

Photostable second-harmonic generation from a single KTiOPO₄ nanocrystal for nonlinear microscopy

Le Xuan, L., Zhou, C., Slablab, A., Chauvat, D., Tard, C., Perruchas, S., Gacoïn, T., Villeval, P. & Roch, J-F., Sep 2008, In : *Small*. 4, 9, p. 1332-1336 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Surface science analysis and surface modification methods for biomaterials research

Kanninen, L., Jokinen, N., Lahtonen, K., Jussila, P., Ali-Löytty, H., Hirsimäki, M., Leppiniemi, J., Hytönen, V., Kulomaa, M., Ahola, N., Paakinaho, K., Kellomäki, M. & Valden, M., 1 Jan 2010, In : *European Cells and Materials*. 20, SUPPL. 3, p. 133 1 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Analysis of biomaterial scaffold fiber thickness for assessing cell attachment

Aydogan, D. B., Hannula, M., Rajala, A., Pälli, A., Haimi, S., Kellomäki, M. & Hyttinen, J., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Composites of poly(L-lactide-co-caprolactone) and tricalcium phosphate containing antibiotics; Degradation and drug release

Ahola, N., Veiranto, M., Männistö, N. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Effect of lactide monomer on the hydrolytic degradation and performance of melt processed poly(lactide-coglycolide) 85L/15G

Paakinaho, K., Heino, H., Väisänen, J., Törmälä, P. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

HA composites of segmented polyurethanes prepared with glutamine or ascorbic acid as chain extenders for bone tissue regeneration

Cetina-Diaz, S. M., Vargas-Coronado, R. F., Cervantes-Uc, J. M., Cauich-Rodríguez, J. V., Ahola, N., Paakinaho, K. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Picosecond laser-induced polymerization of highly porous microscaffolds

Käpylä, E., Aydogan, D. B., Turunen, S., Hyttinen, J. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Osteoconductive properties of poly(96L/4D-lactide)/beta-tricalcium phosphate in long term animal model

Daculsi, G., Goyenvalle, E., Cognet, R., Aguado, E. & Suokas, E. O., Apr 2011, In : *Biomaterials*. 32, 12, p. 3166-3177 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Focal Laser Ablation of Prostate Cancer: Numerical Simulation of Temperature and Damage Distribution

Marqa, M. F., Colin, P., Nevoux, P., Mordon, S. R. & Betrouni, N., 2 Jun 2011, In : *BioMedical Engineering Online*. 10, 45.

Research output: Contribution to journal > Article > Scientific > peer-review

Hybrid nanoparticle design based on cationized gelatin and the polyanions dextran sulfate and chondroitin sulfate for ocular gene therapy

Zorzi, G. K., Párraga, J. E., Seijo, B. & Sánchez, A., 7 Jul 2011, In : *MACROMOLECULAR BIOSCIENCE*. 11, 7, p. 905-913 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effects of bioactive glass S53P4 or beta-tricalcium phosphate and bone morphogenetic protein-2 and bone morphogenetic protein-7 on osteogenic differentiation of human adipose stem cells

Waselau, M., Patrikoski, M., Juntunen, M., Kujala, K., Kääriäinen, M., Kuokkanen, H., Sándor, G. K., Vapaavuori, O., Suuronen, R., Mannerström, B., von Rechenberg, B. & Miettinen, S., 2012, In : *Journal of Tissue Engineering*. 3, 1, p. 1-14 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Osteogenic medium is superior to growth factors in differentiation of human adipose stem cells towards boneforming cells in 3D culture

Tirkkonen, L., Haimi, S., Huttunen, S., Wolff, J., Pirhonen, E., Sándor, G. K. & Miettinen, S., 2012, In : *European Cells and Materials*. 25, p. 144-158 15 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Human adipose tissue extract induces angiogenesis and adipogenesis in vitro

Sarkanen, J. R., Kaila, V., Mannerström, B., Rätty, S., Kuokkanen, H., Miettinen, S. & Ylikomi, T., 1 Jan 2012, In : *Tissue Engineering Part A*. 18, 1-2, p. 17-25 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Development of a new illumination procedure for photodynamic therapy of the abdominal cavity

Cuyon, L., Lesage, J. C., Betrouni, N. & Mordon, S., Mar 2012, In : *JOURNAL OF BIOMEDICAL OPTICS*. 17, 3, 038001.

