

Veröffentlichungen und Konferenzbeiträge

2017

M. de Wild, S. Zimmermann, M. Obrecht, M. Dard, *Marker for the pre-clinical development of bone substitute materials*, accepted to Current Directions in Biomedical Engineering (2017).

J. Rüegg, R. Schumacher, F.E. Weber, M. de Wild, Mechanical anisotropy of titanium scaffolds, accepted in Current Directions in Biomedical Engineering (2017).

R. Marek, F. Wohlfender, B. Wiese, M. de Wild, *Customizing the microstructure in three-dimensional Mg structures*, accepted in European Cells and Materials, (2017).

M. Wittwer, J. Rüegg, P. Gruner, W. Moser, H. Holeczek, O. Braissant, K. Maniura, M. de Wild, *An inorganic antimicrobial surface modification for orthopaedic implants*, accepted in European Cells and Materials, (2017).

2016

M. de Wild, S. Zimmermann, J. Rüegg, R. Schumacher, T. Fleischmann, C. Ghayor, F.E. Weber, *Influence of microarchitecture on osteoconduction and mechanics of porous titanium scaffolds generated by selective laser melting*, J. 3D printing and additive manufacturing, 3(3): 142-151 (2016).

M. de Wild, *Antibakterielle Implantatoberflächen für Gelenkimplantate: Stand des Wissens, alternative Konzepte, Osseointegration*, oral presentation, Symposium zementfreie Endoprothetik, 27.-28.8. 2016 Dresden (Germany).

M. de Wild, *Solution Provider FHNW: Research and degree programme Medical Technology*, oral presentation, Medtech Innovation Event, 5.9. 2016, Innocampus, Biel (Switzerland).

M. de Wild, *Towards Smart implants: SINAPIS – Slurry injection of nano-scale particles into implant surfaces*, oral presentation, SNI annual meeting 2016, 15./16.9.2016 Lenzerheide (Switzerland).

M. de Wild, R. Schumacher, A.M. Rohner, A. Melzner, O. Braissant, M. Straubhaar, W. Maurer, M. Schmied, *SINAPIS – Slurry injection of nano-scale particles into implant surfaces*, p. 23 in proceedings of SNI annual meeting 2016, 15./16.9.2016 Lenzerheide (Switzerland).

M. de Wild, F. Amacher, C.R. Bradbury, A. Molenberg, *Investigation of structural resorption behavior of biphasic bioceramics with help of gravimetry, μ CT, SEM, and XRD*, J Biomed Mater Res B Appl Biomater, 104(3):546-53 (2016).

R. Schumacher, A.M. Rohner, A. Melzner, M. de Wild, O. Braissant, M. Straubhaar, W. Maurer, M. Schmied, *SINAPIS – Slurry injection of nano-scale particles into implant surfaces*, SNI annual report 88-89 (2015).

N. Vogt, K. Wozniak, A. Salito, M. de Wild, *Biocompatible wear-resistant VPS coatings*, Current Directions in Biomedical Engineering 2(1): 31–34 (2016).

F. Wohlfender, N. Vogt, J. Rüegg, R. Marek, M. de Wild, *Effect of process parameters on hardness of SLM-Mg material*, Biomed Tech 2016 61, s30 (2016).

N. Harrasser, M. de Wild, J. Gorkotte, A. Obermaier, S. Feihl, M. Straub, R. von Eisenhart-Rothe, H. Gollwitzer, J. Rüegg, W. Moser, Ph. Gruner, R. Burgkart, *Evaluation of calcium dihydroxide- and silver-coated implants in the rat tibia*, J Appl Biomater Funct Mater 14(4): e441-e448 (2016).

M. de Wild, 3D- printing, *The new dimension of Laser applications*, Roundtable discussion, Swissphotonics, 16.06.2016, Palexpo Genève (Switzerland).

M. de Wild, *Implant Production using Selective Laser Melting*, SwissPhotonics, Photonics 4 Precision Manufacturing, presentation Geneva, 15.06.2016, Palexpo Genève (Switzerland).

M. de Wild, *stiftungfhnw-Projekt 3D gedruckte resorbierbare Metallimplantate*, Vortrag Stiftungsevent, 22.6.2016, Olten (Switzerland).

M. de Wild, *3D manufacturing of metallic implants*, oral presentation, Mc. Gill University, 20.5.2016, Montreal (Canada).

M. de Wild, *3D manufacturing of magnesium implants*, oral presentation, Laval University, 25.5.2016, Quebec City (Canada).

J. Rüegg, S. Böhringer, A. Kessler, R. Schumacher, E. Schkommodau, M. de Wild, *Degradable Mg scaffolds produced by selective laser melting*, Front. Bioeng. Biotechnol. Conference. Poster 10th World Biomaterials Congress. 15.-18.05.2016, Montreal (Canada), http://www.frontiersin.org/10.3389/conf.FBIOE.2016.01.00962/event_abstract.

F. Wohlfender, S. Saxer, B. Wiese, J. Rüegg, A. Dietschy, R. Schumacher, M. de Wild, *Preliminary microstructural investigation of Mg produced by SLM*, European Cells and Materials Vol. 32. Suppl. 1, 24 (2016).

M. de Wild, *3D printed resorbable metallic implants*, oral presentation, AMX meeting, 20. April 2016, Basel (Switzerland).

J. Rüegg, W. Moser, M. de Wild, *Surface analysis on an explanted hip stem*, oral presentation 28.04.2016, Vereinigung Süddeutscher Orthopäden und Unfallchirurgen VSOU, Baden-Baden (Germany).

N. Harrasser, J. Gorkotte, A. Obermeier, S. Feihl, M. Straub, J. Slotta-Huspenina, R. von Eisenhart-Rothe, W. Moser, Ph. Gruner, M. de Wild, H. Gollwitzer, R. Burgkart, *A new model of implant-related osteomyelitis in the metaphysis of rat tibiae*, BMC Musculoskeletal Disorders, 17:152 (2016).

2015

R. Schumacher, A.M. Rohner, A. Melzner, M. de Wild, *SINAPIS – Slurry Injection of Nano-scale Particles into Implant Surfaces*. Poster i-net Nano Technology Event «Innovation Landscape Nano», 9. Sept. 2015 Muttenz (Switzerland).

M. de Wild, *Magnesium im 3D Druck - Geschichte über Schöpfung und Zerfall*, HLS-Forschungstag, 4. Sept. 2015 Muttenz (Switzerland).

M. de Wild, *Additive Manufacturing of Mg*, presentation, 2. Sept. 2015, Institut Straumann AG, Basel (Switzerland).

S. Böhringer, A. Kessler, J. Rüegg, R. Schumacher, E. Schkommodau, M. de Wild, *Safety recipient for controlled selective laser melting of magnesium*, oral presentation at 7th BioMetal conference, 23.-28. Aug. 2015, Carivigno (Italy).

