

**Impact of heavy metals on denitrification of simulated mining wastewaters.** / Zou, Gang; Ylinen, Anna; Di Capua, Francesco; Papirio, Stefano; Lakaniemi, Aino-Maija; Puhakka, Jaakko.  
In: *Advanced Materials Research*, Vol. 825, 2013, p. 500-503.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Fluidized-bed denitrification of mining water tolerates high nickel concentrations.** / Zou, G.; Papirio, S.; van Hullebusch, E. D.; Puhakka, J. A.  
In: *Bioresource Technology*, Vol. 179, 01.03.2015, p. 284-290.  
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.  
In: *Chemical Engineering Journal*, Vol. 284, 2016, p. 1287-1294.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Biological Nitrogen Removal from Acidic, Heavy-metal Containing Waters.** / Zou, Gang.  
Tampere : Tampere University of Technology, 2015. 92 p. (Tampere University of Technology. Publication; Vol. 1314).  
Research output: Book/Report > Doctoral thesis > Collection of Articles

**Resilient performance of an anoxic biotrickling filter for hydrogen sulphide removal from a biogas mimic: Steady, transient state and neural network evaluation.** / Watsuntorn, Wannapawn; Khanongnuch, Ramita; Chulalaksananukul, Warawut; Rene, Eldon R.; Lens, Piet N.L.  
In: *Journal of Cleaner Production*, 18.11.2019, p. 119351.  
Research output: Contribution to journal > Article > Scientific > peer-review

**High Nitrogen Removal in a Constructed Wetland Receiving Treated Wastewater in a Cold Climate.** / Uusheimo, Sari; Huotari, Jussi; Tulonen, Tiina; Aalto, Sanni L.; Rissanen, Antti J.; Arvola, Lauri.  
In: *Environmental science & technology*, Vol. 52, No. 22, 20.11.2018, p. 13343-13350.  
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, Mika; Hyväluoma, Jari; Heikkinen, Jaakko; Keskinen, Riikka; Kaseva, Janne; Hannula, Markus; Rasa, Kimmo.  
In: *Biosystems Engineering*, Vol. 191, 2020, p. 96-106.  
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, Jenni; Sarjala, Tytti; Franzén, Robert; Karp, Matti.  
In: *Journal of Microbiological Methods*, Vol. 118, 4723, 2015, p. 78-80.  
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.  
In: *Water Research*, Vol. 34, No. 10, 07.2000, p. 2661-2666.  
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, Lea Chua; Nancharaiah, Yarlagadda V.; Lu, Shipeng; van Hullebusch, Eric D.; Gerlach, Robin; Lens, Piet N.L.  
In: *Chemosphere*, Vol. 211, 01.11.2018, p. 684-693.  
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, Elina; Ervasti, Satu; Rintala, Jukka.  
In: *Journal of Cleaner Production*, Vol. 94, 01.05.2015, p. 86-92.  
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, Elina; Ervasti, Satu; Paavola, Teija; Rintala, Jukka.

In: *Bioresource Technology*, Vol. 220, 2016, p. 47-54.

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, Raffaele; Lepistö, Raghida.

In: *Water Science and Technology*, Vol. 71, No. 6, 2015, p. 892-897.

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

**Reduced Inorganic Sulfur Compounds of Simulated Mining Waters Support Bioelectrochemical and Electrochemical Current Generation.** / Sulonen, Mira; Lakaniemi, Aino-Maija; Kokko, Marika; Puhakka, Jaakko.

2017. Paper presented at 13th International Mine Water Association Congress – “Mine Water & Circular Economy – A Green Congress”, .

Research output: [Other conference contribution](#) › [Paper, poster or abstract](#) › [Scientific](#)

**Bioelectrochemical removal of inorganic sulfur compounds and copper from simulated acidic mining water.** / Sulonen, Mira ; Kokko, Marika; Lakaniemi, Aino-Maija; Puhakka, Jaakko.

