

Compacted bentonite as a source of substrates for sulfate-reducing microorganisms in a simulated excavation-damaged zone of a spent nuclear fuel repository

Maanoja, S., Lakaniemi, A. M., Lehtinen, L., Salminen, L., Auvinen, H., Kokko, M., Palmroth, M., Muuri, E. & Rintala, J., 1 Oct 2020, In : APPLIED CLAY SCIENCE. 196, 13 p., 105746.

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

Sub- and Supercritical Water Liquefaction of Kraft Lignin and Black Liquor Derived Lignin

Lappalainen, J., Baudouin, D., Hornung, U., Schuler, J., Melin, K., Bjelić, S., Vogel, F., Konttinen, J. & Joronen, T., 28 Jun 2020, In : Energies. 13, 13, 42 p., 3309.

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

Biogas and combustion potential of fresh reed canary grass grown on cutover peatland

Laasasenaho, K., Renzi, F., Karjalainen, H., Kaparaju, P., Konttinen, J. & Rintala, J., 2020, In : Mires and Peat. 26, 9 p., 10.

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

Formation and use of biogenic jarosite carrier for high-rate iron oxidising biofilms

Ahoranta, S., Hulkkonen, H., Salminen, T., Kuula, P., Puhakka, J. A. & Lakaniemi, A. M., 2020, In : Research in Microbiology. 9 p.

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

Quantifying the pore structure of different biochars and their impacts on the water retention properties of Sphagnum moss growing media

Turunen, M., Hyväluoma, J., Heikkinen, J., Keskinen, R., Kaseva, J., Hannula, M. & Rasa, K., 2020, In : Biosystems Engineering. 191, p. 96-106 11 p.

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

Biomass Resource Allocation for Bioenergy Production on Cutaway Peatlands with Geographical Information (GI) Analyses

Laasasenaho, K., 19 Dec 2019, Tampere University. 105 p. (Tampere University Dissertations; vol. 191)

Research output: Book/Report > Doctoral thesis > Collection of Articles

Cultivation and safety aspects of Arthrospira platensis (Spirulina) grown with struvite recovered from anaerobic digestion plant as phosphorus source

Markou, G., Arapoglou, D., Eliopoulos, C., Balafoutis, A., Taddeo, R., Panara, A. & Thomaidis, N., Dec 2019, In : Algal Research. 44

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

Bioaugmentation enhances dark fermentative hydrogen production in cultures exposed to short-term temperature fluctuations

Okonkwo, O., Escudié, R., Bernet, N., Mangayil, R., Lakaniemi, A-M. & Trably, E., 21 Nov 2019, In : Applied Microbiology and Biotechnology. 11 p.

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

Resilient performance of an anoxic biotrickling filter for hydrogen sulphide removal from a biogas mimic: Steady, transient state and neural network evaluation

Watsuntorn, W., Khanongnuch, R., Chulalaksananukul, W., Rene, E. R. & Lens, P. N. L., 18 Nov 2019, In : Journal of Cleaner Production. p. 119351

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

Fluorination of pyrene-based organic semiconductors enhances the performance of light emitting diodes and halide perovskite solar cells

Salunke, J., Singh, A., He, D., Duc Pham, H., Bai, Y., Wang, L., Dahlström, S., Nyman, M., Manzhos, S., Feron, K., Österbacka, R., Priimägi, A., Vivo, P. & Sonar, P., 9 Nov 2019, In : Organic Electronics.

