications for Hypersensitivity", J Oral Laser Applications 2008, Vol 8, No 1, pp. 25-31

Merchant, Hegde, Thukral, "Lasers in Conservative Dentistry and Endodontics", Indian Dentist Research and Review, June 2007

Birang, Poursamimi, Gutknecht, Lampert, Mir, "Comparative evaluation of the effects of Nd:YAG and Er:YAG laser in dentin hypersensitivity treatment", Lasers in Medical Science, 2006

Furze, "Pulpotomy with Laser in Primary and Young Permanent Teeth", J Oral Laser Applications 2006, Vol 6, No 1, pp. 53-58

Harashima, Kinoshita, Kimura, Brugnera, Zanin, Pecora, Matsumoto, "Morphological Comparative Study on Ablation of Dental Hard Tissues at Cavity Preparation by Er:YAG and Er,Cr:YSGG Lasers", Photomedicine and Laser Surgery, Vol 23, No 1, 2005, pp 52-55

2.1. Hard Dental Tissue Applications (Er:YAG)

Kornblit, Trapani, Bossu, Muller-Bolla, Rocca, Polimeni, "The use of Erbium:YAG laser for caries removal in paediatric patients following Minimally Invasive Dentistry concepts", European Journal of Paediatric Dentistry, Vol 9, No 2, 2008

Souza, Jorge, Oliviera, Susin, Bagnato, Lizzarelli, "Effect of Er:YAG Laser Pulse Repetition Rate Variation on Bond Strength to Re-wet Dentin", J Oral Laser Applications 2007, Vol 7, No 4, pp. 239-245

Delme, De Moor, "Scanning Electron Microscopic Evaluation of Enamel and Dentin Surfaces after Er:YAG Laser Preparation and Laser Conditioning", Photomedicine and Laser Surgery, Vol 25, No 5, 2007, pp. 393-401

Yenen Z, Yalcin Cakir F, Gorucu J, Gurgan S, "Microleakage of Class I Resin Composite Restorations after Various Erbium Laser Preparations", ISLD-EU 1st congress, April 2007, poster

Lizarelli, Moriyama, Pelino, Bagnato, "The Use of Laser-ablation Rate to Evaluate the Quality of Cure in Light-polymerized Composite Resins", J Oral Laser Applications 2006, Vol 6, No 4, pp. 277-283

Husein, Ngo, McIntyre, Abbott, "Ultrastructure of Er:YAG Laser-treated Human Dentine", J Oral Laser Applications 2006, Vol 6, No 2, pp. 95-99

Luddin, Ngo, McIntyre, Abbott, "Comparative Study of the Ultrastructure and Adhesive Properties of Enamel Prepared by Er:YAG Laser and Conventional Bur", J Oral Laser Applications 2006, Vol 6, No 2, pp. 89-94

Massa, Borrelli, Bonetti, Fornaini, Bertrand, Rocca, "Rotary instruments vs Er:YAG laser and Class V Cavities: a clinical study", ISLD 10th congress, May 2006, poster

Brancati, Massa, Fornaini, Bertrand, Rocca, "Er:YAG laser in minimal-invasive dentistry. A clinical study", ISLD 10th congress, May 2006, poster

Delme, Deman, De Bruyne, De Moor, "Influence of Different Er:YAG Laser Energies and Frequencies on the Surface Morphology of Dentin and Enamel", J Oral Laser Applications 2006, Vol 6, No 1, pp. 43-52

DeGois, Ferrarezzi de Andrade, Pelin, Bagnato, Liuzarelli, "Bond Strength in Composite Resin Repairs: Preliminary Results of Surface Treatment with Different Techniques", J Oral Laser Applications 2005, Vol 5, No 4, pp. 219-224

Fornaini, Semez, Curti, Baldissarri, Rocca, "Super Short Pulses and Adhesive Dentistry", ESOLA 3rd congress, May 2005, poster

Baldissarri, Fornaini, Semez, Curti, Bertrand, "Orthodontic brackets placement with Er:YAG laser. A new technical approach", ISLD 9th congress, 2004, poster

Fornaini, Semez, Baldissarri, Bertrand, Rocca, "Er:YAG laser in minimal-invasive dentistry. A clinical study", ISLD 9th congress, 2004, poster

Lukač, Marinček, Grad, "Super VSP Er:YAG Pulses for Fast and Precise Cavity Preparation", J Oral Laser Applications 2004, Vol 4, No 3, pp. 171-173