2017. Paper presented at ISMET 6, .

Research output: [Other conference contribution](#) › [Paper, poster or abstract](#) › [Scientific](#)

**Photoresponsive Polymer Hydrogel Coatings that Change Topography.** / Stumpel, Jelle E.; ter Schiphorst, Jeroen; Schenning, Albertus P. H. J.

*Responsive Polymer Surfaces: Dynamics in Surface Topography.* ed. / Danqing Liu; Dirk Broer. Wiley-VCH, 2017. p. 159-173.

Research output: [Chapter in Book/Report/Conference proceeding](#) › [Chapter](#) › [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, Anni E.; Vuorimaa-Laukkanen, Elina P.; Hakola, Hanna M.; Liang, Huamin; Ujula, Tiina A.; Valle-Delgado, Juan José; Österberg, Monika; Yliperttula, Marjo L.; Skottman, Heli.

In: *Biomaterials*, Vol. 51, 01.05.2015, p. 257-269.

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

**Interdisciplinary water research network building within Nordic and Baltic countries.** / Sörensen, Johanna ; Kurki, Vuokko ; Sidaraviciute, Ruta ; Ngari Kibocha, Samuel ; Retike, Inga ; Ikobe, Geoffrey ; Tichonovas, Martynas ; Elijosiute, Erika ; Rajala, Riikka .

In: *Vatten*, No. 71, 2015, p. 79-83.

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

**Carbazole-based small molecule electron donors : Syntheses, characterization, and material properties.** / Sippola, Roosa J.; Hadipour, Afshin; Kastinen, Tuuva; Vivo, Paola; Hukka, Terttu I.; Aernouts, Tom; Heiskanen, Juha P.

In: *Dyes and Pigments*, Vol. 150, j.dyepig.2017.11.014, 08.11.2017, p. 79-88.

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

**Start-up of anaerobic digester treating LCFA containing wastewater at low temperature.** / Singh, Suniti; Kokko, Marika; Rintala, Jukka.

2017. Paper presented at 1st International ABWET conference, .

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, Suniti; Tolvanen, Henrik; Kokko, Marika; Rintala, Jukka.

2017. Paper presented at the 15th IWA World Conference on Anaerobic Digestion, .

Research output: [Other conference contribution](#) › [Paper, poster or abstract](#) › [Scientific](#)

**Organic Chromophores in Self-Assembled Monolayers and Supramolecular Arrays.** / Sariola-Leikas, Essi.  
Tampere University of Technology, 2015. 58 p. (Tampere University of Technology. Publication; Vol. 1334).  
Research output: Book/Report > Doctoral thesis > Collection of Articles

**Developing Synthetic Biology Tools and Model Chassis: Production of Bioenergy and High-Value Molecules.** / Santala, Suvi.  
Tampere University of Technology, 2015. 99 p. (Tampere University of Technology. Publication; Vol. 1288).  
Research output: Book/Report > Doctoral thesis > Collection of Articles

**Rewiring the wax ester production pathway of acinetobacter baylyi ADP1.** / Santala, Suvi; Efimova, Elena; Koskinen, Perttu; Karp, Matti Tapani; Santala, Ville.  
In: ACS Synthetic Biology, Vol. 3, No. 3, 21.03.2014, p. 145-151.  
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, Jagadish; Singh, Amandeep; He, Dongxu; Duc Pham, Hong; Bai, Yang; Wang, Lianzhou; Dahlström, Staffan; Nyman, Mathias; Manzhos, Sergei; Feron, Krishna; Österbacka, Ronald; Priimägi, Arri; Vivo, Paola; Sonar, Prashant.  
In: Organic Electronics, 09.11.2019.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Microbial community response on wastewater discharge in boreal lake sediments.** / Saarenheimo, Jatta; Aalto, Sanni L; Rissanen, Antti J.; Tirola, Marja.  
In: Frontiers in Microbiology, Vol. 8, 750, 2017.  
Research output: Contribution to journal > Article > Scientific > peer-review

