

- Rantala TT, Rosén A, Hellsing B. 1986. A Finite Cluster Approach to the Electron-Hole Pair Damping of the Adsorbate Vibration: CO Adsorbed on Cu(100). *Studies in Surface Science and Catalysis*. 26(C):173-181. [https://doi.org/10.1016/S0167-2991\(09\)61238-6](https://doi.org/10.1016/S0167-2991(09)61238-6)
- Kellomäki A, Kuula-Väisänen P, Nieminen P. 1989. Sorption and retention of ethylene glycol monoethyl ether (EGME) on silicas. *Journal of Colloid and Interface Science*. 129(2):373-378. [https://doi.org/10.1016/0021-9797\(89\)90450-5](https://doi.org/10.1016/0021-9797(89)90450-5)
- Rintala JA, Ahring BK. 1994. Thermophilic anaerobic digestion of source-sorted household solid waste: the effects of enzyme additions. *Applied Microbiology and Biotechnology*. 40(6):916-919. <https://doi.org/10.1007/BF00173999>
- Rintala JA, Ahring BK. 1994. A two-stage thermophilic anaerobic process for the treatment of source sorted household solid waste. *Biotechnology Letters*. 16(10):1097-1102. <https://doi.org/10.1007/BF01022410>
- Lepistö SS, Rintala JA. 1997. Start-up and Operation of Laboratory-Scale Thermophilic Upflow Anaerobic Sludge Blanket Reactors Treating Vegetable Processing Wastewaters. *Journal of Chemical Technology and Biotechnology*. 68(3):331-339. [https://doi.org/10.1002/\(SICI\)1097-4660\(199703\)68:3<331::AID-JCTB657>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-4660(199703)68:3<331::AID-JCTB657>3.0.CO;2-Z)
- Hyvönen MT, Rantala TT, Ala-Korpela M. 1999. Biokalvojen rakenteen ja toiminnan simulointi tuo uutta tietoa rasvoista. *Kemia - Kemi*. 26(3):222-225.
- Salminen E, Rintala J, Härkönen J, Kuitunen M, Högmander H, Oikari A. 2001. Anaerobically digested poultry slaughterhouse wastes as fertiliser in agriculture. *Bioresource Technology*. 78(1):81-88. [https://doi.org/10.1016/S0960-8524\(00\)00160-7](https://doi.org/10.1016/S0960-8524(00)00160-7)
- Suvilampi J, Lepistö R, Rintala J. 2001. Biological treatment of pulp and paper mill process and wastewaters under thermophilic conditions - A review. *Paperi ja puu*. 83(4):320-325.
- Korhonen HME, Heikkilä J, Törnwall JM. 2001. A simulation case study of production planning and control in printed wiring board manufacturing. *Winter Simulation Conference Proceedings*. 2:844-847.
- Salminen E, Rintala J. 2002. Anaerobic digestion of organic solid poultry slaughterhouse waste - A review. *Bioresource Technology*. 83(1):13-26. [https://doi.org/10.1016/S0960-8524\(01\)00199-7](https://doi.org/10.1016/S0960-8524(01)00199-7)
- Lokshina LY, Vavilin VA, Salminen E, Rintala J. 2003. Modeling of anaerobic degradation of solid slaughterhouse waste: Inhibition effects of long-chain fatty acids or ammonia. *Applied Biochemistry and Biotechnology*. 109(1-3):15-32. <https://doi.org/10.1385/ABAB:109:1-3:15>
- Suvilampi J, Lehtomäki A, Rintala J. 2003. Comparison of laboratory-scale thermophilic biofilm and activated sludge processes integrated with a mesophilic activated sludge process. *Bioresource Technology*. 88(3):207-214. [https://doi.org/10.1016/S0960-8524\(03\)00006-3](https://doi.org/10.1016/S0960-8524(03)00006-3)
- Vavilin VA, Lokshina LY, Jokela JPY, Rintala JA. 2004. Modeling solid waste decomposition. *Bioresource Technology*. 94(1):69-81. <https://doi.org/10.1016/j.biortech.2003.10.034>
- Jokela JPY, Vavilin VA, Rintala JA. 2005. Hydrolysis rates, methane production and nitrogen solubilisation of grey waste components during anaerobic degradation. *Bioresource Technology*. 96(4):501-508. <https://doi.org/10.1016/j.biortech.2004.03.009>
- Luostarinen S, Rintala J. 2007. Anaerobic on-site treatment of kitchen waste in combination with black water in UASB-septic tanks at low temperatures. *Bioresource Technology*. 98(9):1734-1740. <https://doi.org/10.1016/j.biortech.2006.07.022>

- Lahtinen K, Kuusipalo J. 2008. Statistical modeling of water vapor transmission rates for extrusion-coated papers. In TAPPI 2008 PLACE Conference: Innovations in Flexible Consumer Packaging.
- Kaparaju PLN, Rintala JA. 2008. Effects of solid-liquid separation on recovering residual methane and nitrogen from digested dairy cow manure. *Bioresource Technology*. 99(1):120-127. <https://doi.org/10.1016/j.biortech.2006.11.046>
- Lehtomäki A, Huttunen S, Lehtinen TM, Rintala JA. 2008. Anaerobic digestion of grass silage in batch leach bed processes for methane production. *Bioresource Technology*. 99(8):3267-3278. <https://doi.org/10.1016/j.biortech.2007.04.072>
- Sormunen K, Einola J, Ettala M, Rintala J. 2008. Leachate and gaseous emissions from initial phases of landfilling mechanically and mechanically-biologically treated municipal solid waste residuals. *Bioresource Technology*. 99(7):2399-2409. <https://doi.org/10.1016/j.biortech.2007.05.009>
- Wang H, Einola J, Heinonen M, Kulomaa M, Rintala J. 2008. Group-specific quantification of methanotrophs in landfill gas-purged laboratory biofilters by tyramide signal amplification-fluorescence in situ hybridization. *Bioresource Technology*. 99(14):6426-6433. <https://doi.org/10.1016/j.biortech.2007.11.050>
- Paavola T, Rintala J. 2008. Effects of storage on characteristics and hygienic quality of digestates from four co-digestion concepts of manure and biowaste. *Bioresource Technology*. 99(15):7041-7050. <https://doi.org/10.1016/j.biortech.2008.01.005>
- Pakarinen O, Lehtomäki A, Rissanen S, Rintala J. 2008. Storing energy crops for methane production: Effects of solids content and biological additive. *Bioresource Technology*. 99(15):7074-7082. <https://doi.org/10.1016/j.biortech.2008.01.007>
- Lahti J, Tuominen M, Penttinen T, Räsänen JP, Kuusipalo J. 2009. The effects of corona and flame treatment: Part 2. PE-HD and PP coated papers. In TAPPI Press - 12th European PLACE Conference 2009. pp. 278-314.
- Wang H, Lehtomäki A, Tolvanen K, Puhakka J, Rintala J. 2009. Impact of crop species on bacterial community structure during anaerobic co-digestion of crops and cow manure. *Bioresource Technology*. 100(7):2311-2315. <https://doi.org/10.1016/j.biortech.2008.10.040>
- Seppälä M, Paavola T, Lehtomäki A, Rintala J. 2009. Biogas production from boreal herbaceous grasses - Specific methane yield and methane yield per hectare. *Bioresource Technology*. 100(12):2952-2958. <https://doi.org/10.1016/j.biortech.2009.01.044>
- Dehmer M, Varmuza K, Borgert S, Emmert-Streib F. 2009. On entropy-based molecular descriptors: Statistical analysis of real and synthetic chemical structures. *Journal of Chemical Information and Modeling*. 49(7):1655-1663. <https://doi.org/10.1021/ci900060x>
- 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. 2010. Surface science analysis and surface modification methods for biomaterials research. *European Cells and Materials*. 20(SUPPL. 3):133.
- Jagadabhi PS, Kaparaju P, Rintala J. 2010. Effect of micro-aeration and leachate replacement on COD solubilization and VFA production during mono-digestion of grass-silage in one-stage leach-bed reactors. *Bioresource Technology*. 101(8):2818-2824. <https://doi.org/10.1016/j.biortech.2009.10.083>
- Vähä-Nissi M, Hirvikorpi T, Sievänen J, Salo E, Harlin A, Johansson P, Kuusipalo J. 2011. Effect of pre-treatments on barrier properties of layers applied by atomic layer deposition onto polymer-coated substrates. In 13th European PLACE Conference 2011. pp. 447.
- Giammarco JM, Zdyrko B, Hu J, Agarwal A, Kimerling L, Carlie N, Petit L, Richardson K, Luzinov I. 2011. Enrichment polymer layers for detection of volatile vapors by ATR FT-IR. ACS National Meeting Book of Abstracts.

Teisala H, Tuominen M, Aromaa M, Mäkelä JM, Stepien M, Saarinen JJ, Toivakka M, Kuusipalo J. 2011. Nanoparticle deposition on packaging materials by the liquid flame spray. In 13th European PLACE Conference 2011.

Määttä JAE, Eisenberg-Domovich Y, Nordlund HR, Hayouka R, Kulomaa MS, Livnah O, Hytönen VP. 2011. Chimeric avidin shows stability against harsh chemical conditions-biochemical analysis and 3D structure. *Biotechnology and Bioengineering*. 108(3):481-490. <https://doi.org/10.1002/bit.22962>

Daculsi G, Goyenvalle E, Cognet R, Aguado E, Suokas EO. 2011. Osteoconductive properties of poly(96L/4D-lactide)/beta-tricalcium phosphate in long term animal model. *Biomaterials*. 32(12):3166-3177. <https://doi.org/10.1016/j.biomaterials.2011.01.033>

Jagadabhi PS, Kaparaju P, Rintala J. 2011. Two-stage anaerobic digestion of tomato, cucumber, common reed and grass silage in leach-bed reactors and upflow anaerobic sludge blanket reactors. *Bioresource Technology*. 102(7):4726-4733. <https://doi.org/10.1016/j.biortech.2011.01.052>

Zorzi GK, Párraga JE, Seijo B, Sánchez A. 2011. Hybrid nanoparticle design based on cationized gelatin and the polyanions dextran sulfate and chondroitin sulfate for ocular gene therapy. *MACROMOLECULAR BIOSCIENCE*. 11(7):905-913. <https://doi.org/10.1002/mabi.201100005>

Linko V, Leppiniemi J, Paasonen ST, Hytönen VP, Jussi Toppari J. 2011. Defined-size DNA triple crossover construct for molecular electronics: Modification, positioning and conductance properties. *Nanotechnology*. 22(27). <https://doi.org/10.1088/0957-4484/22/27/275610>

Giammarco J, Zdyrko B, Petit L, Musgraves JD, Hu J, Agarwal A, Kimerling L, Richardson K, Luzinov I. 2011. Towards universal enrichment nanocoating for IR-ATR waveguides. *Chemical Communications*. 47(32):9104-9106. <https://doi.org/10.1039/c1cc12780b>

Pakarinen O, Kaparaju P, Rintala J. 2011. The effect of organic loading rate and retention time on hydrogen production from a methanogenic CSTR. *Bioresource Technology*. 102(19):8952-8957. <https://doi.org/10.1016/j.biortech.2011.07.020>

Heikkinen JJ, Kivimäki L, Määttä JAE, Mäkelä I, Hakalahti L, Takkinen K, Kulomaa MS, Hytönen VP, Hormi OEO. 2011. Versatile bio-ink for covalent immobilization of chimeric avidin on sol-gel substrates. *Colloids and Surfaces B: Biointerfaces*. 87(2):409-414. <https://doi.org/10.1016/j.colsurfb.2011.05.052>

Amps K, Andrews PW, Anyfantis G, Armstrong L, Avery S, Baharvand H, Baker J, Baker D, Munoz MB, Beil S, Benvenisty N, Ben-Yosef D, Biancotti JC, Bosman A, Brena RM, Brison D, Caisander G, Camarasa MV, Chen J, Chiao E, Choi YM, Choo ABH, Collins D, Colman A, Crook JM, Daley GQ, Dalton A, De Sousa PA, Denning C, Downie J, Dvorak P, Montgomery KD, Feki A, Ford A, Fox V, Fraga AM, Frumkin T, Ge L, Gokhale PJ, Golan-Lev T, Gourabi H, Gropp M, Guangxiu L, Hampel A, Harron K, Healy L, Herath W, Holm F, Hovatta O, Hyllner J, Inamdhar MS, Irwanto AK, Ishii T, Jaconi M, Jin Y, Kimber S, Kiselev S, Knowles BB, Kopper O, Kukharensko V, Kuliev A, Lagarkova MA, Laird PW, Lako M, Laslett AL, Lavon N, Lee DR, Lee JE, Li C, Lim LS, Ludwig TE, Ma Y, Maltby E, Mateizel I, Mayshar Y, Mileikovsky M, Minger SL, Miyazaki T, Moon SY, Moore H, Mummery C, Nagy A, Nakatsuji N, Narwani K, Oh SKW, Oh SK, Olson C, Otonkoski T, Pan F, Park IH, Pells S, Pera MF, Pereira LV, Qi O, Raj GS, Reubinoff B, Robins A, Robson P, Rossant J, Salekdeh GH, Schulz TC, Sermon K, Mohamed JS, Shen H, Sherrer E, Sidhu K, Sivarajah S, Skottman H, Spits C, Stacey GN, Strehl R, Strelchenko N, Suemori H, Sun B, Suuronen R, Takahashi K, Tuuri T, Venu P, Verlinsky Y, Oostwaard DWV, Weisenberger DJ, Wu Y, Yamanaka S, Young L, Zhou Q. 2011. Screening ethnically diverse human embryonic stem cells identifies a chromosome 20 minimal amplicon conferring growth advantage. *Nature Biotechnology*. 29(12):1132-1144. <https://doi.org/10.1038/nbt.2051>

Cao H, Feng Y, Wang H, Zhang L, Khan M, Guo J. 2011. Synthesis of depsipeptides from L-amino acids and lactones. *Frontiers of Chemical Science and Engineering*. 5(4):409-415. <https://doi.org/10.1007/s11705-011-1141-9>

Valtakari D, Bollström R, Tuominen M, Teisala H, Aromaa M, Toivakka M, Kuusipalo J, Mäkelä JM, Uozumi J, Saarinen JJ. 2012. Conductive layers on surface modified natural fibre based substrates for printed functionality. In AICHe 2012 - 2012 AICHe Annual Meeting, Conference Proceedings.

Tirkkonen L, Haimi S, Huttunen S, Wolff J, Pirhonen E, Sándor GK, Miettinen S. 2012. Osteogenic medium is superior to growth factors in differentiation of human adipose stem cells towards boneforming cells in 3D culture. *European Cells and Materials*. 25:144-158.

