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2021

Testing meshes in a computer model of a laparoscopic ventral hernia repair.

Qandeel H, Chew C, Tanner KE and O'Dwyer PJ. *Surg Endosc*.

Are Shell Strength Phenotypic Traits in Mussels Associated with Species Alone?.

Carboni S, Evans S, Tanner KE, Davie A, Bekaert M and Fitzter SC.

2020

Bone mineral as a drug-seeking moiety and a waste dump.

TANNER K, Raina DB, Liu Y, Jacobson O, TÃ¡ngil M and Lidgren L. *Bone & Joint Research vol. 9, (10).The British Editorial Society of Bone & Joint Surgery*.

Nanovibrational Stimulation of Mesenchymal Stem Cells Induces Therapeutic Reactive Oxygen Species and Inflammation for Three-Dimensional Bone Tissue Engineering.

Orapiriyakul W, Tsimbouri MP, Childs P, Campsie P, Wells J, Fernandez-Yague MA, Burgess K, Tanner KE, Tassieri M, Meek D, Vassalli M, Biggs MJP, Salmeron-Sanchez M, Oreffo ROC, Reid S and Dalby MJ. *Acs Nano.American Chemical Society*.

Optimising Micro-Hydroxyapatite Reinforced Poly(lactide acid) Electrospun Scaffolds for Bone Tissue Engineering.

TANNER K and Kareem MM. *Journal of Materials Science: Materials in Medicine.Springer Verlag*.

Long Term Response to a Bioactive Biphasic Biomaterial in the Femoral Neck of Osteoporotic Rats.

Raina DB, Å irka A, Qayoom I, Teotia AK, Liu Y, Tarasevicius S, TANNER K, Isaksson H, Kumar A, TÃ¡ngil M and Lidgren L. *Tissue Engineering Part A.Mary Ann Liebert*.

Recycling implants: a sustainable solution for musculoskeletal research.

Lidgren L, Raina DB, TÃ¡ngil M and Tanner KE. *Acta Orthopaedica vol. 91, (2) 125-125.Informa Healthcare*.

2019

Global and site-specific analysis of bone in a rat model of spinal cord injury-induced osteoporosis.

Williams JA, Windmill JFC, TANNER KE, Riddell JS and Coupaud S. *Bone Reports.Elsevier*.

Hybrid Core-Shell Scaffolds for Bone Tissue Engineering.

Kareem MM, Hodgkinson T, Salmeron Sanchez M, Dalby MJ and TANNER KE. *Biomedical Materials vol. 14,.Iop Publishing*.

2018

Relationship between fatigue parameters and fatigue crack growth in PMMA bone cement.

Sheafi EM and TANNER KE. *International Journal of Fatigue vol. 120, 319-328*.

In-Vitro Apatite Growth on Porous β -Tricalcium Phosphate Scaffolds Coated with PHBV.

Mustafa Z, Ishak NF, Othman R, Ahmad N, Toibah AR, Sheikh Md Fadzullah SH and TANNER KE. *Journal of Advanced Manufacturing Technology* vol. 12, (1(4)) 135-146.

Ultrasound-guided adductor canal block: a cadaver study investigating the effect of a thigh tourniquet.

Nair A, Dolan J, Tanner KE, Kerr CM, Jones B, Pollock PJ and Kellett CF. *British Journal of Anaesthesia* vol. 121, (4) 890-898.

Calcium Sulphate/Hydroxyapatite Carrier for Bone Formation in the Femoral Neck of Osteoporotic Rats.

Å irka A, Raina DB, Isaksson H, TANNER KE, Smailys A, Kumar A, Tarasevičiū s Å , Tãgil M and Lidgren L. *Tissue Engineering Part A*.

In-vitro apatite growth on porous β -tricalcium phosphate scaffolds coated with PHVB.

Mustafa Z, Ishak NF, Othman R, Ahmad N, Toibah AR, Sheikh Md Fadzullah SH and Tanner KE. *Journal of Advanced Manufacturing Technology* vol. 12, (Specialissue4) 135-146. Penerbit Universiti, Universiti Teknikal Malaysia Melaka.

2017

S-N Analysis of Fatigue Performance of PMMA Bone Cement: Effects of Testing Specimen Variables and Stress Amplitude.

Sheafi EM and TANNER KE. *International Journal of Fatigue* vol. 105, 119-127. Elsevier.

Mechanical behaviour of biodegradable AZ31 magnesium alloy after long term in vitro degradation.

Adekanmbi I, Mosher CZ, Lu HH, Riehle M, Kubba H and Tanner KE. *Materials Science and Engineering C* vol. 77, 1135-1144.

Patient-specific bone mineral density distribution in the tibia of individuals with chronic spinal cord injury, derived from multi-slice peripheral Quantitative Computed Tomography (pQCT) -- A cross-sectional study.