Research output: Contribution to journal › Article › Scientific › peer-review

Demonstration of increased lipid accumulation potential of *Stigeoclonium* sp., Kütz. BUM11007 under nitrogen starved regime: A new source of lipids for biodiesel production

Praveenkumar, R., Johny, K., MubarakAli, D., Vijayan, D., Thajuddin, N. & Gunasekaran, M., Apr 2012, In : *Journal of Biobased Materials and Bioenergy*. 6, 2, p. 209-213 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers

Priimagi, A., Cavallo, G., Forni, A., Gorynsztejn-Leben, M., Kaivola, M., Metrangolo, P., Milani, R., Shishido, A., Pilati, T., Resnati, G. & Terraneo, G., 20 Jun 2012, In : *Advanced Functional Materials*. 22, 12, p. 2572-2579 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Mathematical modelling of the action potential of human embryonic stem cell derived cardiomyocytes

Paci, M., Sartiani, L., Del Lungo, M., Jaconi, M., Mugelli, A., Cerbai, E. & Severi, S., 28 Aug 2012, In : *BioMedical Engineering Online*. 11, 61.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends

Kapgate, B. P., Das, C., Das, A., Basu, D., Reuter, U. & Heinrich, G., Sep 2012, In : *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 63, 3, p. 501-509 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Hollow fibers of poly(lactide-co-glycolide) and poly(ϵ -caprolactone) blends for vascular tissue engineering applications

Diban, N., Haimi, S., Bolhuis-Versteeg, L., Teixeira, S., Miettinen, S., Poot, A., Grijpma, D. & Stamatialis, D., 2013, In : *Acta Biomaterialia*. 9, 5, p. 6450-6458 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Roll-to-roll atomic layer deposition for flexible substrates

Lahtinen, K., Maydannik, P., Kääriäinen, T., Seppänen, T., Cameron, D. C., Johansson, P., Kraft, M. & Kuusipalo, J., 2013, *TAPPI International Conference on Nanotechnology 2013*. TAPPI Press, p. 726-739 14 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Wear resistance of nanoparticle coatings on paperboard

Stepien, M., Chinga-Carrasco, G., Saarinen, J. J., Teisala, H., Tuominen, M., Aromaa, M., Haapanen, J., Kuusipalo, J., Mäkelä, J. M. & Toivakka, M., 2013, *TAPPI International Conference on Nanotechnology 2013*. TAPPI Press, p. 821-829 9 p.

The sensitivity of random polymer brush-lamellar polystyrene-b-polymethylmethacrylate block copolymer systems to process conditions

Borah, D., Rasappa, S., Senthamarai Kannan, R., Shaw, M. T., Holmes, J. D. & Morris, M. A., 1 Mar 2013, In : Journal of Colloid and Interface Science. 393, 1, p. 192-202 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Direct laser writing of microstructures for the growth guidance of human pluripotent stem cell derived neuronal cells

Turunen, S., Käpylä, E., Lähteenmäki, M., Ylä-Outinen, L., Narkilahti, S. & Kellomäki, M., 2014, In : Optics and Lasers in Engineering. 55, p. 197-204 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Three-dimensional growth matrix for human embryonic stem cell-derived neuronal cells

Ylä-Outinen, L., Joki, T., Varjola, M., Skottman, H. & Narkilahti, S., 2014, In : Journal of Tissue Engineering and Regenerative Medicine. 8, 3, p. 186-194 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A 3D Alzheimer's disease culture model and the induction of P21-activated kinase mediated sensing in iPSC derived neurons

Zhang, D., Pekkanen-Mattila, M., Shahsavani, M., Falk, A., Teixeira, A. I. & Herland, A., Feb 2014, In : Biomaterials. 35, 5, p. 1420-1428 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Structure and barrier properties of human embryonic stem cell-derived retinal pigment epithelial cells are affected by extracellular matrix protein coating