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

Co-production of 1,3 propanediol and long-chain alkyl esters from crude glycerol

Mangayil, R., Efimova, E., Konttinen, J. & Santala, V., 11 Jul 2019, In : *New Biotechnology*. 53, p. 81-89 9 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Selective enrichment of biocatalysts for bioelectrochemical systems: A critical review

Chatterjee, P., Dessi, P., Kokko, M., Lakaniemi, A-M. & Lens, P., Jul 2019, In : *Renewable and Sustainable Energy Reviews*. 109, p. 10-23 14 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Semi-continuous mono-digestion of OFMSW and Co-digestion of OFMSW with beech sawdust: Assessment of the maximum operational total solid content

Pastor-Poquet, V., Papirio, S., Trably, E., Rintala, J., Escudié, R. & Esposito, G., 1 Feb 2019, In : *Journal of Environmental Management*. 231, p. 1293-1302 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Carbon storage change and $\delta^{13}\text{C}$ transitions of peat columns in a partially forestry-drained boreal bog

Nykänen, H., Rissanen, A. J., Turunen, J., Tahvanainen, T. & Simola, H., 2019, In : *Plant and Soil*. 14 p.
Research output: Contribution to journal > Article > Scientific > peer-review

CH₄ oxidation in a boreal lake during the development of hypolimnetic hypoxia

Saarela, T., Rissanen, A. J., Ojala, A., Pumpanen, J., Aalto, S. L., Tiirola, M., Vesala, T. & Jäntti, H., 2019, In : *Aquatic Sciences*. 82, 2, 12 p., 19.
Research output: Contribution to journal > Article > Scientific > peer-review

Storing of exoelectrogenic anolyte for efficient microbial fuel cell recovery

Haavisto, J. M., Lakaniemi, A-M. & Puhakka, J. A., 2019, In : *Environmental Technology*. 40, 11
Research output: Contribution to journal > Article > Scientific > peer-review

How and why does willow biochar increase a clay soil water retention capacity?

Rasa, K., Heikkinen, J., Hannula, M., Arstila, K., Kulju, S. & Hyväluoma, J., 1 Dec 2018, In : *Biomass and Bioenergy*. 119, p. 346-353 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Bi-directional cell-pericellular matrix interactions direct stem cell fate

Ferreira, S. A., Motwani, M. S., Faull, P. A., Seymour, A. J., Yu, T. T. L., Enayati, M., Taheem, D. K., Salzlechner, C., Haghghi, T., Kania, E. M., Oommen, O. P., Ahmed, T., Loaiza, S., Parzych, K., Dazzi, F., Varghese, O. P., Festy, F., Grigoriadis, A. E., Auner, H. W., Snijders, A. P., Bozec, L. & Gentleman, E., Dec 2018, In : *Nature Communications*. 9, 1, 12 p., 4049.
Research output: Contribution to journal > Article > Scientific > peer-review

FAIMS analysis of urine gaseous headspace is capable of differentiating ovarian cancer

Niemi, R. J., Roine, A. N., Eräviita, E., Kumpulainen, P. S., Mäenpää, J. U. & Oksala, N., Dec 2018, In : *Gynecologic Oncology*. 151, 3, p. 519-524 6 p.
Research output: Contribution to journal > Article > Scientific > peer-review

High Nitrogen Removal in a Constructed Wetland Receiving Treated Wastewater in a Cold Climate

Uusheimo, S., Huotari, J., Tulonen, T., Aalto, S. L., Rissanen, A. J. & Arvola, L., 20 Nov 2018, In : *Environmental science & technology*. 52, 22, p. 13343-13350 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Biological treatment of selenium-laden wastewater containing nitrate and sulfate in an upflow anaerobic sludge bed reactor at pH 5.0

Tan, L. C., Nancharaiyah, Y. V., Lu, S., van Hullebusch, E. D., Gerlach, R. & Lens, P. N. L., 1 Nov 2018, In : *Chemosphere*. 211, p. 684-693 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Remediation of sedimented fiber originating from pulp and paper industry: Laboratory scale anaerobic reactor studies and ideas of scaling up

Chatterjee, P., Lahtinen, L., Kokko, M. & Rintala, J., 15 Oct 2018, In : *Water Research*. 143, p. 209-217 9 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Temperature control as key factor for optimal biohydrogen production from thermomechanical pulping wastewater