Coupaud S, Gislason MK, Purcell M, Sasagawa K and Tanner KE. *Bone* vol. 97, 29-37.

Hard Tissue Applications of Biocomposites.

TANNER KE. *Biomedical Composites*. Ambrosio L. Woodhead Publishers.

2016

Interfacial modulus mapping of layered dental ceramics using nanoindentation.

CATTELL MJ, Theocharopoulos A, Bushby AJ, P TMng KMY, TANNER KE and Wilson RW. *Journal of Advanced Prosthodontics* vol. 8, (6) 479-488. Kim SH.

Exclusive expression of MeCP2 in the nervous system distinguishes between brain and peripheral Rett syndrome-like phenotypes.

Ross PD, Guy J, Selfridge J, Kamal B, Bahey N, Tanner KE, Gillingwater TH, Jones RA, Loughrey CM, McCarroll CS, Bailey MES, Bird A and Cobb S. *Human Molecular Genetics* vol. 25, (20) 4389-4404.

Finite element study of the acetabulum in cemented hip arthroplasty investigating retention or removal of the subchondral bone plate.

Tanner KE, Svensson I, Samuelsson F and Flivik G. *Biomedizinische Technik* vol. 61, (5) 525-536.

Colquhoun R, Gadegaard N, Healy DM and Tanner KE. *J Mater Sci Mater Med* vol. 27, (10) 149-149.

A novel surgical approach for the reconstruction of critical-size mandibular defects using calcium sulphate/hydroxyapatite cement, BMP-7 and mesenchymal stem cells-histological assessment.

Alfotawi R, Ayoub AF, Tanner KE, Dalby MJ, Naudi KB and McMahon J. *Journal of Biomaterials and Tissue Engineering* vol. 6, (1) 1-11.

2015

Mechanical behaviour of degradable phosphate glass fibres and composites - A review.

Colquhoun R and Tanner KE. *Biomedical Materials (Bristol)* vol. 11, (1).

Influence of test specimen fabrication method and cross-section configuration on tension-tension fatigue life of PMMA bone cement.

Sheafi EM and Tanner KE. *Journal of The Mechanical Behavior of Biomedical Materials* vol. 51, 380-387.

Ocean acidification alters the material properties of *Mytilus edulis* shells.

Fitzer SC, Zhu W, Tanner KE, Phoenix VR, Kamenos NA and Cusack M. *Journal of The Royal Society Interface* vol. 12, (103).

Biomechanical properties of bone in a mouse model of Rett syndrome.

Kamal B, Russell D, Payne A, Constante D, Tanner KE, Isaksson H, Mathavan N and Cobb SR. *Bone* vol. 71, 106-114.

2014

Radiological assessment of bioengineered bone in a muscle flap for the reconstruction of critical-size mandibular defect.

Al-Fotawei R, Ayoub AF, Heath N, Naudi KB, Tanner KE, Dalby MJ and McMahon J. *Plos One* vol. 9, (9).

Prediction of risk of fracture in the tibia due to altered bone mineral density distribution resulting from disuse: A finite element study.

Gislason MK, Coupaud S, Sasagawa K, Tanabe Y, Purcell M, Allan DB and Tanner KE. *Proceedings of The Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine* vol. 228, (2) 165-174.

Effects of test sample shape and surface production method on the fatigue behaviour of PMMA bone cement.

Sheafi EM and Tanner KE. *Journal of The Mechanical Behavior of Biomedical Materials* vol. 29, 91-102.

2013

Characterising the strain and temperature fields in a surrogate bone material subject to power ultrasonic excitation.

Wang D, Lucas M and Tanner KE. *Strain* vol. 49, (5) 409-419.

Effects of hydroxyapatite and PDGF concentrations on osteoblast growth in a nanohydroxyapatite-poly(lactic acid) composite for guided tissue regeneration.

Talal A, McKay IJ, Tanner KE and Hughes FJ. *Journal of Materials Science: Materials in Medicine* vol. 24, (9) 2211-2221.

Erratum: The skeletal phenotype of chondroadherin deficient mice (PLoS ONE (2013) 8:7 DOI: 10.1371/annotation/cb7d7b4c-624f-46e6-957e-13b355ca8e02).

Hessle L, Stordalen GA, Wengler C, Petzold C, Tanner EK, Brorson SH, Baekkevold ES, Ånnerfjord P, Reinholt FP and Heinegård D. *Plos One* vol. 8, (7).

The Skeletal Phenotype of Chondroadherin Deficient Mice.

Hessle L, Stordalen GA, Wengler C, Petzold C, Tanner EK, Brorson SH, Baekkevold ES, Ånnerfjord P, Reinholt FP and Heinegård D. *Plos One* vol. 8, (6).

Self-folding nano- and micropatterned hydrogel tissue engineering scaffolds by single step photolithographic process.