Sorkio, A., Hongisto, H., Kaarniranta, K., Uusitalo, H., Juuti-Uusitalo, K. & Skottman, H., 1 Feb 2014, In : Tissue Engineering Part A. 20, 3-4, p. 622-634 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Osteointegration of PLGA implants with nanostructured or micro-sized β -TCP particles in a minipig model

Kulkova, J., Moritz, N., Suokas, E. O., Strandberg, N., Leino, K. A., Laitio, T. T. & Aro, H. T., 1 Dec 2014, In : Journal of the Mechanical Behavior of Biomedical Materials. 40, p. 190-200 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Interstitial photodynamic therapy and glioblastoma: Light fractionation study on a preclinical model: Preliminary results

Leroy, H. A., Vermandel, M., Tétard, M. C., Lejeune, J. P., Mordon, S. & Reyns, N., 2015, *Optical Techniques in Neurosurgery, Neurophotonics, and Optogenetics II*. SPIE, Vol. 9305. 93050D

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

Stumpel, J. E., Gil, E. R., Spoelstra, A. B., Bastiaansen, C. W. M., Broer, D. J. & Schenning, A. P. H. J., 2015, In : Advanced Functional Materials. 25, 22, p. 3314-3320

Research output: Contribution to journal > Article > Scientific > peer-review

Effects of chitosan and bioactive glass modifications of knitted and rolled polylactide-based 96/4L/D scaffolds on chondrogenic differentiation of adipose stem cells

Ahtiainen, K., Sippola, L., Nurminen, M., Mannerström, B., Haimi, S., Suuronen, R., Hyttinen, J., Ylikomi, T., Kellomäki, M. & Miettinen, S., 1 Jan 2015, In : Journal of Tissue Engineering and Regenerative Medicine. 9, 1, p. 55-65 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Rational design of a printable, highly conductive silicone-based electrically conductive adhesive for stretchable radio-frequency antennas

Li, Z., Le, T., Wu, Z., Yao, Y., Li, L., Tentzeris, M., Moon, K. S. & Wong, C. P., 21 Jan 2015, In : Advanced Functional Materials. 25, 3, p. 464-470 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Enhancement of adhesion and promotion of osteogenic differentiation of human adipose stem cells by poled electroactive poly(vinylidene fluoride)

Parssinen, J., Hammarén, H., Rahikainen, R., Sencadas, V., Ribeiro, C., Vanhatupa, S., Miettinen, S., Lanceros-Méndez, S. & Hytönen, V. P., 1 Mar 2015, In : Journal of Biomedical Materials Research. Part A. 103, 3, p. 919-928 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Multi-stable dynamics of the non-adiabatic repressilator

Potapov, I., Zhurov, B. & Volkov, E., 6 Mar 2015, In : Journal of the Royal Society. Interface. 12, 104, 20141315.

Research output: Contribution to journal > Article > Scientific > peer-review

Biomimetic collagen I and IV double layer Langmuir-Schaefer films as microenvironment for human pluripotent stem cell derived retinal pigment epithelial cells

Sorkio, A. E., Vuorimaa-Laukkanen, E. P., Hakola, H. M., Liang, H., Ujula, T. A., Valle-Delgado, J. J., Österberg, M., Yliperttula, M. L. & Skottman, H., 1 May 2015, In : Biomaterials. 51, p. 257-269 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Comparison of three light doses in the photodynamic treatment of actinic keratosis using mathematical modeling

Vignon-Dewalle, A. S., Betrouni, N., Tylcz, J. B., Vermandel, M., Mortier, L. & Mordon, S., 1 May 2015, In : JOURNAL OF BIOMEDICAL OPTICS. 20, 5, 058001.