Dessi, P., Porca, E., Lakaniemi, A-M., Collins, G. & Lens, P. N. L., 15 Sep 2018, In : *Biochemical Engineering Journal*. 137, p. 214-221 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

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

Eregowda, T., Matanhike, L., Rene, E. R. & Lens, P. N. L., 1 Sep 2018, In : *Bioresource Technology*. 263, p. 591-600 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Sensory properties of Nordic edible mushrooms

Aisala, H., Laaksonen, O., Manninen, H., Raittola, A., Hopia, A. & Sandell, M., 1 Jul 2018, In : *Food Research International*. 109, p. 526-536 11 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Characterization and biological stabilization of fine fraction from landfill mining

Mönkäre, T., 23 Feb 2018, Tampere University of Technology. 68 p. (Tampere University of Technology. Publication; vol. 1522)
Research output: Book/Report > Doctoral thesis > Collection of Articles

UV-Blocking Synthetic Biopolymer from Biomass-Based Bifuran Diester and Ethylene Glycol

Kainulainen, T. P., Sirviö, J. A., Sethi, J., Hukka, T. I. & Heiskanen, J. P., 21 Feb 2018, In : *Macromolecules*. 51, 5, p. 1822-1829 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Resistant ammonia-oxidizing archaea endure, but adapting ammonia-oxidizing bacteria thrive in boreal lake sediments receiving nutrient-rich effluents

Aalto, S. L., Saarenheimo, J., Mikkonen, A., Rissanen, A. J. & Tirola, M., 2018, In : *Environmental Microbiology*. 20, 10, p. 3616-3628 13 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Stable carbon isotopic composition of peat columns, subsoil and vegetation on natural and forestry-drained boreal peatlands

Nykänen, H., Mpamah, P. A. & Rissanen, A. J., 2018, In : *Isotopes in Environmental and Health Studies*. 54, 6
Research output: Contribution to journal > Article > Scientific > peer-review

Carbazole-based small molecule electron donors: Syntheses, characterization, and material properties

Sippola, R. J., Hadipour, A., Kastinen, T., Vivo, P., Hukka, T. I., Aernouts, T. & Heiskanen, J. P., 8 Nov 2017, In : *Dyes and Pigments*. 150, p. 79-88 10 p., j.dyepig.2017.11.014.
Research output: Contribution to journal > Article > Scientific > peer-review

Photoresponsive Polymer Hydrogel Coatings that Change Topography

Stumpel, J. E., ter Schiphorst, J. & Schenning, A. P. H. J., 21 Jul 2017, *Responsive Polymer Surfaces: Dynamics in Surface Topography*. Liu, D. & Broer, D. (eds.). Wiley-VCH, p. 159-173
Research output: Chapter in Book/Report/Conference proceeding > Chapter > Scientific > peer-review

Impact of film thickness of ultra-thin dip-coated compact TiO₂ layers on the performance of mesoscopic perovskite solar cells

Masood, M. T., Weinberger, C., Sarfraz, J., Rosqvist, E., Sandén, S., Sandberg, O., Vivo, P., Hashmi, G., Lund, P. D., Österbacka, R. & Smått, J-H., 31 May 2017, In : *ACS Applied Materials and Interfaces*. 9, 21, p. 17906-17913
Research output: Contribution to journal > Article > Scientific > peer-review

Recovering Nitrogen as a Solid without Chemical Dosing: Bio-Electroconcentration for Recovery of Nutrients from Urine
Ledezma, P., Jermakka, J., Keller, J. & Freguia, S., 14 Mar 2017, In : Environmental Science and Technology Letters. 4, 3 , p. 119-124 6 p.

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

Anaerobic batch conversion of pine wood torrefaction condensate

Doddapaneni, T. R. K. C., Praveenkumar, R., Tolvanen, H., Palmroth, M. R. T., Konttinen, J. & Rintala, J., Feb 2017, In : Bioresource Technology. 225, p. 299-307 9 p.

