

Sutinen M, Kontunen A, Karjalainen M, Kiiski J, Hannus J, Tolonen T et al. **Identification of breast tumors from diathermy smoke by differential ion mobility spectrometry.** *European Journal of Surgical Oncology*. 2019 helmi;45(2):141-146. <https://doi.org/10.1016/j.ejso.2018.09.005>

Hänninen A, Salpavaara T, Lyyra I, Kroon M, Lekkala J, Kellomäki M. **Bioresorbable Conductive Wire with Minimal Metal Content.** *ACS Biomaterials Science & Engineering*. 2018 joulu 18;5(2):1134-1140. <https://doi.org/10.1021/acsbiomaterials.8b01292>

Santala S, Efimova E, Santala V. **Dynamic decoupling of biomass and wax ester biosynthesis in *Acinetobacter baylyi* by an autonomously regulated switch.** *Metabolic Engineering Communications*. 2018 joulu 1;7. e00078. <https://doi.org/10.1016/j.mec.2018.e00078>

Lehtinen T. **Solar Fuels and Chemicals: Engineering Bacterial Platform for the Production of Long-Chain Hydrocarbons from Carbon Dioxide and Electricity.** Tampere University of Technology, 2018. 75 s. (Tampere University of Technology. Publication).

Ryynänen T, Pekkanen-Mattila M, Shah D, Kreutzer J, Kallio P, Lekkala J et al. **Microelectrode array for noninvasive analysis of cardiomyocytes at the single-cell level.** *Japanese Journal of Applied Physics*. 2018 marras 1;57(11). 117001. <https://doi.org/10.7567/JJAP.57.117001>

Mehrang S, Jauhiainen M, Pietilä J, Puustinen J, Ruokolainen J, Nieminen H. **Identification of Parkinson's Disease Utilizing a Single Self-recorded 20-step Walking Test Acquired by Smartphone's Inertial Measurement Unit.** julkaisussa 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2018. Vuosikerta 2018-July. Institute of Electrical and Electronics Engineers Inc. 2018. s. 2913-2916. 8512921 <https://doi.org/10.1109/EMBC.2018.8512921>

Tarniceriu A, Harju J, Yousefi ZR, Vehkaoja A, Parak J, Yli-Hankala A et al. **The Accuracy of Atrial Fibrillation Detection from Wrist Photoplethysmography. A Study on Post-Operative Patients.** julkaisussa 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2018. Vuosikerta 2018-July. IEEE. 2018. s. 4844-4847. 8513197 <https://doi.org/10.1109/EMBC.2018.8513197>

Bermejo-Velasco D, Varghese OP, P. Oommen O, Hilborn J, Nawale GN. **Thiazolidine chemistry revisited: a fast, efficient and stable click-type reaction at physiological pH.** *Chemical Communications*. 2018 loka 15;12507-12510. <https://doi.org/10.1039/c8cc05405c>

Jääntti V, Ylinen T, Subramaniam NP, Kamata K, Yli-Hankala A, Kauppinen P et al. **Electroencephalographic signals during anesthesia recorded from surface and depth electrodes.** *International Journal of Radiation Biology*. 2018 loka 3;94(10):934-943. <https://doi.org/10.1080/09553002.2018.1478159>

Lehtinen T, Virtanen H, Santala S, Santala V. **Production of alkanes from CO₂ by engineered bacteria.** *Biotechnology for Biofuels*. 2018 elo 21;11. 228. <https://doi.org/10.1186/s13068-018-1229-2>

Salmela M, Sanmark H, Efimova E, Efimov A, Hytönen VP, Lamminmäki U et al. **Molecular tools for selective recovery and detection of lignin-derived molecules.** *Green Chemistry*. 2018 kesä 21;20(12):2829-2839. <https://doi.org/10.1039/c8gc00490k>

Gumulya Y, Boxall NJ, Khaleque HN, Santala V, Carlson RP, Kaksonen AH. **In a quest for engineering acidophiles for biomining applications: Challenges and opportunities.** *Genes*. 2018 helmi 21;9(2). 116. <https://doi.org/10.3390/genes9020116>

Kainulainen TP, Sirviö JA, Sethi J, Hukka TI, Heiskanen JP. **UV-Blocking Synthetic Biopolymer from Biomass-Based Bifuran Diester and Ethylene Glycol.** *Macromolecules*. 2018 helmi 21;51(5):1822-1829. <https://doi.org/10.1021/acs.macromol.7b02457>

Lehtinen T, Efimova E, Santala S, Santala V. **Improved fatty aldehyde and wax ester production by overexpression of fatty acyl-CoA reductases.** *Microbial Cell Factories*. 2018 helmi 8;17(1). 19. <https://doi.org/10.1186/s12934-018-0869-z>

Okonkwo O, Lakaniemi A-M, Santala V, Karp M, Mangayil R. **Quantitative Real-time PCR Monitoring Dynamics Of Thermotoga Neapolitana In Synthetic Co-Culture For Biohydrogen Production.** *International Journal of Hydrogen Energy*. 2018 helmi 8;43(6):3133-3141. <https://doi.org/10.1016/j.ijhydene.2017.12.002>

Tienaho J, Poikulainen E, Sarjala T, Muilu-Mäkelä R, Santala V, Karp M. **A Bioscreening Technique for Ultraviolet Irradiation Protective Natural Substances.** *Photochemistry and Photobiology*. 2018;94(6):1273-1280. <https://doi.org/10.1111/php.12954>

Sippola RJ, Hadipour A, Kastinen T, Vivo P, Hukka TI, Aernouts T et al. **Carbazole-based small molecule electron donors: Syntheses, characterization, and material properties.** *Dyes and Pigments*. 2017 marras 8;150:79-88. [j.dyepig.2017.11.014](https://doi.org/10.1016/j.dyepig.2017.11.014). <https://doi.org/10.1016/j.dyepig.2017.11.014>

Lehtinen T, Efimova E, Tremblay PL, Santala S, Zhang T, Santala V. **Production of long chain alkyl esters from carbon dioxide and electricity by a two-stage bacterial process.** *Bioresource Technology*. 2017 marras 1;243:30-36. <https://doi.org/10.1016/j.biortech.2017.06.073>

Doan P, Nguyen T, Yli-Harja O, Candeias NR, Kandhavelu M. **Effect of alkylaminophenols on growth inhibition and apoptosis of bone cancer cells.** *European Journal of Pharmaceutical Sciences*. 2017 heinä 17;107:208–216. <https://doi.org/10.1016/j.ejps.2017.07.016>

Kaartinen T, Laine-Ylijoki J, Ahoranta S, Korhonen T, Neitola R. **Arsenic Removal from Mine Waters with Sorption Techniques.** *Mine Water and the Environment*. 2017 kesä;36(2):199-208. <https://doi.org/10.1007/s10230-017-0450-8>

Kaksonen AH, Särkijärvi S, Puhakka JA, Peuraniemi E, Junnikkala S, Tuovinen OH. **Solid phase changes in chemically and biologically leached copper smelter slag.** *Minerals Engineering*. 2017 touko 15;106:97-101. <https://doi.org/10.1016/j.mineng.2016.08.029>

L.K. Sulonen M, Lakaniemi A-M, Kokko ME, Puhakka JA. **The effect of anode potential on bioelectrochemical and electrochemical tetrathionate degradation.** *Bioresource Technology*. 2017 helmi;226:173-180. <https://doi.org/10.1016/j.biortech.2016.12.023>

Kaksonen AH, Särkijärvi S, Peuraniemi E, Junnikkala S, Puhakka JA, Tuovinen OH. **Metal biorecovery in acid solutions from a copper smelter slag.** *Hydrometallurgy*. 2017;168:135-140. <https://doi.org/10.1016/j.hydromet.2016.08.014>

Kannisto M, Efimova E, Karp M, Santala V. **Growth and wax ester production of an Acinetobacter baylyi ADP1 mutant deficient in exopolysaccharide capsule synthesis.** *Journal of Industrial Microbiology and Biotechnology*. 2016 marras 19;1-7. <https://doi.org/10.1007/s10295-016-1872-1>