**CH<sub>4</sub> oxidation in a boreal lake during the development of hypolimnetic hypoxia.** / Saarela, Taija; Rissanen, Antti J.; Ojala, Anne; Pumpanen, Jukka; Aalto, Sanni L.; Tirola, Marja; Vesala, Timo; Jäntti, Helena.  
In: Aquatic Sciences, Vol. 82, No. 2, 19, 2019.  
Research output: Contribution to journal > Article > Scientific > peer-review

**How and why does willow biochar increase a clay soil water retention capacity?** / Rasa, Kimmo; Heikkinen, Jaakko; Hannula, Markus; Arstila, Kai; Kulju, Sampo; Hyväluoma, Jari.  
In: Biomass and Bioenergy, Vol. 119, 01.12.2018, p. 346-353.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Catalytic effect of Ca and K on CO<sub>2</sub> gasification of spruce wood char.** / Perander, M.; DeMartini, N.; Brink, A.; Kramb, J.; Karlström, O.; Hemming, J.; Moilanen, A.; Konttinen, J.; Hupa, M.  
In: Fuel, Vol. 150, 15.06.2015, p. 464-472.  
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, Vicente; Papiro, Stefano; Trably, Eric; Rintala, Jukka; Escudé, Renaud; Esposito, Giovanni.  
In: Journal of Environmental Management, Vol. 231, 01.02.2019, p. 1293-1302.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Fungal treatment of landfill mining fine fraction to increase its stability and end-use potential.** / Palmroth, Marja Riitta Tuulikki; Mönkäre, Tiina Johanna; Steffen, Kari T.  
Book of abstracts of the 6th European Bioremediation Conference. ed. / Nicolas Kalogerakis; Fabio Fava; Elena Manousaki. 2015. p. 47 169.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

**Mitigation of propylene glycol emissions to groundwater and soil.** / Palmroth, Marja Riitta Tuulikki; Pispä, Lassi; Kettunen, Riitta Helena; Hänninen, Tuija; Rintala, Jukka Antero.  
2016. 191 Paper presented at Nordrocs 2016, 6th Joint Nordic Meeting on Remediation of Contaminated Sites, Espoo, Finland.

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

**Ecological Sanitation - A Logical Choice? The Development of the Sanitation Institution in a World Society.** / O'Neill, Mia. Tampere University of Technology, 2015. 236 p. (Tampere University of Technology. Publication; Vol. 1284).

Research output: Book/Report › Doctoral thesis › Monograph

**Bioaugmentation enhances dark fermentative hydrogen production in cultures exposed to short-term temperature fluctuations.** / Okonkwo, Onyinye; Escudié, Renaud; Bernet, Nicolas; Mangayil, Rahul; Lakaniemi, Aino-Maija; Trably, Eric. In: Applied Microbiology and Biotechnology, 21.11.2019.

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, Hannu; Mpamah, Promise A.; Rissanen, Antti J.

In: Isotopes in Environmental and Health Studies, Vol. 54, No. 6, 2018.

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, Hannu; Rissanen, Antti J.; Turunen, Jukka; Tahvanainen, Teemu; Simola, Heikki.

In: Plant and Soil, 2019.

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

**FAIMS analysis of urine gaseous headspace is capable of differentiating ovarian cancer.** / Niemi, Riikka J.; Roine, Antti N.; Eräviita, Emmi; Kumpulainen, Pekka S.; Mäenpää, Johanna U.; Oksala, Niku. In: Gynecologic Oncology, Vol. 151, No. 3, 12.2018, p. 519-524.

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

**Selenium biomineralization for biotechnological applications.** / Nancharaiah, Yarlagadda V.; Lens, Piet N. L.

In: Trends in Biotechnology, Vol. 33, No. 6, 06.2015, p. 323-330.

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

**Metals removal and recovery in bioelectrochemical systems : A review.** / Nancharaiah, Y. V.; Venkata Mohan, S.; Lens, P.N.L.

In: Bioresource Technology, Vol. 195, 2015, p. 102-114.

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

**Characterization of fine fraction mined from two Finnish landfills.** / Mönkäre, Tiina J.; Palmroth, Marja R. T.; Rintala, Jukka A.

In: Waste Management, Vol. 47A, 2016, p. 34-39.

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.