Research output: Contribution to journal > Article > Scientific > peer-review

Dynamic piezoelectric stimulation enhances osteogenic differentiation of human adipose stem cells

Ribeiro, C., Pärssinen, J., Sencadas, V., Correia, V., Miettinen, S., Hytönen, V. P. & Lanceros-Méndez, S., 1 Jun 2015, In : Journal of Biomedical Materials Research. Part A. 103, 6, p. 2172-2175 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned POSS substrates fabricated by nanoimprint lithography

Borah, D., Rasappa, S., Salaun, M., Zellsman, M., Lorret, O., Lontos, G., Ntetsikas, K., Avgeropoulos, A. & Morris, M. A., 1 Jun 2015, In : Advanced Functional Materials. 25, 22, p. 3425-3432 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts

Massera, J., Kokkari, A., Närhi, T. & Hupa, L., 25 Jun 2015, In : Journal of Materials Science: Materials in Medicine. 26, 6, 196.

Research output: Contribution to journal > Article > Scientific > peer-review

Measuring optical anisotropy in poly(3,4-ethylene dioxithiophene): poly(styrene sulfonate) films with added graphene

Isoniemi, T., Tuukkanen, S., Cameron, D. C., Simonen, J. & Toppari, J. J., 9 Jul 2015, In : Organic Electronics. 25, p. 317-323 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Bioactive glass ions as strong enhancers of osteogenic differentiation in human adipose stem cells

Ojansivu, M., Vanhatupa, S., Björkvik, L., Häkkänen, H., Kellomäki, M., Autio, R., Ihalainen, J. A., Hupa, L. & Miettinen, S., 15 Jul 2015, In : Acta Biomaterialia. 21, p. 190-203 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Sol-gel synthesis of quaternary (P2O5)55-(CaO)25-(Na2O)(20-x)-(TiO2) x bioresorbable glasses for bone tissue engineering applications (x = 0, 5, 10, or 15)

Foroutan, F., Walters, N. J., Owens, G. J., Mordan, N. J., Kim, H. W., de Leeuw, N. H. & Knowles, J. C., 1 Aug 2015, In : Biomedical materials (Bristol, England). 10, 4, p. 45025 1 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells

Sorkio, A., Porter, P. J., Juuti-Uusitalo, K., Meenan, B. J., Skottman, H. & Burke, G. A., 1 Sep 2015, In : *Tissue Engineering Part A*. 21, 17-18, p. 2301-2314 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Strontium- and calcium-containing, titanium-stabilised phosphate-based glasses with prolonged degradation for orthopaedic tissue engineering

Al Qaysi, M., Walters, N. J., Foroutan, F., Owens, G. J., Kim, H. W., Shah, R. & Knowles, J. C., 24 Sep 2015, In : *Journal of Biomaterials Applications*. 30, 3, p. 300-310 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Polypyrrole coating on poly-(lactide/glycolide)- β -tricalcium phosphate screws enhances new bone formation in rabbits

Zhao, M. D., Björninen, M., Cao, L., Wang, H. R., Pelto, J., Li, X. Q., Hyttinen, J., Jiang, Y. Q., Kellomäki, M., Miettinen, S., Sándor, G. K., Seppänen, R., Haimi, S. & Dong, J., 27 Nov 2015, In : *Biomedical Materials*. 10, 6, 065016.

Research output: Contribution to journal > Article > Scientific > peer-review

Preparation and antimicrobial characterization of silver-containing packaging materials for meat

Kuuliala, L., Pippuri, T., Hultman, J., Auvinen, S-M., Kolppo, K., Nieminen, T., Karp, M., Björkroth, J., Kuusipalo, J. & Jääskeläinen, E., 1 Dec 2015, In : *Food Packaging and Shelf Life*. 6, p. 53-60 8 p., 67.