Giusti, Santos-Pinto, Lizarelli, Bagnato, "Cavosurface Angle Patterns of Er:YAG Laser Cavity Preparations in Primary Teeth", J Oral Laser Applications 2004, Vol 4, No 1, pp. 23-27

Delme, De Moor, "A Scanning Electron Microscopic Comparison of Different Caries Removal Techniques for Root Caries Treatment", J Oral Laser Applications 2003, Vol 3, No 4, pp. 235-242

Gaeta, Riccio, De Rosa, Camerlingo, Lepore, "A Micro-Raman Spectroscopic Comparison of the Dentin/Resin Interface of Laser- and Mechanically-prepared Tooth Cavities", J Oral Laser Applications 2003, Vol 3, No 4, pp. 243-249

Lizarelli, Moriyama, Bagnato, "Ablation of Composite Resins Using Er:YAG Laser - Comparison With Enamel and Dentin", Lasers in Surgery and Medicine 33, 2003, pp. 132-139

Giusti, Santos-Pinto, Lizarelli, Bagnato, "Ablation Rates and Morphological Patterns of Deciduous-tooth Enamel after Er:YAG Laser Irradiation: An In Vitro Study", J Oral Laser Applications 2002, Vol 2, No 3, pp. 159-164

Blum, "Restorative Dentistry with the Er:YAG Laser", J Oral Laser Applications 2001, Vol 1, No 1, pp. 55-58

Majaron, Šušterčić, Lukač, Skalerič, Funduk, "Heat Diffusion and Debris Screening in Er:YAG Laser Ablation of Hard Biological Tissues", Applied Physics B Lasers and Optics, 66, 1998, pp. 1-9

Majaron, Prosen, Šušterčić, Lukač, "Fiber-tip Drilling of Hard Dental Tissues with Er:YAG Laser", Proc. SPIE 1998, Vol. 3248

Majaron, Šušterčić, Lukač, "Influence of Water Spray on Er:YAG ablation of Hard Dental Tissues", Proc. SPIE 1997, Vol. 3192

2.2. Hard Dental Tissue Applications (Nd:YAG)

Birang, Kaviani, Mohammadpour, Abed, Gutknecht, Mir, "Evaluation of Nd:YAG laser on partial oxygen saturation of pulpal blood in anterior hypersensitive teeth", Laser Med Sci 2008, Vol 23, No 3, pp 291-294

Marcato, Lazzarini, Semez, Fornaini, Rocca, "Laser Assisted, Non Vital Tooth Whitening in one step: Comparison of Two Wavelengths", ISLD 10th congress, May 2006, poster

Bonetti, Baldissarri, Brancati, De Gregoriis, Bertrand, Rocca, "Tetracyclines and Tooth Discoloration: Nd:YAG and Diode Lasers Management", ISLD 10th congress, May 2006, poster

2.3. Osteotomy (Er:YAG)

Stübinger, Nuss, Landes, Rechenberg, Sader, "Harvesting of Intraoral Autogenous Block Grafts From the Chin and Ramus Region: Preliminary Results With a Variable Square Pulse Er:YAG Laser", LSM, Vol 40, No 5, pp 312-318

Stübinger, von Rechenberg, Kuttenberg, Hering, Zeilhofer, Sader, "Bone healing after new and contemporary bone cutting techniques – A comparison of CO₂ laser, Er:YAG laser, ultrasound and saw osteotomy", 9th Int. Symposium for Periodontics and Restorative Dentistry, Boston, 2007, poster

Mello, Pagnoncelli, Munin, Filho, Mello, Arisawa, Oliviera, "Comparative histological analysis of bone healing of standardized bone defects performed with the Er:YAG laser and steel burs", Lasers Med Sci, 2007

Lizarelli, Govone, Pelino, Bagnato, "Er:YAG Laser Ablation of Bovine Bone Tissue: Morphological Evaluation and Ablation Rate", J Oral Laser Applications 2007, Vol 7, No 3, pp. 167-174

3. Endodontics

Toussaint-Eveillard, Becker, Terestri, Bertrand, Rocca, "Laser Applications in Endodontics Practice", ISLD 10th congress, May 2006, poster

Betti, Terzitta, Vescovi, Nammour, Rocca, "Combination of Er:YAG and Nd:YAG in Apicoectomies", ESOLA 3rd congress, May 2005, poster