Vasiev I, Greer AIM, Khokhar AZ, Stormonth-Darling J, Tanner KE and Gadegaard N. *Microelectronic Engineering* vol. 108, 76-81.

Assessment of cellular viability on calcium sulphate/hydroxyapatite injectable scaffolds.

Alfotawi R, Naudi K, Dalby MJ, Tanner KE, McMahon JD and Ayoub A. *Journal of Tissue Engineering* vol. 4, (1) 1-12.

2012

Bone and its adaptation to mechanical loading: A review.

Mellon SJ and Tanner KE. *International Materials Reviews* vol. 57, (5) 235-255.

Structure and Biomechanics of Biological Composites.

Screen HRC and Tanner KE. *Wiley Encyclopedia of Composites*.

Small but extremely tough.

Tanner KE. *Science* vol. 336, (6086) 1237-1238.

Introduction to biomaterials for spinal surgery.

Raucci MG, Gloria A, De Santis R, Ambrosio L and Tanner E.

Optimising the properties of injectable materials for vertebroplasty and kyphoplasty.

Tanner E. *Biomaterials For Spinal Surgery*.

Artificial intervertebral discs.

Gloria A, De Santis R, Ambrosio L and Tanner E. *Biomaterials For Spinal Surgery*.

The effects and interactions of fabrication parameters on the properties of selective laser sintered hydroxyapatite polyamide composite biomaterials.

Savalani MM, Hao L, Dickens PM, Zhang Y, Tanner KE and Harris RA. *Rapid Prototyping Journal* vol. 18, (1) 16-27.

Biomaterials for Spinal Surgery.

Ambrosio L and Tanner E.

Design and fabrication of a 3D nanopatterned PEEK implant for cortical bone regeneration in a rabbit model.

Brydone AS, Morrison DSS, Stormonth-Darling J, Meek RDM, Tanner KE and Gadegaard N. *European Cells and Materials* vol. 24, (SUPPL. 1).

In silico evaluation of a new composite disc substitute with a L3-L5 lumbar spine finite element model.

Noailly J, Ambrosio L, Tanner KE, Planell JA and Lacroix D. *European Spine Journal* vol. 21, (SUPPL. 5).

Contributor contact details.

Ambrosio L, Tanner KE, Raucci MG, Gloria A, De Santis R, Ambrosio L, Tanner KE, Alcock B, Quaye M, Harvey J, Wilke H-J, Rohlmann A, Noailly J, Lacroix D, Mohan V, Gupta MC, Logroscino G, Proietti L, Pola E, Gloria A, De Santis R, Ambrosio L, Tanner KE, Revell PA, Baxter MD, Yeh J, Tanner KE, Bauer TW, Persson C and Engqvist H. *Biomaterials For Spinal Surgery*.

2011

Modified femoral pressuriser generates a longer lasting high pressure during cement pressurisation.

Wang JS, Garellick G, Kjellson F, Tanner E and Flivik G. *Journal of Orthopaedic Surgery and Research* vol. 6, (1).

A multi-component fiber-reinforced PHEMA-based hydrogel/HAPEXTM device for customized intervertebral disc prosthesis.

Gloria A, De Santis R, Ambrosio L, Causa F and Tanner KE. *Journal of Biomaterials Applications* vol. 25, (8) 795-810.

PHOSPHO1 is essential for mechanically competent mineralization and the avoidance of spontaneous fractures.

Huesa C, Yadav MC, Finnill MAJ, Goodyear SR, Robins SP, Tanner KE, Aspden RM, Millán JL and Farquharson C. *Bone* vol. 48, (5) 1066-1074.

2010

Bioactive composites for bone tissue engineering.

Tanner KE. *Proceedings of The Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine* vol. 224, (12) 1359-1372.

Guest editorial.

Tanner KE and Dalby MJ. *Proceedings of The Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine* vol. 224, (12).

Bioactive ceramic-reinforced composites for bone augmentation.

Tanner KE. *Journal of The Royal Society Interface* vol. 7, (SUPPL. 5).

Comparison of two methods of fatigue testing bone cement.

Tanner KE, Wang JS, Kjellson F and Lidgren L. *Acta Biomaterialia* vol. 6, (3) 943-952.

3 Hard tissue applications of biocomposites.

Tanner KE. *Biomedical Composites*.

2009

In vitro biocompatibility of hydroxyapatite-reinforced polymeric composites manufactured by selective laser sintering.

Zhang Y, Hao L, Savalani MM, Harris RA, Di Silvio L and Tanner KE. *J Biomed Mater Res A* vol. 91, (4) 1018-1027.

Absorption and release of protein from hydroxyapatite-polylactic acid (HA-PLA) membranes.

Talal A, Waheed N, Al-Masri M, McKay IJ, Tanner KE and Hughes FJ. *Journal of Dentistry* vol. 37, (11) 820-826.

Rapid manufacturing of bioceramic/polymer composite implants by selective laser sintering.