Mousa A, Heinrich G, Kretzschmar B, Wagenknecht U, Das A. 2012. Utilization of agrowaste polymers in PVC/NBR alloys: Tensile, thermal, and morphological properties. *INTERNATIONAL JOURNAL OF CHEMICAL ENGINEERING*. <https://doi.org/10.1155/2012/121496>

Sarkanen JR, Kaila V, Mannerström B, Rätty S, Kuokkanen H, Miettinen S, Ylikomi T. 2012. Human adipose tissue extract induces angiogenesis and adipogenesis in vitro. *Tissue Engineering Part A*. 18(1-2):17-25. <https://doi.org/10.1089/ten.tea.2010.0712>

Praveenkumar R, Johny K, MubarakAli D, Vijayan D, Thajuddin N, Gunasekaran M. 2012. Demonstration of increased lipid accumulation potential of *Stigeoclonium* sp., Kütz. BUM11007 under nitrogen starved regime: A new source of lipids for biodiesel production. *Journal of Biobased Materials and Bioenergy*. 6(2):209-213. <https://doi.org/10.1166/jbmb.2012.1200>

Rooj S, Das A, Stöckelhuber KW, Reuter U, Heinrich G. 2012. Highly exfoliated natural rubber/Clay composites by "propping-open procedure": The influence of fatty-acid chain length on exfoliation. *Macromolecular Materials and Engineering*. 297(4):369-383. <https://doi.org/10.1002/mame.201100185>

Wang DY, Das A, Leuteritz A, Mahaling RN, Jehnichen D, Wagenknecht U, Heinrich G. 2012. Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites. *RSC Advances*. 2(9):3927-3933. <https://doi.org/10.1039/c2ra20189e>

Rembert KB, Paterová J, Heyda J, Hilty C, Jungwirth P, Cremer PS. 2012. Molecular mechanisms of ion-specific effects on proteins. *Journal of the American Chemical Society*. 134(24):10039-10046. <https://doi.org/10.1021/ja301297g>

Kousoulidou M, Ntziachristos L, Fontaras G, Martini G, Dilara P, Samaras Z. 2012. Impact of biodiesel application at various blending ratios on passenger cars of different fueling technologies. *Fuel*. 98:88-94. <https://doi.org/10.1016/j.fuel.2012.03.038>

Gao W, Feng Y, Lu J, Khan M, Guo J. 2012. Biomimetic surface modification of polycarbonateurethane film via phosphorylcholine-graft for resisting platelet adhesion. *Macromolecular Research*. 20(10):1063-1069. <https://doi.org/10.1007/s13233-012-0152-9>

Khan MN, Tjong V, Chilkoti A, Zharnikov M. 2012. Fabrication of ssDNA/oligo(ethylene glycol) monolayers and complex nanostructures by an irradiation-promoted exchange reaction. *Angewandte Chemie (International Edition)*. 51(41):10303-10306. <https://doi.org/10.1002/anie.201204245>

Steinhauser D, Subramaniam K, Das A, Heinrich G, Klüppel M. 2012. Influence of ionic liquids on the dielectric relaxation behavior of CNT based elastomer nanocomposites. *Express Polymer Letters*. 6(11):927-936. <https://doi.org/10.3144/expresspolymlett.2012.98>

Mubarakali D, Praveenkumar R, Shenbagavalli T, Mari Nivetha T, Parveez Ahamed A, Al-Dhabi NA, Thajuddin N. 2012. New reports on anti-bacterial and anti-candidal activities of fatty acid methyl esters (FAME) obtained from *Scenedesmus bijugatus* var. *bicellularis* biomass. *RSC Advances*. 2(30):11552-11556. <https://doi.org/10.1039/c2ra21130k>

Lahtinen K, Lahti J, Johansson P, Seppänen T, Cameron DC. 2013. Improving the effect of a nanoscale barrier coating on BOPP film properties by surface pretreatments. In 14th European PLACE Conference 2013. TAPPI Press. pp. 469-493.

Kulig W, Agmon N. 2013. A 'clusters-in-liquid' method for calculating infrared spectra identifies the proton-transfer mode in acidic aqueous solutions. *Nature Chemistry*. 5(1):29-35. <https://doi.org/10.1038/nchem.1503>

Wang H, Feng Y, Zhao H, Fang Z, Khan M, Guo J. 2013. A potential nonthrombogenic small-diameter vascular scaffold with polyurethane/poly(ethylene glycol) hybrid materials by electrospinning technique. *Journal Nanoscience and Nanotechnology*. 13(2):1578-1582. <https://doi.org/10.1166/jnn.2013.6051>

Fafarman AT, Hong SH, Caglayan H, Ye X, Diroll BT, Paik T, Engheta N, Murray CB, Kagan CR. 2013. Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals. *Nano Letters*. 13(2):350-357. <https://doi.org/10.1021/nl303161d>

Rasappa S, Borah D, Faulkner CC, Lutz T, Shaw MT, Holmes JD, Morris MA. 2013. Fabrication of a sub-10 nm silicon nanowire based ethanol sensor using block copolymer lithography. *Nanotechnology*. 24(6). <https://doi.org/10.1088/0957-4484/24/6/065503>

Borah D, Rasappa S, Senthamaraiannan R, Shaw MT, Holmes JD, Morris MA. 2013. The sensitivity of random polymer brush-lamellar polystyrene-b-polymethylmethacrylate block copolymer systems to process conditions. *Journal of Colloid and Interface Science*. 393(1):192-202. <https://doi.org/10.1016/j.jcis.2012.10.070>

Tan M, Feng Y, Wang H, Zhang L, Khan M, Guo J, Chen Q, Liu J. 2013. Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group. *Macromolecular Research*. 21(5):541-549. <https://doi.org/10.1007/s13233-013-1028-3>

Bayr S, Kparaju P, Rintala J. 2013. Screening pretreatment methods to enhance thermophilic anaerobic digestion of pulp and paper mill wastewater treatment secondary sludge. *Chemical Engineering Journal*. 223:479-486. <https://doi.org/10.1016/j.cej.2013.02.119>

Gordon TR, Paik T, Klein DR, Naik GV, Caglayan H, Boltasseva A, Murray CB. 2013. Shape-dependent plasmonic response and directed self-assembly in a new semiconductor building block, indium-doped cadmium oxide (ICO). *Nano Letters*. 13(6):2857-2863. <https://doi.org/10.1021/nl4012003>

Diban N, Haimi S, Bolhuis-Versteeg L, Teixeira S, Miettinen S, Poot A, Grijpma D, Stamatialis D. 2013. Development and characterization of poly( $\epsilon$ -caprolactone) hollow fiber membranes for vascular tissue engineering. *Journal of Membrane Science*. 438:29-37. <https://doi.org/10.1016/j.memsci.2013.03.024>

Stirnemann G, Wernersson E, Jungwirth P, Laage D. 2013. Mechanisms of acceleration and retardation of water dynamics by ions. *Journal of the American Chemical Society*. 135(32):11824-11831. <https://doi.org/10.1021/ja405201s>

Pollheimer P, Taskinen B, Scherfler A, Gusenkov S, Creus M, Wiesauer P, Zauner D, Schöffberger W, Schwarzinger C, Ebner A, Tampé R, Stutz H, Hytönen VP, Gruber HJ. 2013. Reversible biofunctionalization of surfaces with a switchable mutant of avidin. *Bioconjugate Chemistry*. 24(10):1656-1668. <https://doi.org/10.1021/bc400087e>

Lee K, Lee SY, Na JG, Jeon SG, Praveenkumar R, Kim DM, Chang WS, Oh YK. 2013. Magnetophoretic harvesting of oleaginous *Chlorella* sp. by using biocompatible chitosan/magnetic nanoparticle composites. *Bioresource Technology*. 149:575-578. <https://doi.org/10.1016/j.biortech.2013.09.074>

Savolainen J, Uhlig F, Ahmed S, Hamm P, Jungwirth P. 2014. Direct observation of the collapse of the delocalized excess electron in water. *Nature Chemistry*. 6(8):697-701. <https://doi.org/10.1038/nchem.1995>

Le HH, Parsekar M, Ilisch S, Henning S, Das A, Stöckelhuber KW, Beiner M, Ho CA, Adhikari R, Wießner S, Heinrich G, Radsch HJ. 2014. Effect of non-rubber components of NR on the carbon nanotube (CNT) localization in SBR/NR blends. *Macromolecular Materials and Engineering*. 299(5):569-582. <https://doi.org/10.1002/mame.201300254>

Rasappa S, Borah D, Senthamaraiannan R, Faulkner CC, Holmes JD, Morris MA. 2014. Fabrication of 3-D nanodimensioned electric double layer capacitor structures using block copolymer templates. *Journal Nanoscience and Nanotechnology*. 14(7):5221-5227. <https://doi.org/10.1166/jnn.2014.8668>

Lahti J, Johansson P, Lahtinen K, Cameron DC, Seppänen T. 2014. Improving the effect of nanoscale barrier coating on BOPP film properties: Influence of substrate contamination, web handling and pretreatments. In TAPPI PLACE Conference 2014. TAPPI Press. pp. 1039-1061.

Oksa M, Auerkari P, Salonen J, Varis T. 2014. Nickel-based HVOF coatings promoting high temperature corrosion resistance of biomass-fired power plant boilers. *Fuel Processing Technology*. 125:236-245. <https://doi.org/10.1016/j.fuproc.2014.04.006>

Lee K, Lee SY, Praveenkumar R, Kim B, Seo JY, Jeon SG, Na JG, Park JY, Kim DM, Oh YK. 2014. Repeated use of stable magnetic flocculant for efficient harvest of oleaginous *Chlorella* sp. *Bioresource Technology*. 167:284-290. <https://doi.org/10.1016/j.biortech.2014.06.055>

Eshwaran SB, Basu D, Kutlu B, Leuteritz A, Wagenknecht U, Stöckelhuber KW, Naskar K, Das A, Heinrich G. 2014. Stearate Modified Zinc-Aluminum Layered Double Hydroxides and Acrylonitrile Butadiene Rubber Nanocomposites. *Polymer-Plastics Technology and Engineering*. 53(1):65-73. <https://doi.org/10.1080/03602559.2013.843690>

Moerland RJ, Koskela JE, Kravchenko A, Simberg M, Van Der Vegte S, Kaivola M, Priimagi A, Ras RHA. 2014. Large-area arrays of three-dimensional plasmonic subwavelength-sized structures from azopolymer surface-relief gratings. *Materials Horizons*. 1(1):74-80. <https://doi.org/10.1039/c3mh00008g>

Zhang D, Pekkanen-Mattila M, Shahsavani M, Falk A, Teixeira AI, Herland A. 2014. A 3D Alzheimer's disease culture model and the induction of P21-activated kinase mediated sensing in iPSC derived neurons. *Biomaterials*. 35(5):1420-1428. <https://doi.org/10.1016/j.biomaterials.2013.11.028>

Sorkio A, Hongisto H, Kaarniranta K, Uusitalo H, Juuti-Uusitalo K, Skottman H. 2014. Structure and barrier properties of human embryonic stem cell-derived retinal pigment epithelial cells are affected by extracellular matrix protein coating. *Tissue Engineering Part A*. 20(3-4):622-634. <https://doi.org/10.1089/ten.tea.2013.0049>

Ciranna A, Pawar SS, Santala V, Karp M, van Niel EWJ. 2014. Assessment of metabolic flux distribution in the thermophilic hydrogen producer *Caloramator celer* as affected by external pH and hydrogen partial pressure. *Microbial Cell Factories*. 13(1). <https://doi.org/10.1186/1475-2859-13-48>

Koskela JE, Liljeström V, Lim J, Simanek EE, Ras RHA, Priimagi A, Kostianen MA. 2014. Light-fuelled transport of large dendrimers and proteins. *Journal of the American Chemical Society*. 136(19):6850-6853. <https://doi.org/10.1021/ja502623m>

Raghuwanshi S, Deswal D, Karp M, Kuhad RC. 2014. Bioprocessing of enhanced cellulase production from a mutant of *Trichoderma asperellum* RCK2011 and its application in hydrolysis of cellulose. *Fuel*. 124:183-189. <https://doi.org/10.1016/j.fuel.2014.01.107>

Kurppa K, Hytönen VP, Nakari-Setälä T, Kulomaa MS, Linder MB. 2014. Molecular engineering of avidin and hydrophobin for functional self-assembling interfaces. *Colloids and Surfaces B: Biointerfaces*. 120:102-109. <https://doi.org/10.1016/j.colsurfb.2014.05.010>

Praveenkumar R, Kim B, Choi E, Lee K, Cho S, Hyun JS, Park JY, Lee YC, Lee HU, Lee JS, Oh YK. 2014. Mixotrophic cultivation of oleaginous *Chlorella* sp. KR-1 mediated by actual coal-fired flue gas for biodiesel production. *Bioprocess and Biosystems Engineering*. 37(10):2083-2094. <https://doi.org/10.1007/s00449-014-1186-5>

Rasappa S, Schulte L, Borah D, Morris MA, Ndoni S. 2014. Rapid, Brushless Self-assembly of a PS-b-PDMS Block Copolymer for Nanolithography. *Colloids and Interface Science Communications*. 2:1-5. <https://doi.org/10.1016/j.colcom.2014.07.001>

Praveenkumar R, Kim B, Choi E, Lee K, Park JY, Lee JS, Lee YC, Oh YK. 2014. Improved biomass and lipid production in a mixotrophic culture of *Chlorella* sp. KR-1 with addition of coal-fired flue-gas. *Bioresource Technology*. 171:500-505. <https://doi.org/10.1016/j.biortech.2014.08.112>

Lemmetyinen H, Tkachenko NV, Valeur B, Hotta JI, Ameloot M, Ernsting NP, Gustavsson T, Boens N. 2014. Time-resolved fluorescence methods (IUPAC technical report). *Pure and Applied Chemistry*. 86(12):1969-1998. <https://doi.org/10.1515/pac-2013-0912>

Taskinen B, Zauner D, Lehtonen SI, Koskinen M, Thomson C, Kähkönen N, Kukkurainen S, Määttä JAE, Ihalainen TO, Kulomaa MS, Gruber HJ, Hytönen VP. 2014. Switchavidin: Reversible biotin-avidin-biotin bridges with high affinity and specificity. *Bioconjugate Chemistry*. 25(12):2233-2243. <https://doi.org/10.1021/bc500462w>

Stumpel JE, Broer DJ, Schenning APHJ. 2014. Stimuli-responsive photonic polymer coatings. *Chemical Communications*. 50(100):15839-15848. <https://doi.org/10.1039/c4cc05072j>

Kamppuri T, Vehviläinen M, Puolakka A, Honkanen M, Vippola M, Rissanen M. 2015. Characterisation of novel regenerated cellulosic, viscose, and cotton fibres and the dyeing properties of fabrics. *Coloration Technology*. 131(5):396-402. <https://doi.org/10.1111/cote.12163>

Di Capua F, Papirio S, Lens PNL, Esposito G. 2015. Chemolithotrophic denitrification in biofilm reactors. *Chemical Engineering Journal*. 280:643-657. <https://doi.org/10.1016/j.cej.2015.05.131>

Mason PE, Uhlig F, Vaněk V, Buttersack T, Bauerecker S, Jungwirth P. 2015. Coulomb explosion during the early stages of the reaction of alkali metals with water. *Nature Chemistry*. 7(3):250-254. <https://doi.org/10.1038/nchem.2161>

Lehtonen SI, Taskinen B, Ojala E, Kukkurainen S, Rahikainen R, Riihimäki TA, Laitinen OH, Kulomaa MS, Hytönen VP. 2015. Efficient preparation of shuffled DNA libraries through recombination (Gateway) cloning. *Protein Engineering Design and Selection*. 28(1):23-28. <https://doi.org/10.1093/protein/gzu050>

Karvountzis-Kontakiotis A, Ntziachristos L. 2015. Enquête de la variabilité cycle-cycle du NO dans la combustion homogène. *OIL AND GAS SCIENCE AND TECHNOLOGY : REVUE DE L'INSTITUT FRANCAIS DU PETROLE*. 70(1):111-123. <https://doi.org/10.2516/ogst/2013199>

Palmroth MRT, Mönkäre TJ, Steffen KT. 2015. Fungal treatment of landfill mining fine fraction to increase its stability and end-use potential. Kalogerakis N, Fava F, Manousaki E, editors. In *Book of abstracts of the 6th European Bioremediation Conference*. pp. 47.