In: Waste Management, Vol. 45, 2015, p. 468-475.

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

**Screening biological methods for laboratory scale stabilization of fine fraction from landfill mining.** / Mönkäre, Tiina J.; Palmroth, Marja R. T.; Rintala, Jukka A.

In: Waste Management, Vol. 60, 2017, p. 739-747.

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

**Characterization and biological stabilization of fine fraction from landfill mining.** / Mönkäre, Tiina.

Tampere University of Technology, 2018. 68 p. (Tampere University of Technology. Publication; Vol. 1522).

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

**Gene expression profiles of *Vibrio parahaemolyticus* in viable but non-culturable state.** / Meng, Lu; Alter, Thomas; Aho, Tommi; Huehn, Stephan.

In: FEMS Microbiology Ecology, Vol. 91, No. 5, 035, 05.2015.

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

**Impact of film thickness of ultra-thin dip-coated compact TiO<sub>2</sub> layers on the performance of mesoscopic perovskite solar cells.** / Masood, Muhammad Talha; Weinberger, Christian; Sarfraz, Jawad; Rosqvist, Emil; Sandén, Simon; Sandberg, Oskar; Vivo, Paola; Hashmi, Ghufan; Lund, Peter D. ; Österbacka, Ronald; Smått, Jan-Henrik.

In: ACS Applied Materials and Interfaces, Vol. 9, No. 21, 31.05.2017, p. 17906-17913.

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

**Cultivation and safety aspects of *Arthrospira platensis* (Spirulina) grown with struvite recovered from anaerobic digestion plant as phosphorus source.** / Markou, Giorgos; Arapoglou, Dimitrios; Eliopoulos, Christos; Balafoutis, Athanasios; Taddeo, Raffaele; Panara, Anthi; Thomaidis, Nikolaos.

In: Algal Research, Vol. 44, 12.2019.

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

**Lipid production by eukaryotic microorganisms isolated from palm oil mill effluent.** / Marjakangas, Jatta M.; Lakaniemi, Aino Maija; Koskinen, Perttu E. P.; Chang, Jo Shu; Puhakka, Jaakko A.

In: Biochemical Engineering Journal, Vol. 99, 05.07.2015, p. 48-54.

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

**Simultaneous nutrient removal and lipid production with *Chlorella vulgaris* on sterilized and non-sterilized anaerobically pretreated piggery wastewater.** / Marjakangas, Jatta M.; Chen, Chun Yen; Lakaniemi, Aino Maija; Puhakka, Jaakko A.; Whang, Liang Ming; Chang, Jo Shu.

In: Biochemical Engineering Journal, Vol. 103, 05.11.2015, p. 177-184.

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

**Selecting an indigenous microalgal strain for lipid production in anaerobically treated piggery wastewater.** / Marjakangas, Jatta M.; Chen, Chun-Yen; Lakaniemi, Aino-Maija; Puhakka, Jaakko A.; Whang, Liang-Ming; Chang, Jo-Shu.

In: Bioresource Technology, Vol. 191, 09.2015, p. 369-376.

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

**Production of Oleaginous Microbial Biomass by Reusing Wastewaters.** / Marjakangas, Jatta.

Tampere University of Technology, 2015. 58 p. (Tampere University of Technology. Publication; Vol. 1348).

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

**Biohydrogen Production: A Protein to Community Level Perspective Study.** / Mangayil, Rahul.

Tampere University of Technology, 2015. 89 p. (Tampere University of Technology. Publication; Vol. 1282).

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

**Improved bioconversion of crude glycerol to hydrogen by statistical optimization of media components.** / Mangayil, Rahul; Aho, Tommi; Karp, Matti; Santala, Ville.

In: Renewable Energy, Vol. 75, 01.03.2015, p. 583-589.

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

**Recombinant antibodies for specific detection of clostridial [Fe-Fe] hydrogenases.** / Mangayil, Rahul; Karp, Matti; Lamminmäki, Urpo; Santala, Ville.

In: Scientific Reports, Vol. 6, 36034, 27.10.2016.