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

High-rate thiosulfate-driven denitrification at pH lower than 5 in fluidized-bed reactor

Di Capua, F., Lakaniemi, A-M., Puhakka, J. A., Lens, P. N. L. & Esposito, G., Feb 2017, In : Chemical Engineering Journal. 310, Part 1, p. 282-291 10 p.

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

Bioelectrochemical removal of inorganic sulfur compounds and copper from simulated acidic mining water

Sulonen, M., Kokko, M., Lakaniemi, A-M. & Puhakka, J., 2017.

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

Methane production from 30-100 year old sedimented fibre from pulp and paper industry

Kokko, M., Koskue, V. & Rintala, J., 2017.

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

Microbial community response on wastewater discharge in boreal lake sediments

Saarenheimo, J., Aalto, S. L., Rissanen, A. J. & Tirola, M., 2017, In : Frontiers in Microbiology. 8, 750.

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

Reduced Inorganic Sulfur Compounds of Simulated Mining Waters Support Bioelectrochemical and Electrochemical Current Generation

Sulonen, M., Lakaniemi, A-M., Kokko, M. & Puhakka, J., 2017.

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

Screening biological methods for laboratory scale stabilization of fine fraction from landfill mining

Mönkäre, T. J., Palmroth, M. R. T. & Rintala, J. A., 2017, In : Waste Management. 60, p. 739-747 9 p.

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

Start-up of anaerobic digester treating LCFA containing wastewater at low temperature

Singh, S., Kokko, M. & Rintala, J., 2017.

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

Study of LCFA mediated granular disintegration in EGSB at low temperature using Static Image Analysis

Singh, S., Tolvanen, H., Kokko, M. & Rintala, J., 2017.

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

Uranium Removal via Sorption Using Peat and Waste Digested Activated Sludge

Jain, R., Lakaniemi, A-M., Peräniemi, S., Kankkunen, J., Turunen, J. & Vepsäläinen, J., 2017.

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

Recombinant antibodies for specific detection of clostridial [Fe-Fe] hydrogenases

Mangayil, R., Karp, M., Lamminmäki, U. & Santala, V., 27 Oct 2016, In : Scientific Reports. 6, 9 p., 36034.

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

Mitigation of propylene glycol emissions to groundwater and soil

Palmroth, M. R. T., Pispä, L., Kettunen, R. H., Hänninen, T. & Rintala, J. A., 5 Sep 2016, p. 191.

Structural photoactivation of a full-length bacterial phytochrome

Björling, A., Berntsson, O., Lehtivuori, H., Takala, H., Hughes, A. J., Panman, M., Hoernke, M., Niebling, S., Henry, L., Henning, R., Kosheleva, I., Chukharev, V., Tkachenko, N. V., Menzel, A., Newby, G., Khakhulin, D., Wulff, M., A. Ihalainen, J. & Westenhoff, S., 12 Aug 2016, In : Science Advances. 2, 8, 9 p., e1600920.

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

Modeling of the catalytic effects of potassium and calcium on spruce wood gasification in CO₂

Kramb, J., DeMartini, N., Perander, M., Moilanen, A. & Kontinen, J., 1 Jul 2016, In : Fuel Processing Technology. 148, p. 50-59 10 p.

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

Microbial electrochemical technologies with the perspective of harnessing bioenergy: Maneuvering towards upscaling

Butti, S. K., Velvizhi, G., Sulonen, M. L. K., Haavisto, J. M., Oguz Koroglu, E., Yusuf Cetinkaya, A., Singh, S., Arya, D., Annie Modestra, J., Vamsi Krishna, K., Verma, A., Ozkaya, B., Lakaniemi, A-M., Puhakka, J. A. & Venkata Mohan, S., Jan 2016, In : Renewable and Sustainable Energy Reviews. 53, p. 462-476

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

Characterization of fine fraction mined from two Finnish landfills

Mönkäre, T. J., Palmroth, M. R. T. & Rintala, J. A., 2016, In : Waste Management. 47A, p. 34-39 6 p.