Research output: Contribution to journal > Article > Scientific > peer-review

Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method

Bansod, N. D., Kapgade, B. P., Das, C., Das, A., Basu, D. & Debnath, S. C., 2016, In : *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 80, 2, p. 548-559 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Improved properties for packaging materials by nanoscale surface modification and ALD barrier coating

Lahti, J., Lavonen, J., Lahtinen, K., Johansson, P., Seppänen, T. & Cameron, D. C., 2016, *TAPPI International Conference on Nanotechnology for Renewable Materials 2016*. TAPPI Press, Vol. 2. p. 684-706 23 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Uniform and electrically conductive biopolymer-doped polypyrrole coating for fibrous PLA

Hiltunen, M., Pelto, J., Ellä, V. & Kellomäki, M., 2016, In : *Journal of Biomedical Materials Research. Part B: Applied Biomaterials*. 104, 8, p. 1721-1729

Research output: Contribution to journal > Article > Scientific > peer-review

Human Adipose Stem Cells Differentiated on Braided Poly(lactide) Scaffolds is a Potential Approach for Tendon Tissue Engineering

Vuornos, K., Björninen, M., Talvitie, E., Paakinaho, K., Kellomäki, M., Huhtala, H., Miettinen, S., Seppänen-Kajjansinkko, R. & Haimi, S., 1 Mar 2016, In : *Tissue Engineering Part A*. 22, 5-6, p. 513-523 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Wetting hysteresis induced by temperature changes: Supercooled water on hydrophobic surfaces

Heydari, G., Sedighi Moghaddam, M., Tuominen, M., Fielden, M., Haapanen, J., Mäkelä, J. M. & Claesson, P. M., 15 Apr 2016, In : *Journal of Colloid and Interface Science*. 468, p. 21-33 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of incorporation of CdS NPs on performance of PTB7: PCBM organic solar cells

Sharma, R., Bhalerao, S. & Gupta, D., 1 Jun 2016, In : *Organic Electronics: physics, materials, applications*. 33, p. 274-280 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Honeycomb porous films as permeable scaffold materials for human embryonic stem cell-derived retinal pigment epithelium

Calejo, M. T., Ilmarinen, T., Jongprasitkul, H., Skottman, H. & Kellomäki, M., 1 Jul 2016, In : *Journal of Biomedical Materials Research. Part A*. 104, 7, p. 1646-1656 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The influence of high-temperature sulfuric acid solution ageing on the properties of laminated vinyl-ester joints

Lindgren, M., Wallin, M., Kakkonen, M., Saarela, O. & Vuorinen, J., 1 Jul 2016, In : International Journal of Adhesion and Adhesives. 68, p. 298-304 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Simulation of developing human neuronal cell networks

Lenk, K., Priwitzer, B., Ylä-Outinen, L., Tietz, L. H. B., Narkilahti, S. & Hyttinen, J. A. K., 30 Aug 2016, In : BioMedical Engineering Online. 15, 1, 105.

Research output: Contribution to journal > Article > Scientific > peer-review

Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma

Will, O. M., Purcz, N., Chalaris, A., Heneweer, C., Boretius, S., Purcz, L., Nikkola, L., Ashammakhi, N., Kalthoff, H., Glüer, C. C., Wiltfang, J., Açil, Y. & Tiwari, S., 12 Oct 2016, In : International Journal of Nanomedicine. 11, p. 5311-5321 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Biomaterials for Electronics

Pammo, A., Schouten, M., Virtanen, J. & Tuukkanen, S., 25 Nov 2016, p. 1-1. 1 p.

Research output: Other conference contribution > Paper, poster or abstract > Scientific

Aligned Poly(ϵ -caprolactone) Nanofibers Guide the Orientation and Migration of Human Pluripotent Stem Cell-Derived Neurons, Astrocytes, and Oligodendrocyte Precursor Cells In Vitro

Hyysalo, A., Ristola, M., Joki, T., Honkanen, M., Vippola, M. & Narkilahti, S., 2017, In : MACROMOLECULAR BIOSCIENCE. 17, 7, 1600517.