Işildar A, van de Vossenberg J, Rene ER, van Hullebusch ED, Lens PNL. **Two-step bioleaching of copper and gold from discarded printed circuit boards (PCB).** *Waste Management*. 2016 marras;57:149–157. <https://doi.org/10.1016/j.wasman.2015.11.033>

Di Capua F, Ahoranta SH, Papirio S, Lens PNL, Esposito G. **Impacts of sulfur source and temperature on sulfur-driven denitrification by pure and mixed cultures of Thiobacillus.** *Process Biochemistry*. 2016 loka 1;51(10):1576-1584. <https://doi.org/10.1016/j.procbio.2016.06.010>

Keipi T, Tolvanen KES, Tolvanen H, Konttinen J. **Thermo-catalytic decomposition of methane: The effect of reaction parameters on process design and the utilization possibilities of the produced carbon.** *Energy Conversion and Management*. 2016 loka;126:923-934. <https://doi.org/10.1016/j.enconman.2016.08.060>

Tampio E, Marttinen S, Rintala J. **Liquid fertilizer products from anaerobic digestion of food waste: Mass, nutrient and energy balance of four digestate liquid treatment systems.** Journal of Cleaner Production. 2016 heinä;125:22–32. <https://doi.org/10.1016/j.jclepro.2016.03.127>

Dessi P, Jain R, Singh S, Seder-Colomina M, van Hullebusch ED, Rene ER et al. **Effect of temperature on selenium removal from wastewater by UASB reactors.** Water Research. 2016 touko 1;94:146-154. <https://doi.org/10.1016/j.watres.2016.02.007>

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

Butti SK, Velvizhi G, Sulonen MLK, Haavisto JM, Oguz Koroglu E, Yusuf Cetinkaya A et al. **Microbial electrochemical technologies with the perspective of harnessing bioenergy: Maneuvering towards upscaling.** Renewable and Sustainable Energy Reviews. 2016 tammi;53:462-476. <https://doi.org/10.1016/j.rser.2015.08.058>

Tolvanen H, Keipi T, Raiko R. **A study on raw, torrefied, and steam-exploded wood: Fine grinding, drop-tube reactor combustion tests in N₂/O₂ and CO₂/O₂ atmospheres, particle geometry analysis, and numerical kinetics modeling.** Fuel. 2016;176:153-164. <https://doi.org/10.1016/j.fuel.2016.02.071>

Kaksonen AH, Särkijärvi S, Puhakka JA, Peuraniemi E, Junnikkala S, Tuovinen OH. **Chemical and bacterial leaching of metals from a smelter slag in acid solutions.** Hydrometallurgy. 2016;159:46-53. <https://doi.org/10.1016/j.hydromet.2015.10.032>

Jaatinen S, Lakaniemi A-M, Rintala J. **Use of diluted urine for cultivation of *Chlorella vulgaris*.** Environmental Technology. 2016;37(9):1159-1170. <https://doi.org/10.1080/09593330.2015.1105300>

George Abraham B. **Fluorescent Protein Toolbox: Protein Engineering Broadens the Range of in vitro and in vivo Applications of Fluorescent Proteins.** Tampere University of Technology, 2015. 92 s. (Tampere University of Technology. Publication).

Marjakangas JM, Chen CY, Lakaniemi AM, Puhakka JA, Whang LM, Chang JS. **Simultaneous nutrient removal and lipid production with *Chlorella vulgaris* on sterilized and non-sterilized anaerobically pretreated piggy wastewater.** Biochemical Engineering Journal. 2015 marras 5;103:177-184. <https://doi.org/10.1016/j.bej.2015.07.011>

Marjakangas JM, Chen C-Y, Lakaniemi A-M, Puhakka JA, Whang L-M, Chang J-S. **Selecting an indigenous microalgal strain for lipid production in anaerobically treated piggy wastewater.** Bioresource Technology. 2015 syys;191:369-376. <https://doi.org/10.1016/j.biortech.2015.02.075>

Zou G, Papirio S, Lai X, Wu Z, Zou L, Puhakka J et al. **Column leaching of low-grade sulfide ore from Zijinshan copper mine.** International Journal of Mineral Processing. 2015 heinä 15;139:11-16. 2730. <https://doi.org/10.1016/j.minpro.2015.04.005>

Marjakangas JM, Lakaniemi AM, Koskinen PEP, Chang JS, Puhakka JA. **Lipid production by eukaryotic microorganisms isolated from palm oil mill effluent.** Biochemical Engineering Journal. 2015 heinä 5;99:48-54. <https://doi.org/10.1016/j.bej.2015.03.006>

Nybond S, Karp M, Yrjönen T, Tammela P. **Bioluminescent whole-cell reporter gene assays as screening tools in the identification of antimicrobial natural product extracts.** Journal of Microbiological Methods. 2015 heinä 1;114:54-56. <https://doi.org/10.1016/j.mimet.2015.04.014>

Nancharaiah YV, Lens PNL. **Selenium biomineralization for biotechnological applications.** Trends in Biotechnology. 2015 kesä;33(6):323-330. <https://doi.org/10.1016/j.tibtech.2015.03.004>

Santala S. **Developing Synthetic Biology Tools and Model Chassis: Production of Bioenergy and High-Value Molecules.** Tampere University of Technology, 2015. 99 s. (Tampere University of Technology. Publication).

Mangayil R. **Biohydrogen Production: A Protein to Community Level Perspective Study.** Tampere University of Technology, 2015. 89 s. (Tampere University of Technology. Publication).

Mangayil R, Aho T, Karp M, Santala V. **Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components.** Renewable Energy. 2015 maaliskuu 1;75:583-589. <https://doi.org/10.1016/j.renene.2014.10.051>

Nybond S, Ghemtio L, Nawrot DA, Karp M, Xhaard H, Tammela P. **Integrated in vitro-in silico screening strategy for the discovery of antibacterial compounds.** Assay and Drug Development Technologies. 2015 helmikuu 1;13(1):25-33. <https://doi.org/10.1089/adt.2014.625>

Rosholm T, Gois PMP, Franzen R, R. Candeias N. **Glycerol as an Efficient Medium for the Petasis Borono-Mannich Reaction.** ChemistryOpen. 2015 helmikuu 4(1):39-46. <https://doi.org/10.1002/open.201402066>

Heiskanen JP, Manninen VM, Pankov D, Omar WAE, Kastinen T, Hukka TI et al. **Aryl end-capped quaterthiophenes applied as anode interfacial layers in inverted organic solar cells.** Thin Solid Films. 2015 tammi 1;574:196-206. <https://doi.org/10.1016/j.tsf.2014.12.007>

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

Taskan E, Özkaya B, Hasar H. **Combination of a novel electrode material and artificial mediators to enhance power generation in an MFC.** Water Science and Technology. 2015;71(3):320-328. <https://doi.org/10.2166/wst.2014.487>

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

Tienaho J, Sarjala T, Franzén R, Karp M. **Method with high-throughput screening potential for antioxidative substances using Escherichia coli biosensor katG':lux.** Journal of Microbiological Methods. 2015;118:78-80. 4723. <https://doi.org/10.1016/j.mimet.2015.08.018>

Warwick MEA, Barreca D, Bontempi E, Carraro G, Gasparotto A, Maccato C et al. **Pt-functionalized Fe₂O₃ photoanodes for solar water splitting: the role of hematite nano-organization and the platinum redox state.** Physical Chemistry Chemical Physics. 2015;17(19):12899-12907. <https://doi.org/10.1039/c5cp01636c>

Warwick MEA, Kaunisto K, Barreca D, Carraro G, Gasparotto A, Maccato C et al. **Vapor phase processing of α -Fe₂O₃ photoelectrodes for water splitting: An insight into the structure/property interplay.** ACS Applied Materials and Interfaces. 2015;7(16):8667-8676. <https://doi.org/10.1021/acsami.5b00919>

Santala S, Karp M, Santala V. **Rationally engineered synthetic coculture for improved biomass and product formation.** PLoS ONE. 2014 joulukuu 3;9(12). e113786. <https://doi.org/10.1371/journal.pone.0113786>

Ciranna A. **Biohydrogen production in extreme conditions: A comprehensive study of the fermentative metabolism of a polyextremophilic bacterium.** Tampere: Tampere University of Technology, 2014. 220 s. (Tampere University of Technology. Publication).