Hao L, Savalani MM, Harris RA, Zhang Y and Tanner KE. *International Journal of Computer Applications in Technology* vol. 36, (1) 25-31.

Hard tissue applications of biocomposites.

Tanner KE. *Biomedical Composites*.

Composites based on degradable polymers.

Tanner KE. *Degradable Polymers For Skeletal Implants*.

Effect of ultrasound on the setting characteristics of glass ionomer cements studied by Fourier transform infrared spectroscopy.

Talal A, Tanner KE, Billington R and Pearson GJ. *J Mater Sci Mater Med* vol. 20, (1) 405-411.

2008

Nucleation and growth of apatite on NaOH-treated PEEK, HDPE and UHMWPE for artificial cornea materials.

Pino M, Stingelin N and Tanner KE. *Acta Biomater* vol. 4, (6) 1827-1836.

Comparison of the visco-elastic behavior of a pre-impregnated reinforced glass fiber composite with resin-based composite.

Khan AS, Phillips MJ, Tanner KE and Wong FS. *Dent Mater* vol. 24, (11) 1534-1538.

Characterization and dynamic mechanical analysis of selective laser sintered hydroxyapatite-filled polymeric composites.

Zhang Y, Hao L, Savalani MM, Harris RA and Tanner KE. *J Biomed Mater Res A* vol. 86, (3) 607-616.

Effect of filler surface morphology on the impact behaviour of hydroxyapatite reinforced high density polyethylene composites.

Zhang Y and Tanner KE. *J Mater Sci-Mater M* vol. 19, (2) 761-766.

2007

Fabrication of porous bioactive structures using the selective laser sintering technique.

Savalani MM, Hao L, Zhang Y, Tanner KE and Harris RA. *P I Mech Eng H* vol. 221, (H8) 873-886.

Characterization of selective laser-sintered hydroxyapatite-based biocomposite structures for bone replacement.

Hao L, Savalani MM, Zhang Y, Tanner KE, Heath RJ and Harris RA. *P R Soc A* vol. 463, (2084) 1857-1869.

Effect of iodixanol particle size on the mechanical properties of a PMMA based bone cement.

Kjellson F, Abdulghani S, Tanner KE, McCarthy ID and Lidgren L. *J Mater Sci-Mater M* vol. 18, (6) 1043-1051.

In vitro osteoblastic response to 30 vol% hydroxyapatite-polyethylene composite.

Zhang Y, Tanner KE, Gurav N and Di Silvio L. *J Biomed Mater Res A* vol. 81A, (2) 409-417.

Mechanical properties of carbon-fibre reinforced silicate matrix composites.

Cortes DA, Hogg PJ, Tanner KE and Ren G. *Mater Design* vol. 28, (5) 1547-1554.

2006

2-Dimensional MEMS dielectrophoresis device for osteoblast cell stimulation.

Zou H, Mellon S, Syms RRA and Tanner KE. *Biomed Microdevices* vol. 8, (4) 353-359.

Relationship between locking-bolt torque and load pre-tension in the Ilizarov frame.

Osei NA, Bradley BM, Culpan P, Mitchell JB, Barry M and Tanner KE. *Injury* vol. 37, (10) 941-945.

Effects of material morphology and processing conditions on the characteristics of hydroxyapatite and high-density polyethylene biocomposites by selective laser sintering.

Hao L, Savalani MM, Zhang Y, Tanner KE and Harris RA. *P I Mech Eng L-J Mat* vol. 220, (L3) 125-137.

Selective laser sintering of hydroxyapatite reinforced polyethylene composites for bioactive implants and tissue scaffold development.

Hao L, Savalani MM, Zhang Y, Tanner KE and Harris RA. *P I Mech Eng H* vol. 220, (H4) 521-531.

Biodegradable and semi-biodegradable composite hydrogels as bone substitutes: morphology and mechanical characterization.

Sanginario V, Ginebra MP, Tanner KE, Planell JA and Ambrosio L. *J Mater Sci-Mater M* vol. 17, (5) 447-454.

Interfacial stick-slip transition in hydroxyapatite filled high density polyethylene composite.

Joseph R, Martyn MT, Tanner KE and Coates PD. *B Mater Sci* vol. 29, (1) 85-89.

2005

A circumferentially flanged tibial tray minimizes bone-tray shear micromotion.

Barker DS, Tanner KE and Ryd L. *P I Mech Eng H* vol. 219, (H6) 449-456.

Hydroxyapatite promotes superior keratocyte adhesion and proliferation in comparison with current keratoprosthesis skirt materials.

Mehta JS, Futter CE, Sandeman SR, Faragher RGAF, Hing KA, Tanner KE and Allan BDS. *Br J Ophthalmol* vol. 89, (10) 1356-1362.

In vitro and in vivo biological responses to a novel radiopacifying agent for bone cement.