S. Böhringer, A. Kessler, J. Rüegg, R. Schumacher, E. Schkommodau, M. de Wild, *Safety recipient for controlled selective laser melting of magnesium*, in print, European Cells and Materials (2015).

M. de Wild, C. Jung, *NANTI: Development of a Nanoporous Antibacterial Surface for Titanium Implants by Electrochemical Copper deposition*, poster, CTI Mikro Nano Event & Swiss Nano Convention 2015, 28.5.2015, Neuchâtel (Switzerland).

M. de Wild, *Research On Smart Implants, Coating, 3D Printing and Additive Manufacturing Event*, Swiss-Belgium innovation event, 28. April 2015, EMPA Dübendorf (Switzerland).

R. Schumacher, A.M. Rohner, A. Melzner, M. de Wild, O. Braissant, M. Straubhaar, *SINAPIS – Slurry Injection of Nano-scale Particles into Implant Surfaces*. SNI Annual Report 2014 – Supplement A9.15, 70-71 (2014).

T. Bormann, W. Hoffmann, F. Schlottig, U. Mürrle, R. Schumacher, I. Martin, B. Müller, M. de Wild, *Porous shape-memory-scaffolds as mechanically active bone implants*, Poster at Smart Finish, Scientific Results and Innovation Elaborated in NRP 62, 19. March 2015, Gurten, Wabern/Berne (Switzerland).

M. de Wild, *The University of Applied Sciences in NRP 62*, Smart Finish, Scientific Results and Innovation Elaborated in NRP 62, oral presentation 19. March 2015, Gurten, Wabern/Berne (Switzerland).

C. Jung, S. Mathes, E. Bono, C. Walker, A. Kessler, L. Straumann, M. de Wild, E.B. de Haller, *Cell viability on titanium implant surfaces modified with antibacterial copper*, European Cells and Materials, 29, Suppl. 2, 24 (2015).

S. Zimmermann, F.E. Weber, R. Schumacher, J. Rüegg, M. de Wild, *stiffness-anisotropy of porous implant geometries*, European Cells and Materials, 29, Suppl. 2, 22 (2015).

C. Jung, M. de Wild, *Modifying titanium implant surfaces with antibacterial copper: Is this feasible?* eCM XVI: Implant Infection, Davos (2015). European Cells and Materials Vol. 30. Suppl. 2, 54 (2015).

N. Rimmer, F. Burgio, A. Rohner, P. Chavanne, S. Zimmermann, P. Gruner, R. Schumacher, M. de Wild, A. Papadimitropoulos, I. Martin, M. Beaufils-Hugot, U. Pielers, *Improvement of*

mechanical properties of 3D printed hydroxyapatite scaffolds by culture of osteoblast-like cells under perfusion flow, poster at SSB+RM meeting Lausanne, Switzerland (2015).

M. de Wild, F. Amacher, C.R. Bradbury, A. Molenberg, Investigation of structural resorption behavior of biphasic bioceramics with help of gravimetry, μ CT, SEM, and XRD, *J Biomed Mater Res B Appl Biomater*, 104(3):546-53 (2016).

L.S. Karfeld-Sulzer, C. Ghayor, B. Siegenthaler, M. de Wild, J.-C. Leroux, F.E. Weber, *N-methyl Pyrrolidone/Bone Morphogenetic Protein-2 Double Delivery with In Situ Forming Implants*, *J. Contr Release*, 203, 181-188 (2015).

W. Hoffmann, S. Feliciano, I. Martin, M. de Wild, D. Wendt, *Novel perfused compression bioreactor system as an in vitro model to investigate fracture healing*, *Frontiers in Bioengineering and Biotechnology*, 3, 10:1-6 (2015).

2014

M. de Wild, *3D manufacturing of implants made of titanium alloy*, Photonics Day 2014 about 3d Laser Printers and Printing, 25.11.2014, EMPA, St. Gallen (Switzerland).

M. de Wild, *Research on Smart Medical Implants*, Heilongjiang Key Management & Innovation Course for the Pharmaceuticals and Medtech Sector, 20.11.2014, FHNW School of Business, Basel (Switzerland).

C. Jung, L. Straumann, A. Kessler, U. Pieves, M. de Wild, *Antibacterial copper deposited onto and into the oxide layer of titanium implants*, *BioNanoMat 15 (S1)*, S180, DOI 10.1515/bnm-2014-9017 (2014).

F. E. Weber, M. de Wild, L. Karfeld-Sulzer, *An Osteoconductive Titanium scaffold To Deliver BMP And Its Enhancer NMP*, *BioNanoMat 15 (S1)*, S59, DOI 10.1515/bnm-2014-9017 (2014).

S. Zimmermann, M. de Wild, *Density- and Angle-Dependent Stiffness of Titanium 3D Lattice Structures*, *BioNanoMat 15 (S1)*, S35, DOI 10.1515/bnm-2014-9017 (2014).

M. de Wild, R. Schumacher, E. Schkommodau, F.E. Weber, *In-Vivo Study of 3D Printed Open-Porous Ti implants*. Poster at Annual Meeting 2014 of the Swiss Society of Biomedical Engineering, 27./28. Aug. 2014, ETHZ Zürich (Switzerland).

T. Bormann, B. Müller, W. Hoffmann, D. Wendt, M. de Wild, *Fatigue behaviour of selective-laser-melted nickel-titanium scaffolds*, oral presentation, ESB2014, 26th European Conference on Biomaterials Liverpool (United Kindom), 31.8.-3.9.2014.

C. Jung, L. Straumann, A. Kessler, U. Pieves, M. de Wild, *Antibacterial copper deposited onto and into the oxide layer of titanium implants*, poster, DGBM Tagung Dresden, 6.-8. Nov. 2014, Dresden (Germany).

M. de Wild, *3D printed resorbable metallic implants*, 25.6.2014, Jahresevent der Stiftung FHNW, Brugg (Switzerland).

W. Hoffmann, C. Döbeli, R. Santoro, D. Wendt, M. de Wild, *Reactor device for mechanical loading of tissue specimens and/or engineered tissues*, European Patent Office Munich, priority application, EP 14/169756, 23 May 2014.

M. de Wild, *Metallische Biomaterialien*, i-net Technologie Event „3D Printing: Chancen und Grenzen in der Medizinaltechnik“, 4.4.2014, Basel (Switzerland).

M. de Wild, *Research On Smart Implants*, Indian Institute for Technology IIT Mumbai, Dept. of Bio-engineering and Bioscience, 23.4.2014, Mumbai (India).

L. Straumann, A. Kessler, U. Pieves, M. de Wild, C. Jung, *Characterizing the mechanical stability of antibacterial copper deposits on anodized titanium implant surfaces*, European Cells and Materials, Suppl. published (2014).