Raghuwanshi S, Deswal D, Karp M, Kuhad RC. **Bioprocessing of enhanced cellulase production from a mutant of Trichoderma asperellum RCK2011 and its application in hydrolysis of cellulose.** Fuel. 2014 toukokuu 15;124:183-189. <https://doi.org/10.1016/j.fuel.2014.01.107>

Ciranna A, Ferrari R, Santala V, Karp M. **Inhibitory effects of substrate and soluble end products on biohydrogen production of the alkalithermophile *Caloramator celer*: Kinetic, metabolic and transcription analyses.** International Journal of Hydrogen Energy. 2014 huhti 15;39(12):6391-6401. <https://doi.org/10.1016/j.ijhydene.2014.02.047>

Ciranna A, Pawar SS, Santala V, Karp M, van Niel EWJ. **Assessment of metabolic flux distribution in the thermophilic hydrogen producer *Caloramator celer* as affected by external pH and hydrogen partial pressure.** Microbial Cell Factories. 2014 maaliskuu 28;13(1). 48. <https://doi.org/10.1186/1475-2859-13-48>

Santala S, Efimova E, Koskinen P, Karp MT, Santala V. **Rewiring the wax ester production pathway of acinetobacter baylyi ADP1.** ACS Synthetic Biology. 2014 maaliskuu 21;3(3):145-151. <https://doi.org/10.1021/sb4000788>

Seppälä J. **Application of Computational Methods for Fermentative Hydrogen Production.** Tampere University of Technology, 2014. 116 s. (Tampere University of Technology. Publication).

Höhn J, Lehtonen E, Rasi S, Rintala J. **A geographical information system (GIS) based methodology for determination of potential biomasses and sites for biogas plants in southern Finland.** Applied Energy. 2014;113:1-10. <https://doi.org/10.1016/j.apenergy.2013.07.005>

Bevilaqua D, Lahti-Tommila H, Garcia Jr. O, Puhakka JA, Tuovinen OH. **Bacterial and chemical leaching of chalcopyrite concentrates as affected by the redox potential and ferric/ferrous iron ratio at 22 C.** International Journal of Mineral Processing. 2014;132:1-7. <https://doi.org/10.1016/j.minpro.2014.08.008>

Virolainen N, Karp M. **Biosensors, Antibiotics and Food.** julkaisussa Thouand G, Marks R, toimittajat, Bioluminescence: Fundamentals and Applications in Biotechnology - Volume 2. Springer. 2014. s. 153-185. (Advances in biochemical engineering : biotechnology). https://doi.org/10.1007/978-3-662-43619-6_5

Nissilä ME, Lay C-H, Puhakka JA. **Dark fermentative hydrogen production from lignocellulosic hydrolyzates - A review.** Biomass & Bioenergy. 2014;67:145-159. <https://doi.org/10.1016/j.biombioe.2014.04.035>

Papirio S, Zou G, Ylinen A, Di Capua F, Pirozzi F, Puhakka JA. **Effect of arsenic on nitrification of simulated mining water.** Bioresource Technology. 2014;164:149-154. <https://doi.org/10.1016/j.biortech.2014.04.072>

Zou G, Papirio S, Ylinen A, Di Capua F, Lakaniemi AM, Puhakka JA. **Fluidized-bed denitrification for mine waters. Part II: effects of Ni and Co.** BIODEGRADATION. 2014;25:417-423. <https://doi.org/10.1007/s10532-013-9670-1>

Abraham BG, Santala V, Tkachenko NV, Karp M. **Fluorescent protein-based FRET sensor for intracellular monitoring of redox status in bacteria at single cell level.** Analytical and Bioanalytical Chemistry. 2014;406(28):7195-7204. <https://doi.org/10.1007/s00216-014-8165-1>

Männistö NM, Ahola N, Karp MT, Veiranto M, Kellomäki M. **In vitro bioluminescence used as a method for real-time inhibition zone testing for antibiotic-releasing composites.** British Microbiology Research Journal. 2014;4(2):235-254. <https://doi.org/10.9734/BMRJ/2014/6661>

Jokela P, Lepistö R. **Lamella dissolved air flotation treatment of fish farming effluents as a part of an integrated farming and effluent treatment concept.** Environmental Technology. 2014;35(21):2727-2733. <https://doi.org/10.1080/09593330.2014.919035>

Kinnunen HV, Koskinen PEP, Rintala J. **Mesophilic and thermophilic anaerobic laboratory-scale digestion of *Nannochloropsis* microalga residues.** Bioresource Technology. 2014;155:314-322. <https://doi.org/10.1016/j.biortech.2013.12.115>

Kannisto M, Aho T, Karp M, Santala V. **Metabolic engineering of *Acinetobacter baylyi* ADP1 for improved growth on gluconate and glucose.** Applied and Environmental Microbiology. 2014;80(22):7021-7027. <https://doi.org/10.1128/AEM.01837-14>

Guglielmetti S, Zanoni I, Balzaretto S, Miriani M, Taverniti V, de Noni I et al. **Murein lytic enzyme TgaA of Bifidobacterium bifidum MIMBb75 modulates dendritic cell maturation through its cysteine- and histidine-dependent amidohydrolase/peptidase (CHAP) amidase domain.** Applied and Environmental Microbiology. 2014;80(17):5170-5177. <https://doi.org/10.1128/AEM.00761-14>

Köroglu EO, Yilmaz Baysoy D, Cetinkaya AY, Özkaya B, Cakmakci M. **Novel design of a multitube microbial fuel cell (UM2FC) for energy recovery and treatment of membrane concentrates.** Biomass & Bioenergy. 2014;69:58-65. <https://doi.org/10.1016/j.biombioe.2014.07.014>

Stuani L, Lechaplais C, Salminen AV, Segurens B, Durot M, Castelli V et al. **Novel metabolic features in Acinetobacter baylyi ADP1 revealed by a multiomics approach.** Metabolomics. 2014. <https://doi.org/10.1007/s11306-014-0662-x>

Guglielmetti S, Balzaretto S, Taverniti V, Miriani M, Milani C, Scarafoni A et al. **TgaA, a VirB1-like component belonging to a putative type IV secretion system of Bifidobacterium bifidum MIMBb75.** Applied and Environmental Microbiology. 2014;80(17):5161-5169. <https://doi.org/10.1128/AEM.01413-14>

Rasi S, Läntelä J, Rintala J. **Upgrading landfill gas using a high pressure water absorption process.** Fuel. 2014;115:539-543. <https://doi.org/10.1016/j.fuel.2013.07.082>

Kivistö A, Santala V, Karp M. **Non-sterile process for biohydrogen and 1,3-propanediol production from raw glycerol.** International Journal of Hydrogen Energy. 2013 syys 10;38(27):11749-11755. <https://doi.org/10.1016/j.ijhydene.2013.06.119>

Seppälä JJ, Larjo A, Aho T, Yli-Harja O, Karp MT, Santala V. **Prospecting hydrogen production of Escherichia coli by metabolic network modeling.** International Journal of Hydrogen Energy. 2013 syys 10;38(27):11780-11789. <https://doi.org/10.1016/j.ijhydene.2013.07.002>

Hassan SS, Farhan M, Mangayil R, Huttunen H, Aho T. **Bioprocess data mining using regularized regression and random forests.** BMC Systems Biology. 2013 elo 12;7(Suppl 1). 5. <https://doi.org/10.1186/1752-0509-7-S1-S5>

Bayr S, Kaparaju P, Rintala J. **Screening pretreatment methods to enhance thermophilic anaerobic digestion of pulp and paper mill wastewater treatment secondary sludge.** Chemical Engineering Journal. 2013 touko 1;223:479-486. <https://doi.org/10.1016/j.cej.2013.02.119>

Tähti H, Kaparaju P, Rintala J. **Hydrogen and methane production in extreme thermophilic conditions in two-stage (upflow anaerobic sludge bed) UASB reactor system.** International Journal of Hydrogen Energy. 2013 huhti 22;38(12):4997-5002. <https://doi.org/10.1016/j.ijhydene.2013.02.058>