3.1. Endodontics (Nd:YAG)

3.2. Endodontics (Er:YAG)

Z. Karlovic, S.Pezelj-Ribaric, I.Miletic, S.Jukic, J.Grgurevic, I.Anic, "Erbium:YAG Laser versus Ultrasonic in Preparation of Root-End Cavities", J Endodontics, Vol 31, No 11, Nov 2005

J. Grgurević, L. Grgurević, Miletić, Karlović, Jukić, Anić, "In Vitro Study of the Variable Square Pulse Er:YAG Laser Cutting Efficacy for Apicectomy", Lasers in Surgery and Medicine 36, 2005, pp. 347-350

4. Periodontics

Gašpirc, Skalerič, "Lasers in Periodontics", J Oral Laser Applications 2003, Vol 3, No 3, pp. 135-140

Gašpirc, Skalerič, "Morphology, Chemical Structure and Diffusion Processes of Root Surface after Er:YAG and Nd:YAG Laser Irradiation", J of Clinical Periodontology 2001, 28, pp. 508-516

4.1. Periodontics (Nd:YAG)

Shahabouei, Shirani, Navabakbar, Montazeri, Birangc, Mir, Mogharehabed, "The Clinical and Microbial Evaluation of Nd:YAG Laser in Periodontal Pocket Healing", J Oral Laser Applications 2007, Vol 7, No 4, pp. 233-238

Shirani, Kaviani, Abui, "Nd:YAG Laser Usage Under General Anesthesia in a Mentally Retarded Patient", J Oral Laser Applications 2006, Vol 6, No 1, pp. 59-61

Verhagen, Ellis, "Comparison of Adjunctive Nd:YAG Laser Treatment to Antimicrobial Treatment", J Oral Laser Applications 2006, Vol 6, No 1, pp. 29-37

4.2. Periodontics (Er:YAG)

Toussaint-Eveillard, Bertrand, Rocca, "Splinting of Periodontally Involved Teeth: Enamel Treatment Using Er:YAG Laser", ISLD 10th congress, May 2006, poster

Fornaini, Semez, Baldissarri, Nammour, Rocca, "Er:YAG laser as a help for crown lengthening", ISLD 9th congress, 2004, poster

5. Soft Tissue Surgery

Fornaini, Rocca, Bertrand, Merigo, Nammour, Vescovi, "Nd:YAG and Diode Laser in the Surgical Management of Soft Tissues Related to Orthodontic Treatment", Photomedicine and Laser Surgery, Vol 25, No 5, 2007, pp. 381-392

Shirani, Birang, Razavi, "Nd:YAG and Er:YAG Laser Application to Remove Oral Lesions of Lipoid Proteinosis", J Oral Laser Applications 2006, Vol 6, No 3, pp. 201-204

5.1. Soft Tissue Surgery (Nd:YAG)

Vesnaver, Dovšak, "Treatment of Vascular Lesions in the Head and Neck Using Nd:YAG Laser", J of Crano-Maxillofacial Surgery 2006, Vol 34, pp. 17-24

Semez, Fornaini, Bonanini, Nammour, Rocca, "Nd:YAG Sulcus Preparation Before Fixed Prosthetic Impressions", ESOLA 3rd congress, May 2005, poster

Baldissarri, Semez, Fornaini, Rocca, "Diode and Nd:YAG frenectomy", ISLD 9th congress, 2004, poster

5.2. Soft Tissue Surgery (Er:YAG)

Florio, Brancati, De Gregoriis, Semez, Fornaini, "Er:YAG laser soft tissue remodeling", ISLD 10th congress, May 2006, poster

Borrelli, Semez, Fornaini, Bertrand, Rocca, "Er:YAG Laser and Orthodontic Surgery: Gingivectomy and Surgical Exposure of Impacted Teeth", ISLD 10th congress, May 2006, poster

Semez, Fornaini, Nammour, Curti, Rocca, "Er:YAG Laser and Implant Site Preparation a Possibility for the Future", ESOLA 3rd congress, May 2005, poster

Baldissarri, Fornaini, Nammour, Rocca, "Er:YAG laser for treatment of gingival hyperplasia and/or hypertrophy", ISLD 9th congress, 2004, poster

6. LLLT

Vescovi, Merigo, Manfredi, Meleti, Fornaini, Bonanini, Rocca, Nammour, "Nd:YAG Laser Biostimulation in the Treatment of Bisphosphonate-Associated Osteonecrosis of the Jaw: Clinical Experience in 28 Cases", Photomedicine and Laser Surgery, Vol 26, No 1, pp.37-46