Research output: Contribution to journal > Article > Scientific > peer-review

Pipeline for effective denoising of digital mammography and digital breast tomosynthesis

Borges, L. R., Bakic, P. R., Foi, A., Maidment, A. D. A. & Vieira, M. A. C., 2017, *Medical Imaging 2017: Physics of Medical Imaging*. SPIE, 1013206. (Progress in biomedical optics and imaging).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Bioamine-crosslinked gellan gum hydrogel for neural tissue engineering

Koivisto, J. T., Joki, T., Parraga, J. E., Paakkönen, R., Ylä-Outinen, L., Salonen, L., Jönkkäri, I., Peltola, M., Ihalainen, T. O., Narkilahti, S. & Kellomäki, M., 24 Mar 2017, In : Biomedical Materials. 12, 2, 025014.

Research output: Contribution to journal > Article > Scientific > peer-review

Lead field theory provides a powerful tool for designing microelectrode array impedance measurements for biological cell detection and observation

Böttrich, M., Tanskanen, J. M. A. & Hyttinen, J. A. K., 26 Jun 2017, In : BioMedical Engineering Online. 16, 1, 85.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of strain rate, temperature and fatigue on the radial compression behaviour of Norway spruce

Moilanen, C., Björkqvist, T., Ovaska, M., Koivisto, J., Miksic, A., Engberg, B. A., Salminen, L. I., Saarenrinne, P. & Alava, M., 27 Jun 2017, In : Holzforschung. 71, 6, p. 505-514 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The production of injectable hydrazone crosslinked gellan gum-hyaluronan-hydrogels with tunable mechanical and physical properties

Karvinen, J., Koivisto, J. T., Jönkkäri, I. & Kellomäki, M., 1 Jul 2017, In : Journal of the Mechanical Behavior of Biomedical Materials. 71, p. 383-391 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The effect of equiaxial stretching on the osteogenic differentiation and mechanical properties of human adipose stem cells

Virjula, S., Zhao, F., Leivo, J., Vanhatupa, S., Kreutzer, J., Vaughan, T. J., Honkala, A. M., Viehrig, M., Mullen, C. A., Kallio, P., McNamara, L. M. & Miettinen, S., 1 Aug 2017, In : Journal of the Mechanical Behavior of Biomedical Materials. 72, p. 38-48 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Multi-material bio-printing facilities

Virtanen, J. & Tuukkanen, S., 26 Oct 2017. 1 p.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Azopolymer photopatterning for directional control of angiogenesis

Fedele, C., De Gregorio, M., Netti, P. A., Cavalli, S. & Attanasio, C., 1 Nov 2017, In : *Acta Biomaterialia*. 63, p. 317-325 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Bioactive glass induced osteogenic differentiation of human adipose stem cells is dependent on cell attachment mechanism and mitogen-activated protein kinases

Ojansivu, M., Wang, X., Hyvärri, L., Kellomäki, M., Hupa, L., Vanhatupa, S. & Miettinen, S., 2018, In : *European Cells and Materials*. 35, p. 53-71 19 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Light propagation analysis in nervous tissue for wireless optogenetic nanonetworks

Wiratmadja, S., Johari, P., Balasubramaniam, S., Bae, Y., Stachowiak, M. K. & Jornet, J. M., 2018, *Optogenetics and Optical Manipulation 2018*. SPIE, 104820R

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Non-intersecting leaf insertion algorithm for tree structure models

Åkerblom, M., Raunonen, P., Casella, E., Disney, M. I., Danson, F. M., Gaulton, R., Schofield, L. A. & Kaasalainen, M., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170045.

Research output: Contribution to journal › Article › Scientific › peer-review

Uncertainty in multispectral lidar signals caused by incidence angle effects

Kaasalainen, S., Åkerblom, M., Nevalainen, O., Hakala, T. & Kaasalainen, M., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170033.

Research output: Contribution to journal › Article › Scientific › peer-review

Weighing trees with lasers: Advances, challenges and opportunities

Disney, M. I., Boni Vicari, M., Burt, A., Calders, K., Lewis, S. L., Raunonen, P. & Wilkes, P., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170048.