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

Clashing coalitions: A discourse analysis of an artificial groundwater recharge project in Finland

Kurki, V., Takala, A. & Vinnari, E., 2016, In : Local Environment. 21, 11, p. 1317-1331

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

High rate autotrophic denitrification in fluidized-bed biofilm reactors

Zou, G., Papirio, S., Lakaniemi, A-M., Ahoranta, S. H. & Puhakka, J. A., 2016, In : Chemical Engineering Journal. 284, p. 1287-1294

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

Preferential adsorption of Cu in a multi-metal mixture onto biogenic elemental selenium nanoparticles

Jain, R., Dominic, D., Jordan, N., Rene, E. R., Weiss, S., van Hullebusch, E. D., Hübner, R. & Lens, P. N. L., 2016, In : Chemical Engineering Journal. 284, p. 917-925

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

Use of diluted urine for cultivation of *Chlorella vulgaris*

Jaatinen, S., Lakaniemi, A-M. & Rintala, J., 2016, In : Environmental Technology. 37, 9, p. 1159-1170 12 p.

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

Use of laboratory anaerobic digesters to simulate the increase of treatment rate in full-scale high nitrogen content sewage sludge and co-digestion biogas plants

Tampio, E., Ervasti, S., Paavola, T. & Rintala, J., 2016, In : Bioresource Technology. 220, p. 47-54 8 p.

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

Mesophilic anaerobic digestion of pulp and paper industry biosludge-long-term reactor performance and effects of thermal pretreatment

Kinnunen, V., Ylä-Outinen, A. & Rintala, J., 15 Dec 2015, In : Water Research. 87, p. 105-111 7 p., 11500.

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

Synthesis, crystal structure, physico-chemical characterization and dielectric properties of a new hybrid material, 1-Ethylpiperazine-1,4-dium tetrachlorocadmate

Dhieb, A. C., Valkonen, A., Rzaigui, M. & Smirani, W., 15 Dec 2015, In : Journal of Molecular Structure. 1102, p. 50-56 7 p.

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

Metabolic engineering of *Acinetobacter baylyi* ADP1 for removal of *Clostridium butyricum* growth inhibitors produced from lignocellulosic hydrolysates

Kannisto, M. S., Mangayil, R. K., Shrivastava-Bhattacharya, A., Pletschke, B. I., Karp, M. T. & Santala, V. P., 1 Dec 2015, In : *Biotechnology for Biofuels*. 8, 1, 198.

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

Production of Oleaginous Microbial Biomass by Reusing Wastewaters

Marjakangas, J., 28 Nov 2015, Tampere University of Technology. 58 p. (Tampere University of Technology. Publication; vol. 1348)

Research output: Book/Report > Doctoral thesis > Collection of Articles

Organic Chromophores in Self-Assembled Monolayers and Supramolecular Arrays

Sariola-Leikas, E., 20 Nov 2015, Tampere University of Technology. 58 p. (Tampere University of Technology. Publication; vol. 1334)

Research output: Book/Report > Doctoral thesis > Collection of Articles

Simultaneous nutrient removal and lipid production with *Chlorella vulgaris* on sterilized and non-sterilized anaerobically pretreated piggery wastewater

Marjakangas, J. M., Chen, C. Y., Lakaniemi, A. M., Puhakka, J. A., Whang, L. M. & Chang, J. S., 5 Nov 2015, In : *Biochemical Engineering Journal*. 103, p. 177-184 8 p.

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

Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel

Bajamundi, C. J. E., Vainikka, P., Hedman, M., Silvennoinen, J., Heinanen, T., Taipale, R. & Konttinen, J., 1 Sep 2015, In : *Fuel*. 155, p. 25-36 12 p.

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

Selecting an indigenous microalgal strain for lipid production in anaerobically treated piggery wastewater

Marjakangas, J. M., Chen, C-Y., Lakaniemi, A-M., Puhakka, J. A., Whang, L-M. & Chang, J-S., Sep 2015, In : *Bioresource Technology*. 191, p. 369-376 8 p.