Rasi S, Seppälä M, Rintala J. **Organic silicon compounds in biogases produced from grass silage, grass and maize in laboratory batch assays.** Energy. 2013 huhti 1;52:137-142. <https://doi.org/10.1016/j.energy.2013.01.015>

Kaparaju P, Rasi S, Rintala J. **Biogas upgrading and compression.** julkaisussa Korres NE, O'Kiely P, Benzie JAH, West JS, toimittajat, Bioenergy Production by Anaerobic Digestion: Using Agricultural Biomass and Organic Wastes. London: Routledge. 2013. s. 152-182 <https://doi.org/10.4324/9780203137697>

Lakaniemi A-M, Tuovinen OH, Puhakka JA. **Anaerobic conversion of microalgal biomass to sustainable energy carriers - A review.** Bioresource Technology. 2013;135(May):222-231. <https://doi.org/10.1016/j.biortech.2012.08.096>

Ahola N, Männistö N, Veiranto M, Karp M, Rich J, Efimov A et al. **An in vitro study of composites of poly(L-lactide-co-ε-caprolactone), β-tricalcium phosphate and ciprofloxacin intended for local treatment of osteomyelitis.** Biomatter. 2013;3(2):1-13. e23162. <https://doi.org/10.4161/biom.23162>

Nybond S, Karp M, Tammela P. **Antimicrobial assay optimization and validation for HTS in 384-well format using a bioluminescent E. coli K-12 strain.** European Journal of Pharmaceutical Sciences. 2013;49(4):782-789. <https://doi.org/10.1016/j.ejps.2013.05.024>

Mäkinen AE, Lay C-H, Nissilä ME, Puhakka JA. **Bioelectricity production on xylose with a compost enrichment culture.** International Journal of Hydrogen Energy. 2013;38(35):15606-15612. <https://doi.org/10.1016/j.ijhydene.2013.04.137>

Seppälä M, Pyykkönen V, Väisänen A, Rintala J. **Biomethane production from maize and liquid cow manure - Effect of share of maize, post-methanation potential and digestate characteristics.** Fuel. 2013;107:209-216. <https://doi.org/10.1016/j.fuel.2012.12.069>

Kaartinen T, Sormunen K, Rintala J. **Case study on sampling, processing and characterization of landfilled municipal solid waste in the view of landfill mining.** Journal of Cleaner Production. 2013;55:56-66. <https://doi.org/10.1016/j.jclepro.2013.02.036>

Privalova E, Rasi S, Mäki-Arvela P, Eränen K, Rintala J, Murzin DY et al. **CO₂ capture from biogas: absorbent selection.** RSC Advances. 2013;3(9):2979-2994. <https://doi.org/10.1039/C2RA23013E>

Lay C-H, Sen B, Chen C-C, Wu J-H, Lee S-C, Lin C-Y. **Co-fermentation of water hyacinth and beverage wastewater in powder and pellet form for hydrogen production.** Bioresource Technology. 2013;135:610-615. <https://doi.org/10.1016/j.biortech.2012.06.094>

Zou G, Zengling W, Xiaokang L, Laichang Z, Renman R, Papirio S et al. **Column bioleaching of low grade copper sulfide ore at extreme conditions for most mineral processing bacteria.** Advanced Materials Research. 2013;825:318-321. <https://doi.org/10.4028/www.scientific.net/AMR.825.318>

Sormunen K, Laurila T, Rintala J. **Determination of waste decay rate for a large Finnish landfill by calibrating methane generation models on the basis of methane recovery and emissions.** Waste Management and Research. 2013;31(10):979-985. <https://doi.org/10.1177/0734242X13490980>

Futagami T, Morono Y, Terada T, Kaksonen AH, Inagaki F. **Distribution of dehalogenation activity in subseafloor sediments of the Nankai Trough subduction zone.** Philosophical Transactions of the Royal Society B: Biological Sciences. 2013;368(1616):1-15. 20120249. <https://doi.org/10.1098/rstb.2012.0249>

Ciranna A, Larjo A, Kivistö A, Santala V, Roos C, Karp M. **Draft genome sequence of the hydrogen- and ethanol-producing anaerobic alkalithermophilic bacterium Caloramator celer.** Genome Announcements. 2013;1(4):1-2. <https://doi.org/10.1128/genomeA.00471-13>

Bevilaqua D, Lahti H, Suegama P, Garcia Jr. O, Benedetti A, Puhakka J et al. **Effect of NA-chloride on the bioleaching of a chalcopyrite concentrate in shake flasks and stirred tank bioreactors.** Hydrometallurgy. 2013;138:1-13. <https://doi.org/10.1016/j.hydromet.2013.06.008>

Özkaya B, Cetinkaya AY, Cakmakci M, Karadag D, Sahinkaya E. **Electricity generation from young landfill leachate in a microbial fuel cell with a new electrode material.** Bioprocess and Biosystems Engineering. 2013;36(4):399-405. <https://doi.org/10.1007/s00449-012-0796-z>

Nissilä ME, Sulonen MLK, Puhakka JA. **Enrichment of electrogens on xylose from anaerobi digester sample.** julkaisussa Proceedings of 13th World Congress on Anaerobic Digestion, 25th-28th June 2013, Santiago de Compostela, Spain. IWA International Water Association. 2013. (Anaerobic Digestion World Congress).

Papirio S, Ylinen A, Zou G, Peltola M, Esposito G, Puhakka JA. **Fluidized-bed denitrification for mine waters. Part I: low pH and temperature operation.** BIODEGRADATION. 2013;1-11. <https://doi.org/10.1007/s10532-013-9671-0>

Kaparaju P, Rintala J. **Generation of heat and power from biogas for stationary applications: boilers, gas engines and turbines, combined heat and power (CHP) plants and fuel cells.** julkaisussa Wellinger A, Murphy J, Baxter D, toimittajat, The biogas handbook: Science, production and applications. Woodhead Publishing. 2013. s. 404-427

Kivistö A, Larjo A, Ciranna A, Santala V, Roos C, Karp M. **Genome Sequence of Halanaerobium saccharolyticum subsp. saccharolyticum Strain DSM 6643T, a Halophilic Hydrogen-Producing Bacterium.** Genome Announcements. 2013;1(2):1-2. <https://doi.org/10.1128/genomeA.00187-13>

Isohanni P, Huehn S, Aho T, Alter T, Lyhs U. **Heat stress adaptation induces cross-protection against lethal acid stress conditions in Arcobacter butzleri but not in Campylobacter jejuni.** Food Microbiology. 2013;34(2):431-435. <https://doi.org/10.1016/j.fm.2013.02.001>

Zou G, Ylinen A, Di Capua F, Papirio S, Lakaniemi A-M, Puhakka J. **Impact of heavy metals on denitrification of simulated mining wastewaters.** Advanced Materials Research. 2013;825:500-503. <https://doi.org/10.4028/www.scientific.net/AMR.825.500>

Efimova E, Marjakangas JM, Lakaniemi A-M, Koskinen PEP, Puhakka JA. **Lipid profile characterization of wastewaters from different origins.** Water Science and Technology. 2013;68(11):2505-2514. <https://doi.org/10.2166/wst.2013.538>

Seppälä J, Larjo A, Aho T, Kivistö A, Karp M, Santala VI. **Modification of the Escherichia coli metabolic model LAF1260 based on anaerobic experiments.** julkaisussa Autio R, Shmulevich I, Strimmer K, Wiuf C, Sarbu S, Yli-Harja O, toimittajat, The 10th International Workshop on Computational Systems Biology, WCSB 2013, June 10-12, Tampere, Finland. 2013. s. 80-86. (International Workshop on Computational Systems Biology).