W. Hoffmann, T. Bormann, A. Kessler, D. Wendt, M. de Wild, *Ni release from rapid prototyped 3D NiTi scaffolds*, European Cells and Materials, Suppl. published (2014).

A. Kessler, L. Straumann, U. Pieves, M. de Wild, C. Jung, *Release kinetics of electrochemically deposited antibacterial copper from anodized titanium implant surfaces*, European Cells and Materials 27; 24, Suppl. 2 (2014).

A. Zwahlen, M. de Wild, C. Jung, *Cleaning of Medical Devices: Testing Ultrasound in the Cleaning Bath*, European Cells and Materials 27; 26, Suppl. 2 (2014).

T. Bormann, B. Müller, M. Schinhammer, A. Kessler, P. Thalmann, M. de Wild, *Microstructure of selective laser melted nickel-titanium*, *Materials Characterization*, 94, 189-202 (2014).

W. Hoffmann, T. Bormann, A. Rossi, B. Müller, R. Schumacher, I. Martin, M. de Wild, D. Wendt, *Rapid prototyped porous NiTi scaffolds as bone substitutes*, *J Tissue Engineering*, 5; 1-14 (2014).

S. Hemm, S. Fabbri, B. Knobel, Ch. Findeisen, E. Schkommodau, M. de Wild, *Diamond-like carbon coating for highly precise and biocompatible optical markers for surgical navigation*, poster, BMT 2014 conference, 8.-10. Oct. 2014, Hannover, Germany, (2014).

A. Zwahlen, M. de Wild, C. Jung, *Comparison of Methods for Testing Ultrasound in the Cleaning Bath*, DAGA, 40. Jahrestagung für Akustik, 10.-13. März 2014, Oldenburg (Germany).

2013

C. Rosso, S. Müller, D.M. Buckland, T. Schwenk, S. Zimmermann, M. de Wild, V. Valderrabano, *All-inside Meniscal Repair Devices Compared to Their Matched Inside-Out Vertical Mattress Suture Repair: Introducing 10k and 100k Loading Cycles*, *Am J Sports Med.* 2014 Jun 25. pii: 0363546514538394., in print (2014).

M. de Wild, *Porous shape-memory-scaffolds as mechanically active bone implants*, 4th Technology Apéro NRP 62, Smart Materials in Electronics and Mechanics, 18. November 2013, Neuchâtel (Switzerland).

T. Bormann, G. Schulz, H. Deyhle, F. Beckmann, M. de Wild, J. Küffer, C. Münch, W. Hoffmann, B. Müller, *Combining micro computed tomography and three-dimensional registration to evaluate local strains in shape memory scaffolds*, *Acta Biomaterialia*, 10, 1024-1034 (2014).

T. Bormann, F. Beckmann, M. Schinhammer, H. Deyhle, M. de Wild, B. Müller, *Assessing the grain structure of highly X-ray absorbing metallic alloys*, *International Journal of Materials Research* 105, doi 10.3139/146.111052 (2014).

M. de Wild, F. Meier, T. Bormann, C.B.C. Howald, B. Müller, *Damping of selective-laser-melted NiTi for medical implants*, *Journal of Materials Engineering and Performance*, 23, 7; 2614-19 (2014).

M. Peroglio, M. Janki, M. de Wild, L.M. Benneker, M. Alini, S. Grad, *Fibrin Gel Contributes to the Restoration of Disc Height in Nucleotomized Intervertebral Discs under Dynamic Load*, Poster 29, Abstract ORS Orthopaedic Research Society 2014.

W. Hofstetter, H. Sehr, M. de Wild, J. Portenier, J. Gobrecht, E.B. Hunziker, *Modulation of human osteoblasts by metal surface chemistry*, *J Biomed Mater Res A*, 101(8):2355-64 (2013).

M. de Wild, R. Schumacher, K. Mayer, E. Schkommodau, D. Thoma, M. Bredell, A. Kruse, K.W. Grätz, F.E. Weber, *Bone regeneration by the osteoconductivity of porous titanium*

implants manufactured by selective laser melting: A histological and μ CT study in the rabbit, Tissue Engineering Part A, 19 (23-24):2645-54 (2013).

W. Hoffmann, S. Fabbri, R. Schumacher, S. Zimmermann, M. de Wild, *FEM analysis of porous titanium bone scaffolds*. European Cells and Materials, 26, Suppl. 4, 28 (2013).

M. de Wild, T. Schollbach, R. Schumacher, E. Schkommodau, T. Bormann, *Effects of laser parameters and scanning strategy on structural and mechanical properties of 3D NiTi implants fabricated with selective laser melting*. Poster, BMT 2013 Graz (Austria), September 2013. Biomed. Tech. 58 (Suppl. 1) (2013) DOI 10.1515/bmt-2013-4088.

M. de Wild, D. Schlatter, S. Schenk, R. Schumacher, T. Bormann, *Layer by layer alloying of Ti – ZrO₂ Composite Biomaterial*, ESB2013, 25th European Conference on Biomaterials Madrid (Spain), 8.-12.9.2013.

R. Schumacher, M. de Wild, M. Ammann, A. Spiegel: *Vergleich zwischen SLM und konventionell gefertigter Knochenplatte unter biomechanischer dynamischer Beanspruchung*. Abstract RapidTech 2013, Erfurt (Germany).

T. Bormann, M. de Wild, F. Beckmann and B. Müller, *Assessing the morphology of selective laser melted NiTi-scaffolds for a three-dimensional quantification of the one-way shape memory effect*, Proc. SPIE. 8689, Behavior and Mechanics of Multifunctional Materials and Composites 2013 868914 1-8, DOI:10.1117/12.2012245 (April 3, 2013).

W. Hoffmann, F. Schlottig, M. Mertmann, T. Bormann, I. Martin, D. Wendt, M. de Wild, *Smart NiTi constructs for 3D cell culture applications*, European Cells and Materials, 26, Suppl. 1, 22 (2013).

L. Straumann, N. Balimann, F. Meier, M. de Wild und C. Jung, *Der Einfluss von Ultraschall auf die elektrochemische Deposition von antibakteriell-wirkenden Kupfer-Partikeln auf anodisierten Titan-Proben als Modell für Titanimplantate*, European Cells and Materials, 26, Suppl. 1, 23 (2013).

M. de Wild, F. Meier, T. Bormann, B. Müller, *Damping of NiTi scaffolds produced by selective laser melting*, Proceedings of the International Conference on Shape Memory and Superelastic Technologies, 320 – 321, May 20–24, 2013, Prague (Czech Republic).

W. Hoffmann, T. Bormann, F. Schlottig, M. Mertmann, U. Pieves, R. Schumacher, I. Martin, B. Müller, M. de Wild, NRP62 TECHNOLOGY BRIEFING "Intelligente Materialien - unsere neuen Helfer im Alltag", *Porous shape-memory-scaffolds as mechanically active bone implants*, poster, 17. Juni 2013, empac, Dübendorf (Switzerland).