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

**Co-production of 1,3 propanediol and long-chain alkyl esters from crude glycerol.** / Mangayil, Rahul; Efimova, Elena; Kontinen, Jukka; Santala, Ville.

In: New Biotechnology, Vol. 53, 11.07.2019, p. 81-89.

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, Susanna T.; Rintala, Jukka A.

In: Waste Management, Vol. 46, 2015, p. 399-407.

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

**Factors affecting the elimination capacity of a passive methane biofilter.** / Maanoja, Susanna; Rintala, Jukka.

BioTechniques Ghent 2015 The 6th international conference on biotechniques for air pollution control: Conference Proceedings. 2015. p. 83-88.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Professional

**Compacted bentonite as a source of substrates for sulfate-reducing microorganisms in a simulated excavation-damaged zone of a spent nuclear fuel repository.** / Maanoja, Susanna; Lakaniemi, Aino Maija; Lehtinen, Leena; Salminen, Linda; Auvinen, Hannele; Kokko, Marika; Palmroth, Marja; Muuri, Eveliina; Rintala, Jukka.

In: APPLIED CLAY SCIENCE, Vol. 196, 105746, 01.10.2020.

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, Pablo; Jermakka, Johannes; Keller, Jurg; Freguia, Stefano.

In: Environmental Science and Technology Letters, Vol. 4, No. 3, 14.03.2017, p. 119-124.

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, Juha O.; Karp, Matti T.; Juvonen, Risto; Virta, Marko P. J.; Nurmi, Johanna.

In: Environmental Toxicology, Vol. 15, No. 5, 12.2000, p. 443-448.

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

**Sub- and Supercritical Water Liquefaction of Kraft Lignin and Black Liquor Derived Lignin.** / Lappalainen, Jukka; Baudouin, David; Hornung, Ursel; Schuler, Julia; Melin, Kristian; Bjelić, Saša; Vogel, Frédéric ; Konttinen, Jukka; Joronen, Tero.

In: Energies, Vol. 13, No. 13, 3309, 28.06.2020.

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

**Production of Electricity and Butanol from Microalgal Biomass in Microbial Fuel Cells.** / Lakaniemi, Aino-Maija; Tuovinen, Olli H.; Puhakka, Jaakko A.

In: BioEnergy Research, Vol. 5, No. 2, 2012, p. 481-491.

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, Aino-Maija; Nevatalo, Laura M.; Kaksonen, Anna H.; Puhakka, Jaakko A.

In: Bioresource Technology, Vol. 101, No. 11, 2010, p. 3931-3939.

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

**Growth of Dunaliella tertiolecta and associated bacteria in photobioreactors.** / Lakaniemi, Aino-Maija; Intihar, Veera M.; Tuovinen, Olli H.; Puhakka, Jaakko A.

In: Journal of Industrial Microbiology and Biotechnology, Vol. 39, No. 9, 2012, p. 1357-1365.

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

**Growth of Chlorella vulgaris and associated bacteria in photobioreactors.** / Lakaniemi, Aino-Maija; Intihar, Veera M.; Tuovinen, Olli H.; Puhakka, Jaakko A.

In: Microbial Biotechnology, Vol. 5, No. 1, 2012, p. 69-78.

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.

In: Advanced Materials Research, Vol. 20-21, 2007, p. 326-326.

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

**Biogenic hydrogen and methane production from reed canary grass.** / Lakaniemi, Aino-Maija; Koskinen, Perttu E.P.; Nevatalo, Laura M.; Kaksonen, Anna H.; Puhakka, Jaakko A.  
In: Biomass & Bioenergy, Vol. 35, No. 2, 2011, p. 773-780.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Biogenic hydrogen and methane production from *Chlorella vulgaris* and *Dunaliella tertiolecta* biomass.** / Lakaniemi, Aino-Maija; Hulatt, Christopher J.; Thomas, David N.; Tuovinen, Olli H.; Puhakka, Jaakko A.  
In: Biotechnology for Biofuels, Vol. 4, No. 1, 34, 2011, p. 1-12.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Light induced cytosolic drug delivery from liposomes with gold nanoparticles.** / Lajunen, Tatu; Viitala, Lauri; Kontturi, Leena-Stiina; Laaksonen, Timo; Liang, Huamin; Vuorimaa-Laukkanen, Elina; Viitala, Tapani; Le Guevel, Xavier; Yliperttula, Marjo; Murtomaki, Lasse; Urtti, Arto.  
In: Journal of Controlled Release, Vol. 203, 10.04.2015, p. 85-98.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Biomass Resource Allocation for Bioenergy Production on Cutaway Peatlands with Geographical Information (GI) Analyses.** / Laasasenaho, Kari.  
Tampere University, 2019. 105 p. (Tampere University Dissertations; Vol. 191).  
Research output: Book/Report > Doctoral thesis > Collection of Articles