Karadag D, Özkaya B, Ölmez E, Nissilä ME, CakmakCi M, Yıldiz S et al. **Profiling of bacterial community in a full-scale aerobic composting plant.** International Biodeterioration and Biodegradation. 2013;77:85-90. <https://doi.org/10.1016/j.ibiod.2012.10.011>

Seppälä M, Laine A, Rintala J. **Screening of novel plants for biogas production in northern conditions.** Bioresource Technology. 2013;139:355-362. <https://doi.org/10.1016/j.biortech.2013.04.014>

Taverniti V, Stuknyte M, Minuzzo M, Arioli S, De Noni I, Scabiosi C et al. **S-Layer protein mediates the stimulatory effect of lactobacillus helveticus MIMLh5 on innate immunity.** Applied and Environmental Microbiology. 2013;79(4):1221-1231. <https://doi.org/10.1128/AEM.03056-12>

Rismani-Yazdi H, Carver SM, Christy AD, Yu Z, Bibby K, Peccia J et al. **Suppression of methanogenesis in cellulose-fed microbial fuel cells in relation to performance, metabolite formation, and microbial population.** Bioresource Technology. 2013;129:281-288. <https://doi.org/10.1016/j.biortech.2012.10.137>

Seppälä M, Pyykkönen V, Laine A, Rintala J. **Methane production from maize in Finland - Screening for different maize varieties and plant parts.** Biomass & Bioenergy. 2012 marras;46(November):282-290. <https://doi.org/10.1016/j.biombioe.2012.08.016>

Bayr S, Rintala J. **Thermophilic anaerobic digestion of pulp and paper mill primary sludge and co-digestion of primary and secondary sludge.** Water Research. 2012 loka 1;46(15):4713-4720. <https://doi.org/10.1016/j.watres.2012.06.033>

Sivula L, Sormunen K, Rintala J. **Leachate formation and characteristics from gasification and grate incineration bottom ash under landfill conditions.** Waste Management. 2012 huhti;32(4):780-788. <https://doi.org/10.1016/j.wasman.2011.11.012>

Kivistö A, Santala V, Karp M. **1,3-Propanediol production and tolerance of a halophilic fermentative bacterium, Halanaerobium saccharolyticum subsp saccharolyticum.** Journal of Biotechnology. 2012;158(4):242-247. <https://doi.org/10.1016/j.jbiotec.2011.10.013>

- Mangayil R, Karp M, Santala V. **Bioconversion of crude glycerol from biodiesel production to hydrogen**. International Journal of Hydrogen Energy. 2012;37(17):12198-12204. <https://doi.org/10.1016/j.ijhydene.2012.06.010>
- Özkaya B, Akoglu B, Karadag D, Aci G, Taskan E, Hasar H. **Bioelectricity production using a new electrode in a microbial fuel cell**. Bioprocess and Biosystems Engineering. 2012;35(7):1219-1227. <https://doi.org/10.1007/s00449-012-0709-1>
- Violainen N, Guglielmetti S, Arioli S, Karp M. **Bioluminescence-based identification of nisin producers - A rapid and simple screening method for nisinogenic bacteria in food samples**. International Journal of Food Microbiology. 2012;158(12):126-132. <https://doi.org/10.1016/j.ijfoodmicro.2012.07.007>
- Puhakka JA, Karadag D, Nissilä ME. **Comparison of mesophilic and thermophilic anaerobic hydrogen production by hot spring enrichment culture**. International Journal of Hydrogen Energy. 2012;37(21):16453-16459. <https://doi.org/10.1016/j.ijhydene.2012.02.121>
- Nissilä ME, Li Y-C, Wu S-Y, Puhakka JA. **Dark fermentative hydrogen production from neutralized acid hydrolysates of conifer pulp**. Applied Biochemistry and Biotechnology. 2012;168(8):2160-2169. <https://doi.org/10.1007/s12010-012-9925-z>
- Mäkinen AE, Nissilä ME, Puhakka JA. **Dark fermentative hydrogen production from xylose by a hot spring enrichment culture**. International Journal of Hydrogen Energy. 2012;37(17):12234-12240. <https://doi.org/10.1016/j.ijhydene.2012.05.158>
- Chu C-Y, Sen B, Lay C-H, Lin Y-C, Lin C-Y. **Direct fermentation of sweet potato to produce maximal hydrogen and ethanol**. Applied Energy. 2012;100:10-18. <https://doi.org/10.1016/j.apenergy.2012.06.023>
- Bayr S, Pakarinen O, Korppoo A, Liuksia S, Väisänen A, Kaparaju P et al. **Effect of additives on process stability of mesophilic anaerobic monodigestion of pig slaughterhouse waste**. Bioresource Technology. 2012;120(September):106-113. <https://doi.org/10.1016/j.biortech.2012.06.009>
- Chen C-C, Sen B, Chuang Y-S, Tsai C-J, Lay C-H. **Effect of effluent recycle ratio in a continuous anaerobic biohydrogen production system**. Journal of Cleaner Production. 2012;32:236-243. <https://doi.org/10.1016/j.jclepro.2012.04.006>
- Hulatt CJ, Lakaniemi A-M, Puhakka JA, Thomas DN. **Energy Demands of Nitrogen Supply in Mass Cultivation of Two Commercially Important Microalgal Species, *Chlorella vulgaris* and *Dunaliella tertiolecta***. BioEnergy Research. 2012;5(3):669-684. <https://doi.org/10.1007/s12155-011-9175-x>
- Ciranna A, Santala V, Karp M. **Enhancing biohydrogen production of the alkalithermophile *Thermobrachium celere***. International Journal of Hydrogen Energy. 2012;37(7):5550-5558. <https://doi.org/10.1016/j.ijhydene.2011.12.105>
- Lakaniemi A-M, Hulatt CJ, Wakeman KD, Thomas DN, Puhakka JA. **Eukaryotic and prokaryotic microbial communities during microalgal biomass production**. Bioresource Technology. 2012;124(November):387-393. <https://doi.org/10.1016/j.biortech.2012.08.048>
- Papirio S. **Fluidized-bed bioreactor applications for the treatment of metal-, sulfate- and nitrate-contaminated mine waters**. Università degli Studi di Cassino e del Lazio Meridionale, 2012. (Università degli Studi di Cassino e del Lazio Meridionale).
- Lakaniemi A-M, Intihar VM, Tuovinen OH, Puhakka JA. **Growth of *Chlorella vulgaris* and associated bacteria in photobioreactors**. Microbial Biotechnology. 2012;5(1):69-78. <https://doi.org/10.1111/j.1751-7915.2011.00298.x>
- Lakaniemi A-M, Intihar VM, Tuovinen OH, Puhakka JA. **Growth of *Dunaliella tertiolecta* and associated bacteria in photobioreactors**. Journal of Industrial Microbiology and Biotechnology. 2012;39(9):1357-1365. <https://doi.org/10.1007/s10295-012-1133-x>

Carver SM, Nelson MC, Lepistö R, Yu Z, Tuovinen OH. **Hydrogen and volatile fatty acid production during fermentation of cellulosic substrates by a thermophilic consortium at 50 and 60 °C.** *Bioresource Technology*. 2012;104(January):424-431. <https://doi.org/10.1016/j.biortech.2011.11.013>

Nissilä ME, Li Y-C, Wu S-Y, Lin C-Y, Puhakka JA. **Hydrogenic and methanogenic fermentation of birch and conifer pulps.** *Applied Energy*. 2012;100(December):58-65. <https://doi.org/10.1016/j.apenergy.2012.06.015>

Taverniti V, Minuzzo M, Arioli S, Junntila I, Hämäläinen S, Turpeinen H et al. **In Vitro functional and immunomodulatory properties of the Lactobacillus helveticus MIMLh5-Streptococcus salivarius ST3 association that are relevant to the development of a Pharyngeal probiotic product.** *Applied and Environmental Microbiology*. 2012;78(12):4209-4216. <https://doi.org/10.1128/AEM.00325-12>

Läntelä J, Rasi S, Lehtinen J, Rintala J. **Landfill gas upgrading with pilot-scale water scrubber: Performance assessment with adsorption water recycling.** *Applied Energy*. 2012;92(April):307-314. <https://doi.org/10.1016/j.apenergy.2011.10.011>

Sharma KK, Sharma S, Karp M, Kuhad RC. **Ligninolytic enzymes improve soil DNA purity: Solution to methodological challenges of soil metagenomics.** *Journal of Molecular Catalysis B: Enzymatic*. 2012;83(November):73-79. <https://doi.org/10.1016/j.molcatb.2012.07.010>