W. Hoffmann, T. Bormann, F. Schlottig, M. Mertmann, U. Pieves, R. Schumacher, I. Martin, B. Müller, M. de Wild, *Porous shape-memory-scaffolds as mechanically active bone implants*, poster, annual meeting of the CTI Micro Nano Domain, CTI Micro Nano Event, Swiss NanoConvention 2013, 24. May 2013, Basel (Switzerland).

J. Köser, N. Ryter, W. Hoffmann, E. Polat, L. Straumann, N. Balimann, F. Meier, M. de Wild, I. Martin, F. Schlottig, U. Pieves and C. Jung, *Project NAPTIS – Antibacterial Active Copper Deposited on the Surface of Titanium Implants*, poster, Swiss Nano Convention (SNC 2013), Basel (Switzerland).

2012

W. Hoffmann, T. Bormann, F. Schlottig, M. Mertmann, R. Schumacher, U. Pieleles, E. Schkommodau, B. Müller, D. Wendt, I. Martin, M. de Wild, *The Interplay of NiTi shape memory alloys (SMA) and human Bone Marrow-Derived Mesenchymal Stromal Cells*, Research Report 2011/2012, School of Life Sciences, University of Applied Sciences Northwestern Switzerland-FHNW, 40-41 (2012).

T. Bormann, R. Schumacher, B. Müller, M. de Wild, *Controlling Mechanical Properties of NiTi Scaffolds built by Selective Laser Melting*, Biomed Tech 57 Suppl. 1, 568 (2012).

Acknowledged in: N. Broggin, S. Tosatti, S.J. Ferguson, M. Schuler, M. Textor, M.M. Bornstein, D.D. Bosshardt, D. Buser, *Evaluation of chemically modified SLA implants (modSLA) biofunctionalized with integrin (RGD)- and heparin (KRSR)-binding peptides*, J Biomed Mater Res A. 100(3):703-11 (2012).

R. Schumacher, M. de Wild, E. Schkommodau, D. Hradetzky, *Massgeschneiderte Knochenimplantate aus dem 3D-Drucker*, BaZ-Sonderbeilage "Life Sciences" 12. Mai (2012).

M. de Wild, *Materialien und Oberflächen*, Schweizer Maschinenmarkt, 06, 16-17 (2012).

T. Bormann, R. Schumacher, B. Müller, M. Mertmann, M. de Wild, *Tailoring Selective Laser Melting Process Parameters for NiTi Implants*, Journal of Materials Engineering and Performance, 21, 2519-2514 (2012).

T. Bormann, F. Beckmann, M. de Wild, H. Deyhle, B. Müller, *Preliminary Diffraction Contrast Tomography Study on NiTi fabricated by Selective Laser Melting*, Annual Report DESY, Hamburg, 2012.

C. Jung, N. Ryter, J. Köser, W. Hoffmann, L. Straumann, N. Balimann, F. Meier, M. de Wild, F. Schlottig, U. Pieleles, *Antibacterial functionalization of the surface of titanium implants by electrochemical copper deposition*. European Cells and Materials, 23, Suppl. 1, 16 (2012).

Ph. Chavanne, O. Braissant, U. Pieleles, Ph. Gruner, M. de Wild, R. Schumacher, *Investigation on Bactericidal Effects of Silver Doped HA Structures*. European Cells and Materials, 23, Suppl. 1, 31 (2012).

J. Kurz, A. Leisibach, U. Pieleles, M. de Wild, *Nitroxide Antioxidants Immobilized on the Metal Oxide Surface*, European Cells and Materials, 23, Suppl. 2, 20 (2012).

T. Bormann, R. Schumacher, B. Müller and M. de Wild, *From powder to complex-shaped NiTi structures by selective laser melting*, European Powder Metallurgy Association, 16. - 19.9.2012 Basel (Switzerland), Euro PM2012 Proceedings Volume 1, Applications and New Processes, p.193-197.

C. Jung, B. Budes, F. Fässler, R. Uehlinger, T. Müller, P. Schaffner, S. Bläsi, M. de Wild, *Reinigungseffektivität und Kavitationsrauschpegel bei Ultraschall-unterstützter wässriger Reinigung von Medizinprodukten*, Fortschritte der Akustik – DAGA 2012, pp. 437-438 (2012). Deutsche Gesellschaft für Akustik e.V. (DEGA), Berlin, 2012. ISBN: 978-3-939296-04-1 (Tagungsband der 38. Deutschen Jahrestagung für Akustik DAGA 2012 in Darmstadt).

Acknowledged in: K.H. Bormann, N.C. Gellrich, H. Kniha, M. Dard, M. Wieland, M. Gahlert, *Biomechanical evaluation of a microstructured zirconia implant by a removal torque comparison with a standard Ti-SLA implant*, Clin. Oral Impl. Res. 23, 2012, 1210–1216 (2012).

W. Hoffmann, F. Schlottig, M. Mertmann, M. de Wild, D. Wendt, I. Martin, *The interplay between NiTi-SMA and human bone marrow-derived mesenchymal stromal cell*, Proceeding p. 46-47 of the 4th International Symposium Interface Biology of Implants IBI, 9.-11. May 2012, Warnemünde/Rostock (Germany).

M. de Wild, T. Bormann, W. Hoffmann, F. Schlottig, M. Mertmann, U. Pieves, R. Schumacher, I. Martin, B. Müller, *Porous shape-memory-scaffolds as mechanically active bone implants*, Industry Day and Technology Workshop NRP 62, 11. May 2012, SNF, Bern (Switzerland).

T. Bormann, R. Schumacher, B. Müller and M. de Wild. *Using Selective Laser Melting to Fabricate Anisotropic NiTi Implants*, poster, 5th European Conference for Clinical Nanomedicine, 7.-9. May 2012, Basel (Switzerland).

J. Köser, N. Ryter, W. Hoffmann, E. Polat, L. Straumann, N. Balimann, F. Meier, M. de Wild, I. Martin, F. Schlottig, U. Pieves and C. Jung, *Project NAPTIS – Antibacterial Active Copper Deposited on the Surface of Titanium Implants*, poster, 5th European Conference for Clinical Nanomedicine, 7.-9. May 2012, Basel (Switzerland).

M. de Wild, *Smart Impants*, Bridge Talk: bridge between culture, technology and design in the form of an evening lecture, 14.11.2012, Safe, Unternehmen Mitte, Basel (Switzerland).

M. de Wild, *Kupferdeposition für antibakterielle Implantat-Oberflächen*, Medical Cluster [INSIGHT] KKS Ultraschall AG, Oberflächenveredlung und Reinigung von medizintechnischen Produkten -Prozesse, Methoden und Herausforderungen, 8. Nov. 2012, Steinen (Switzerland).