Nancharaiah YV, Venkata Mohan S, Lens PNL. 2015. Metals removal and recovery in bioelectrochemical systems: A review. *Bioresource Technology*. 195:102-114. <https://doi.org/10.1016/j.biortech.2015.06.058>

Bechet D, Auger F, Couleaud P, Marty E, Ravasi L, Durieux N, Bonnet C, Plénat F, Frochot C, Mordon S, Tillement O, Vanderesse R, Lux F, Perriat P, Guillemin F, Barberi-Heyob M. 2015. Multifunctional ultrasmall nanoplatfoms for vascular-targeted interstitial photodynamic therapy of brain tumors guided by real-time MRI. *NANOMEDICINE: NANOTECHNOLOGY BIOLOGY AND MEDICINE*. 11(3):657-670. <https://doi.org/10.1016/j.nano.2014.12.007>

Stumpel JE, Broer DJ, Schenning APHJ. 2015. Water-responsive dual-coloured photonic polymer coatings based on cholesteric liquid crystals. *RSC Advances*. 5(115):94650-94653. <https://doi.org/10.1039/c5ra18017a>

Mettänen M, Hirn U. 2015. A comparison of five optical surface topography measurement methods. *TAPPI Journal*. 14(1):27-38.

Yi H, Albrecht M, Valkonen A, Rissanen K. 2015. Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as  $\pi$ -acceptors for anions. *New Journal of Chemistry*. 39(1):746-749. <https://doi.org/10.1039/c4nj01654h>

Schroeder CA, Pluharová E, Seidel R, Schroeder WP, Faubel M, Slaviček P, Winter B, Jungwirth P, Bradforth SE. 2015. Oxidation half-reaction of aqueous nucleosides and nucleotides via photoelectron spectroscopy augmented by ab initio calculations. *Journal of the American Chemical Society*. 137(1):201-209. <https://doi.org/10.1021/ja508149e>

Czaplicki R, Mäkitalo J, Siikanen R, Husu H, Lehtolahti J, Kuittinen M, Kauranen M. 2015. Second-Harmonic Generation from Metal Nanoparticles: Resonance Enhancement versus Particle Geometry. *Nano Letters*. 15(1):530-534. <https://doi.org/10.1021/nl503901e>

Bautista G, Mäkitalo J, Chen Y, Dhaka V, Grasso M, Karvonen L, Jiang H, Huttunen MJ, Huhtio T, Lipsanen H, Kauranen M. 2015. Second-harmonic generation imaging of semiconductor nanowires with focused vector beams. *Nano Letters*. 15(3):1564-1569. <https://doi.org/10.1021/nl503984b>

Zou G, Papirio S, van Hullebusch ED, Puhakka JA. 2015. Fluidized-bed denitrification of mining water tolerates high nickel concentrations. *Bioresource Technology*. 179:284-290. <https://doi.org/10.1016/j.biortech.2014.12.044>

Potapov I, Zhurov B, Volkov E. 2015. Multi-stable dynamics of the non-adiabatic repressilator. *Journal of the Royal Society. Interface*. 12(104). <https://doi.org/10.1098/rsif.2014.1315>

Koivisto AJ, Aromaa M, Koponen IK, Fransman W, Jensen KA, Mäkelä JM, Hämeri KJ. 2015. Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis. *Journal of Nanoparticle Research*. 17(4). <https://doi.org/10.1007/s11051-015-2990-9>

Martins L, Fonseca J, Ribeiro A. 2015. 'miSimBa' - A simulator of synthetic time-lapsed microscopy images of bacterial cells. In *Proceedings - 2015 IEEE 4th Portuguese Meeting on Bioengineering, ENBENG 2015*. The Institute of Electrical and Electronics Engineers, Inc. <https://doi.org/10.1109/ENBENG.2015.7088854>

Sorkio AE, Vuorimaa-Laukkanen EP, Hakola HM, Liang H, Ujula TA, Valle-Delgado JJ, Österberg M, Yliperttula ML, Skottman H. 2015. Biomimetic collagen I and IV double layer Langmuir-Schaefer films as microenvironment for human pluripotent stem cell derived retinal pigment epithelial cells. *Biomaterials*. 51:257-269. <https://doi.org/10.1016/j.biomaterials.2015.02.005>

McManamon C, O'Connell J, Delaney P, Rasappa S, Holmes JD, Morris MA. 2015. A facile route to synthesis of S-doped TiO<sub>2</sub> nanoparticles for photocatalytic activity. *Journal of Molecular Catalysis A: Chemical*. 406:51-57!. <https://doi.org/10.1016/j.molcata.2015.05.002>

Perander M, DeMartini N, Brink A, Kramb J, Karlström O, Hemming J, Moilanen A, Konttinen J, Hupa M. 2015. Catalytic effect of Ca and K on CO<sub>2</sub> gasification of spruce wood char. *Fuel*. 150:464-472. <https://doi.org/10.1016/j.fuel.2015.02.062>

Massera J, Kokkari A, Närhi T, Hupa L. 2015. The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts. *Journal of Materials Science: Materials in Medicine*. 26(6). <https://doi.org/10.1007/s10856-015-5528-x>

Marjakangas JM, Lakaniemi AM, Koskinen PEP, Chang JS, Puhakka JA. 2015. Lipid production by eukaryotic microorganisms isolated from palm oil mill effluent. *Biochemical Engineering Journal*. 99:48-54. <https://doi.org/10.1016/j.bej.2015.03.006>

Hakkarainen TV, Schramm A, Mäkelä J, Laukkanen P, Guina M. 2015. Lithography-free oxide patterns as templates for self-catalyzed growth of highly uniform GaAs nanowires on Si(111). *Nanotechnology*. 26(27). <https://doi.org/10.1088/0957-4484/26/27/275301>

Çetinkaya AY, Köroğlu EO, Demir NM, Baysoy DY, Özkaya B, Çakmakçı M. 2015. Electricity production by a microbial fuel cell fueled by brewery wastewater and the factors in its membrane deterioration. *Chinese Journal of Catalysis*. 36(7):1068-1076. [https://doi.org/10.1016/S1872-2067\(15\)60833-6](https://doi.org/10.1016/S1872-2067(15)60833-6)



- Rasappa S, Caridad JM, Schulte L, Cagliani A, Borah D, Morris MA, Bøggild P, Ndoni S. 2015. High quality sub-10 nm graphene nanoribbons by on-chip PS-b-PDMS block copolymer lithography. *RSC Advances*. 5(82):66711-66717. <https://doi.org/10.1039/c5ra11735f>
- Kanerva U, Suhonen T, Lagerbom J, Levänen E. 2015. Evaluation of crushing strength of spray-dried MgAl<sub>2</sub>O<sub>4</sub> granule beds. *Ceramics International*. 41(7):8494-8500. <https://doi.org/10.1016/j.ceramint.2015.03.056>
- Foroutan F, Walters NJ, Owens GJ, Mordan NJ, Kim HW, de Leeuw NH, Knowles JC. 2015. Sol-gel synthesis of quaternary (P<sub>2</sub>O<sub>5</sub>)<sub>55</sub>-(CaO)<sub>25</sub>-(Na<sub>2</sub>O)<sub>(20-x)</sub>-(TiO<sub>2</sub>)<sub>x</sub> bioresorbable glasses for bone tissue engineering applications (x = 0, 5, 10, or 15). *Biomedical materials (Bristol, England)*. 10(4):45025. <https://doi.org/10.1088/1748-6041/10/4/045025>
- Levin M, Rojas E, Vanhala E, Vippola M, Liguori B, Kling KI, Koponen IK, Mølhav K, Tuomi T, Gregurec D, Moya S, Jensen KA. 2015. Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials: implications for testing and risk assessment. *Journal of Nanoparticle Research*. 17(8). <https://doi.org/10.1007/s11051-015-3139-6>
- Nikkanen JP, Huttunen-Saarivirta E, Salminen T, Hyvärinen L, Honkanen M, Isotahdon E, Heinonen S, Levänen E. 2015. Enhanced photoactive and photoelectrochemical properties of TiO<sub>2</sub> sol-gel coated steel by the application of SiO<sub>2</sub> intermediate layer. *Applied Catalysis B-Environmental*. 174-175:533-543. <https://doi.org/10.1016/j.apcatb.2015.03.014>
- Bajamundi CJE, Vainikka P, Hedman M, Silvennoinen J, Heinanen T, Taipale R, Kontinen J. 2015. Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel. *Fuel*. 155:25-36. <https://doi.org/10.1016/j.fuel.2015.03.087>
- Sorkio A, Porter PJ, Juuti-Uusitalo K, Meenan BJ, Skottman H, Burke GA. 2015. Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells. *Tissue Engineering Part A*. 21(17-18):2301-2314. <https://doi.org/10.1089/ten.tea.2014.0640>
- Kokko ME, Mäkinen AE, Sulonen MLK, Puhakka JA. 2015. Effects of anode potentials on bioelectrogenic conversion of xylose and microbial community compositions. *Biochemical Engineering Journal*. 101:248-252. <https://doi.org/10.1016/j.bej.2015.06.007>
- Ter Schiphorst J, Coleman S, Stumpel JE, Ben Azouz A, Diamond D, Schenning APHJ. 2015. Molecular Design of Light-Responsive Hydrogels, for in Situ Generation of Fast and Reversible Valves for Microfluidic Applications. *Chemistry of Materials*. 27(17):5925-5931. <https://doi.org/10.1021/acs.chemmater.5b01860>
- Polishchuk A, Valev D, Tarvainen M, Mishra S, Kinnunen V, Antal T, Yang B, Rintala J, Tyystjärvi E. 2015. Cultivation of Nannochloropsis for eicosapentaenoic acid production in wastewaters of pulp and paper industry. *Bioresource Technology*. 193:469-476. <https://doi.org/10.1016/j.biortech.2015.06.135>
- Vapaavuori J, Laventure A, Bazuin CG, Lebel O, Pellerin C. 2015. Submolecular Plasticization Induced by Photons in Azobenzene Materials. *Journal of the American Chemical Society*. 137(42):13510-13517. <https://doi.org/10.1021/jacs.5b06611>
- Zorzi GK, Párraga JE, Seijo B, Sanchez A. 2015. Comparison of different cationized proteins as biomaterials for nanoparticle-based ocular gene delivery. *Colloids and Surfaces B: Biointerfaces*. 135:533-541. <https://doi.org/10.1016/j.colsurfb.2015.08.008>
- Le HH, Parsaker M, Sriharish MN, Henning S, Menzel M, Wießner S, Das A, Do QK, Heinrich G, Radusch HJ. 2015. Effect of rubber polarity on selective wetting of carbon nanotubes in ternary blends. *Express Polymer Letters*. 9(11):960-971. <https://doi.org/10.3144/expresspolymlett.2015.87>

Marjakangas JM, Chen CY, Lakaniemi AM, Puhakka JA, Whang LM, Chang JS. 2015. Simultaneous nutrient removal and lipid production with *Chlorella vulgaris* on sterilized and non-sterilized anaerobically pretreated piggy wastewater. *Biochemical Engineering Journal*. 103:177-184. <https://doi.org/10.1016/j.bej.2015.07.011>

Seo JY, Lee K, Ramasamy P, Kim B, Lee SY, Oh YK, Park SB. 2015. Tri-functionality of Fe<sub>3</sub>O<sub>4</sub>-embedded carbon microparticles in microalgae harvesting. *Chemical Engineering Journal*. 280:206-214. <https://doi.org/10.1016/j.cej.2015.05.122>

Kaouk A, Ruoko TP, Gönüllü Y, Kaunisto K, Mettenböcker A, Gurevich E, Lemmetyinen H, Ostendorf A, Mathur S. 2015. Graphene-intercalated Fe<sub>2</sub>O<sub>3</sub>/TiO<sub>2</sub> heterojunctions for efficient photoelectrolysis of water. *RSC Advances*. 5(123):101401-101407. <https://doi.org/10.1039/c5ra18330h>

Zhao MD, Björninen M, Cao L, Wang HR, Pelto J, Li XQ, Hyttinen J, Jiang YQ, Kellomäki M, Miettinen S, Sándor GK, Seppänen R, Haimi S, Dong J. 2015. Polypyrrole coating on poly-(lactide/glycolide)-β-tricalcium phosphate screws enhances new bone formation in rabbits. *Biomedical Materials*. 10(6). <https://doi.org/10.1088/1748-6041/10/6/065016>

Mäki AJ, Peltokangas M, Kreutzer J, Auvinen S, Kallio P. 2015. Modeling carbon dioxide transport in PDMS-based microfluidic cell culture devices. *Chemical Engineering Science*. 137:515-524. <https://doi.org/10.1016/j.ces.2015.06.065>

Alanen J, Saukko E, Lehtoranta K, Murtonen T, Timonen H, Hillamo R, Karjalainen P, Kuuluvainen H, Harra J, Keskinen J, Rönkkö T. 2015. The formation and physical properties of the particle emissions from a natural gas engine. *Fuel*. 162:155-161. <https://doi.org/10.1016/j.fuel.2015.09.003>

Honkanen M, Kärkkäinen M, Kolli T, Heikkinen O, Viitanen V, Zeng L, Jiang H, Kallinen K, Huuhtanen M, Keiski RL, Lahtinen J, Olsson E, Vippola M. 2016. Accelerated deactivation studies of the natural-gas oxidation catalyst-Verifying the role of sulfur and elevated temperature in catalyst aging. *Applied Catalysis B-Environmental*. 439-448. <https://doi.org/10.1016/j.apcatb.2015.09.054>

Mahdiani S, Vanhala J, Viik J. 2016. A novel generic algorithm for robust physiological signal classification. In XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016: MEDICON 2016, March 31st–April 2nd 2016, Paphos, Cyprus. Springer Verlag. pp. 1038-1043. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-319-32703-7\\_205](https://doi.org/10.1007/978-3-319-32703-7_205)

Mahdiani S, Jeyhani V, Vehkaoja A. 2016. A review of transient suppression methods of IIR notch filters used for power-line interference rejection in ECG measurement. In IFMBE Proceedings. Springer Verlag. pp. 151-156. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-319-32703-7\\_31](https://doi.org/10.1007/978-3-319-32703-7_31)

Prakash M, Peltomäki T, Eskola H. 2016. A tool for geometrical measurements of orthognathic surgery changes using cone beam computed tomography. In XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016: MEDICON 2016, March 31st–April 2nd 2016, Paphos, Cyprus. Springer Verlag. pp. 430-433. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-319-32703-7\\_84](https://doi.org/10.1007/978-3-319-32703-7_84)

Nancharaiah YV, Mohan SV, Lens PNL. 2016. Biological and Bioelectrochemical Recovery of Critical and Scarce Metals. *Trends in Biotechnology*. 34(2):137-155. <https://doi.org/10.1016/j.tibtech.2015.11.003>

Kim DY, Vijayan D, Praveenkumar R, Han JI, Lee K, Park JY, Chang WS, Lee JS, Oh YK. 2016. Cell-wall disruption and lipid/astaxanthin extraction from microalgae: *Chlorella* and *Haematococcus*. *Bioresource Technology*. 199:300-310. <https://doi.org/10.1016/j.biortech.2015.08.107>

Solala I, Koistinen A, Siljander S, Vuorinen J, Vuorinen T. 2016. Composites of high-temperature thermomechanical pulps and polylactic acid. *BioResources*. 11(1):1125-1140. <https://doi.org/10.15376/biores.11.1.1125-1140>

Halder A, Kandambeth S, Biswal BP, Kaur G, Roy NC, Addicoat M, Salunke JK, Banerjee S, Vanka K, Heine T, Verma S, Banerjee R. 2016. Decoding the Morphological Diversity in Two Dimensional Crystalline Porous Polymers by Core Planarity Modulation. *Angewandte Chemie (International Edition)*. 55(27):7806-7810. <https://doi.org/10.1002/anie.201600087>

Spataru A, Jain R, Chung JW, Gerner G, Krebs R, Lens PNL. 2016. Enhanced adsorption of orthophosphate and copper onto hydrochar derived from sewage sludge by KOH activation. *RSC Advances*. 6(104):101827-101834. <https://doi.org/10.1039/c6ra22327c>

Basu D, Das A, Wang DY, George JJ, Stöckelhuber KW, Boldt R, Leuteritz A, Heinrich G. 2016. Fire-safe and environmentally friendly nanocomposites based on layered double hydroxides and ethylene propylene diene elastomer. *RSC Advances*. 6(31):26425-26436. <https://doi.org/10.1039/c5ra27444c>

Porkka PL. 2016. Functional model for organisational and safety culture. In *Chemical Engineering Transactions*. Italian Association of Chemical Engineering AIDIC. pp. 907-912. (Chemical Engineering Transactions). <https://doi.org/10.3303/CET1648152>

Kato D, Sakai H, Tkachenko NV, Hasobe T. 2016. High-Yield Excited Triplet States in Pentacene Self-Assembled Monolayers on Gold Nanoparticles through Singlet Exciton Fission. *Angewandte Chemie (International Edition)*. 55(17):5230-5234. <https://doi.org/10.1002/anie.201601421>

Mesaros A, Heittola T, Virtanen T. 2016. Metrics for polyphonic sound event detection. *Applied Sciences*. 6(6). <https://doi.org/10.3390/app6060162>

Lahti J. 2016. Nanoscale barrier coating on BOPP packaging film by ALD. In *TAPPI PLACE Conference 2016: Exploring New Frontiers*. TAPPI Press. pp. 493-505.

