

**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

**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

**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

**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

**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

**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

**Production of Oleaginous Microbial Biomass by Reusing Wastewaters**

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

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

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**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

**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

**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.

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

### **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

### **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**

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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

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

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### **Photoresponsive Polymer Hydrogel Coatings that Change Topography**

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### **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

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

### **Metals removal and recovery in bioelectrochemical systems: A review**

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

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

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

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

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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

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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**

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**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.

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

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**Catalytic effect of Ca and K on CO<sub>2</sub> gasification of spruce wood char**

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**CH<sub>4</sub> 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.

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Tampio, E., Ervasti, S. & Rintala, J., 1 May 2015, In : *Journal of Cleaner Production*. 94, p. 86-92 7 p.

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**Characterization of fine fraction mined from two Finnish landfills**

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

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

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

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

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**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.

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

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

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

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

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**Fe<sub>2</sub>O<sub>3</sub>-TiO<sub>2</sub> 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.

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**Fluidized-bed denitrification of mining water tolerates high nickel concentrations**

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

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

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

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#### **Growth of *Dunaliella tertiolecta* and associated bacteria in photobioreactors**

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

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

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

#### **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

#### **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  
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#### **Impact of film thickness of ultra-thin dip-coated compact TiO<sub>2</sub> 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  
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#### **Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components**

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

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**Light induced cytosolic drug delivery from liposomes with gold nanoparticles**

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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

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

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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

**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

**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

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**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

**Modeling of the catalytic effects of potassium and calcium on spruce wood gasification in CO<sub>2</sub>**

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

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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**

Lakaniemi, A.-M., Tuovinen, O. H. & Puhakka, J. A., 2012, In : BioEnergy Research. 5, 2, p. 481-491

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### **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

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

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### **Recovering Nitrogen as a Solid without Chemical Dosing: Bio-Electroconcentration for Recovery of Nutrients from Urine**

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### **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.

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

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

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### **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.

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**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.

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**Selective enrichment of biocatalysts for bioelectrochemical systems: A critical review**

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

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

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

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