M. de Wild, *From powder to functional implants by selective laser melting*, Bioengineering Seminar, University Hospital, Nord2, C-812, 11. Okt. 2012, Zürich (Switzerland).

M. de Wild, *Anisotropic shape memory implants*, World MedTec Forum, 25. Sept. 2012, Lucerne (Switzerland).

2011

M. de Wild, T. Müller, S. Tschumi, R. Schumacher, H. Albrecht, *Production and in-vitro characterization of micro-structured implant surfaces*. In P.J. Bartolo et al (eds.), Innovative Developments in Design and Manufacturing; Advanced Research in Virtual and Rapid Prototyping – Proc. of VR@P5, Leiria. Leiden: CRC Press Balkema 111 - 114 (2011).

N. Ryter, J. Köser, W. Hoffmann, U. Pieves, C. Jung, F. Schlottig, M. de Wild, *Antimicrobial Effects Of Titanium Surfaces With Incorporated Copper*, Proceeding of the SSBE annual meeting, 22. August 2011 Bern, p. 12 (2011).

W. Hoffmann, J. Köser, M. de Wild, I. Martin, F. Schlottig, C. Jung, U. Pieves, *Antimicrobial Porous Surfaces for Ti implants*, European Cells and Materials, 22, Suppl. 4, 20 (2011).

T. Bormann, R. Schumacher, B. Müller, M. de Wild: *Crystallographic phases of NiTi scaffolds fabricated by selective laser melting*, European Cells and Materials, 22, Suppl. 4, 14 (2011).

T. Bormann, R. Schumacher, B. Müller, M. de Wild, *Fabricating NiTi shape memory scaffolds by selective laser melting*, European Cells and Materials, 22, Suppl. 1, 12 (2011).

R. Schumacher, A. Yildiz, M. Näf, M. de Wild, E. Schkommodau, *Manipulation of the elastic behaviour of artificial Titanium bone grafts*, European Cells and Materials, 22, Suppl. 1, 10 (2011).

J. Köser, C. Jung, M. de Wild, W. Hoffmann, I. Martin, N. Ryter, F. Schlottig and U. Pieves *NAPTIS - Nanotechnology Improved Titanium Implant Surfaces*, poster, Nanotech date Nordwestschweiz 2011, 29. March 2011 Baden (Switzerland).

T. Bormann, R. Schumacher, B. Müller, and M. de Wild, *Investigation of the phase transition in SLM fabricated NiTi samples*, poster, 4th European Conference for Clinical Nanomedicine, 20.-24. May 2011, Basel (Switzerland).

M. de Wild, *Complex-shaped implants prepared by selective laser melting*, SMST 2011, 6. – 9. Nov. 2011 Hong Kong (China).

M. de Wild, *3D imaging by TM-1000*, TM-1000 User Meeting, Portmann Instruments AG, 13. September 2011, Biel-Benken (Switzerland).

2010

M. de Wild, U. Pieves, T. Bormann, C. Döbeli, W. Hoffmann, E. Schkommodau, R. Schumacher, *Porous shape-memory-scaffolds for bone implants*, Research Report 2009/2010, School of Life Sciences, University of Applied Sciences Northwestern Switzerland-FHNW, 36-37 (2010).

Acknowledged in: M. Gahlert, S. Röhling, M. Wieland, S. Eichhorn, H. Küchenhoff, H. Kniha, *A Comparison Study of the Osseointegration of Zirconia and Titanium Dental Implants. A Biomechanical Evaluation in the Maxilla of Pigs*, Clinical Implant Dentistry and Related Research, 12, 4, 297-305 (2010).

U. Pieves, M. de Wild, J. Köser, I. Martin, *NAPTIS: Nano- and micro-scaled porous surfaces of titanium implants produced by spark-assisted anodizing*, Research Report 2009/2010, School of Life Sciences, University of Applied Sciences Northwestern Switzerland-FHNW, 46-47 (2010).

Acknowledged in: J. Gottlow, M. Dard, F. Kjellson, M. Obrecht, L. Sennerby, *TiZr Evaluation of a New Titanium-Zirconium Dental Implant: A Biomechanical and Histological Comparative Study in the Mini Pig*, Clinical Implant Dentistry and Related Research, 14; 4 538-545 (2010).

M. de Wild, K. Maier, M. Schneider, S. Tschumi, R. Schumacher, H. Albrecht, *Surface Modification and In-vitro Investigation of Generatively Produced Implants*, BIOMaterialien, 11, 157 (2010).

M. de Wild, F. Braccini, A. Goerlich, R. Ramseyer, E. Schkommodau, S. Hemm, *Repositioing of EEG-Caps*. Biomed Tech 2010; 55(Suppl 1), BMT 2010.683.

T. Bormann, S. Friess, M. de Wild, R. Schumacher, G. Schulz, B. Müller, *Determination of strain fields in porous shape memory alloys using micro computed tomography*, Proc. of SPIE Vol. 7804 78041M-1-9 (2010).

M. de Wild, D. Leisi, M. Schäfer, M. Näf, R. Schumacher, E. Schkommodau, M. Bufler, *Investigating the porosity of 3D printed calcium phosphate scaffolds*, European Cells and Materials Journal, 19, Suppl. 2, 5 (2010).

M. de Wild, F. Braccini, A. Goerlich, R. Ramseyer, E. Schkommodau and S. Hemm, *Repositioning Precision of EEG-Caps*, poster, 44. Jahrestagung der Deutschen Gesellschaft für Biomedizinische Technik, 3-Länder-Tagung D-A-CH, 05.-08.10.2010, Rostock (Germany).

M. de Wild, R. Schumacher, M. Szymanski, M. Wüthrich, A. Walter, S. Fabbri, M. Jeker, E. Schkommodau, *Fatigue of Selective Laser Melted Titanium*, poster, 23rd European Conference on Biomaterials, 11-15th September 2010, Tampere (Finland).

T. Bormann, S. Friess, G. Schulz, M. de Wild, and B. Müller, *Determination of strain fields in shape memory alloys using micro computed tomography*, Developments in X-Ray Tomography VII, SPIE, 3-5 August 2010, San Diego (USA).

C. Mauth, R. Gruber, E. Bono, M. de Wild, A. Molenberg, H. Farine, H. Schliephake, U. Graf-Hausner, M. Dard, *Smart Biomaterials - Bioactive synthetic bone repair material for large oral bone defects*, TERMIS EU Conference, 13. – 17. June 2010, Galway (Ireland).

J. Köser, C. Jung, M. de Wild, I. Martin, F. Schlottig, U. Pieves, *NAPTIS – Nanotechnology Improved Titanium Implant Surfaces*, poster, Argovia Nanotechday, 11.05.2010, Basel (Switzerland).