Wang JS, Diaz J, Sabokbar A, Athanasou N, Kjellson F, Tanner KE, McCarthy ID and Lidgren L. *J Roy Soc Interface* vol. 2, (2) 71-78.

Effect of morphological features and surface area of hydroxyapatite on the fatigue behavior of hydroxyapatite-polyethylene composites.

Joseph R and Tanner KE. *Biomacromolecules* vol. 6, (2) 1021-1026.

2004

Effect of particle morphology and polyethylene molecular weight on the fracture toughness of hydroxyapatite reinforced polyethylene composite.

Eniwumide JO, Joseph R and Tanner KE. *J Mater Sci Mater Med* vol. 15, (10) 1147-1152.

Bone cement X-ray contrast media: A clinically relevant method of measuring their efficacy.

Kjellson F, AlmÅ©n T, Tanner KE, McCarthy ID and Lidgren L. *Journal of Biomedical Materials Research - Part B Applied Biomaterials* vol. 70, (2) 354-361.

Investigation of the molecular nature of low-molecular-mass cobalt(II) ions in isolated osteoarthritic knee-joint synovial fluid.

Silwood CJL, Chikanza IC, Tanner KE, Shelton JC, Bowsher JG and Grootveld M. *Free Radic Res* vol. 38, (6) 561-571.

Biodegradation and biocompatibility of a calcium sulphate-hydroxyapatite bone substitute.

Nilsson M, Wang JS, Wielanek L, Tanner KE and Lidgren L. *Journal of Bone and Joint Surgery - Series B* vol. 86, (1) 120-125.

Mediation of bone ingrowth in porous hydroxyapatite bone graft substitutes.

HING KA, Tanner KE, Best SM, Bonfield W and Revell PA. *Journal of Biomedical Materials Research* vol. 68A, 187-200.

In Vitro and In Vivo Biological Responses to a Voxel Radiopacifying Agent for Bone Cement.

TANNER KE, Wang J-S, Lidgren L, McCarthy ID, Kjellson F, Diaz J and Sabokbar A. *Journal of The Royal Society: Interface*.

Biodegradation and Biocompatibility of a Calcium Sulphate-Hydroxyapatite Bone Substitute.

TANNER KE, Lidgren L, Wielanek L, Wang J-S and Nilsson M. *Journal of Bone and Joint Surgery vol. 86-B, (1) 120-125*.

Bone Cement X-ray Contrast Media: A Clinically Relevant Method of Measuring their Efficacy.

TANNER KE, Lidgren L, Almen T, Kjellson F and McCarthy ID. *Journal of Biomedical Materials Research vol. 70B, (2) 354-371*.

Mediation of bone ingrowth in porous hydroxyapatite bone graft substitutes.

Hing KA, Best SM, Tanner KE, Bonfield W and Revell PA. *J Biomed Mater Res A vol. 68, (1) 187-200*.

2003

Impact behavior of hydroxyapatite reinforced polyethylene composites.

Zhang Y and Tanner KE. *J Mater Sci-Mater M vol. 14, (1) 63-68*.

Factors Influencing the Compressive Strength of an Injectable Calcium Sulfate-Hydroxyapatite Cement.

TANNER KE, Wielanek L, Lidgren L, Nilsson M and Wang JS. *Journal of Materials Science: Materials in Medicine vol. 14, (5) 399-404*.

Experimental validation of a microcracking-based toughening mechanism for cortical bone.

Vashishth D, Tanner KE and Bonfield W. *J Biomech vol. 36, (1) 121-124*.

Modulus Matched Materials for Medical Applications.

TANNER KE. *Proceedings of 5th International Conference On Modern Practice in Stress and Vibration Analysis. Cartmell, Mp (Ed). Trans Tech Publications*.

2002

A biomechanical study on fixation stability with twin hook or lag screw in artificial cancellous bone.

Olsson O, Tanner KE, Ceder L and Ryd L. *Int Orthop vol. 26, (6) 349-355*.

Effect of hydroxyapatite morphology/surface area on the rheology and processability of hydroxyapatite filled polyethylene composites.

Joseph R, McGregor WJ, Martyn MT, Tanner KE and Coates PD. *Biomaterials vol. 23, (21) 4295-4302*.

Lactic acid based PEU/HA and PEU/BCP composites: Dynamic mechanical characterization of hydrolysis.

Rich J, Tuominen J, Kylma J, Seppala J, Nazhat SN and Tanner KE. *J Biomed Mater Res vol. 63, (3) 346-353*.

Effect of filler content on mechanical and dynamic mechanical properties of particulate biphasic calcium phosphate-poly lactide composites.

Bleach NC, Nazhat SN, Tanner KE, Kellomaki M and Tormala P. *Biomaterials vol. 23, (7) 1579-1585*.

Effect of polymer matrix on the rheology of hydroxyapatite-filled polyethylene composites.