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

Fe₂O₃-TiO₂ nanosystems by a hybrid PE-CVD/ALD approach: controllable synthesis, growth mechanism, and photocatalytic properties

Barreca, D., Carraro, G., Warwick, M. E. A., Kaunisto, K., Gasparotto, A., Gombac, V., Sada, C., Turner, S., Van Tendeloo, G., Maccato, C. & Fornasiero, P., 28 Aug 2015, In : *CrystEngComm*. 17, 32, p. 6219-6226 8 p.

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

Electricity production by a microbial fuel cell fueled by brewery wastewater and the factors in its membrane deterioration

Çetinkaya, A. Y., Köroğlu, E. O., Demir, N. M., Baysoy, D. Y., Özkaya, B. & Çakmakçı, M., 20 Jul 2015, In : *Chinese Journal of Catalysis*. 36, 7, p. 1068-1076 9 p.

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

Lipid production by eukaryotic microorganisms isolated from palm oil mill effluent

Marjakangas, J. M., Lakaniemi, A. M., Koskinen, P. E. P., Chang, J. S. & Puhakka, J. A., 5 Jul 2015, In : *Biochemical Engineering Journal*. 99, p. 48-54 7 p.

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

Catalytic effect of Ca and K on CO₂ gasification of spruce wood char

Perander, M., DeMartini, N., Brink, A., Kramb, J., Karlström, O., Hemming, J., Moilanen, A., Konttinen, J. & Hupa, M., 15 Jun 2015, In : *Fuel*. 150, p. 464-472 9 p.

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

Selenium biomineralization for biotechnological applications

Nancharaiah, Y. V. & Lens, P. N. L., Jun 2015, In : Trends in Biotechnology. 33, 6, p. 323-330 8 p.
Research output: Contribution to journal › Literature review › Scientific › peer-review

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

Sorkio, A. E., Vuorimaa-Laukkanen, E. P., Hakola, H. M., Liang, H., Ujula, T. A., Valle-Delgado, J. J., Österberg, M., Yliperttula, M. L. & Skottman, H., 1 May 2015, In : Biomaterials. 51, p. 257-269 13 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Characteristics and agronomic usability of digestates from laboratory digesters treating food waste and autoclaved food waste

Tampio, E., Ervasti, S. & Rintala, J., 1 May 2015, In : Journal of Cleaner Production. 94, p. 86-92 7 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Gene expression profiles of *Vibrio parahaemolyticus* in viable but non-culturable state

Meng, L., Alter, T., Aho, T. & Huehn, S., May 2015, In : FEMS Microbiology Ecology. 91, 5, 12 p., 035.
Research output: Contribution to journal › Article › Scientific › peer-review

Developing Synthetic Biology Tools and Model Chassis: Production of Bioenergy and High-Value Molecules

Santala, S., 24 Apr 2015, Tampere University of Technology. 99 p. (Tampere University of Technology. Publication; vol. 1288)
Research output: Book/Report › Doctoral thesis › Collection of Articles

Light induced cytosolic drug delivery from liposomes with gold nanoparticles

Lajunen, T., Viitala, L., Kontturi, L-S., Laaksonen, T., Liang, H., Vuorimaa-Laukkanen, E., Viitala, T., Le Guevel, X., Yliperttula, M., Murtomaki, L. & Urtti, A., 10 Apr 2015, In : Journal of Controlled Release. 203, p. 85-98 14 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Biohydrogen Production: A Protein to Community Level Perspective Study

Mangayil, R., 7 Apr 2015, Tampere University of Technology. 89 p. (Tampere University of Technology. Publication; vol. 1282)
Research output: Book/Report › Doctoral thesis › Collection of Articles

Ecological Sanitation - A Logical Choice? The Development of the Sanitation Institution in a World Society