Bayr S, Rantanen M, Kaparaju P, Rintala J. **Mesophilic and thermophilic anaerobic co-digestion of rendering plant and slaughterhouse wastes.** *Bioresource Technology*. 2012;104(January):28-36. <https://doi.org/10.1016/j.biortech.2011.09.104>

Halinen A-K, Beecroft NJ, Määttä K, Nurmi P, Laukkanen K, Kaksonen AH et al. **Microbial community dynamics during a demonstration-scale bioheap leaching operation.** *Hydrometallurgy*. 2012;125-126:34-41. <https://doi.org/10.1016/j.hydromet.2012.05.001>

Santala S, Karp M, Santala V. **Monitoring alkane degradation by single biobrick integration to an optimal cellular framework.** *ACS Synthetic Biology*. 2012;1(2):60-64. <https://doi.org/10.1021/sb2000066>

Ahola N, Veiranto M, Männistö N, Karp M, Rich J, Efimov A et al. **Processing and sustained in vitro release of rifampicin containing composites to enhance the treatment of osteomyelitis.** *Biomatter*. 2012;2(4):1-13. <https://doi.org/10.4161/biom.22793>

Lakaniemi A-M, Tuovinen OH, Puhakka JA. **Production of Electricity and Butanol from Microalgal Biomass in Microbial Fuel Cells.** *BioEnergy Research*. 2012;5(2):481-491. <https://doi.org/10.1007/s12155-012-9186-2>

Kumar G, Lay C-H, Chu C-Y, Wu J-H, Lee S-C, Lin C-Y. **Seed inocula for biohydrogen production from biodiesel solid residues.** *International Journal of Hydrogen Energy*. 2012;37(29):15489-15495. <https://doi.org/10.1016/j.ijhydene.2012.04.016>

Li Y-C, Nissilä ME, Wu S-Y, Lin C-Y, Puhakka JA. **Silage as source of bacteria and electrons for dark fermentative hydrogen production.** *International Journal of Hydrogen Energy*. 2012;37(20):15518-15524. <https://doi.org/10.1016/j.ijhydene.2012.04.060>

Kandhavelu M, Paturu L, Mizar A, Mahmudov KT, Kopylovich MN, Karp M et al. **Synthesis, characterization and antimicrobial activity of arylhydrazones of methylene active compounds.** *Pharmaceutical Chemistry Journal*. 2012;46(3):157-164. <https://doi.org/10.1007/s11094-012-0751-y>

Sivula L, Oikari A, Rintala J. **Toxicity of waste gasification bottom ash leachate.** *Waste Management*. 2012;32(6):1171-1178. <https://doi.org/10.1016/j.wasman.2012.01.002>

Bomberg M, Munster U, Pumpanen J, Ilvesniemi H, Heinonsalo J. **Archaeal communities in boreal forest tree rhizospheres respond to changing soil temperatures.** *Microbial Ecology*. 2011;62(1):205-217. <https://doi.org/10.1007/s00248-011-9837-4>

Carver SM, Vuoriranta P, Tuovinen OH. **A thermophilic microbial fuel cell design.** *Journal of Power Sources*. 2011;196(8):3757-3760. <https://doi.org/10.1016/j.jpowsour.2010.12.088>

Bevilaqua D, Garcia Jr O, Suegama PH, Benedetti AV, Lahti H, Puhakka J et al. **Avaliacao eletroquimica de residuos de biolixiviacao da calcopirita (CuFeS₂) por acidithiobacillus ferrooxidans.** julkaisussa XXIV ENTMME 2011, Encontro Nacional de Tratamento de Minerios e Metalurgia Extrativa, 16 a 19 de outubro de 2011, Salvador/Bahia. Encontro Nacional de Tratamento de Minerios e Metalurgia Extrativa. 2011. s. 1179-1186. (Encontro Nacional de Tratamento de Minerios e Metalurgia Extrativa).

George Abraham B, Tkachenko NV, Santala V, Lemmetyinen H, Karp M. **Bidirectional fluorescence resonance energy transfer (FRET) in mutated and chemically modified yellow fluorescent protein (YFP).** *Bioconjugate Chemistry*. 2011;22(2):227-234. <https://doi.org/10.1021/bc100372u>

Lakaniemi A-M, Hulatt CJ, Thomas DN, Tuovinen OH, Puhakka JA. **Biogenic hydrogen and methane production from *Chlorella vulgaris* and *Dunaliella tertiolecta* biomass.** *Biotechnology for Biofuels*. 2011;4(1):1-12. 34. <https://doi.org/10.1186/1754-6834-4-34>

Lakaniemi A-M, Koskinen PEP, Nevatalo LM, Kaksonen AH, Puhakka JA. **Biogenic hydrogen and methane production from reed canary grass.** *Biomass & Bioenergy*. 2011;35(2):773-780. <https://doi.org/10.1016/j.biombioe.2010.10.032>

Kaksonen AH, Lavonen L, Kuusenaho M, Kolli A, Närhi H, Vestola E et al. **Bioleaching and recovery of metals from final slag waste of the copper smelting industry.** *Minerals Engineering*. 2011;24(11):1113-1121. <https://doi.org/10.1016/j.mineng.2011.02.011>

Wakeman KD, Honkavirta P, Puhakka JA. **Bioleaching of flotation by-products of talc production permits the separation of nickel and cobalt from iron and arsenic.** *Process Biochemistry*. 2011;46:1589-1598. <https://doi.org/10.1016/j.procbio.2011.04.016>

Smolander O-P, Kandhavelu M, Mannerström H, Lihavainen E, Kalaihelvan S, Healy S et al. **Cell-to-cell diversity in protein levels of a gene driven by a tetracycline inducible promoter.** *BMC Molecular Biology*. 2011;12:1-27. 21. <https://doi.org/10.1186/1471-2199-12-21>

Kivistö A, Santala V, Karp M. **Closing the 1,3-propanediol route enhances hydrogen production from glycerol by *Halanaerobium saccharolyticum* subsp. *saccharolyticum*.** *International Journal of Hydrogen Energy*. 2011;36(12):7074-7080. <https://doi.org/10.1016/j.ijhydene.2011.03.012>

Santala S, Larjo A, Aho T, Karp M, Santala V. **Construction and Modelling of an Artificial Microecosystem.** julkaisussa Koepl H, Acimovic J, Kesseli J, Mäki-Marttunen T, Larjo A, Yli-Harja O, toimittajat, Eight International Workshop on Computational Systems Biology, WCSB 2011, June 6-8, Zurich, Switzerland. TICSP series. Zurich: WCSB 2011. 2011. s. 225-225. (International Workshop on Computational Systems Biology WCSB; 57).

Smolander O-P, Kandhavelu M, Mannerström H, Lihavainen E, Kalaihelvan S, Healy S et al. **Dynamics of Gene Expression under Tetracycline Inducible Promoters.** julkaisussa Koepl H, Acimovic J, Kesseli J, Mäki-Marttunen T, Larjo A, Yli-Harja O, toimittajat, Eight International Workshop on Computational Systems Biology, WCSB 2011, June 6-8, Zurich, Switzerland. TICSP series. Zurich: WCSB 2011. 2011. s. 227-227. (International Workshop on Computational Systems Biology WCSB; 57).

Nissilä ME, Tähti HP, Rintala JA, Puhakka JA. **Effects of heat treatment on hydrogen production potential and microbial community of thermophilic compost enrichment cultures.** *Bioresource Technology*. 2011;102(6):4501-4506. <https://doi.org/10.1016/j.biortech.2010.12.072>

Seppälä JJ, Puhakka JA, Yli-Harja O, Karp MT, Santala V. **Fermentative hydrogen production by *Clostridium butyricum* and *Escherichia coli* in pure and cocultures.** International Journal of Hydrogen Energy. 2011;36(17):10701-10708. <https://doi.org/10.1016/j.ijhydene.2011.05.189>

Mangayil R, Santala V, Karp M. **Fermentative hydrogen production from different sugars by *Citrobacter* sp. CMC-1 in batch culture.** International Journal of Hydrogen Energy. 2011;36:15187-15194. <https://doi.org/10.1016/j.ijhydene.2011.08.076>

Kivistö A, Karp MT. **Halophilic anaerobic fermentative bacteria: Review.** Journal of Biotechnology. 2011;152(4):114-124. <https://doi.org/10.1016/j.jbiotec.2010.08.014>

Puhakka J. **IEA-HIA Task Semiannual Report 2010 from Finland.** IEA, 2011. 4 s.