Perumbilavil S, Sridharan K, Abraham AR, Janardhanan HP, Kalarikkal N, Philip R. 2016. Nonlinear transmittance and optical power limiting in magnesium ferrite nanoparticles: effects of laser pulsewidth and particle size. *RSC Advances*. 6(108):106754-106761. <https://doi.org/10.1039/c6ra15788b>

Jeyhani V, Vuorinen T, Noponen K, Mäntysalo M, Vehkaoja A. 2016. Optimal short distance electrode locations for impedance pneumography measurement from the frontal thoracic area. In *XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016: MEDICON 2016, March 31st-April 2nd 2016, Paphos, Cyprus*. Springer Verlag. pp. 1138-1143. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-319-32703-7\\_223](https://doi.org/10.1007/978-3-319-32703-7_223)

Jain R, Dominic D, Jordan N, Rene ER, Weiss S, van Hullebusch ED, Hübner R, Lens PNL. 2016. Preferential adsorption of Cu in a multi-metal mixture onto biogenic elemental selenium nanoparticles. *Chemical Engineering Journal*. 284:917-925. <https://doi.org/10.1016/j.cej.2015.08.144>

Higashino T, Yamada T, Yamamoto M, Furube A, Tkachenko NV, Miura T, Kobori Y, Jono R, Yamashita K, Imahori H. 2016. Remarkable Dependence of the Final Charge Separation Efficiency on the Donor-Acceptor Interaction in Photoinduced Electron Transfer. *Angewandte Chemie (International Edition)*. 55(2):629-633. <https://doi.org/10.1002/anie.201509067>

Saarinen JJ, Valtakari D, Bollström R, Stepien M, Haapanen J, Mäkelä JM, Toivakka M. 2016. Roll-to-roll application of photocatalytic TiO<sub>2</sub> nanoparticles for printed functionality. In *Advanced Manufacturing, Electronics and Microsystems: TechConnect Briefs 2016*. TechConnect. pp. 47-50.

Cavallo G, Terraneo G, Monfredini A, Saccone M, Priimägi A, Pilati T, Resnati G, Metrangolo P, Bruce DW. 2016. Superfluorinated Ionic Liquid Crystals Based on Supramolecular, Halogen-Bonded Anions. *Angewandte Chemie (International Edition)*. 55(21):6300-6304. <https://doi.org/10.1002/anie.201601278>

Ylinen A, Mäkinen J, Kouhia R. 2016. Two models for hydraulic cylinders in flexible multibody simulations. In *Computational Methods for Solids and Fluids: Multiscale Analysis, Probability Aspects and Model Reduction*. Springer. pp. 463-493. (Computational Methods in Applied Sciences). [https://doi.org/10.1007/978-3-319-27996-1\\_17](https://doi.org/10.1007/978-3-319-27996-1_17)

Hannula M, Haaparanta AM, Tamminen I, Aula A, Kellomäki M, Hyttinen J. 2016. X-ray microtomography of collagen and polylactide samples in liquids. In XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016: MEDICON 2016, March 31st–April 2nd 2016, Paphos, Cyprus. Springer Verlag. pp. 420-424. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-319-32703-7\\_82](https://doi.org/10.1007/978-3-319-32703-7_82)

Mahlamäki K, Niemi A, Jokinen J, Borgman J. 2016. Importance of maintenance data quality in extended warranty simulation. *International Journal of COMADEM*. 19(1):3-10.

Vuornos K, Björninen M, Talvitie E, Paakinaho K, Kellomäki M, Huhtala H, Miettinen S, Seppänen-Kaijansinkko R, Haimi S. 2016. Human Adipose Stem Cells Differentiated on Braided Polylactide Scaffolds is a Potential Approach for Tendon Tissue Engineering. *Tissue Engineering Part A*. 22(5-6):513-523. <https://doi.org/10.1089/ten.tea.2015.0276>

Mal J, Nancharaiah YV, Van Hullebusch ED, Lens PNL. 2016. Metal chalcogenide quantum dots: Biotechnological synthesis and applications. *RSC Advances*. 6(47):41477-41495. <https://doi.org/10.1039/c6ra08447h>

Mal J, Nancharaiah YV, van Hullebusch ED, Lens PNL. 2016. Effect of heavy metal co-contaminants on selenite bioreduction by anaerobic granular sludge. *Bioresource Technology*. 206:1-8. <https://doi.org/10.1016/j.biortech.2016.01.064>

Heydari G, Sedighi Moghaddam M, Tuominen M, Fielden M, Haapanen J, Mäkelä JM, Claesson PM. 2016. Wetting hysteresis induced by temperature changes: Supercooled water on hydrophobic surfaces. *Journal of Colloid and Interface Science*. 468:21-33. <https://doi.org/10.1016/j.jcis.2016.01.040>

Isotahdon E, Huttunen-Saarivirta E, Kuokkala V-T. 2016. Development of Magnetic Losses During Accelerated Corrosion Tests for Nd-Fe-B Magnets Used in Permanent Magnet Generators. *Corrosion*. 72(6):732-741. <https://doi.org/10.5006/2037>

Suominen O, Mörsky V, Ritala R, Vilkkio M. 2016. Framework for optimization and scheduling of a copper production plant . In 26th European Symposium on Computer Aided Process Engineering, 2016. Elsevier Science B.V. pp. 1243-1248. (Computer Aided Chemical Engineering). <https://doi.org/10.1016/B978-0-444-63428-3.50212-5>

Wikberg H, Ohra-aho T, Honkanen M, Kanerva H, Harlin A, Vippola M, Laine C. 2016. Hydrothermal carbonization of pulp mill streams. *Bioresource Technology*. 212:236-244. <https://doi.org/10.1016/j.biortech.2016.04.061>

Kramb J, DeMartini N, Perander M, Moilanen A, Konttinen J. 2016. Modeling of the catalytic effects of potassium and calcium on spruce wood gasification in CO<sub>2</sub>. *Fuel Processing Technology*. 148:50-59. <https://doi.org/10.1016/j.fuproc.2016.01.031>

Luna E, Wu M, Hanke M, Puustinen J, Guina M, Trampert A. 2016. Spontaneous formation of three-dimensionally ordered Bi-rich nanostructures within GaAs<sub>1-x</sub>Bi<sub>x</sub>/GaAs quantum wells. *Nanotechnology*. 27(32). <https://doi.org/10.1088/0957-4484/27/32/325603>

Lindgren M, Wallin M, Kakkonen M, Saarela O, Vuorinen J. 2016. The influence of high-temperature sulfuric acid solution ageing on the properties of laminated vinyl-ester joints. *International Journal of Adhesion and Adhesives*. 68:298-304. <https://doi.org/10.1016/j.ijadhadh.2016.04.011>

Kärkkäinen M, Kolli T, Honkanen M, Heikkinen O, Väliheikki A, Huuhtanen M, Kallinen K, Lahtinen J, Vippola M, Keiski RL. 2016. The Influence of Phosphorus Exposure on a Natural-Gas-Oxidation Catalyst. *Topics in Catalysis*. 59(10-12):1044-1048. <https://doi.org/10.1007/s11244-016-0587-x>

Stöckelhuber KW, Das A, Klüppel M, ed. 2016. Designing of Elastomer Nanocomposites: From Theory to Application. Springer International Publishing. (Advances in Polymer Science). <https://doi.org/10.1007/978-3-319-47696-4>

- Basu D, Das A, Stöckelhuber KW, Wießner S. 2016. Nanostructured Ionomeric Elastomers. Stöckelhuber KW, Das A, Klüppel M, editors. In *Designing of Elastomer Nanocomposites: From Theory to Applications*. Springer International Publishing. pp. 235-266. (Advances in Polymer Science). [https://doi.org/10.1007/12\\_2016\\_8](https://doi.org/10.1007/12_2016_8)
- Nancharaiah YV, Venkata Mohan S, Lens PNL. 2016. Recent advances in nutrient removal and recovery in biological and bioelectrochemical systems. *Bioresource Technology*. 215:173–185. <https://doi.org/10.1016/j.biortech.2016.03.129>
- Pilehrood MK, Atashi A, Sadeghi-Aliabadi H, Nousiainen P, Harlin A. 2016. 3D micro-nano structured hybrid scaffolds: An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells. *Journal Nanoscience and Nanotechnology*. 16(9):9000-9007. <https://doi.org/10.1166/jnn.2016.12740>
- Sulonen MLK, Lakaniemi AM, Kokko ME, Puhakka JA. 2016. Long-term stability of bioelectricity generation coupled with tetrathionate disproportionation. *Bioresource Technology*. 216:876-882. <https://doi.org/10.1016/j.biortech.2016.06.024>
- Kramb J, Konttinen J, Backman R, Salo K, Roberts M. 2016. Elimination of arsenic-containing emissions from gasification of chromated copper arsenate wood. *Fuel*. 181:319-324. <https://doi.org/10.1016/j.fuel.2016.04.109>
- Will OM, Purcz N, Chalaris A, Heneweer C, Boretius S, Purcz L, Nikkola L, Ashammakhi N, Kalthoff H, Glüer CC, Wiltfang J, Açil Y, Tiwari S. 2016. Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma. *International Journal of Nanomedicine*. 11:5311-5321. <https://doi.org/10.2147/IJN.S109199>
- Ali-Löytty H, Hannula M, Honkanen M, Östman K, Lahtonen K, Valden M. 2016. Grain orientation dependent Nb-Ti microalloying mediated surface segregation on ferritic stainless steel. *Corrosion Science*. 112:204-213. <https://doi.org/10.1016/j.corsci.2016.07.024>
- Kim B, Praveenkumar R, Lee J, Nam B, Kim DM, Lee K, Lee YC, Oh YK. 2016. Magnesium aminoclay enhances lipid production of mixotrophic *Chlorella* sp. KR-1 while reducing bacterial populations. *Bioresource Technology*. 219:608-613. <https://doi.org/10.1016/j.biortech.2016.08.034>
- Ramasamy P, Kim B, Lee J, Vijayan D, Lee K, Nam B, Jeon SG, Kim DM, Oh YK. 2016. Mild pressure induces rapid accumulation of neutral lipid (triacylglycerol) in *Chlorella* spp. *Bioresource Technology*. 220:661-665. <https://doi.org/10.1016/j.biortech.2016.09.025>
- Kinnunen V, Rintala J. 2016. The effect of low-temperature pretreatment on the solubilization and biomethane potential of microalgae biomass grown in synthetic and wastewater media. *Bioresource Technology*. 221:78-84. <https://doi.org/10.1016/j.biortech.2016.09.017>
- Ntziachristos L, Saukko E, Lehtoranta K, Rönkkö T, Timonen H, Simonen P, Karjalainen P, Keskinen J. 2016. Particle emissions characterization from a medium-speed marine diesel engine with two fuels at different sampling conditions. *Fuel*. 186:456-465. <https://doi.org/10.1016/j.fuel.2016.08.091>
- Hyysalo A, Ristola M, Joki T, Honkanen M, Vippola M, Narkilahti S. 2017. Aligned Poly( $\epsilon$ -caprolactone) Nanofibers Guide the Orientation and Migration of Human Pluripotent Stem Cell-Derived Neurons, Astrocytes, and Oligodendrocyte Precursor Cells In Vitro. *MACROMOLECULAR BIOSCIENCE*. 17(7). <https://doi.org/10.1002/mabi.201600517>
- Mal J, Nancharaiah YV, van Hullebusch ED, Lens PNL. 2017. Biological removal of selenate and ammonium by activated sludge in a sequencing batch reactor. *Bioresource Technology*. 229:11-19. <https://doi.org/10.1016/j.biortech.2016.12.112>
- Tao R, Lakaniemi A-M, Rintala JA. 2017. Cultivation of *Scenedesmus acuminatus* in different liquid digestates from anaerobic digestion of pulp and paper industry biosludge. *Bioresource Technology*. 245(A):706-713. <https://doi.org/10.1016/j.biortech.2017.08.218>
- Peltokangas M, Telembeci AA, Verho J, Lekkala J, Vehkaoja A, Oksala N. 2017. Day-to-day repeatability of the results of the finger-toe-plot analysis. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics*,

NBC 2017. Springer Verlag. pp. 534-537. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_134](https://doi.org/10.1007/978-981-10-5122-7_134)

Nogueira IBR, Ribeiro AM, Rodrigues AE, Loureiro JM. 2017. Dynamic response to process disturbances—A comparison between TMB/SMB models in transient regime. *Computers and Chemical Engineering*. 99:230-244. <https://doi.org/10.1016/j.compchemeng.2017.01.026>

Tuohimäki K, Mahdiani S, Jeyhani V, Vehkaoja A, Iso-Ketola P, Vanhala J, Viik J, Mäntysalo M. 2017. Electrode comparison for textile-integrated electrocardiogram and impedance pneumography measurement. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 302-305. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_76](https://doi.org/10.1007/978-981-10-5122-7_76)

Eskola H, Väisänen O, Viik J, Hyttinen J, ed. 2017. *EMBEC & NBC 2017: Joint Conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC)*, Tampere, Finland, June 2017. Springer. 1139 p. (IFMBE Proceedings). <https://doi.org/10.1007/978-981-10-5122-7>

Mäkelä JM, Haapanen J, Harra J, Juuti P, Kujanpää S. 2017. Liquid flame spray—a hydrogen-oxygen flame based method for nanoparticle synthesis and functional nanocoatings. *KONA POWDER AND PARTICLE JOURNAL*. 2017(34):141-154. <https://doi.org/10.14356/kona.2017020>

Peltokangas M, Huotari M, Verho J, Mattila VM, Röning J, Ronsi P, Leikkala J, Vehkaoja A, Oksala N. 2017. Short-term stability of combined finger and toe photoplethysmogram analysis. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 342-345. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_86](https://doi.org/10.1007/978-981-10-5122-7_86)

Vapaavuori J, Siiskonen A, Dichiarante V, Forni A, Saccone M, Pilati T, Pellerin C, Shishido A, Metrangolo P, Priimägi A. 2017. Supramolecular control of liquid crystals by doping with halogen-bonding dyes. *RSC Advances*. 7(64):40237-40242. <https://doi.org/10.1039/c7ra06397k>

Javanainen M, Melcrová A, Magarkar A, Jurkiewicz P, Hof M, Jungwirth P, Martinez-Seara H. 2017. Two cations, two mechanisms: Interactions of sodium and calcium with zwitterionic lipid membranes. *Chemical Communications*. 53(39):5380-5383. <https://doi.org/10.1039/c7cc02208e>

Suokas E. 2017. Effect of air gap on the adhesion of PET layer on cardboard substrate in extrusion coating. In *16th TAPPI European PLACE Conference 2017*. TAPPI Press. pp. 529-544.