T. Bormann, R. Schumacher, B. Müller, M. Mertmann, U. Pieves, M. de Wild, *NiTi-structures fabricated by selective laser melting*, poster, 3rd European Conference for Clinical Nanomedicine, 10.-12. May 2010, Basel (Switzerland).

T. Bormann, R. Schumacher, B. Müller, M. Mertmann, U. Pieves, M. de Wild, *Properties of NiTi-structures fabricated by selective laser melting*, European Cells and Materials Journal, 20, Suppl. 1, 13 (2010).

M. de Wild, *Smart Materials for Smart Implants*, i-net Nano Meeting 1. December 2010, Muttenz (Switzerland).

M. de Wild, *NiTi-Implants Fabricated by Selective Laser Melting*. BioValley Life Science Week 21.09. - 24.09.2010 Basel (Switzerland).

M. de Wild, *Brain-Computer-Interface, (Gehirn-Computer-Schnittstelle) – Was ist das? Interface cerveau humain / ordinateur - de quoi s'agit-il ?*, phaenovum, 30. April 2010, Waldshut (Germany).

M. de Wild, *Untersuchungen und Oberflächenmodifikationen von SLM Strukturen*, Meet-the-Expert Meeting „Rapid Prototyping & Rapid Manufacturing in der Medizintechnik“, 15. April 2010, St. Gallen (Switzerland).

2009

N. Bernhard, S. Berner, M. de Wild, M. Wieland, *The binary TiZr Alloy – A Newly Developed Ti Alloy for Use in Dental Implants*, Forum Implantologicum, ISSN 1861-6585, 5, 30-39, (2009).

M. Schuler, D.W. Hamilton, T.P. Kunzler, C.M. Sprecher, M. de Wild, D.M. Brunette, M. Textor, S.G.P. Tosatti, *Comparison of the Response of Cultured Osteoblasts and Osteoblasts Outgrown from Rat Calvarial Bone Chips to Non-fouling KRSR- and FHRRKA-peptide Modified Rough Titanium Surfaces*, Journal of Biomedical Materials Research Part B, Appl Biomater. 91(2):517-27 (2009).

E. Heinzelmann, D. Gygax, M. de Wild, *Individual Structures Made from Titanium*, Olten Meeting – A Contact Forum for Biotech, Conference Report, Chimia 63 74-75 (2009).

M de Wild, R Schumacher, S Fabbri, A Yildiz, E Schkommodau, *Analysis and Surface Modification of Rapid Prototyped Titanium Structures*, European Cells and Materials, 17, Suppl. 1, 6, ISSN 1473-2262 (2009).

R. Schumacher, M. de Wild, S. Fabbri, A. Yildiz, E. Schkommodau, *Rapid Manufacturing of Individualized Ti-6Al-4V Bone Implants*, European Cells and Materials, 17, Suppl. 1, 22, ISSN 1473-2262 (2009).

A. Molenberg, F. Schwarz, M. Herten, S. Berner, M. de Wild, M. Wieland, *Improved osseointegration of a novel, hydrophilic Ti surface - a review*, Mat.-wiss. u. Werkstofftech 40, 31-35 (2009).

S. Hemm, E. Schkommodau and M. de Wild, *Repositioning precision of EEG-Caps – a preliminary study*, Brain Computer Interfaces Track 04 at Medical Physics and Biomedical Engineering World Congress 2009, 07.-12.09.2009, Munich (Germany) IFMBE Proceedings, 2009, Volume 25/9, 436-439.

M. de Wild, R. Schumacher, S. Fabbri, A. Yildiz, E. Schkommodau, *Structural Analysis and Surface Modification of Rapid Prototyped Materials*, poster, 22nd European Conference on Biomaterials, 08-12th September, 2009, Lausanne (Switzerland).

R. Schumacher, M. de Wild, S. Fabbri, A. Yildiz, E. Schkommodau, *Selective Laser Melting of titanium implant material – manipulation of material properties*, poster 22nd European Conference on Biomaterials, 08-12th September, 2009, Lausanne (Switzerland).

H.J. Sebold, M. Siegrist, M. de Wild, M. Chiquet, W. Hofstetter, *osseointegration of titanium implants into cancellous bone of intact and ovariectomized rats*, Swiss Bone and Mineral Society / Association Suisse Contre l'Osteoporose, SBMS / SVGO – ASCO, 15h Annual Meeting, 02.04.2009, Bern (Switzerland).

A. Spiegel, M. Roellinghoff, S. Fabbri, M. de Wild, *Fatigue Strength of Medartis Adaptive Distal Radius Plate*, poster, American Academy of Orthopaedic Surgeons AAOS 2009 Annual Meeting, 25.-28.02.2009, Las Vegas, NV (USA).

M. Schuler, T.P. Kunzler, M. de Wild, C.M. Sprecher, D. Trentin, D.M. Brunette, M. Textor, S.G. Tosatti, *Fabrication of TiO₂-coated epoxy replicas with identical dual-type surface topographies used in cell culture assays*, J Biomed Mater Res A., (2009) 88(1):12-22.

M. de Wild, *Surface Modification and Analysis of Rapid Prototyped Ti-6Al-4V Structures*, 4th International Conference on Advanced Research in Virtual and Rapid Prototyping, 06.-10.10.2009, Leiria (Portugal).

M. de Wild, *Development and Investigation of Rapid Prototyping Implants*, 4th International Summer School on Advanced Biotechnology, 30.08. – 03.09.2009, Basel, (Switzerland).

2008

L. Scheideler, F. Rupp, M. Wieland, M. de Wild, J. Geis-Gerstorfer: *Influence of Hydrophilicity and Structure of Transgingival Implant Surfaces on Keratinocyte Cell Coverage*. Biomaterialien 9, (3/4), 133 (2008).

A. Molenberg, F. Schwarz, M. Herten, S. Berner, M. de Wild, M. Wieland, *Improved osseointegration of a novel, hydrophilic Ti surface – a review*, Materialwissenschaft & Werkstofftechnik 08/07 (2008).

M. de Wild, S. Hemm-Ode, *Brain Computer Interface: Neurofeedback*, Annual Meeting of the Swiss Society for Biomedical Engineering, poster, 04.-05.09.2008, Muttenz (Switzerland).

M. de Wild, *Analysis and modification of titanium structures*, Annual Meeting of the Swiss Society for Biomedical Engineering, poster, 04.-05.09.2008, Muttenz (Switzerland).

M. de Wild, *Entwicklung von Strukturen aus Titan*, i-net Nano Meeting, 10.05.2008, Basel (Switzerland).

M. de Wild, *Modification and analysis of titanium structures and implants*, Annual Research Report School of Life Sciences, University of Applied Sciences Northwestern Switzerland-FHNW (2008).