O'Neill, M., 7 Mar 2015, Tampere University of Technology. 236 p. (Tampere University of Technology. Publication; vol. 1284)
Research output: Book/Report › Doctoral thesis › Monograph

Fluidized-bed denitrification of mining water tolerates high nickel concentrations

Zou, G., Papirio, S., van Hullebusch, E. D. & Puhakka, J. A., 1 Mar 2015, In : Bioresource Technology. 179, p. 284-290 7 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components

Mangayil, R., Aho, T., Karp, M. & Santala, V., 1 Mar 2015, In : Renewable Energy. 75, p. 583-589 7 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Biological Nitrogen Removal from Acidic, Heavy-metal Containing Waters

Zou, G., 2015, Tampere: Tampere University of Technology. 92 p. (Tampere University of Technology. Publication; vol. 1314)
Research output: Book/Report › Doctoral thesis › Collection of Articles

Factors affecting the elimination capacity of a passive methane biofilter

Maanoja, S. & Rintala, J., 2015, *BioTechniques Ghent 2015 The 6th international conference on biotechniques for air pollution control: Conference Proceedings*. p. 83-88 6 p.

Fungal treatment of landfill mining fine fraction to increase its stability and end-use potential

Palmroth, M. R. T., Mönkäre, T. J. & Steffen, K. T., 2015, *Book of abstracts of the 6th European Bioremediation Conference*. Kalogerakis, N., Fava, F. & Manousaki, E. (eds.). p. 47 169

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

Interdisciplinary water research network building within Nordic and Baltic countries.

Sörensen, J., Kurki, V., Sidaraviciute, R., Ngari Kibocha, S., Retike, I., Ikobe, G., Tichonovas, M., Elijosiute, E. & Rajala, R., 2015, In : *Vatten*. 71, p. 79-83 5 p.

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

Metals removal and recovery in bioelectrochemical systems: A review

Nancharaiah, Y. V., Venkata Mohan, S. & Lens, P. N. L., 2015, In : *Bioresource Technology*. 195, p. 102-114 13 p.

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

Methane oxidation potential of boreal landfill cover materials: The governing factors and enhancement by nutrient manipulation

Maanoja, S. T. & Rintala, J. A., 2015, In : *Waste Management*. 46, p. 399-407 9 p.

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

Method with high-throughput screening potential for antioxidative substances using *Escherichia coli* biosensor katG':lux

Tienaho, J., Sarjala, T., Franzén, R. & Karp, M., 2015, In : *Journal of Microbiological Methods*. 118, p. 78-80 3 p., 4723.

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

Stabilization of fine fraction from landfill mining in anaerobic and aerobic laboratory leach bed reactors

Mönkäre, T. J., Palmroth, M. R. T. & Rintala, J. A., 2015, In : *Waste Management*. 45, p. 468-475 8 p.

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

Struvite precipitation in raw and co-digested swine slurries for nutrients recovery in batch reactors

Taddeo, R. & Lepistö, R., 2015, In : *Water Science and Technology*. 71, 6, p. 892-897 6 p.

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

Vesihuolto tarvitsee tutkimusta ja koulutusta

Katko, T., 2015, In : *Kuntatekniikka*. 2, p. 17 1 p.

Research output: Contribution to journal › Article › Professional

Enabling and Integrative Infrastructure Policy: The Role of Inverse Infrastructures in Local Infrastructure Provision with Special Reference to Finnish Water Cooperatives

Heino, O. & Anttiroiko, A-V., 28 Nov 2014, MPRA. (MPRA Paper; no. 60276)

Research output: Book/Report › Commissioned report › Professional

Inhibitory effects of substrate and soluble end products on biohydrogen production of the alkalithermophile *Caloramator celer*: Kinetic, metabolic and transcription analyses

Ciranna, A., Ferrari, R., Santala, V. & Karp, M., 15 Apr 2014, In : *International Journal of Hydrogen Energy*. 39, 12, p. 6391-6401 11 p.