Santala S, Efimova E, Kivinen V, Larjo A, Aho T, Karp M et al. **Improved triacylglycerol production in *Acinetobacter baylyi* ADP1 by metabolic engineering.** Microbial Cell Factories. 2011;10(36):1-10. <https://doi.org/10.1186/1475-2859-10-36>

Lindsasy MJB, Wakeman KD, Rowe OF, Grail BM, Ptacek CJ, Blowes DW et al. **Microbiology and geochemistry of mine tailings amended with organic carbon for passive treatment of pore water.** Geomicrobiology Journal. 2011;28(3):229-241. <https://doi.org/10.1080/01490451.2010.493570>

Tolvanen KES, Karp MT. **Molecular methods for characterizing mixed microbial communities in hydrogen-fermenting systems.** International Journal of Hydrogen Energy. 2011;36(9):5280-5288. <https://doi.org/10.1016/j.ijhydene.2011.01.029>

Santala S, Efimova E, Karp M, Santala V. **Real-Time monitoring of intracellular wax ester metabolism.** Microbial Cell Factories. 2011;10(1):1-8. 75. <https://doi.org/10.1186/1475-2859-10-75>

Tolvanen KES, Mangayil RK, Karp MT, Santala VP. **Simple enrichment system for hydrogen producers.** Applied and Environmental Microbiology. 2011;77(12):4246-4248. <https://doi.org/10.1128/AEM.05150-11>

Carver SM, Hulatt CJ, Thomas DN, Tuovinen OH. **Thermophilic, anaerobic co-digestion of microalgal biomass and cellulose for H₂ production.** BIODEGRADATION. 2011;22(4):805-814. <https://doi.org/10.1007/s10532-010-9419-z>

Nissilä ME, Tähti HP, Rintala JA, Puhakka JA. **Thermophilic hydrogen production from cellulose with rumen fluid enrichment cultures: Effects of different heat treatments.** International Journal of Hydrogen Energy. 2011;36(2):1482-1490. <https://doi.org/10.1016/j.ijhydene.2010.11.010>

Bhatti TM, Bigham JM, Vuorinen A, Tuovinen OH. **Weathering of biotite in *Acidithiobacillus ferrooxidans* cultures.** Geomicrobiology Journal. 2011;28(2):130-134. <https://doi.org/10.1080/01490451003720901>

Bhatti TM, Bigham JM, Vuorinen A, Tuovinen OH. **Weathering of phlogopite in simulated bioleaching solutions.** International Journal of Mineral Processing. 2011;98(1-2):30-34. <https://doi.org/10.1016/j.minpro.2010.10.004>

Nevatalo L. **Bioreactor applications utilizing mesophilic sulfate-reducing bacteria for treatment of mine wastewaters at 9-35 °C.** Tampere: Tampere University of Technology, 2010. 92 s. (Tampere University of Technology. Publication).

Vestola EA, Kuusenaho MK, Närhi HM, Tuovinen OH, Puhakka JA, Plumb JJ et al. **Acid bioleaching of solid waste materials from copper, steel and recycling industries.** Hydrometallurgy. 2010;103(1-4):74-79. <https://doi.org/10.1016/j.hydromet.2010.02.017>

Guglielmetti S, Taverniti V, Minuzzo M, Arioli S, Zanoni I, Stuknyte M et al. **A dairy bacterium displays in vitro probiotic properties for the pharyngeal mucosa by antagonizing group a streptococci and modulating the immune response.** Infection and Immunity. 2010;78(11):4734-4743. <https://doi.org/10.1128/IAI.00559-10>

- Arioli S, Ragg E, Scaglioni L, Fessas D, Signorelli M, Karp M et al. **Alkalizing reactions streamline cellular metabolism in acidogenic microorganisms.** PLoS ONE. 2010;5(11, e15520):1-8. <https://doi.org/10.1371/journal.pone.0015520>
- Bhatti TM, Bigham JM, Riekkola-Vanhanen M, Tuovinen OH. **Altered mineralogy associated with stirred tank bioreactor leaching of a black schist ore.** Hydrometallurgy. 2010;100(3-4):181-184. <https://doi.org/10.1016/j.hydromet.2009.11.010>
- Välilmaa A-L, Kivistö AT, Leskinen PI, Karp MT. **A novel biosensor for the detection of zearalenone family mycotoxins in milk.** Journal of Microbiological Methods. 2010;80(1):44-48. <https://doi.org/10.1016/j.mimet.2009.10.017>
- Pikkemaat MG, Rapallini MLBA, Karp MT, Elferink JWA. **Application of a luminescent bacterial biosensor for the detection of tetracyclines in routine analysis of poultry muscle samples.** Food Additives and Contaminants Part A: Chemistry Analysis Control Exposure and Risk Assessment. 2010;27(8):1112-1117. <https://doi.org/10.1080/19440041003794866>
- Tao J, Mancl KM, Tuovinen OH. **Attenuation of pollutants in sanitary sewer overflow: Comparative evaluation of treatment with fixed media bioreactors.** Bioresource Technology. 2010;101(6):1781-1786. <https://doi.org/10.1016/j.biortech.2009.10.038>
- Kolehmainen RE, Crochet LM, Kortelainen NM, Langwaldt JH, Puhakka JA. **Biodegradation of aqueous organic matter over seasonal changes: bioreactor experiments with indigenous lake water bacteria.** Journal of Environmental Engineering: ASCE. 2010;136(6):607-615. [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0000197](https://doi.org/10.1061/(ASCE)EE.1943-7870.0000197)
- Kivistö A, Santala V, Karp M. **Biohydrogen and 1,3-Propanediol production using halophilic fermentative bacteria.** julkaisussa ESF-Bielefeld-CeBiTec Conference, Microbes and Industrial Biotechnology, Bielefeld, Germany, 21-24 November 2010, Booklet of Abstracts. 2010. s. 21-21
- Nevatalo LM, Mäkinen AE, Kaksonen AH, Puhakka JA. **Biological hydrogen sulfide production in an ethanol-lactate fed fluidized-bed bioreactor.** Bioresource Technology. 2010;101(1):276-284. <https://doi.org/10.1016/j.biortech.2009.07.042>
- Nurmi P, Özkaya B, Sasaki K, Kaksonen AH, Riekkola-Vanhanen M, Tuovinen OH et al. **Biooxidation and precipitation for iron and sulfate removal from heap bioleaching effluent streams.** Hydrometallurgy. 2010;101(1-2):7-14. <https://doi.org/10.1016/j.hydromet.2009.11.004>
- Bigham JM, Jones FS, Özkaya B, Sahinkaya E, Puhakka JA, Tuovinen OH. **Characterization of jarosites produced by chemical synthesis over a temperature gradient from 2 to 40 °C.** International Journal of Mineral Processing. 2010;94(3-4):121-128. <https://doi.org/10.1016/j.minpro.2010.01.005>
- Sasaki K, Takatsugi K, Kaneko K, Kozai N, Ohnuki T, Tuovinen OH et al. **Characterization of secondary arsenic-bearing precipitates formed in the bioleaching of enargite by Acidithiobacillus ferrooxidans.** Hydrometallurgy. 2010;104(3-4):424-431. <https://doi.org/10.1016/j.hydromet.2009.12.012>
- Karadag D, Puhakka JA. **Direction of glucose fermentation towards hydrogen or ethanol production through on-line pH control.** International Journal of Hydrogen Energy. 2010;35(19):10245-10251. <https://doi.org/10.1016/j.ijhydene.2010.07.139>
- Karadag D, Puhakka JA. **Effect of changing temperature on anaerobic hydrogen production and microbial community composition in an open-mixed culture bioreactor.** International Journal of Hydrogen Energy. 2010;35(20):10954-10959. <https://doi.org/10.1016/j.ijhydene.2010.07.070>
- Karadag D, Puhakka JA. **Enhancement of anaerobic hydrogen production by iron and nickel.** International Journal of Hydrogen Energy. 2010;35(16):8554-8560. <https://doi.org/10.1016/j.ijhydene.2010.04.174>