Lahti J, Kamppuri T, Kuusipalo J. 2017. Novel bio-based materials for active and intelligent packaging. In *16th TAPPI European PLACE Conference 2017*. TAPPI Press.

Lahti J, Kuusipalo J, Auvinen S. 2017. Novel equipment to simulate hot air heat sealability of packaging materials. In *16th TAPPI European PLACE Conference 2017*. TAPPI Press. pp. 237-248.

Kuusipalo J, Lahti J. 2017. Tampere University of Technology, laboratory of materials science, paper converting and packaging technology Tampere, Finland. In *16th TAPPI European PLACE Conference 2017: Basel; Switzerland; 22 May 2017 through 24 May 2017*. TAPPI Press.

Siiskonen A, Priimägi A. 2017. Benchmarking DFT methods with small basis sets for the calculation of halogen-bond strengths. *Journal of Molecular Modeling*. 23(2). <https://doi.org/10.1007/s00894-017-3212-4>

Milani R, Houbenov N, Fernandez-Palacio F, Cavallo G, Luzio A, Haataja J, Giancane G, Saccone M, Priimägi A, Metrangolo P, Ikkala O. 2017. Hierarchical Self-Assembly of Halogen-Bonded Block Copolymer Complexes into Upright Cylindrical Domains. *CheM*. 2(3):417-426. <https://doi.org/10.1016/j.chempr.2017.02.003>

Bilkova E, Pleskot R, Rissanen S, Sun S, Czogalla A, Cwiklik L, Róg T, Vattulainen I, Cremer PS, Jungwirth P, Coskun Ü. 2017. Calcium Directly Regulates Phosphatidylinositol 4,5-Bisphosphate Headgroup Conformation and Recognition. *Journal of the American Chemical Society*. 139(11):4019-4024. <https://doi.org/10.1021/jacs.6b11760>

Koivisto JT, Joki T, Parraga JE, Paakkönen R, Ylä-Outinen L, Salonen L, Jönkkäri I, Peltola M, Ihalainen TO, Narkilahti S, Kellomäki M. 2017. Bioamine-crosslinked gellan gum hydrogel for neural tissue engineering. *Biomedical Materials*. 12(2). <https://doi.org/10.1088/1748-605X/aa62b0>

Honkanen M, Hansen TW, Jiang H, Kärkkäinen M, Huuhtanen M, Heikkinen O, Kallinen K, Lahtinen J, Keiski RL, Wagner JB, Vippola M. 2017. Electron microscopic studies of natural gas oxidation catalyst – Effects of thermally accelerated aging on catalyst microstructure. *Journal of Catalysis*. 349:19-29. <https://doi.org/10.1016/j.jcat.2017.03.003>

Kramb J, Gómez-Barea A, DeMartini N, Romar H, Doddapaneni TRKC, Kontinen J. 2017. The effects of calcium and potassium on CO<sub>2</sub> gasification of birch wood in a fluidized bed. *Fuel*. 196:398-407. <https://doi.org/10.1016/j.fuel.2017.01.101>

Kaleva A, Saarimaa V, Heinonen S, Nikkanen J-P, Markkula A, Väisänen P, Levänen E. 2017. Dissolution-induced nanowire synthesis on hot-dip galvanized surface in supercritical carbon dioxide. *Nanomaterials*. 7(7). <https://doi.org/10.3390/nano7070181>

Di Capua F, Milone I, Lakaniemi A-M, Hullebusch EDV, Lens PNL, Esposito G. 2017. Effects of different nickel species on autotrophic denitrification driven by thiosulfate in batch tests and a fluidized-bed reactor. *Bioresource Technology*. 238:534-541. <https://doi.org/10.1016/j.biortech.2017.04.082>

Pirjola L, Rönkkö T, Saukko E, Parviainen H, Malinen A, Alanen J, Saveljeff H. 2017. Exhaust emissions of non-road mobile machine: Real-world and laboratory studies with diesel and HVO fuels. *Fuel*. 202:154-164. <https://doi.org/10.1016/j.fuel.2017.04.029>

Timr Š, Pleskot R, Kadlec J, Kohagen M, Magarkar A, Jungwirth P. 2017. Membrane Binding of Recoverin: From Mechanistic Understanding to Biological Functionality. *ACS Central Science*. 3(8):868-874. <https://doi.org/10.1021/acscentsci.7b00210>

Jain R, Van Hullebusch ED, Lenz M, Farges F. 2017. Understanding selenium biogeochemistry in engineered ecosystems: Transformation and analytical methods. In *Bioremediation of Selenium Contaminated Wastewater*. Springer International Publishing. pp. 33-56. [https://doi.org/10.1007/978-3-319-57831-6\\_2](https://doi.org/10.1007/978-3-319-57831-6_2)

Uddin R, Nur-E-Habiba N, Rena G, Hwu ET, Boisen A. 2017. New Evidence for the Mechanism of Action of a Type-2 Diabetes Drug Using a Magnetic Bead-Based Automated Biosensing Platform. *ACS Sensors*. 2(9):1329-1336. <https://doi.org/10.1021/acssensors.7b00384>

Christophliemk H, Ullsten H, Johansson C, Järnström L. 2017. Starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper and their effects of phase interactions. *Progress in Organic Coatings*. 111:13-22. <https://doi.org/10.1016/j.porgcoat.2017.04.018>

Boardman AD, Alberucci A, Assanto G, Grimalsky VV, Kibler B, McNiff J, Nefedov IS, Rapoport YG, Valagiannopoulos CA. 2017. Waves in hyperbolic and double negative metamaterials including rogues and solitons. *Nanotechnology*. 28(44). <https://doi.org/10.1088/1361-6528/aa6792>

Danne R, Poojari C, Martinez-Seara H, Rissanen S, Lolicato F, Róg T, Vattulainen I. 2017. DoGlycans-Tools for Preparing Carbohydrate Structures for Atomistic Simulations of Glycoproteins, Glycolipids, and Carbohydrate Polymers for GROMACS. *Journal of Chemical Information and Modeling*. 57(10):2401-2406. <https://doi.org/10.1021/acs.jcim.7b00237>

Lehtinen T, Efimova E, Tremblay PL, Santala S, Zhang T, Santala V. 2017. Production of long chain alkyl esters from carbon dioxide and electricity by a two-stage bacterial process. *Bioresource Technology*. 243:30-36. <https://doi.org/10.1016/j.biortech.2017.06.073>

Christophliemk H, Johansson C, Ullsten H, Järnström L. 2017. Oxygen and water vapor transmission rates of starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper. *Progress in Organic Coatings*. 113:218-224. <https://doi.org/10.1016/j.porgcoat.2017.04.019>

George L, Müller A, Röder B, Santala V, Efimov A. 2017. Photodynamic self-disinfecting surface using pyridinium phthalocyanine. *Dyes and Pigments*. 147:334-342. <https://doi.org/10.1016/j.dyepig.2017.08.021>

Väliheikki A, Kärkkäinen M, Honkanen M, Heikkinen O, Kolli T, Kallinen K, Huuhtanen M, Vippola M, Lahtinen J, Keiski RL. 2017. Deactivation of Pt/SiO<sub>2</sub>-ZrO<sub>2</sub> diesel oxidation catalysts by sulphur, phosphorus and their combinations. *Applied Catalysis B-Environmental*. 218:409-419. <https://doi.org/10.1016/j.apcatb.2017.06.068>

Miinälainen T, Pursiainen S. 2018. A case study of focal bayesian EEG inversion for whitney element source spaces: Mesh-based vs. cartesian orientations. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 1065-1068. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_266](https://doi.org/10.1007/978-981-10-5122-7_266)

Koivumäki J, Zhu WH, Mattila J. 2018. Addressing closed-chain dynamics for high-precision control of hydraulic cylinder actuated manipulators. In *BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018*. ASME. <https://doi.org/10.1115/FPMC2018-8839>

Doddapaneni TRKC, Jain R, Praveenkumar R, Rintala J, Romar H, Konttinen J. 2018. Adsorption of furfural from torrefaction condensate using torrefied biomass. *Chemical Engineering Journal*. 334:558-568. <https://doi.org/10.1016/j.cej.2017.10.053>

Havela R, Manninen T, Linne ML. 2018. Altered synaptic signaling due to  $\beta$ -amyloid interference in astrocytes: A modeling study. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 679-682. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_170](https://doi.org/10.1007/978-981-10-5122-7_170)

Nurmi J, Aref MM, Mattila J. 2018. A neural network strategy for learning of nonlinearities toward feed-forward control of pressure-compensated hydraulic valves with a significant dead zone. In *BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018*. ASME. <https://doi.org/10.1115/FPMC2018-8847>

Lylykangas J, Ilves M, Venesvirta H, Rantanen V, Mäkelä E, Vehkaoja A, Verho J, Lekkala J, Rautiainen M, Surakka V. 2018. Artificial eye blink pacemaker - A first investigation into the blink production using constant-interval electrical stimulation. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 522-525. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_131](https://doi.org/10.1007/978-981-10-5122-7_131)

Palma CSD, Startceva S, Neeli-Venkata R, Zare M, Goncalves NSM, Fonseca JM, Oliveira SMD, Ribeiro AS. 2018. A strategy for dissecting the kinetics of transcription repression mechanisms. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 1097-1100. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_274](https://doi.org/10.1007/978-981-10-5122-7_274)

Rezaei Yousefi Z, Parak J, Tarniceriu A, Harju J, Yli-Hankala A, Korhonen I, Vehkaoja A. 2018. Atrial fibrillation detection from wrist photoplethysmography data using artificial neural networks. In *World Congress on Medical Physics and Biomedical Engineering 2018*. Springer. pp. 399-404. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-9038-7\\_75](https://doi.org/10.1007/978-981-10-9038-7_75)



- Ilvesmäki T, Hakulinen U, Eskola H. 2018. Automated pipeline for brain ROI analysis with results comparable to previous freehand measures in clinical settings. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 635-638. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_159](https://doi.org/10.1007/978-981-10-5122-7_159)
- Pirhonen M, Suominen O, Vehkaoja A. 2018. Auto-regression-driven, reallocative particle filtering approaches in PPG-based respiration rate estimation. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 1020-1024. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_255](https://doi.org/10.1007/978-981-10-5122-7_255)
- Lampinen S, Koivumäki J, Mattila J. 2018. Bilateral teleoperation of a hydraulic robotic manipulator in contact with physical and virtual constraints. In BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018. ASME. <https://doi.org/10.1115/FPMC2018-8842>
- Ojansivu M, Wang X, Hyväri L, Kellomäki M, Hupa L, Vanhatupa S, Miettinen S. 2018. Bioactive glass induced osteogenic differentiation of human adipose stem cells is dependent on cell attachment mechanism and mitogen-activated protein kinases. *European Cells and Materials*. 35:53-71. <https://doi.org/10.22203/eCM.v035a05>
- Korkka I, Johansson JK, Skottman H, Hyttinen J, Nymark S. 2018. Characterization of chloride channels in human embryonic stem cell derived retinal pigment epithelium. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 454-457. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_114](https://doi.org/10.1007/978-981-10-5122-7_114)
- Helander E, Khodor N, Kallonen A, Värri A, Patural H, Carrault G, Pladys P. 2018. Comparison of linear and non-linear heart rate variability indices between preterm infants at their theoretical term age and full term newborns. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 153-156. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_39](https://doi.org/10.1007/978-981-10-5122-7_39)
- Dessi P, Porca E, Haavisto J, Lakaniemi A-M, Collins G, Lens PNL. 2018. Composition and role of the attached and planktonic microbial communities in mesophilic and thermophilic xylose-fed microbial fuel cells. *RSC Advances*. 8(6):3069-3080. <https://doi.org/10.1039/c7ra12316g>
- Koskela O, Pursiainen S, Belay B, Montonen T, Figueiras E, Hyttinen J. 2018. Computational model for multifocal imaging in optical projection tomography and numerical analysis of all-in-focus fusion in tomographic image reconstruction. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 282-285. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_71](https://doi.org/10.1007/978-981-10-5122-7_71)
- Välikangas T, Karvinen R. 2018. Conjugated Heat Transfer Simulation of a Fin-and-Tube Heat Exchanger. *Heat Transfer Engineering*. 39(13-14):1192-1200. <https://doi.org/10.1080/01457632.2017.1363628>
- Lipping T, Erkintalo N, Särkelä M, Takala RSK, Katila A, Frantzén J, Posti JP, Müller M, Tenovuo O. 2018. Connectivity analysis of full montage EEG in traumatic brain injury patients in the ICU. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 97-100. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_25](https://doi.org/10.1007/978-981-10-5122-7_25)
- Hernando D, Kähönen M, Lázaro J, Lehtinen R, Nieminen T, Nikus K, Lehtimäki T, Bailón R, Viik J. 2018. Coronary artery disease diagnosis by means of heart rate variability analysis using respiratory information. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 270-273. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_68](https://doi.org/10.1007/978-981-10-5122-7_68)

Olejarczyk E, Lipping T, Marciniak R. 2018. Correlation of depth of anesthesia indexes with MAC in volatile anesthesia. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 972-975. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_243](https://doi.org/10.1007/978-981-10-5122-7_243)

Ojha N, Nguyen H, Laihininen T, Salminen T, Lastusaari M, Petit L. 2018. Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt. *Corrosion Science*. 135:207-214. <https://doi.org/10.1016/j.corsci.2018.02.050>

Tenhunen M, Hyttinen J, Viik J, Perez-Macias JM, Himanen SL. 2018. Detection and assessment of sleep-disordered breathing with emfit mattress. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 173-176. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_44](https://doi.org/10.1007/978-981-10-5122-7_44)

Danaee S, Nurmi J, Minav T, Mattila J, Pietola M. 2018. Direct position control of electro-hydraulic excavator. In BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018. ASME. <https://doi.org/10.1115/FPMC2018-8896>

Joutsen AS, Kaappa ES, Karinsalo TJ, Vanhala J. 2018. Dry electrode sizes in recording ECG and heart rate in wearable applications. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 735-738. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_184](https://doi.org/10.1007/978-981-10-5122-7_184)

Tikkanen S, Ahola V, Koskela E. 2018. Effect of driver and work cycle on losses of a loader. In BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018. ASME. <https://doi.org/10.1115/FPMC2018-8919>