**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.  
In: Mires and Peat, Vol. 26, 10, 2020.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Clashing coalitions : A discourse analysis of an artificial groundwater recharge project in Finland.** / Kurki, Vuokko; Takala, Annina; Vinnari, Eija.  
In: Local Environment, Vol. 21, No. 11, 2016, p. 1317-1331.  
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, Jason; DeMartini, Nikolai; Perander, Magnus; Moilanen, Antero; Konttinen, Jukka.  
In: Fuel Processing Technology, Vol. 148, 01.07.2016, p. 50-59.  
Research output: Contribution to journal > Article > Scientific > peer-review

**A recombinant *Escherichia coli* sensor strain for the detection of tetracyclines.** / Korpela, Matti T.; Kurittu, Jussi S.; Karvinen, Jarkko T.; Karp, Matti T.  
In: Analytical Chemistry, Vol. 70, No. 21, 01.11.1998, p. 4457-4462.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Methane production from 30-100 year old sedimented fibre from pulp and paper industry.** / Kokko, Marika; Koskue, Veera; Rintala, Jukka.  
2017. Paper presented at the 15th IWA World Conference on Anaerobic Digestion, .  
Research output: Other conference contribution > Paper, poster or abstract > Scientific

**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.  
In: Water Research, Vol. 87, 11500, 15.12.2015, p. 105-111.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Vesihuolto tarvitsee tutkimusta ja koulutusta.** / Katko, Tapio.  
In: Kuntatekniikka, No. 2, 2015, p. 17.  
Research output: Contribution to journal > Article > Professional

**Metabolic engineering of *Acinetobacter baylyi* ADP1 for improved growth on gluconate and glucose.** / Kannisto, Matti; Aho, Tommi; Karp, Matti; Santala, Ville.

In: *Applied and Environmental Microbiology*, Vol. 80, No. 22, 2014, p. 7021-7027.

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, Matti S.; Mangayil, Rahul K.; Shrivastava-Bhattacharya, Ankita; Pletschke, Brett I.; Karp, Matti T.; Santala, Ville P.

In: *Biotechnology for Biofuels*, Vol. 8, No. 1, 198, 01.12.2015.

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

**Culturable psychrotolerant methanotrophic bacteria in landfill cover soil.** / Kallistova, A. Yu.; Montonen, L.; Jurgens, G.; Münster, U.; Kevbrina, M. V.; Nozhevnikova, A. N.

In: *Microbiology*, Vol. 82, No. 6, 2013, p. 847-855.

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

**UV-Blocking Synthetic Biopolymer from Biomass-Based Bifuran Diester and Ethylene Glycol.** / Kainulainen, Tuomo P.; Sirviö, Juho A.; Sethi, Jatin; Hukka, Terttu I.; Heiskanen, Juha P.

In: *Macromolecules*, Vol. 51, No. 5, 21.02.2018, p. 1822-1829.

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

**Water supply and sanitation services in Finland before World War 2.** / Juuti, Petri; Katko, Tapio.

In: *Flux*, Vol. 97-98, No. 4, 2014, p. 80-87.

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

**Preferential adsorption of Cu in a multi-metal mixture onto biogenic elemental selenium nanoparticles.** / Jain, Rohan; Dominic, Domician; Jordan, Norbert; Rene, Eldon R.; Weiss, Stephan; van Hullebusch, Eric D.; Hübner, René; Lens, Piet N L.