Tolvanen KES, Santala VP, Karp MT. **[FeFe]-hydrogenase gene quantification and melting curve analysis from hydrogen-fermenting bioreactor samples**. International Journal of Hydrogen Energy. 2010;35(8):3433-3439. <https://doi.org/10.1016/j.ijhydene.2010.01.132>

Gramp JP, Bigham JM, Jones FS, Tuovinen OH. **Formation of Fe-sulfides in cultures of sulfate-reducing bacteria**. Journal of Hazardous Materials. 2010;175(1-3):1062-1067. <https://doi.org/10.1016/j.jhazmat.2009.10.119>

Nevatalo LM, Bijmans MFM, Lens PNL, Kaksonen AH, Puhakka JA. **Hydrogenotrophic sulfate reduction in a gas-lift bioreactor operated at 9°C**. Journal of Microbiology and Biotechnology. 2010;20(3):615-621. <https://doi.org/10.4014/jmb.0906.06016>

Kivistö A, Santala V, Karp M. **Hydrogen production from glycerol using halophilic fermentative bacteria**. Bioresource Technology. 2010;101:8671-8677. <https://doi.org/10.1016/j.biortech.2010.06.066>

Carver SM, Lepistö R, Tuovinen OH. **Hydrolysis and metabolism of cellulose by an anaerobic, thermophilic consortium**. julkaisussa Third International Symposium on Energy from Biomass and Waste, Venice, Italy, 8-11 November 2010. 2010. s. 1-9

Välimaa A-L. **In vitro bioassays in bioactivity and residue assessments**. Tampere: Tampere University of Technology, 2010. (Tampereen teknillinen yliopisto. Julkaisu).

Virolainen N, Välimaa A-L. **Kehittämishanke: Tenttiin lukemisesta jatkuvaan oppimiseen - Tapausesimerkinä Tampereen teknillisen yliopiston Nanobioteknologian opintojaks**o. julkaisussa Rutanen P, Rahkonen A, Jutila S, toimittajat, Tunnista, kehittä, arvioi - vaikuttavia käytäntöjä opetuksen ja opetussuunnitelman kehittämiseen. Uutisia opetuksen kehittämisestä Oulun yliopiston laitoksilla. 2010. s. 33-40

Wang H, Tolvanen K, Lehtomäki A, Puhakka J, Rintala J. **Microbial community structure in anaerobic co-digestion of grass silage and cow manure in a laboratory continuously stirred tank reactor**. BIODEGRADATION. 2010;21(1):135-146. <https://doi.org/10.1007/s10532-009-9288-5>

Lakaniemi A-M, Nevatalo LM, Kaksonen AH, Puhakka JA. **Mine wastewater treatment using Phalaris arundinacea plant material hydrolyzate as substrate for sulfate-reducing bioreactor**. Bioresource Technology. 2010;101(11):3931-3939. <https://doi.org/10.1016/j.biortech.2010.01.020>

Tolvanen K. **Molecular methods for studying mixed hydrogen-fermenting microbial communities**. Tampere: Tampere University of Technology, 2010. (Tampereen teknillinen yliopisto. Julkaisu).

Guglielmetti S, Taverniti V, Minuzzo M, Arioli S, Stuknyte M, Karp M et al. **Oral bacteria as potential probiotics for the pharyngeal mucosa**. Applied and Environmental Microbiology. 2010;76(12):3048-3058. <https://doi.org/10.1128/AEM.00109-10>

Bevilaqua D, Garcia Jr. O, Tuovinen OH. **Oxidative dissolution of bornite by Acidithiobacillus ferrooxidans**. Process Biochemistry. 2010;45(1):101-106. <https://doi.org/10.1016/j.procbio.2009.08.013>

Nurmi P, Özkaya B, Kaksonen AH, Tuovinen OH, Puhakka JA. **Predictive modelling of Fe(III) precipitation in iron removal process for bioleaching circuits**. Bioprocess and Biosystems Engineering. 2010;33(4):449-456. <https://doi.org/10.1007/s00449-009-0346-5>

Singh Gaur R, Cai L, Tuovinen OH, Mancl KM. **Pretreatment of turkey fat-containing wastewater in coarse sand and gravel/coarse sand bioreactors**. Bioresource Technology. 2010;101(3):1106-1110. <https://doi.org/10.1016/j.biortech.2009.08.078>

Wakeman KD, Erving L, Riekkola-Vanhanen ML, Puhakka JA. **Silage supports sulfate reduction in the treatment of metals- and sulfate-containing waste waters**. Water Research. 2010;44(17):4932-4939. <https://doi.org/10.1016/j.watres.2010.07.025>

Kaksonen AH, Robertson WJ, Plumb JJ, Wylie JT, Bastow TP, Douglas GB et al. **Sulfate-reducing fluidized-bed bioreactor processes for acidic metal- and sulfate-containing waters.** julkaisussa SME Annual Meeting Feb. 28-Mar. 03, 2010, Phoenix, AZ, USA. 2010. s. 1-6

Ojala J, Wakeman K, Määttä K, Tirola M, Puhakka J. **TEVA-tutkimusprojekti jatkaa tekopohjavesitiedon täydentämistä.** Vesitalous. 2010;(5):22-25.

Nevatalo LM, Bijmans MFM, Lens PNL, Kaksonen AH, Puhakka JA. **The effect of sub-optimal temperature on specific sulfidogenic activity of mesophilic SRB in an H₂-fed membrane bioreactor.** Process Biochemistry. 2010;45(3):363-368. <https://doi.org/10.1016/j.procbio.2009.10.007>

Li C, Blencke H-M, Smith LC, Karp MT, Stensvåg K. **Two recombinant peptides, SpStrongylocins 1 and 2, from Strongylocentrotus purpuratus, show antimicrobial activity against Gram-positive and Gram-negative bacteria.** Developmental and Comparative Immunology. 2010;34(3):286-292. <https://doi.org/10.1016/j.dci.2009.10.006>

Lappalainen JO, Karp MT, Juvonen R, Virta MPJ, Nurmi J. **Comparison of the total mercury content in sediment samples with a mercury sensor bacteria test and Vibrio fischeri toxicity test.** Environmental Toxicology. 2000 joulukuu;15(5):443-448. [https://doi.org/10.1002/1522-7278\(2000\)15:5<443::AID-TOX12>3.0.CO;2-L](https://doi.org/10.1002/1522-7278(2000)15:5<443::AID-TOX12>3.0.CO;2-L)

Tauriainen SM, Virta MPJ, Karp MT. **Detecting bioavailable toxic metals and metalloids from natural water samples using luminescent sensor bacteria.** Water Research. 2000 heinäkuu;34(10):2661-2666. [https://doi.org/10.1016/S0043-1354\(00\)00005-1](https://doi.org/10.1016/S0043-1354(00)00005-1)

Korpela MT, Kurittu JS, Karvinen JT, Karp MT. **A recombinant Escherichia coli sensor strain for the detection of tetracyclines.** Analytical Chemistry. 1998 marras 1;70(21):4457-4462. <https://doi.org/10.1021/ac980740e>

Suominen AI, Karp MT, Mäntsälä PI. **Fractionation of DNA with Sephacryl S-1000(R).** Biochemistry Research International . 1984 helmikuu;8(2):209-215.

Karp MT, Hemmilä I, Mäntsälä PI, Suominen AI. **Time-resolved europium fluorescence in enzyme activity measurements: a sensitive protease assay.** Journal of applied biochemistry. 1983 joulukuu;5(6):399-403.

Karp MT, Raunio RP, Lövgren TN-E. **Simultaneous extraction and combined bioluminescent assay of NAD⁺ and NADH.** ANALYTICAL BIOCHEMISTRY. 1983 tammi;128(1):175-180. [https://doi.org/10.1016/0003-2697\(83\)90359-7](https://doi.org/10.1016/0003-2697(83)90359-7)