F. Rupp, A. Orujov, I. Stephan, L. Scheideler, M. de Wild, M. Wieland, J. Geis-Gersdorfer, *Influence of Hydrophilicity an Saliva Conditioning of Titanium Implant Surfaces by Means of QCM-D*, poster, 8th World Biomaterial Congress, Amsterdam 2008.

M. de Wild, *Smart Implants*, Lunchseminar der Fachhochschule Nordwestschweiz, 2008, Muttenz (Switzerland).

M. de Wild, *Entwicklung von Strukturen aus Titan*, BioTechNet Olten Meeting, 19.11.2008, Olten (Switzerland).

L. Scheideler, A. Orujov, F. Rupp, I. Stephan, M. Wieland, M. de Wild, J. Geis-Gersdorfer, *Influence of Hydrophilicity an Saliva Conditioning of Titanium Implant Surfaces by Means of QCM-D*, poster, 8th World Biomaterial Congress, 2008, Amsterdam (Netherlands).

2007

M. de Wild, *Effects of metal surface chemistry on bone formation and implant osseointegration*, Dreiländertagung der deutschen, österreichischen und schweizerischen Gesellschaften für Medizinphysik in Bern, 25.-28.09.2007, Bern (Switzerland).

M. de Wild, *Choix des matériaux d'implants dentaires et des traitements de surface* Conférences des Journées Technologiques Titane, 22.-23.5.2007, Nantes (France).

M. de Wild, *Bone Implants*, Master of Science in Biomedical Engineering, Group for Bone Biology, Department Clinical Research, 18.01.2007, University of Bern (Switzerland).

2006

M. Schuler, G. Owen, D. Hamilton, M. de Wild, M. Textor, D. Brunette, S. Tosatti, *Biomimetic modification of titanium dental implant model surfaces using the RGDSP-peptide sequence: a cell morphology study*, *Biomaterials* 27, 4003-15 (2006).

S. Ferguson, N. Brogini, M. Wieland, M. de Wild, F. Rupp, J. Geis-Gerstorfer, D. Cochran, D. Buser, *Biomechanical evaluation of the interfacial strength of a chemically modified sandblasted and acid-etched titanium surface* *J. Biomed. Mater. Res. A* 78, 291-7 (2006).

F. Rupp, L. Scheideler, N. Olshanska, M. de Wild, M. Wieland, J. Geis-Gerstorfer, Comments from the authors to "Enhancing surface free energy and hydrophilicity through chemical modification of microstructured titanium implant surfaces" in *J. Biomed. Mater. Res.* 76A, 323-334 (2006) to the letter to the editor of M. Morra et al., Comment in: *J. Biomed. Mater. Res. A.*, 79, 752-4; author reply 755-7 (2006).

M. de Wild, *Superhydrophilic property of SLActive implants*, Starget FOCUS, SLActive, Scientific studies, Institut Straumann AG, 152.911 (e), 151.911 (d), 04 (2006).

R. Seibl, M. de Wild, E. Lundberg, *In vitro protein adsorption tests on SLActive*, Starget FOCUS, SLActive, Scientific studies, Institut Straumann AG, 152.911 (e), 151.911 (d), 04 (2006).

F. Rupp, L. Scheideler, N. Olshanska, M. de Wild, M. Wieland, J. Geis-Gerstorfer, *Enhancing surface free energy and hydrophilicity through chemical modification of microstructured titanium implant surfaces*, *J. Biomed. Mater. Res.* 76A, 323-334 (2006).

M. de Wild, *Enhanced Initial Hydrophilicity and Biological Response of Microstructured Titanium Implants by Means of Chemical Modification*, International Conference on Nanoscience and Technology - ICN&T 2006 (STM06 meets Nano9), Invited Talk, Session: Nanotechnology, 04.08.2006, Basel (Switzerland).

M. de Wild, *Chemical Modification Enhances Initial Hydrophilicity and Cell Response of Microstructured Titanium Implants*, XXVIII. Münchner Symposium für Experimentelle Orthopädie, Klinikum Grosshadern, 24.-25.02.2006 Munich (Germany).

M. de Wild, *Chemical Modification Enhances Initial Hydrophilicity and Biological Response of Microstructured Titanium Implants*, Annual Meeting Swiss Physical Society (SPS) 2006, 13./14.02.2006, Biophysics and Industry, Lausanne (Switzerland).

2005

M. de Wild, R. Seibl, L. Scheideler, *SLActive - The Fundamentals*, Starget 02/05, Institut Straumann AG, 151.527 (d), 152.527 (e), 02 (2005).

M. Schuler, TP Kuenzler, CM Sprecher, M. de Wild, SG Tosatti, M Textor, *Innovative Method for the Production of Similar TiO₂-coated Epoxy Replicas Used in Cell Culture Assays*, European Cells and Materials Journal, 10, Suppl. 5, BS20 (2005).

M. Schuler, S. Tosatti, D.W. Hamilton, C.M. Sprecher, M. de Wild, D.M. Brunette, M Textor, *Primary Osteoblasts Outgrown from Rat Calvarial Explants Form a "Fried-egg"-like Image on Non-fouling Peptide-modified Titanium Surfaces*, European Cells and Materials Journal, 10, Suppl. 1, 32 (2005).

The Straumann SLA[®] Implant Surface: Clinically proven reduced healing time: 5-year meta-analysis on the Straumann SLA[®] surface, Institut Straumann AG, 151.526 (e), Switzerland (2005).

M. Schuler, T.P. Kuenzler, CM Sprecher, M. de Wild, SG Tosatti, M Textor, *TiO₂-coated Epoxy Replicas with Identical Surface Topography for Cell Culture Experiments*, European Cells and Materials Journal 10, Suppl. 3, 72 (2005).

2004

D. Bonifazi, H. Spillmann, A. Kiebele, M. de Wild, P. Seiler, F. Cheng, H.-J. Güntherodt, T.A. Jung, F. Diederich, *Supramolecular patterned surfaces driven by cooperative assembly of C₆₀ and porphyrins on metal substrates*, Angew Chem Int Ed Engl. 43, 36, 4759-63 (2004).

2003

M. de Wild, S. Berner, H. Suzuki, L. Ramoino, A. Baratoff, T.A. Jung, *Molecular Assembly and Self-Assembly: Molecular Nanoscience for Future*, Ann. N.Y. Acad. Sci 993 1-15 (2003).

S. Berner, M. de Wild, L. Ramoino, S. Ivan, A. Baratoff, H.-J. Güntherodt, H. Suzuki, D. Schlettwein and T.A. Jung, *Adsorption and 2D phase behavior of a large polar molecule: Subphthalocyanine on Ag(111)*, Phys. Rev. B 68 (2003) 115410 (2003).

S. Berner, M. de Wild, L. Ramoino, S. Ivan, A. Baratoff, H.-J. Güntherodt, H. Suzuki, D. Schlettwein and T.A. Jung, *Adsorption and 2D phase behavior of a large polar molecule: Subphthalocyanine on Ag(111)*, Virtual Journal of Nanoscale Science & Technology 8, 12 (2003).