Khanongnuch R, Di Capua F, Lakaniemi A-M, Rene ER, Lens PNL. 2018. Effect of N/S ratio on anoxic thiosulfate oxidation in a fluidized bed reactor: Experimental and artificial neural network model analysis. *Process Biochemistry*. 68:171-181. <https://doi.org/10.1016/j.procbio.2018.02.018>

Alametsä J, Viik J. 2018. Effects of nitroglycerin to ballistocardiography by EMFi. In World Congress on Medical Physics and Biomedical Engineering 2018. Springer. pp. 541-545. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-9038-7\\_99](https://doi.org/10.1007/978-981-10-9038-7_99)

Durandin NA, Isokuortti J, Efimov A, Vuorimaa-Laukkanen E, Tkachenko NV, Laaksonen T. 2018. Efficient photon upconversion at remarkably low annihilator concentrations in a liquid polymer matrix: when less is more. *Chemical Communications*. 54(99):14029-14032. <https://doi.org/10.1039/c8cc07592a>

Jäntti V, Subramaniyam NP, Kamata K, Ylinen T, Yli-Hankala A, Kauppinen P, Väisänen O. 2018. Electric field of eeg during anesthesia. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 354-357. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_89](https://doi.org/10.1007/978-981-10-5122-7_89)

Chamrad J, Marcián P, Narra N, Borák L. 2018. Evaluating different shapes of cranial fixation mini-plates using finite element method. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 747-750. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_187](https://doi.org/10.1007/978-981-10-5122-7_187)

Pietilä J, Mehrang S, Tolonen J, Helander E, Jimison H, Pavel M, Korhonen I. 2018. Evaluation of the accuracy and reliability for photoplethysmography based heart rate and beat-to-beat detection during daily activities. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 145-148. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_37](https://doi.org/10.1007/978-981-10-5122-7_37)

Väläkangas T, Singh S, Sørensen K, Condra T. 2018. Fin-and-tube heat exchanger enhancement with a combined herringbone and vortex generator design. *International Journal of Heat and Mass Transfer*. 118:602-616. <https://doi.org/10.1016/j.ijheatmasstransfer.2017.11.006>

Koskela O, Lehti-Polojärvi M, Seppänen A, Figueiras E, Hyttinen J. 2018. Finite element mapping for efficient image reconstruction in rotational electrical impedance tomography. In *World Congress on Medical Physics and Biomedical Engineering 2018*. Springer. pp. 901-904. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-9038-7\\_166](https://doi.org/10.1007/978-981-10-9038-7_166)

Mäkinen P, Dmitrochenko O, Mattila J. 2018. Floating frame of reference formulation for a flexible manipulator with hydraulic actuation - Modelling and experimental validation. In *BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018*. ASME. <https://doi.org/10.1115/FPMC2018-8846>

Vuorinen T, Laurila MM, Mangayil R, Karp M, Mäntysalo M. 2018. High resolution E-jet printed temperature sensor on artificial skin. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 839-842. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_210](https://doi.org/10.1007/978-981-10-5122-7_210)

Mehrang S, Pietilä J, Tolonen J, Helander E, Jimison H, Pavel M, Korhonen I. 2018. Human activity recognition using a single optical heart rate monitoring wristband equipped with triaxial accelerometer. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 587-590. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_147](https://doi.org/10.1007/978-981-10-5122-7_147)

Hassan SS, Mangayil R, Aho T, Yli-Harja O, Karp M. 2018. Identification of feasible pathway information for c-di-GMP binding proteins in cellulose production. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 667-670. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_167](https://doi.org/10.1007/978-981-10-5122-7_167)

Teppola H, Sarkanen JR, Jalonen TO, Linne ML. 2018. Impacts of laminin and polyethyleneimine surface coatings on morphology of differentiating human SH-SY5Y cells and networks. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 298-301. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_75](https://doi.org/10.1007/978-981-10-5122-7_75)

Ince T, Zabihi M, Kiranyaz S, Gabbouj M. 2018. Learned vs. hand-designed features for ECG beat classification: A comprehensive study. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 551-554. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_138](https://doi.org/10.1007/978-981-10-5122-7_138)

Jauhiainen M, Gracia J, Seppä VP, Mahrberg H, Tuomisto L, Laurikka J, Viik J. 2018. Linearity of simultaneously recorded impedance pneumography and direct pneumotachography in thoracic surgery patients. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 1077-1080. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_269](https://doi.org/10.1007/978-981-10-5122-7_269)

Kontunen A, Rantanen V, Vehkaoja A, Ilves M, Lylykangas J, Mäkelä E, Rautiainen M, Surakka V, Lekkala J. 2018. Low-latency EMG onset and termination detection for facial pacing. In *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag. pp. 1016-1019. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_254](https://doi.org/10.1007/978-981-10-5122-7_254)

Linjama M. 2018. Model-based control of a digital hydraulic transformer-based hybrid actuator. In *BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018*. ASME. <https://doi.org/10.1115/FPMC2018-8866>

Acar E, Baikoghli MA, Stark M, Peltonen S, Ruotsalainen U, Cheng RH. 2018. Multiresolution MAPEM method for 3D reconstruction of symmetrical particles with electron microscopy. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 141-144. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_36](https://doi.org/10.1007/978-981-10-5122-7_36)

Jokinen VI, Korpela J, Lehtinen E, Perttunen J, Viik J. 2018. Nocturnal use of light compression garments and recovery. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 125-128. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_32](https://doi.org/10.1007/978-981-10-5122-7_32)

Milagro J, Gil E, Bolea J, Seppä VP, Malmberg LP, Pelkonen AS, Kotaniemi-Syrjänen A, Mäkelä MJ, Viik J, Bailón R. 2018. Nonlinear dynamics of heart rate variability in children with asthmatic symptoms. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 815-818. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_204](https://doi.org/10.1007/978-981-10-5122-7_204)

Gracia J, Seppä VP, Pelkonen A, Kotaniemi-Syrjänen A, Mäkelä M, Malmberg P, Viik J. 2018. Nonlinear local projection filter for impedance pneumography. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Singapore: Springer Verlag. pp. 306-309. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_77](https://doi.org/10.1007/978-981-10-5122-7_77)

Belay B, Koivisto JT, Vuornos K, Montonen T, Koskela O, Lehti-Polojärvi M, Miettinen S, Kellomäki M, Figueiras E, Hyttinen J. 2018. Optical projection tomography imaging of single cells in 3D gellan gum hydrogel. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 996-999. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_249](https://doi.org/10.1007/978-981-10-5122-7_249)

Tunninen V, Kauppinen T, Eskola H. 2018. Optimization of  $^{99m}\text{Tc}$ -sestamibi/ $^{123}\text{I}$  subtraction SPECT/CT protocol for parathyroid scintigraphy. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 847-851. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_212](https://doi.org/10.1007/978-981-10-5122-7_212)

Losoi P, Aho T. 2018. Pathvalue: Pathways with value. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 583-586. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_146](https://doi.org/10.1007/978-981-10-5122-7_146)

Kaappa ES, Joutsen AS, Vanhala J. 2018. Performance analysis of novel flexible electrodes for wearable ECG/heart rate monitoring. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 237-240. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_60](https://doi.org/10.1007/978-981-10-5122-7_60)

Tunninen V, Kauppinen T, Eskola H. 2018. Physical characteristics of collimators for dual-isotope imaging with  $^{99m}\text{Tc}$  and  $^{123}\text{I}$ . In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 245-249. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_62](https://doi.org/10.1007/978-981-10-5122-7_62)

Zhu L, Kesseli J, Nykter M, Huttunen H. 2018. Predicting gene expression levels from histone modification signals with convolutional recurrent neural networks. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 555-558. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_139](https://doi.org/10.1007/978-981-10-5122-7_139)

Honkanen M, Wang J, Kärkkäinen M, Huuhtanen M, Jiang H, Kallinen K, Keiski RL, Akola J, Vippola M. 2018. Regeneration of sulfur-poisoned Pd-based catalyst for natural gas oxidation. *Journal of Catalysis*. 358:253-265. <https://doi.org/10.1016/j.jcat.2017.12.021>

Gering C, Koivisto JT, Parraga JE, Kellomäki M. 2018. Reproducible preparation method of hydrogels for cell culture applications – Case study with spermidine crosslinked gellan gum. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 811-814. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_203](https://doi.org/10.1007/978-981-10-5122-7_203)

Rantanen V, Vehkaoja A, Verho J. 2018. Stimulation waveform selection to suppress functional electrical stimulation artifact from surface EMG signals. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 422-425. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_106](https://doi.org/10.1007/978-981-10-5122-7_106)

Ryynänen T, Lekkala J. 2018. Temperature effect on the baseline noise in MEA measurements. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 5-8. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_2](https://doi.org/10.1007/978-981-10-5122-7_2)

Koivisto JT, Koskela O, Montonen T, Parraga JE, Joki T, Ylä-Outinen L, Narkilahti S, Figueiras E, Hyttinen J, Kellomäki M. 2018. Texture-property relations of bioamine crosslinked gellan gum hydrogels. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 189-192. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_48](https://doi.org/10.1007/978-981-10-5122-7_48)

Perez-Macias JM, Viik J, Värrä A, Himanen S-L, Tenhunen M. 2018. Time characteristics of prolonged partial obstruction periods using an Emfit mattress. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 775-778. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_194](https://doi.org/10.1007/978-981-10-5122-7_194)

Alametsä J, Viik J. 2018. Twelve years follow-up of ballistocardiography. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 1117-1120. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_279](https://doi.org/10.1007/978-981-10-5122-7_279)

Mulholland K, Virkki J, Raunonen P, Merilampi S. 2018. Wearable RFID perspiration sensor tags for well-being applications – From laboratory to field use. In EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017. Springer Verlag. pp. 1012-1015. (IFMBE Proceedings). [https://doi.org/10.1007/978-981-10-5122-7\\_253](https://doi.org/10.1007/978-981-10-5122-7_253)

Ojha N, Tuomisto M, Lastusaari M, Petit L. 2018. Upconversion from fluorophosphate glasses prepared with NaYF<sub>4</sub>:Er<sup>3+</sup>, Yb<sup>3+</sup> nanocrystals. RSC Advances. 8(34):19226-19236. <https://doi.org/10.1039/c8ra03298j>

Lopez-Iscoa P, Pugliese D, Boetti NG, Janner D, Baldi G, Petit L, Milanese D. 2018. Design, synthesis, and structure-property relationships of Er<sup>3+</sup>-doped TiO<sub>2</sub> luminescent particles synthesized by sol-gel. Nanomaterials. 8(1). <https://doi.org/10.3390/nano8010020>

Lehtinen T, Efimova E, Santala S, Santala V. 2018. Improved fatty aldehyde and wax ester production by overexpression of fatty acyl-CoA reductases. Microbial Cell Factories. 17(1). <https://doi.org/10.1186/s12934-018-0869-z>

Hannula M, Ali-Löytty H, Lahtonen K, Sarlin E, Saari J, Valden M. 2018. Improved Stability of Atomic Layer Deposited Amorphous TiO<sub>2</sub> Photoelectrode Coatings by Thermally Induced Oxygen Defects. Chemistry of Materials. 30(4):1199-1208. <https://doi.org/10.1021/acs.chemmater.7b02938>

Karvinen J, Joki T, Ylä-Outinen L, Koivisto JT, Narkilahti S, Kellomäki M. 2018. Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells. Reactive and Functional Polymers. 124:29-39. <https://doi.org/10.1016/j.reactfunctpolym.2017.12.019>

- Šutka A, Vanags M, Joost U, Šmits K, Ruža J, Ločs J, Kleperis J, Juhna T. 2018. Aqueous synthesis of Z-scheme photocatalyst powders and thin-film photoanodes from earth abundant elements. *Journal of Environmental Chemical Engineering*. 6(2):2606-2615. <https://doi.org/10.1016/j.jece.2018.04.003>
- Åkerblom M, Raunonen P, Casella E, Disney MI, Danson FM, Gaulton R, Schofield LA, Kaasalainen M. 2018. Non-intersecting leaf insertion algorithm for tree structure models. *Interface Focus*. 8(2). <https://doi.org/10.1098/rsfs.2017.0045>
- Kaasalainen S, Åkerblom M, Nevalainen O, Hakala T, Kaasalainen M. 2018. Uncertainty in multispectral lidar signals caused by incidence angle effects. *Interface Focus*. 8(2). <https://doi.org/10.1098/rsfs.2017.0033>
- Disney MI, Boni Vicari M, Burt A, Calders K, Lewis SL, Raunonen P, Wilkes P. 2018. Weighing trees with lasers: Advances, challenges and opportunities. *Interface Focus*. 8(2). <https://doi.org/10.1098/rsfs.2017.0048>
- Magarkar A, Parkkila P, Viitala T, Lajunen T, Mobarak E, Licari G, Cramariuc O, Vauthey E, Róg T, Bunker A. 2018. Membrane bound COMT isoform is an interfacial enzyme: General mechanism and new drug design paradigm. *Chemical Communications*. 54(28):3440-3443. <https://doi.org/10.1039/c8cc00221e>
- Harra J, Tuominen M, Juuti P, Rissler J, Koivuluoto H, Haapanen J, Niemelä-Anttonen H, Stenroos C, Teisala H, Lahti J, Kuusipalo J, Vuoristo P, Mäkelä JM. 2018. Characteristics of nFOG, an aerosol-based wet thin film coating technique. *Journal of Coatings Technology Research*. 15(3):623-632. <https://doi.org/10.1007/s11998-017-0022-7>
- Sutka A, Timusk M, Joost U, Ignatans R, Maiorov M. 2018. Switchable light reflectance in dilute magneto-optical colloids based on nickel ferrite nanowires. *e-Journal of Surface Science and Nanotechnology*. 16:119-121. <https://doi.org/10.1380/ejsnt.2018.119>
- Raappana M, Polojärvi V, Aho A, Mäkelä J, Aho T, Tukiainen A, Laukkanen P, Guina M. 2018. Wet etching of dilute nitride GaInNAs, GaInNAsSb, and GaNAsSb alloys lattice-matched to GaAs. *Corrosion Science*. 136:268-274. <https://doi.org/10.1016/j.corsci.2018.03.018>
- Zhou K, Dichlberger A, Martinez-Seara H, Nyholm TKM, Li S, Kim YA, Vattulainen I, Ikonen E, Blom T. 2018. A Ceramide-Regulated Element in the Late Endosomal Protein LAPTM4B Controls Amino Acid Transporter Interaction. *ACS Central Science*. 4(5):548-558. <https://doi.org/10.1021/acscentsci.7b00582>
- Virkki K, Tervola E, Medel M, Torres T, Tkachenko NV. 2018. Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO<sub>2</sub>-Phthalocyanine Interface. *ACS Omega*. 3(5):4947-4958. <https://doi.org/10.1021/acsomega.8b00600>
- Ojha N, Laihinne T, Salminen T, Lastusaari M, Petit L. 2018. Influence of the phosphate glass melt on the corrosion of functional particles occurring during the preparation of glass-ceramics. *Ceramics International*. 44(10):11807-11811. <https://doi.org/10.1016/j.ceramint.2018.03.267>
- Goyos-Ball L, Prado C, Díaz R, Fernández E, Ismailov A, Kumpulainen T, Levänen E, Torrecillas R, Fernández A. 2018. The effects of laser patterning 10CeTZP-Al<sub>2</sub>O<sub>3</sub> nanocomposite disc surfaces: Osseous differentiation and cellular arrangement in vitro. *Ceramics International*. 44(8):9472-9478. <https://doi.org/10.1016/j.ceramint.2018.02.164>
- Kokko M, Epple S, Gescher J, Kerzenmacher S. 2018. Effects of wastewater constituents and operational conditions on the composition and dynamics of anodic microbial communities in bioelectrochemical systems. *Bioresource Technology*. 258:376-389. <https://doi.org/10.1016/j.biortech.2018.01.090>
- Kaunisto K, Kotilainen M, Karhu M, Lagerbom J, Vuorinen T, Honkanen M, Vippola M, Turunen E. 2018. The effect of carbon and nickel additions on the precursor synthesis of Cr<sub>3</sub>C<sub>2</sub>-Ni nanopowder. *Ceramics International*. 44(8):9338-9346. <https://doi.org/10.1016/j.ceramint.2018.02.146>