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

Assessment of metabolic flux distribution in the thermophilic hydrogen producer *Caloramator celer* as affected by external pH and hydrogen partial pressure

Ciranna, A., Pawar, S. S., Santala, V., Karp, M. & van Niel, E. W. J., 28 Mar 2014, In : *Microbial Cell Factories*. 13, 1, 48.

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

Rewiring the wax ester production pathway of acinetobacter baylyi ADP1

Santala, S., Efimova, E., Koskinen, P., Karp, M. T. & Santala, V., 21 Mar 2014, In : *ACS Synthetic Biology*. 3, 3, p. 145-151 7 p.

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

Metabolic engineering of *Acinetobacter baylyi* ADP1 for improved growth on gluconate and glucose

Kannisto, M., Aho, T., Karp, M. & Santala, V., 2014, In : Applied and Environmental Microbiology. 80, 22, p. 7021-7027 7 p.

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

Water supply and sanitation services in finland before world war 2

Juuti, P. & Katko, T., 2014, In : Flux. 97-98, 4, p. 80-87 8 p.

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

Culturable psychrotolerant methanotrophic bacteria in landfill cover soil

Kallistova, A. Y., Montonen, L., Jurgens, G., Münster, U., Kevbrina, M. V. & Nozhevnikova, A. N., 2013, In : Microbiology. 82, 6, p. 847-855 8 p.

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

Impact of heavy metals on denitrification of simulated mining wastewaters

Zou, G., Ylinen, A., Di Capua, F., Papirio, S., Lakaniemi, A-M. & Puhakka, J., 2013, In : Advanced Materials Research. 825, p. 500-503 4 p.

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

Energy Demands of Nitrogen Supply in Mass Cultivation of Two Commercially Important Microalgal Species, *Chlorella vulgaris* and *Dunaliella tertiolecta*

Hulatt, C. J., Lakaniemi, A-M., Puhakka, J. A. & Thomas, D. N., 2012, In : BioEnergy Research. 5, 3, p. 669-684

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

Growth of *Chlorella vulgaris* and associated bacteria in photobioreactors

Lakaniemi, A-M., Intihar, V. M., Tuovinen, O. H. & Puhakka, J. A., 2012, In : Microbial Biotechnology. 5, 1, p. 69-78

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

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

Production of Electricity and Butanol from Microalgal Biomass in Microbial Fuel Cells

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

Biogenic hydrogen and methane production from *Chlorella vulgaris* and *Dunaliella tertiolecta* biomass

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

Mine wastewater treatment using *Phalaris arundinacea* plant material hydrolyzate as substrate for sulfate-reducing bioreactor

Lakaniemi, A-M., Nevatalo, L. M., Kaksonen, A. H. & Puhakka, J. A., 2010, In : Bioresource Technology. 101, 11, p. 3931-3939

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

Hydrolysed cellulose material as sulfate reduction electron donor to treat metal- and sulfate containing waste water

Lakaniemi, A-M., Nevatalo, L. M., Kaksonen, A. H. & Puhakka, J. A., 2007, In : *Advanced Materials Research*. 20-21, p. 326-326

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

Comparison of the total mercury content in sediment samples with a mercury sensor bacteria test and *Vibrio fischeri* toxicity test

Lappalainen, J. O., Karp, M. T., Juvonen, R., Virta, M. P. J. & Nurmi, J., Dec 2000, In : *Environmental Toxicology*. 15, 5, p. 443-448 6 p.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

Detecting bioavailable toxic metals and metalloids from natural water samples using luminescent sensor bacteria

Tauriainen, S. M., Virta, M. P. J. & Karp, M. T., Jul 2000, In : *Water Research*. 34, 10, p. 2661-2666 6 p.

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Korpela, M. T., Kurittu, J. S., Karvinen, J. T. & Karp, M. T., 1 Nov 1998, In : *Analytical Chemistry*. 70, 21, p. 4457-4462 6 p.

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