M. de Wild, *Scale-Resolved Electrochemical Surface Structuring of Titanium for Biological Applications*, Nano Conference, 9.-11.9.2003, St. Gallen (Switzerland).

M. de Wild, *Molecular Self-Assembly at metal surfaces observed with a UHV-STM*, Visit of the Department of Physics and Astronomy at the University of Canterbury, 10.3.2003, Christchurch (New Zealand).

2002

M. de Wild, *Molecular Self-Assembly and Flexibility*, NCCR-meeting, 3.-6.9.2002, Pontresina (Switzerland).

M. de Wild, *Novel Self-Assembling Technique In A Bi-Molecular System*, Nano-7 / ECOSS-21, 21th European Conference on Surface Science, 23.-28.6.2002, Malmö (Sweden).

M. de Wild, *Self-Assembly of Organic Molecules at Metal surfaces observed with a UHV-STM*, Visit of the Center for Integrated Science and Engineering at the Columbia University, 3.-5.6.2002, New York (USA).

M. de Wild, *Formation of Nanostructures by a Novel Self-Assembling Technique in a Bi-Molecular System*, Scanning Probe Microscopy, Sensors and Nanostructures IV, 26.-29.5.2002, Las Vegas (USA).

M. de Wild, *Self-Intermixed Monolayer Phases*, NCCR on Molecular Nanosystems: From Single Molecules to Supramolecular Assemblies, 14.-19.4.2002, Ascona (Switzerland).

M. de Wild, *Complex 2D Phase Behavior observed for Binary Mixtures of Porphyrin Derivatives*, Frühjahrstagung der Deutschen Physikalischen Gesellschaft, 11.-15.3.2002, Regensburg (Germany).

M. de Wild, *Novel Principle for 2D Molecular Self-Assembly: Self-Intermixed Monolayer Phases of Sub-Phthalocyanine and C₆₀ on Ag(111)*, thesis, Prof. Dr. T. Jung, Prof. Dr. H.-J. Güntherodt, University of Basel (2002).

M. de Wild, S. Berner, H. Suzuki, H. Yanagi, D. Schlettwein, S. Ivan, A. Baratoff, H.-J. Güntherodt and T.A. Jung, *A Novel Route to Molecular Self-Assembly: Self-Intermixed Monolayer Phases*, ChemPhysChem 10, 881-885 (2002).

M. de Wild, S. Berner, H. Suzuki, L. Ramoino, A. Baratoff and T.A. Jung, *Molecular Assembly and Self-Assembly: Molecular Nanoscience for Future Technologies*, Chimia 10, 500-505 (2002).

2001

S. Berner, M. Brunner, L. Ramoino, H. Suzuki, H.-J. Güntherodt and T.A. Jung *Time evolution of a 2D solid-gas equilibrium: a model system for molecular adsorption and diffusion*, Chemical Physics Letters 348, 175-181 (2001).

H. Suzuki, S. Berner, M. Brunner, H. Yanagi, D. Schlettwein, T.A. Jung and H.-J. Güntherodt *Characterisation of molecular overlayers on metal surface in dynamic equilibrium by scanning tunneling microscope*, Thin Solid Films 393, 325-328 (2001).

M. Brunner, *Conformational Flexure and Switching of a Single Porphyrin*, STM-7 / Molecular Nanosystems: From Single Molecules to Supramolecular Assemblies, 15.-20.7.2001, Vancouver (Canada).

M. Brunner, *Multiphase adsorption of molecules in a two dimensional bottle: Two dimensional molecular motion and dynamic equilibrium*, Sci and Ski seminar, 19.-23.3.2001, Andermatt (Switzerland).

2000

M. Brunner, *Structure and Conformation of Single Molecules from UHV-STM*, Workshop Scanning Probe Microscopies and Organic Materials IX, 9.-11.10.2000, Hannover (Germany).

1999

M. Brunner, O. Koudal, Endress + Hauser Flowtec AG, *Coriolis-Massedurchflussmesser Promass 63 in Kombination mit Dosierpumpen*, wdm, 4/Juli (1999).

1997

M. Brunner, *Supraleitende mesoskopische NbZr Drähte*, Diplomarbeit bei Prof. C. Schönenberger, Physik der kondensierten Materie, Physikalisches Institut, Universität Basel (1997).

1995

M. Brunner, *Photoconductivity and Electrical Fluctuations in Hydrogenated Amorphous Silicon*, Study at Prof. J. I. Dijkhuis, Semiconductors Group of the Department of Condensed Matter, Faculty of Physics, Utrecht University (1995).

1990

M. Brunner, *Fibonacci-Zahlen und der Goldene Schnitt*, Semesterarbeit Gymnasium Oberwil/BL (1990).

Patente und Anmeldungen

W. Hoffmann, C. Döbeli, R. Santoro, D. Wendt, M. de Wild, *Reactor device for mechanical loading of tissue specimens and/or engineered tissues*, European Patent Office Munich, priority application, EP 14/169756, 23 May 2014.

W. Hofstetter, E. Hunziker, M. de Wild, M. Wieland, *Dental implant system*
PCT patent application WO 2009/040124, priority 26.09.2007.
EP07 018 894.1, priority 26.09.2007
PCT/EP2008/008198, priority 26.09.2008
US12/680,015, priority 25.03.2010

M. de Wild, F. Homann, *Dental implant having a surface made of a ceramic material*
European patent application EP 1982671, priority 19.04.2007.

S. Tosatti, M. Schuler, D. Trentin, M. de Wild, *Cell selective implant surface with controlled release of bioactive agents*, PCT patent application A16238EP, priority 11.01.2006. Pat No. 07405002.2-1219. European patent application EP 1 808 188, 05.01.2007.

F. Grohmann, M. de Wild, M. Memmolo, *Beschichtung von Teilen aus Titan oder einer Titan-Legierung zur Verhinderung von Kaltverschweissung*, PCT patent application A05019053.7, priority 01.09. (2005). *Coating for Parts Made of Titanium or the Alloy Thereof or Preventing Cold Welding*, European patent application EP 1759722, priority 01.09. (2005).

S. Berner, S. Schintke, L. Ramoino, M. de Wild, and T. A. Jung, *Method to induce and control a reversible structural transition in a molecular dipole layer*, U.S. patent application (2003).

M. Brunner, S. Berner, H. Suzuki and T.A. Jung, University of Basel, *Production method for atomic and molecular patterns on surfaces and nanostructured devices*, PCT patent application WO 02/086200 A1 (2001).

O. Koudal, V. Kobbe, M. Brunner, B. Banholzer, Endress + Hauser Flowtec AG, *Volume or mass flowmeter*, PCT patent application 99102267.4-2204 (1999).