Joseph R, McGregor WJ, Martyn MT, Tanner KE, Coates PD and Bonfield W. *Polym Eng Sci vol. 42, (2) 326-335*.

Anisotropic mechanical properties of oriented HAPEX (TM).

Bonner M, Saunders LS, Ward IM, Davies GW, Wang M, Tanner KE and Bonfield W. *J Mater Sci vol. 37, (2) 325-334*.

The Effect of Intra-articular Methylprednisolone Acetate and Exercise on Equine Carpal Subchondral and Cancellous Bone Microhardness.

TANNER KE, Znaor N, Goodship AE, Gaughan EM, DeBowes RM and Murray RC. *Equine Veterinary Journal vol. 34, (3) 306-310*.

Roentgen single-plane photogrammetric analysis (RSPA).

Yuan X, Ryd L, Tanner KE and Lidgren L. *Journal of Bone and Joint Surgery - Series B vol. 84, (6) 908-914*.

Rontgen Single-Plane Stereophotogrammetric Analysis (RSPA). A New Approach for the Study of Musculo-Skeletal Movement.

TANNER KE, Lidgren L, Yuan X and Ryd L. *Journal of Bone and Joint Surgery* vol. 84-B, (6) 908-914.

Dome-shaped versus Flat Arthrodesis of the Ankle Joint: Strength Measurements using Synthetic Cancellous Bone.

TANNER KE, Ryd L, Lauge-Pederson H and Aspenberg P. *Proceedings of The Institution of Mechanical Engineers: Part H, Engineering in Medicine* vol. 216-H, (1) 43-49.

Arch-shaped versus flat arthrodesis of the ankle joint: strength measurements using synthetic cancellous bone.

Lauge-Pedersen H, Aspenberg P, Ryd L and Tanner KE. *P I Mech Eng H* vol. 216, (H1) 43-49.

Effects of acetabular resurfacing component material and fixation on the strain distribution in the pelvis.

Thompson MS, Northmore-Ball MD and Tanner KE. *P I Mech Eng H* vol. 216, (H4) 237-245.

Mechanical properties of a novel bioactive ceramic system.

Cortes DA, Hogg PJ, Tanner KE and Escobedo JC. *Arch Metall* vol. 47, (4) 409-419.

Mechanical Properties of a Novel Bioactive Ceramic System.

Hogg PJ, TANNER KE, Cortes DA and Escobedo JC. *Archives of Metallurgy* vol. 47, (4) 409-419.

2001

Fatigue of cortical bone under combined axial-torsional loading.

Vashishth D, Tanner KE and Bonfield W. *J Orthopaed Res* vol. 19, (3) 414-420.

A quarter century of European Biomaterials Conferences.

Tanner KE. *J Mater Sci-Mater M* vol. 12, (10-12) 847-848.

Hydroxyapatite/polypropylene composite: A novel bone substitute material.

Bonner M, Ward IM, McGregor W, Tanner KE and Bonfield W. *J Mater Sci Lett* vol. 20, (22) 2049-2051.

Dynamic mechanical characterization of biodegradable composites of hydroxyapatite and polylactides.

Nazhat SN, Kellomäki M, Törmälä P, Tanner KE and Bonfield W. *J Biomed Mater Res* vol. 58, (4) 335-343.

Tensile Mechanical Properties of a Bone Cement containing Non-Ionic Contrast Media.

TANNER KE, Kjellson F, Lidgren L, Klaveness J, Almen T, Wang J-S and Mattson A. *Journal of Materials Science: Materials in Medicine* vol. 12, (10-12) 889-894.

Rheological characterisation of hydroxyapatite filled polyethylene composites Part 2 - Isothermal compressibility and wall slip.

Joseph R, Martyn MT, Tanner KE, Coates PD and Bonfield W. *Plast Rubber Compos* vol. 30, (5) 205-212.

Tensile mechanical Properties of Polyacetal after 1 and 6 months immersion in Ringer's solution.

TANNER KE, Thompson MS and Northmore-Ball MD. *Journal of Materials Science: Materials in Medicine* vol. 12, (10-12) 883-888.

Rheological characterisation of hydroxyapatite filled polyethylene composites Part 1 - Shear and extensional behaviour.

Joseph R, Martyn MT, Tanner KE, Coates PD and Bonfield W. *Plast Rubber Compos* vol. 30, (5) 197-204.

Editorial: A Quarter Century of European Biomaterials Conference.

TANNER KE. *Journal of Materials Science: Materials in Medicine* vol. 12, (10-12) 847-848.

Effect of filler type on the mechanical properties of self-reinforced polylactide-calcium phosphate composites.

Bleach NC, Tanner KE, Kellomäki M and Tormala P. *Journal of Materials Science-Materials in Medicine* vol. 12, (10-12) 911-915.

2000

Acetabular morphology and resurfacing design.