- Siljander S, Keinänen P, Rätty A, Ramakrishnan KR, Tuukkanen S, Kunnari V, Harlin A, Vuorinen J, Kanerva M. 2018. Effect of surfactant type and sonication energy on the electrical conductivity properties of nanocellulose-CNT nanocomposite films. *International Journal of Molecular Sciences*. 19(6). <https://doi.org/10.3390/ijms19061819>
- Kulju S, Riegger L, Koltay P, Mattila K, Hyväluoma J. 2018. Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics. *Journal of Colloid and Interface Science*. 522:48-56. <https://doi.org/10.1016/j.jcis.2018.03.053>
- Rajala S, Schouten M, Krijnen G, Tuukkanen S. 2018. High Bending-Mode Sensitivity of Printed Piezoelectric Poly(vinylidene fluoride- co-trifluoroethylene) Sensors. *ACS Omega*. 3(7):8067-8073. <https://doi.org/10.1021/acsomega.8b01185>
- Lampio K, Karvinen R. 2018. A new method to optimize natural convection heat sinks. *Heat and Mass Transfer/Waerme- und Stoffuebertragung*. 54(8):2571-2580. <https://doi.org/10.1007/s00231-017-2106-4>
- Tan LC, Espinosa-Ortiz EJ, Nancharaiah YV, van Hullebusch ED, Gerlach R, Lens PN. 2018. Selenate removal in biofilm systems: Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community. *Journal of Chemical Technology and Biotechnology*. 93(8):2380-2389. <https://doi.org/10.1002/jctb.5586>
- Mandal S, Garcia Iglesias M, Ince M, Torres T, Tkachenko NV. 2018. Photoinduced Energy Transfer in ZnCdSeS Quantum Dot-Phthalocyanines Hybrids. *ACS Omega*. 3(8):10048-10057. <https://doi.org/10.1021/acsomega.8b01623>
- Hyväluoma J, Hannula M, Arstila K, Wang H, Kulju S, Rasa K. 2018. Effects of pyrolysis temperature on the hydrologically relevant porosity of willow biochar. *Journal of Analytical and Applied Pyrolysis*. 134. <https://doi.org/10.1016/j.jaap.2018.07.011>
- Eregowda T, Matanhike L, Rene ER, Lens PNL. 2018. Performance of a biotrickling filter for the anaerobic utilization of gas-phase methanol coupled to thiosulphate reduction and resource recovery through volatile fatty acids production. *Bioresource Technology*. 263:591-600. <https://doi.org/10.1016/j.biortech.2018.04.095>
- Jermakka J, Thompson Brewster E, Ledezma P, Freguia S. 2018. Electro-concentration for chemical-free nitrogen capture as solid ammonium bicarbonate. *Separation and Purification Technology*. 203:48-55. <https://doi.org/10.1016/j.seppur.2018.04.023>
- Dessi P, Porca E, Lakaniemi A-M, Collins G, Lens PNL. 2018. Temperature control as key factor for optimal biohydrogen production from thermomechanical pulping wastewater. *Biochemical Engineering Journal*. 137:214-221. <https://doi.org/10.1016/j.bej.2018.05.027>
- Martins DP, Leetanasaksakul K, Barros MT, Thamchaipenet A, Donnelly W, Balasubramaniam S. 2018. Molecular Communications Pulse-based Jamming Model for Bacterial Biofilm Suppression. *IEEE Transactions on Nanobioscience*. 17(4):533-542. <https://doi.org/10.1109/TNB.2018.2871276>
- Pihlman H, Keränen P, Paakinaho K, Linden J, Hannula M, Manninen IK, Hyttinen J, Manninen M, Laitinen-Vapaavuori O. 2018. Novel osteoconductive  $\beta$ -tricalcium phosphate/poly(L-lactide-co- $\epsilon$ -caprolactone) scaffold for bone regeneration: a study in a rabbit calvarial defect. *Journal of Materials Science: Materials in Medicine*. 29(10). <https://doi.org/10.1007/s10856-018-6159-9>
- Huttunen-Saarivirta E, Isotahdon E, Metsäjoki J, Salminen T, Carpén L, Ronkainen H. 2018. Tribocorrosion behaviour of aluminium bronze in 3.5 wt.% NaCl solution. *Corrosion Science*. 144:207-223. <https://doi.org/10.1016/j.corsci.2018.08.058>
- Nogueira IBR, Faria RPV, Requião R, Koivisto H, Martins MAF, Rodrigues AE, Loureiro JM, Ribeiro AM. 2018. Chromatographic studies of n-Propyl Propionate: Adsorption equilibrium, modelling and uncertainties determination. *Computers and Chemical Engineering*. 119:371-382. <https://doi.org/10.1016/j.compchemeng.2018.09.020>

Chevrier DM, Raich L, Rovira C, Das A, Luo Z, Yao Q, Chatt A, Xie J, Jin R, Akola J, Zhang P. 2018. Molecular-Scale Ligand Effects in Small Gold-Thiolate Nanoclusters. *Journal of the American Chemical Society*. 140(45):15430-15436. <https://doi.org/10.1021/jacs.8b09440>

Sakai H, Inaya R, Tkachenko NV, Hasobe T. 2018. High-Yield Generation of Triplet Excited States by an Efficient Sequential Photoinduced Process from Energy Transfer to Singlet Fission in Pentacene-Modified CdSe/ZnS Quantum Dots. *Chemistry - A European Journal*. 24(64):17062-17071. <https://doi.org/10.1002/chem.201803257>

Rimpiläinen T, Andrade J, Nunes A, Ntungwe E, Fernandes AS, Vale JR, Rodrigues J, Gomes JP, Rijo P, Candeias NR. 2018. Aminobenzylated 4-Nitrophenols as Antibacterial Agents Obtained from 5-Nitrosalicylaldehyde through a Petasis Borono-Mannich Reaction. *ACS Omega*. 3(11):16191-16202. <https://doi.org/10.1021/acsomega.8b02381>

Gasik M, Zühlke A, Haaparanta A-M, Muhonen V, Laine K, Bilotsky Y, Kellomäki M, Kiviranta I. 2018. The importance of controlled mismatch of biomechanical compliances of implantable scaffolds and native tissue for articular cartilage regeneration. *Frontiers in Bioengineering and Biotechnology*. 6(NOV). <https://doi.org/10.3389/fbioe.2018.00187>

Santala S, Efimova E, Santala V. 2018. Dynamic decoupling of biomass and wax ester biosynthesis in *Acinetobacter baylyi* by an autonomously regulated switch. *Metabolic Engineering Communications*. 7. <https://doi.org/10.1016/j.mec.2018.e00078>

Czaplicki R, Kiviniemi A, Huttunen MJ, Zang X, Stolt T, Vartiainen I, Butet J, Kuittinen M, Martin OJF, Kauranen M. 2018. Less Is More: Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density. *Nano Letters*. 18(12):7709-7714. <https://doi.org/10.1021/acs.nanolett.8b03378>

Mänttari SK, Oksa JAH, Virkkala J, Pietilä JAK. 2019. Activity Level and Body Mass Index as Predictors of Physical Workload During Working Career. *Safety and Health at Work*. <https://doi.org/10.1016/j.shaw.2019.09.002>

Soltani A, Lahti J, Järvelä K, Laurikka J, Kuokkala VT, Hokka M. 2019. Characterization of the anisotropic deformation of the right ventricle during open heart surgery. *COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING*. <https://doi.org/10.1080/10255842.2019.1703133>

Sankelo P, Jokisalo J, Nyman J, Vinha J, Sirén K. 2019. Cost-optimal energy performance measures in a new daycare building in cold climate. *International Journal of Sustainable Energy*. 38(2):104-122. <https://doi.org/10.1080/14786451.2018.1448398>

Hannula M, Narra N, Paakinaho K, Haaparanta A-M, Kellomäki M, Hyttinen J. 2019.  $\mu$ CT based characterization of biomaterial scaffold microstructure under compression. In *World Congress on Medical Physics and Biomedical Engineering 2018*. Springer. pp. 165-169. (IFMBE Proceedings; 3). [https://doi.org/10.1007/978-981-10-9023-3\\_30](https://doi.org/10.1007/978-981-10-9023-3_30)

Välikangas T, Hærvig J, Kuuluvainen H, Dal Maso M, Peltonen P, Vuorinen V. 2019. Deposition of dry particles on a fin-and-tube heat exchanger by a coupled soft-sphere DEM and CFD. *International Journal of Heat and Mass Transfer*. <https://doi.org/10.1016/j.ijheatmasstransfer.2019.119046>

Hirvonen J, Jokisalo J, Heljo J, Kosonen R. 2019. Effect of apartment building energy renovation on hourly power demand. *International Journal of Sustainable Energy*. <https://doi.org/10.1080/14786451.2019.1613992>

Suokas E. 2019. Effect of polyolefin molecular structure on product properties in extrusion coating. In *17th Biennial TAPPI European PLACE Conference 2019*. TAPPI Press. pp. 89-98.

Lylykangas J, Ilves M, Venesvirta H, Rantanen V, Mäkelä E, Vehkaoja A, Verho J, Lekkala J, Rautiainen M, Surakka V. 2019. Electrical stimulation of eye blink in individuals with dry eye symptoms caused by chronic unilateral facial palsy. Badnjevic A, Gurbeta Pokvić L, Škrbić R, Badnjevic A, Gurbeta Pokvić L, editors. In *CMBEBIH 2019 - Proceedings of the International Conference on Medical and Biological Engineering*. Springer Verlag. pp. 7-11. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-030-17971-7\\_2](https://doi.org/10.1007/978-3-030-17971-7_2)



Ahonen T, Hanski J, Hyvärinen M, Kortelainen H, Uusitalo T, Vainio H, Kunttu S, Koskinen K. 2019. Enablers and barriers of smart data-based asset management services in industrial business networks. In *Lecture Notes in Mechanical Engineering*. Pleiades Publishing. pp. 51-60. (Lecture Notes in Mechanical Engineering). [https://doi.org/10.1007/978-3-319-95711-1\\_6](https://doi.org/10.1007/978-3-319-95711-1_6)

Brobbey KJ, Haapanen J, Tuominen M, Mäkelä J, Gunell M, Eerola E, Saarinen JJ, Toivakka M. 2019. High-speed production of antibacterial fabrics using liquid flame spray. *Textile Research Journal*. <https://doi.org/10.1177/0040517519866952>

Passananti M, Zapadinsky E, Zanca T, Kangasluoma J, Mylly N, Rissanen MP, Kurtén T, Ehn M, Attoui M, Vehkamäki H. 2019. How well can we predict cluster fragmentation inside a mass spectrometer?. *Chemical Communications*. 55(42):5946-5949. <https://doi.org/10.1039/c9cc02896j>

Sharma V, Yiannacou K, Karjalainen M, Lahtonen K, Valden M, Sariola V. 2019. Large-scale efficient water harvesting using bioinspired micro-patterned copper oxide nanoneedle surfaces and guided droplet transport. *Nanoscale Advances*. 1(10):4025-4040. <https://doi.org/10.1039/c9na00405j>

Lahti J. 2019. Market implementation of active and intelligent packaging-opportunities from a socio-economic perspective. In 17th Biennial TAPPI European PLACE Conference 2019. TAPPI Press. pp. 419-427.

Halonen HT, Hyttinen JAK, Ihalainen TO. 2019. Mechanical impact stimulation platform tailored for high-resolution light microscopy. *HEALTH AND TECHNOLOGY*. <https://doi.org/10.1007/s12553-019-00382-9>

Lahti J. 2019. Nanocellulose and Polylactic Acid Based Multilayer Coatings for Barrier Applications. In 17th Biennial TAPPI European PLACE Conference 2019. TAPPI Press. pp. 446-455.

Martins DP, Barros MT, Balasubramaniam S. 2019. Quality and Capacity Analysis of Molecular Communications in Bacterial Synthetic Logic Circuits. *IEEE Transactions on Nanobioscience*. <https://doi.org/10.1109/TNB.2019.2930960>

Chen X, Ukkonen L, Virkki J. 2019. Reliability evaluation of wearable radio frequency identification tags: Design and fabrication of a two-part textile antenna. *Textile Research Journal*. 89(4). <https://doi.org/10.1177/0040517517750651>

Fliervoet LAL, Lisitsyna ES, Durandin NA, Kotsis I, Maas-Bakker RFM, Yliperttula M, Hennink WE, Vuorimaa-Laukkanen E, Vermonden T. 2019. Structure and Dynamics of Thermosensitive pDNA Polyplexes Studied by Time-Resolved Fluorescence Spectroscopy. *Biomacromolecules*. <https://doi.org/10.1021/acs.biomac.9b00896>

Ayodele OB, Cai R, Wang J, Ziouani Y, Liang Z, Spadaro MC, Kovnir K, Arbiol J, Akola J, Palmer RE, Kolen'Ko YV. 2019. Synergistic Computational-Experimental Discovery of Highly Selective PtCu Nanocluster Catalysts for Acetylene Semihydrogenation. *ACS CATALYSIS*. 451-457. <https://doi.org/10.1021/acscatal.9b03539>

He H, Chen X, Ukkonen L, Virkki J. 2019. Textile-integrated three-dimensional printed and embroidered structures for wearable wireless platforms. *Textile Research Journal*. 89(4). <https://doi.org/10.1177/0040517517750649>

Latikka J, Eskola H. 2019. The electrical conductivity of human cerebrospinal fluid in vivo. In *World Congress on Medical Physics and Biomedical Engineering 2018*. Springer. pp. 773-776. (IFMBE Proceedings; 1). [https://doi.org/10.1007/978-981-10-9035-6\\_142](https://doi.org/10.1007/978-981-10-9035-6_142)

Hirvonen J, Jokisalo J, Heljo J, Kosonen R. 2019. Towards the EU emissions targets of 2050: optimal energy renovation measures of Finnish apartment buildings. *International Journal of Sustainable Energy*. 38(7). <https://doi.org/10.1080/14786451.2018.1559164>