In: *Chemical Engineering Journal*, Vol. 284, 2016, p. 917-925.

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

**Uranium Removal via Sorption Using Peat and Waste Digested Activated Sludge.** / Jain, Rohan; Lakaniemi, Aino-Maija; Peräniemi, Sirpa; Kankkunen, Janne; Turunen, Jukka; Vepsäläinen, Jouko.

2017. Paper presented at 13th International Mine Water Association Congress – “Mine Water & Circular Economy – A Green Congress”, .

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

**Use of diluted urine for cultivation of *Chlorella vulgaris*.** / Jaatinen, Sanna; Lakaniemi, Aino-Maija; Rintala, Jukka.

In: *Environmental Technology*, Vol. 37, No. 9, 2016, p. 1159-1170.

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, Chris J.; Lakaniemi, Aino-Maija; Puhakka, Jaakko A.; Thomas, David N.

In: *BioEnergy Research*, Vol. 5, No. 3, 2012, p. 669-684.

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

**Enabling and Integrative Infrastructure Policy: The Role of Inverse Infrastructures in Local Infrastructure Provision with Special Reference to Finnish Water Cooperatives.** / Heino, Ossi; Anttiroiko, Ari-Veikko.

MPRA, 2014. (MPRA Paper; No. 60276).

Research output: Book/Report › Commissioned report › Professional

**Storing of exoelectrogenic anolyte for efficient microbial fuel cell recovery.** / Haavisto, Johanna M.; Lakaniemi, Aino-Maija; Puhakka, Jaakko A.

In: *Environmental Technology*, Vol. 40, No. 11, 2019.

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



**Bi-directional cell-pericellular matrix interactions direct stem cell fate.** / Ferreira, Silvia A.; Motwani, Meghna S.; Faull, Peter A.; Seymour, Alexis J.; Yu, Tracy T.L.; Enayati, Marjan; Taheem, Dheraj K.; Salzlechner, Christoph; Haghighi, Tabasom; Kania, Ewa M.; Oommen, Oommen P.; Ahmed, Tarek; Loaiza, Sandra; Parzych, Katarzyna; Dazzi, Francesco; Varghese, Oommen P.; Festy, Frederic; Grigoriadis, Agamemnon E.; Auner, Holger W.; Snijders, Ambrosius P.; Bozec, Laurent; Gentleman, Eileen.

In: Nature Communications, Vol. 9, No. 1, 4049, 12.2018.

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, Tejaswini; Matanhike, Luck; Rene, Eldon R.; Lens, Piet N.L.

In: Bioresource Technology, Vol. 263, 01.09.2018, p. 591-600.

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

**Anaerobic batch conversion of pine wood torrefaction condensate.** / Doddapaneni, Tharaka Rama Krishna C.; Praveenkumar, Ramasamy; Tolvanen, Henrik; Palmroth, Marja R. T.; Kontinen, Jukka; Rintala, Jukka.

In: Bioresource Technology, Vol. 225, 02.2017, p. 299-307.

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, Francesco; Lakaniemi, Aino-Maija; Puhakka, Jaakko A.; Lens, Piet N. L.; Esposito, Giovanni.

In: Chemical Engineering Journal, Vol. 310, Part 1, 02.2017, p. 282-291.

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.

In: Journal of Molecular Structure, Vol. 1102, 15.12.2015, p. 50-56.

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

**Temperature control as key factor for optimal biohydrogen production from thermomechanical pulping wastewater.** / Dessì, Paolo; Porca, Estefania; Lakaniemi, Aino-Maija; Collins, Gavin; Lens, Piet N.L.

In: Biochemical Engineering Journal, Vol. 137, 15.09.2018, p. 214-221.

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

**Inhibitory effects of substrate and soluble end products on biohydrogen production of the alkalithermophile *Caloramator celer* : Kinetic, metabolic and transcription analyses.** / Ciranna, Alessandro; Ferrari, Roberto; Santala, Ville; Karp, Matti.