Research output: Contribution to journal › Article › Scientific › peer-review

Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics

Kulju, S., Riegger, L., Koltay, P., Mattila, K. & Hyväluoma, J., 15 Jul 2018, In : *Journal of Colloid and Interface Science*. 522, p. 48-56 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Wound healing of human embryonic stem cell-derived retinal pigment epithelial cells is affected by maturation stage

Abu Khamidakh, A. E., Rodriguez-Martinez, A., Kaarniranta, K., Kallioniemi, A., Skottman, H., Hyttinen, J. & Juuti-Uusitalo, K., 31 Jul 2018, In : *BioMedical Engineering Online*. 17, 1, 102.

Research output: Contribution to journal › Article › Scientific › peer-review

A COMPARATIVE IN VITRO STUDY OF CELL GROWTH ON TEXTILE SCAFFOLDS FOR TISSUE ENGINEERING APPLICATIONS

Kroon, M., Talvitie, E., Miettinen, S. & Kellomäki, M., 12 Sep 2018.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Novel osteoconductive β -tricalcium phosphate/poly(L-lactide-co- ϵ -caprolactone) scaffold for bone regeneration: a study in a rabbit calvarial defect

Pihlman, H., Keränen, P., Paakinaho, K., Linden, J., Hannula, M., Manninen, I. K., Hyttinen, J., Manninen, M. & Laitinen-Vapaavuori, O., 1 Oct 2018, In : *Journal of Materials Science: Materials in Medicine*. 29, 10, 156.

Research output: Contribution to journal › Article › Scientific › peer-review

Cell response to round and star-shaped polylactide fibers

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Research output: Other conference contribution › Paper, poster or abstract › Scientific

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Research output: Contribution to journal › Article › Scientific › peer-review

Human Neural Tissues from Neural Stem Cells Using Conductive Biogel and Printed Polymer Microelectrode Arrays for 3D Electrical Stimulation

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Research output: Contribution to journal › Article › Scientific › peer-review

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Mishra, A., Ojansivu, M., Autio, R., Vanhatupa, S., Miettinen, S. & Massera, J., 2019, (Accepted/In press) In : *Journal of Biomedical Materials Research - Part A*.

Research output: Contribution to journal › Article › Scientific › peer-review

Nano-structured optical fibers made of glass-ceramics, and phase separated and metallic particle-containing glasses

Veber, A., Lu, Z., Vermillac, M., Pigeonneau, F., Blanc, W. & Petit, L., 2019, In : *Fibers*. 7, 12, 29 p.

Research output: Contribution to journal › Review Article › Scientific › peer-review

On the limit of superhydrophobicity: Defining the minimum amount of TiO₂ nanoparticle coating

Haapanen, J., Aromaa, M., Teisala, H., Juuti, P., Tuominen, M., Sillanpää, M., Stepien, M., Saarinen, J. J., Toivakka, M., Kuusipalo, J. & Mäkelä, J. M., 2019, In : *Materials Research Express*. 6, 3, 035004.

Research output: Contribution to journal › Article › Scientific › peer-review

Structure and Dynamics of Thermosensitive pDNA Polyplexes Studied by Time-Resolved Fluorescence Spectroscopy

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Vimieiro, R. B., Borges, L. R., Caron, R. F., Barufaldi, B., Bakic, P. R., Maidment, A. D. A. & Vieira, M. A. C., 1 Mar 2019, *Medical Imaging 2019: Physics of Medical Imaging*. Schmidt, T. G., Chen, G-H. & Bosmans, H. (eds.). SPIE, IEEE, 109480C. (Progress in Biomedical Optics and Imaging - Proceedings of SPIE; vol. 10948).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The Role of Temperature and Lipid Charge on Intake/Uptake of Cationic Gold Nanoparticles into Lipid Bilayers

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Characterisation and in vitro and in vivo evaluation of supercritical-CO₂-foamed β -TCP/PLCL composites for bone applications

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Miniature CoCr laser welds under cyclic shear: Fatigue evolution and crack growth

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Backscattering-based wireless communication and power transfer to small biomedical implants

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Co-culture of human induced pluripotent stem cell-derived retinal pigment epithelial cells and endothelial cells on double collagen-coated honeycomb films

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Evaluation of scaffold microstructure and comparison of cell seeding methods using micro-computed tomography-based tools

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