- Eregowda T, Rene ER, Rintala J, Lens PNL. 2019. Volatile fatty acid adsorption on anion exchange resins: kinetics and selective recovery of acetic acid. *Separation Science and Technology (Philadelphia)*.  
<https://doi.org/10.1080/01496395.2019.1600553>
- Kuroda K, Yazaki K, Tanaka Y, Akita M, Sakai H, Hasobe T, Tkachenko NV, Yoshizawa M. 2019. A Pentacene-based Nanotube Displaying Enriched Electrochemical and Photochemical Activities. *Angewandte Chemie - International Edition*. 58(4):1115-1119. <https://doi.org/10.1002/anie.201812976>
- Pekkanen TT, Timonen RS, Lendvay G, Rissanen MP, Eskola AJ. 2019. Kinetics and thermochemistry of the reaction of 3-methylpropargyl radical with molecular oxygen. *PROCEEDINGS OF THE COMBUSTION INSTITUTE*. 37(1):299-306. <https://doi.org/10.1016/j.proci.2018.05.050>
- Reyes G, Borghei M, King AWT, Lahti J, Rojas OJ. 2019. Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids. *Biomacromolecules*. 20(1):502-514. <https://doi.org/10.1021/acs.biomac.8b01554>
- Karhu M, Lagerbom J, Solismaa S, Honkanen M, Ismailov A, Räsänen ML, Huttunen-Saarivirta E, Levänen E, Kivikytö-Reponen P. 2019. Mining tailings as raw materials for reaction-sintered aluminosilicate ceramics: Effect of mineralogical composition on microstructure and properties. *Ceramics International*. 45(4):4840-4848. <https://doi.org/10.1016/j.ceramint.2018.11.180>
- Luo J, Lehtinen T, Efimova E, Santala V, Santala S. 2019. Synthetic metabolic pathway for the production of 1-alkenes from lignin-derived molecules. *Microbial Cell Factories*. 18(1). <https://doi.org/10.1186/s12934-019-1097-x>
- Manna M, Nieminen T, Vattulainen I. 2019. Understanding the Role of Lipids in Signaling Through Atomistic and Multiscale Simulations of Cell Membranes. *ANNUAL REVIEW OF BIOPHYSICS*. 48:421-439. <https://doi.org/10.1146/annurev-biophys-052118-115553>
- Halonen HT, Hyttinen JAK, Ihalainen TO. 2019. Miniaturized stimulator for imaging of live cell responses to high frequency mechanical vibration. Badnjevic A, Gurbeta Pokvić L, Škrbić R, Badnjevic A, Gurbeta Pokvić L, editors. In *CMBEBIH 2019 - Proceedings of the International Conference on Medical and Biological Engineering*. Springer Verlag. pp. 21-27. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-030-17971-7\\_4](https://doi.org/10.1007/978-3-030-17971-7_4)
- Sautter JD, Xu L, Miroshnichenko AE, Lysevych M, Volkovskaya I, Smirnova DA, Camacho-Morales R, Zangeneh Kamali K, Karouta F, Vora K, Tan HH, Kauranen M, Staude I, Jagadish C, Neshev DN, Rahmani M. 2019. Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas. *Nano Letters*. 19(6):3905-3911. <https://doi.org/10.1021/acs.nanolett.9b01112>
- Jackson T, Shenkin A, Moore J, Bunce A, van Emmerik T, Kane B, Burcham D, James K, Selker J, Calders K, Origo N, Disney M, Burt A, Wilkes P, Raunonen P, Gonzalez de Tanago Menaca J, Lau A, Herold M, Goodman RC, Fourcaud T, Malhi Y. 2019. An architectural understanding of natural sway frequencies in trees. *Journal of the Royal Society. Interface*. 16(155). <https://doi.org/10.1098/rsif.2019.0116>
- Kezilebieke S, Žitko R, Dvorak M, Ojanen T, Liljeroth P. 2019. Observation of Coexistence of Yu-Shiba-Rusinov States and Spin-Flip Excitations. *Nano Letters*. 19(7):4614-4619. <https://doi.org/10.1021/acs.nanolett.9b01583>
- Salmela M, Lehtinen T, Efimova E, Santala S, Santala V. 2019. Alkane and wax ester production from lignin-related aromatic compounds. *Biotechnology and Bioengineering*. 116(8):1934-1945. <https://doi.org/10.1002/bit.27005>
- Solovyev AI, Mikheyliis AV, Plyusnin VF, Shubin AA, Grivin VP, Larionov SV, Tkachenko NV, Lemmetyinen H. 2019. Photochemistry of dithiophosphinate Ni(S<sub>2</sub>P(i-Bu)<sub>2</sub>)<sub>2</sub> complex in CCl<sub>4</sub>. Transient species and TD-DFT calculations. *Journal of Photochemistry and Photobiology A: Chemistry*. 381. <https://doi.org/10.1016/j.jphotochem.2019.111857>
- Pitkänen S, Paakinaho K, Pihlman H, Ahola N, Hannula M, Asikainen S, Manninen M, Morelius M, Keränen P, Hyttinen J, Kellomäki M, Laitinen-Vapaavuori O, Miettinen S. 2019. Characterisation and in vitro and in vivo evaluation of supercritical-CO<sub>2</sub>-foamed β-TCP/PLCL composites for bone applications. *European cells & materials*. 38:35-50. <https://doi.org/10.22203/eCM.v038a04>

- Fantozzi D, Matikainen V, Uusitalo M, Koivuluoto H, Vuoristo P. 2019. Chlorine induced high-temperature corrosion mechanisms in HVOF and HVAF sprayed  $\text{Cr}_3\text{C}_2$ -based hardmetal coatings. *Corrosion Science*. <https://doi.org/10.1016/j.corsci.2019.108166>
- Wang S, Nawale GN, Oommen OP, Hilborn J, Varghese OP. 2019. Influence of ions to modulate hydrazone and oxime reaction kinetics to obtain dynamically cross-linked hyaluronic acid hydrogels. *Polymer Chemistry*. 10(31):4322-4327. <https://doi.org/10.1039/c9py00862d>
- Ylönen M, Franc JP, Miettinen J, Saarenrinne P, Fivel M. 2019. Shedding frequency in cavitation erosion evolution tracking. *International Journal of Multiphase Flow*. 118:141-149. <https://doi.org/10.1016/j.ijmultiphaseflow.2019.06.009>
- Reshef O, Saad-Bin-Alam M, Huttunen MJ, Carlow G, Sullivan BT, Ménard JM, Dolgaleva K, Boyd RW. 2019. Multiresonant High-Q Plasmonic Metasurfaces. *Nano Letters*. 19(9):6429-6434. <https://doi.org/10.1021/acs.nanolett.9b02638>
- Haavisto J, Dessì P, Chatterjee P, Honkanen M, Noori MT, Kokko M, Lakaniemi AM, Lens PNL, Puhakka JA. 2019. Effects of anode materials on electricity production from xylose and treatability of TMP wastewater in an up-flow microbial fuel cell. *Chemical Engineering Journal*. 372:141-150. <https://doi.org/10.1016/j.cej.2019.04.090>
- Saegusa T, Sakai H, Nagashima H, Kobori Y, Tkachenko NV, Hasobe T. 2019. Controlled Orientations of Neighboring Tetracene Units by Mixed Self-Assembled Monolayers on Gold Nanoclusters for High-Yield and Long-Lived Triplet Excited States through Singlet Fission. *Journal of the American Chemical Society*. 141(37):14720-14727. <https://doi.org/10.1021/jacs.9b06567>
- Hajdu-Rahkama R, Ahoranta S, Lakaniemi A-M, Puhakka JA. 2019. Effects of elevated pressures on the activity of acidophilic bioleaching microorganisms. *Biochemical Engineering Journal*. 150. <https://doi.org/10.1016/j.bej.2019.107286>
- Dessi P, Chatterjee P, Mills S, Kokko M, Lakaniemi A-M, Collins G, Lens PNL. 2019. Power production and microbial community composition in thermophilic acetate-fed up-flow and flow-through microbial fuel cells. *Bioresource Technology*. 294. <https://doi.org/10.1016/j.biortech.2019.122115>
- Häkkinen A, Oliveira SMD, Neeli-Venkata R, Ribeiro AS. 2019. Transcription closed and open complex formation coordinate expression of genes with a shared promoter region. *Journal of the Royal Society Interface*. 16(161). <https://doi.org/10.1098/rsif.2019.0507>
- Bacakova L, Pajorova J, Tomkova M, Matejka R, Broz A, Stepanovska J, Prazak S, Skogberg A, Siljander S, Kallio P. 2020. Applications of nanocellulose/nanocarbon composites: Focus on biotechnology and medicine. *Nanomaterials*. 10(2). <https://doi.org/10.3390/nano10020196>
- Olin M, Dal Maso M. 2020. CFD modeling the diffusional losses of nanocluster-sized particles and condensing vapors in 90° bends of circular tubes. *Journal of Aerosol Science*. 150. <https://doi.org/10.1016/j.jaerosci.2020.105618>
- Di Vito D, Mosallaei M, Vahed BK, Kanerva M, Mäntysalo M. 2020. Deformability analysis and improvement in stretchable electronics systems through finite element analysis. Carcaterra A, Graziani G, Paolone A, editors. In *Proceedings of XXIV AIMETA Conference 2019*. Springer. pp. 755-763. (Lecture Notes in Mechanical Engineering). [https://doi.org/10.1007/978-3-030-41057-5\\_61](https://doi.org/10.1007/978-3-030-41057-5_61)
- Haddad S, Harju J, Tarniceriu A, Halkola T, Parak J, Korhonen I, Yli-Hankala A, Vehkaoja A. 2020. Ectopic Beat Detection from Wrist Optical Signals for Sinus Rhythm and Atrial Fibrillation Subjects. Henriques J, de Carvalho P, Neves N, editors. In *15th Mediterranean Conference on Medical and Biological Engineering and Computing – MEDICON 2019 - Proceedings of MEDICON 2019*. Springer. pp. 150-158. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-030-31635-8\\_18](https://doi.org/10.1007/978-3-030-31635-8_18)

- Moormann W, Tellkamp T, Stadler E, Röhrich F, Näther C, Puttreddy R, Rissanen K, Gescheidt G, Herges R. 2020. Efficient Conversion of Light to Chemical Energy: Directional, Chiral Photoswitches with Very High Quantum Yields. *Angewandte Chemie - International Edition*. 59(35):15081-15086. <https://doi.org/10.1002/anie.202005361>
- Hannula M, Hyttinen JAK, Tanskanen JMA. 2020. Enhancing CT 3D Images by Independent Component Analysis of Projection Images. Henriques J, de Carvalho P, Neves N, editors. In 15th Mediterranean Conference on Medical and Biological Engineering and Computing – MEDICON 2019 - Proceedings of MEDICON 2019. Springer. pp. 381-389. (IFMBE Proceedings). [https://doi.org/10.1007/978-3-030-31635-8\\_46](https://doi.org/10.1007/978-3-030-31635-8_46)
- Gao H, Tao J, Dehmer M, Emmert-Streib F, Sun Q, Chen Z, Xie G, Zhou Q. 2020. In-flight wind field identification and prediction of parafoil systems. *Applied Sciences (Switzerland)*. 10(6). <https://doi.org/10.3390/app10061958>
- Masood MT, Qudus S, Hadadian M, Weinberger C, Nyman M, Ahläng C, Dahlström S, Liu M, Vivo P, Österbacka R, Smått JH. 2020. Investigation of well-defined pinholes in TiO<sub>2</sub> electron selective layers used in planar heterojunction perovskite solar cells. *Nanomaterials*. 10(1). <https://doi.org/10.3390/nano10010181>
- Hajdu-Rahkama R, Özkaya B, Lakaniemi AM, Puhakka JA. 2020. Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic *Thioalkalivibrio versutus*. *Chemical Engineering Journal*. 401. <https://doi.org/10.1016/j.cej.2020.126047>
- Oliveira LMC, Koivisto H, Iwakiri IGI, Loureiro JM, Ribeiro AM, Nogueira IBR. 2020. Modelling of a pressure swing adsorption unit by deep learning and artificial intelligence tools. *Chemical Engineering Science*. 224. <https://doi.org/10.1016/j.ces.2020.115801>
- Banichuk N, Ivanova S, Jeronen J. 2020. Moving Web and Dynamic Problem of Aerothermoelastic Vibrations and Instability. Indeitsev DA, Krivtsov AM, editors. In *Advanced Problems in Mechanics: Proceedings of the 47th International Summer School-Conference on Advanced Problems in Mechanics, APM 2019*. Springer. pp. 66-71. (Lecture Notes in Mechanical Engineering). [https://doi.org/10.1007/978-3-030-49882-5\\_7](https://doi.org/10.1007/978-3-030-49882-5_7)
- Silvonen J, Levänen E, Uusitalo M. 2020. The thermal contact resistance of a steel-ceramic interface with oxide intermediates. *Cogent Engineering*. 7(1). <https://doi.org/10.1080/23311916.2020.1720057>
- Hongisto M, Veber A, Boetti NG, Danto S, Jubera V, Petit L. 2020. Transparent Yb<sup>3+</sup> doped phosphate glass-ceramics. *Ceramics International*. <https://doi.org/10.1016/j.ceramint.2020.01.121>
- Palmroth A, Pitkänen S, Hannula M, Paakinaho K, Hyttinen J, Miettinen S, Kellomäki M. 2020. Evaluation of scaffold microstructure and comparison of cell seeding methods using micro-computed tomography-based tools. *Journal of the Royal Society. Interface*. 17(165). <https://doi.org/10.1098/rsif.2020.0102>
- Liu N, Santala S, Stephanopoulos G. 2020. Mixed carbon substrates: a necessary nuisance or a missed opportunity?. *CURRENT OPINION IN BIOTECHNOLOGY*. 62:15-21. <https://doi.org/10.1016/j.copbio.2019.07.003>
- Adonias GL, Yastrebova A, Barros MT, Koucheryavy Y, Cleary F, Balasubramaniam S. 2020. Utilizing Neurons for Digital Logic Circuits: A Molecular Communications Analysis. *IEEE Transactions on Nanobioscience*. 19(2):224-236. <https://doi.org/10.1109/TNB.2020.2975942>
- Unban K, Khanongnuch R, Kanpiengjai A, Shetty K, Khanongnuch C. 2020. Utilizing Gelatinized Starchy Waste from Rice Noodle Factory as Substrate for L(+)-Lactic Acid Production by Amylolytic Lactic Acid Bacterium *Enterococcus faecium* K-1. *Applied Biochemistry and Biotechnology*. <https://doi.org/10.1007/s12010-020-03314-w>
- Kattiparambil Rajan D. 2020. Modular Instrumentation for Controlling and Monitoring In-Vitro Cultivation Environment and Image-based Functionality Measurements of Human Stem Cells. Tampere University. (Tampere University Dissertations).

Arvani M, Keskinen J, Railanmaa A, Siljander S, Björkqvist T, Tuukkanen S, Lupo D. 2020. Additive manufacturing of monolithic supercapacitors with biopolymer separator. *Journal of Applied Electrochemistry*. 50(6):689-697. <https://doi.org/10.1007/s10800-020-01423-2>

Ojha N, Szczodra A, Boetti NG, Massera J, Petit L. 2020. Nucleation and growth behavior of Er<sup>3+</sup> doped oxyfluorophosphate glasses. *RSC Advances*. 10(43):25703-25716. <https://doi.org/10.1039/d0ra04681g>

Khan R, Ali-Löytty H, Saari J, Valden M, Tukiainen A, Lahtonen K, Tkachenko NV. 2020. Optimization of photogenerated charge carrier lifetimes in ald grown tio<sub>2</sub> for photonic applications. *Nanomaterials*. 10(8). <https://doi.org/10.3390/nano10081567>

Kaleva A, Tassaing T, Saarimaa V, Le Bourdon G, Väisänen P, Markkula A, Levänen E. 2020. Formation of corrosion products on zinc in wet supercritical and subcritical CO<sub>2</sub>: In-situ spectroscopic study. *Corrosion Science*. 174. <https://doi.org/10.1016/j.corsci.2020.108850>