Thompson MS, Dawson T, Kuiper JH, Northmore-Ball MD and Tanner KE. *Journal of Biomechanics* vol. 33, (12) 1645-1653.

Bone fracture analysis on the short rod chevron-notch specimens using the X-ray computer micro-tomography.

De Santis R, Anderson P, Tanner KE, Ambrosio L, Nicolais L, Bonfield W and Davis GR. *Journal of Materials Science: Materials in Medicine* vol. 11, (10) 629-636.

Fatigue properties of isotropic and hydrostatically extruded HAPEXTM.

McGregor WJ, Tanner KE, Bonfield W, Bonner MJ, Saunders LS and Ward IM. *Journal of Materials Science Letters* vol. 19, (20) 1787-1788.

Fatigue characterization of a hydroxyapatite-reinforced polyethylene composite. I. Uniaxial fatigue.

Ton That PT, Tanner KE and Bonfield W. *Journal of Biomedical Materials Research* vol. 51, (3) 453-460.

Fatigue characterization of a hydroxyapatite-reinforced polyethylene composite. II. Biaxial fatigue.

Ton That PT, Tanner KE and Bonfield W. *Journal of Biomedical Materials Research* vol. 51, (3) 461-468.

Contribution, development and morphology of microcracking in cortical bone during crack propagation.

Vashishth D, Tanner KE and Bonfield W. *Journal of Biomechanics* vol. 33, (9) 1169-1174.

Hydrostatically extruded HAPEXTM.

Wang M, Ladizesky NH, Tanner KE, Ward IM and Bonfield W. *Journal of Materials Science* vol. 35, (4) 1023-1030.

Dynamic mechanical characterization of hydroxyapatite reinforced polyethylene: Effect of particle size.

Nazhat SN, Joseph R, Wang M, Smith R, Tanner KE and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 11, (10) 621-628.

1999

In vivo measurement of acetabular cement pressurization using a simple new design of cement pressurizer.

New AMR, Northmore-Ball MD, Tanner KE and Cheah SK. *Journal of Arthroplasty* vol. 14, (7) 854-859.

Torsional stability of primary total knee replacement tibial prostheses: A biomechanical study in cadaveric bone.

Sala M, Taylor M and Tanner KE. *Journal of Arthroplasty* vol. 14, (5) 610-615.

Quantification of bone ingrowth within bone-derived porous hydroxyapatite implants of varying density.

Hing KA, Best SM, Tanner KE, Bonfield W and Revell PA. *Journal of Materials Science: Materials in Medicine* vol. 10, (10-11) 663-670.

1998

Comparison between the polymerization behavior of a new bone cement and a commercial one: Modeling and in vitro analysis.

Borzacchiello A, Ambrosio L, Nicolais L, Harper EJ, Tanner KE and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 9, (12) 835-838.

Isothermal and non-isothermal polymerization of a new bone cement.

Borzacchiello A, Ambrosio L, Nicolais L, Harper EJ, Tanner KE and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 9, (6) 317-324.

Interfaces in analogue biomaterials.

Bonfield W, Wang M and Tanner KE. *Acta Materialia* vol. 46, (7) 2509-2518.

Finite element analysis of the implanted proximal tibia: A relationship between the initial cancellous bone stresses and implant migration.

Taylor M, Tanner KE and Freeman MAR. *Journal of Biomechanics* vol. 31, (4) 303-310.

Influence of sterilization by gamma irradiation and of thermal annealing on creep of hydroxyapatite-reinforced polyethylene composites.

Suwanprateeb J, Tanner KE, Turner S and Bonfield W. *Journal of Biomedical Materials Research* vol. 39, (1) 16-22.

Special issue on biomaterials: Part 1.

Tanner E and Planell J. *Proceedings of The Institution of Mechanical Engineers Part H-Journal of Engineering in Medicine* vol. 212, (H2) I-II.

Special issue on biomaterials: Part 2.

Tanner KE and Planell JA. *Proceedings of The Institution of Mechanical Engineers Part H-Journal of Engineering in Medicine* vol. 212, (H6) I-II.

Histomorphological and biomechanical characterization of calcium phosphates in the osseous environment.

Hing KA, Best SM, Tanner KE, RÄ©veil PA and Bonfield W. *Proceedings of The Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine* vol. 212, (6) 437-451.

1997

Biomechanical assessment of bone ingrowth in porous hydroxyapatite.

Hing KA, Best SM, Tanner KE, Bonfield W and Revell PA. *Journal of Materials Science: Materials in Medicine* vol. 8, (12) 731-736.

Influence of Ringer's solution on creep resistance of hydroxyapatite reinforced polyethylene composites.

Suwanprateeb J, Tanner KE, Turner S and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 8, (8) 469-472.

Biomaterials - A new generation.

Bonfield W and Tanner KE. *Materials World* vol. 5, (1) 18-20.

Authors' response.