In: International Journal of Hydrogen Energy, Vol. 39, No. 12, 15.04.2014, p. 6391-6401.

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, Alessandro; Pawar, Sudhanshu S.; Santala, Ville; Karp, Matti; van Niel, Ed W J.

In: Microbial Cell Factories, Vol. 13, No. 1, 48, 28.03.2014.

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, Pritha; Lahtinen, Leija; Kokko, Marika; Rintala, Jukka.

In: Water Research, Vol. 143, 15.10.2018, p. 209-217.

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

**Selective enrichment of biocatalysts for bioelectrochemical systems: A critical review.** / Chatterjee, Pritha; Dessì, Paolo; Kokko, Marika; Lakaniemi, Aino-Maija; Lens, Piet.

In: Renewable and Sustainable Energy Reviews, Vol. 109, 07.2019, p. 10-23.

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, Afşin Y.; Köroğlu, Emre Oğuz; Demir, Neslihan Manav; Baysoy, Derya Yılmaz; Özkaya, Bestamin; Çakmakçı, Mehmet.

In: Chinese Journal of Catalysis, Vol. 36, No. 7, 20.07.2015, p. 1068-1076.

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

**Microbial electrochemical technologies with the perspective of harnessing bioenergy : Maneuvering towards upscaling.** / Butti, Sai Kishore; Velvizhi, G.; Sulonen, Mira L K; Haavisto, Johanna M.; Oguz Koroglu, Emre; Yusuf Cetinkaya, Afsin; Singh, Surya; Arya, Divyanshu; Annie Modestra, J.; Vamsi Krishna, K.; Verma, Anil; Ozkaya, Bestami; Lakaniemi, Aino-Maija; Puhakka, Jaakko A.; Venkata Mohan, S.

In: Renewable and Sustainable Energy Reviews, Vol. 53, 01.2016, p. 462-476.

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

**Structural photoactivation of a full-length bacterial phytochrome.** / Björling, Alexander; Berntsson, Oskar; Lehtivuori, Heli; Takala, Heikki; Hughes, Ashley J.; Panman, Matthijs; Hoernke, Maria; Niebling, Stephan; Henry, Léocadie; Henning, Robert; Kosheleva, Irina; Chukharev, Vladimir; Tkachenko, Nikolai V.; Menzel, Andreas; Newby, Gemma; Khakhulin, Dmitry; Wulff, Michael; A. Ihalainen, Janne; Westenhoff, Sebastian.

In: Science Advances, Vol. 2, No. 8, e1600920, 12.08.2016.

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

**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, Davide; Carraro, Giorgio; Warwick, Michael E A; Kaunisto, Kimmo; Gasparotto, Alberto; Gombac, Valentina; Sada, Cinzia; Turner, Stuart; Van Tendeloo, Gustaaf; Maccato, Chiara; Fornasiero, Paolo.

In: CrystEngComm, Vol. 17, No. 32, 28.08.2015, p. 6219-6226.

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, Cyril Jose E; Vainikka, Pasi; Hedman, Merja; Silvennoinen, Jaani; Heinanen, Teemu; Taipale, Raili; Kontinen, Jukka.

In: Fuel, Vol. 155, 01.09.2015, p. 25-36.

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

**Sensory properties of Nordic edible mushrooms.** / Aisala, Heikki; Laaksonen, Oskar; Manninen, Hanna; Raittola, Auri; Hopia, Anu; Sandell, Mari.

In: Food Research International, Vol. 109, 01.07.2018, p. 526-536.

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

**Formation and use of biogenic jarosite carrier for high-rate iron oxidising biofilms.** / Ahoranta, Sarita; Hulkkonen, Hanna; Salminen, Turkka; Kuula, Pirjo; Puhakka, Jaakko A.; Lakaniemi, Aino Maija.

In: Research in Microbiology, 2020.

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, Sanni L.; Saarenheimo, Jatta; Mikkonen, Anu; Rissanen, Antti J.; Tirola, Marja.

In: Environmental Microbiology, Vol. 20, No. 10, 2018, p. 3616-3628.

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