Taylor ME, Tanner KE, Freeman MAR and Yettram AL. *Medical Engineering & Physics* vol. 19, (1) 99-100.

Fatigue failure of cancellous bone: A possible cause of implant migration and loosening.

Taylor M and Tanner KE. *Journal of Bone and Joint Surgery - Series B* vol. 79, (SUPPL. 2) 181-182.

1996

Histomorphometric and biomechanical assessment of bone ingrowth in porous hydroxyapatite.

Hing KA, Best SM, Revell PA, Tanner KE and Bonfield W. *Transactions of The Annual Meeting of The Society For Biomaterials in Conjunction With The International Biomaterials Symposium* vol. 2,.

Hydroxyapatite-polyethylene composites: Effect of grafting and surface treatment of hydroxyapatite.

Deb S, Wang M, Tanner KE and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 7, (4) 191-193.

Stress and strain distribution within the intact femur: Compression or bending?.

Taylor ME, Tanner KE, Freeman MAR and Yettram AL. *Medical Engineering and Physics* vol. 18, (2) 122-131.

1995

Creep in polyethylene and hydroxyapatite reinforced polyethylene composites.

Suwanprateeb , Tanner KE, Turner S and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 6, (12) 804-807.

Is stem length important in uncemented endoprostheses?.

Tanner KE, Yettram AL, Loeffler M, Goodier WD, Freeman MAR and Bonfield W. *Medical Engineering and Physics* vol. 17, (4) 291-296.

Erratum: Is stem length important in uncemented endoprostheses? (Med. Eng. Phys. 1995; 17: (291-296)).

Tanner K, Yettram AL, Loeffler M, Goodier WD, Freeman MAR and Bonfield W. *Medical Engineering and Physics* vol. 17, (6).

Cancellous bone stresses surrounding the femoral component of a hip prosthesis: an elastic-plastic finite element analysis.

Taylor M, Tanner KE, Freeman MAR and Yettram AL. *Medical Engineering and Physics* vol. 17, (7) 544-550.

1992

Factors affecting the strength of flexor tendon repair.

. *Journal of Hand Surgery* vol. 17 B, (5) 550-552.

Factors Affecting the Strength of Flexor Tendon Repair.

Bhatia D, Tanner KE, Bonfield W and Citron ND. *Journal of Hand Surgery (British and European Volume)* vol. 17, (5) 550-552.

1991

Mechanical behaviour of trabecular bone of the human femoral head in females.

Deligianni DD, Missirlis YF, Tanner KE and Bonfield W. *Journal of Materials Science: Materials in Medicine* vol. 2, (3) 168-175.

In vitro and in vivo evaluation of polyhydroxybutyrate and of polyhydroxybutyrate reinforced with hydroxyapatite.

Doyle C, Tanner ET and Bonfield W. *Biomaterials* vol. 12, (9) 841-847.

Ochronosis of the hip joint case report with biomechanical study.

Tanner KE, Warren NP and Coombs RR. *Scandinavian Journal of Rheumatology* vol. 20, (1) 63-64.

1990

Measurement of the density of trabecular bone.

Sharp DJ, Tanner KE and Bonfield W. *Journal of Biomechanics* vol. 23, (8) 853-857.

1989

Torsional stability of the femoral component of hip arthroplasty. Response to an anteriorly applied load.

Nunn D, Freeman MAR, Tanner KE and Bonfield W. *Journal of Bone and Joint Surgery - Series B* vol. 71, (3) 452-455.

1988

A system for modelling forces on the hip joint in one-legged stance.

Tanner KE, Reed PE, Bonfield W, Rasmussen GL and Freeman MAR. *Journal of Biomedical Engineering* vol. 10, (3) 289-290.

Rotational movement of femoral components of total hip replacements in response to an anteriorly applied load.

Tanner KE, Bonfield W, Nunn D and Freeman MAR. *Engineering in Medicine* vol. 17, (3) 127-129.

1985

An engineering evaluation of the Oxford external fixator with sliding clamps: fixator stiffness and fracture healing assessment.

Churches AE, Tanner KE and Harris JD. *Engineering in Medicine* vol. 14, (1) 21-29.

Fracture healing assessment with External Fixation.

Churches AE, Tanner KE, Evans M and Gwillim J. *Engineering in Medicine* vol. 14, (1) 13-20.

The Oxford External Fixator: fixator stiffness and the effects of bone pin loosening.

Churches AE, Tanner KE and Harris JD. *Engineering in Medicine* vol. 14, (1) 3-11.

1984

Control of movement and fracture stiffness monitoring with external fixation.

Harris JD, Kenwright J, Evans M, Tanner KE and Gwillim J. *Orthopedics* vol. 7, (3) 485-490.

1979

Analysis of single-sided external fracture fixation.

Evans M, Kenwright J and Tanner KE. *Engineering in Medicine* vol. 8, (3) 133-137.