

Power production and microbial community composition in thermophilic acetate-fed up-flow and flow-through microbial fuel cells

Dessi, P., Chatterjee, P., Mills, S., Kokko, M., Lakaniemi, A-M., Collins, G. & Lens, P. N. L., 1 Dec 2019, In : Bioresource Technology. 294, 122115.

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

Anaerobic treatment of LCFA-containing synthetic dairy wastewater at 20°C: Process performance and microbial community dynamics

Singh, S., Rinta-Kanto, J. M., Kettunen, R., Tolvanen, H., Lens, P., Collins, G., Kokko, M. & Rintala, J., 15 Nov 2019, In : Science of the Total Environment. 691, p. 960-968 9 p.

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

Effects of elevated pressures on the activity of acidophilic bioleaching microorganisms

Hajdu-Rahkama, R., Ahoranta, S., Lakaniemi, A-M. & Puhakka, J. A., 15 Oct 2019, In : Biochemical Engineering Journal. 150, 107286.

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

Effects of energy retrofits on Indoor Air Quality in multifamily buildings

Du, L., Leivo, V., Prasauskas, T., Täubel, M., Martuzevicius, D. & Haverinen-Shaughnessy, U., 28 Mar 2019, In : Indoor Air.

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

Why social sustainability counts: The impact of corporate social sustainability culture on financial success

Schönborn, G., Berlin, C., Pinzone, M., Hanisch, C., Georgoulas, K. & Lanz, M., 1 Jan 2019, In : Sustainable Production and Consumption. 17, p. 1-10 10 p.

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

High-solids anaerobic digestion requires a trade-off between total solids, inoculum-to-substrate ratio and ammonia inhibition

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

Bio-hydrogen Production from Sewage Sludge: Screening for Pretreatments and Semi-continuous Reactor Operation

El-Qelish, M., Chatterjee, P., Dessi, P., Kokko, M., El-Gohary, F., Abo-Aly, M. & Rintala, J., 2019, In : Waste and Biomass Valorization.

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

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

Radon, fungal spores and MVOCs reduction in crawl space house: A case study and crawl space development by hygrothermal modelling

Keskikuru, T., Salo, J., Huttunen, P., Kokotti, H., Hyttinen, M., Halonen, R. & Vinha, J., 15 Jun 2018, In : *Building and Environment*. 138, p. 1-10 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Nutrient management via struvite precipitation and recovery from various agroindustrial wastewaters: Process feasibility and struvite quality

Taddeo, R., Honkanen, M., Kolppo, K. & Lepistö, R., 15 Apr 2018, In : *Journal of Environmental Management*. 212, p. 433-439 7 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Effects of different nickel species on autotrophic denitrification driven by thiosulfate in batch tests and a fluidized-bed reactor

Di Capua, F., Milone, I., Lakaniemi, A-M., Hullebusch, E. D. V., Lens, P. N. L. & Esposito, G., 1 Aug 2017, In : *Bioresource Technology*. 238, p. 534-541 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Biological removal of selenate and ammonium by activated sludge in a sequencing batch reactor

Mal, J., Nancharaiah, Y. V., van Hullebusch, E. D. & Lens, P. N. L., 2017, In : *Bioresource Technology*. 229, p. 11-19 9 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Fate of metallic engineered nanomaterials in constructed wetlands: prospection and future research perspectives

Auvinen, H., Gagnon, V., Rousseau, D. P. L. & du Laing, G., 2017, In : *Reviews in Environmental Science and Biotechnology*. 16, 2, p. 207-222 16 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Indoor thermal environment, air exchange rates, and carbon dioxide concentrations before and after energy retro fits in Finnish and Lithuanian multi-family buildings

Leivo, V., Prasauskas, T., Du, L., Turunen, M., Kiviste, M., Aaltonen, A., Martuzevicius, D. & Haverinen-Shaughnessy, U., 2017, In : *Science of the Total Environment*. 621, p. 398-406 9 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Cultivation of *Scenedesmus acuminatus* in different liquid digestates from anaerobic digestion of pulp and paper industry biosludge

Tao, R., Lakaniemi, A-M. & Rintala, J. A., 2017, In : *Bioresource Technology*. 245, A, p. 706-713 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

The effect of low-temperature pretreatment on the solubilization and biomethane potential of microalgae biomass grown in synthetic and wastewater media

Kinnunen, V. & Rintala, J., 1 Dec 2016, In : *Bioresource Technology*. 221, p. 78-84 7 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Magnesium aminoclay enhances lipid production of mixotrophic *Chlorella* sp. KR-1 while reducing bacterial populations

Kim, B., Praveenkumar, R., Lee, J., Nam, B., Kim, D. M., Lee, K., Lee, Y. C. & Oh, Y. K., 1 Nov 2016, In : *Bioresource Technology*. 219, p. 608-613 6 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Mild pressure induces rapid accumulation of neutral lipid (triacylglycerol) in *Chlorella* spp.

Ramasamy, P., Kim, B., Lee, J., Vijayan, D., Lee, K., Nam, B., Jeon, S. G., Kim, D. M. & Oh, Y. K., 1 Nov 2016, In : *Bioresource Technology*. 220, p. 661-665 5 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Performance of a sonic jet-type charger in high dust load

Laitinen, A. & Keskinen, J., 1 Oct 2016, In : Journal of Electrostatics. 83, p. 1-6 6 p.

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

Sustainable nutrients recovery and recycling by optimizing the chemical addition sequence for struvite precipitation from raw swine slurries

Taddeo, R., Kolppo, K. & Lepistö, R., 15 Sep 2016, In : Journal of Environmental Management. 180, p. 52-58 7 p.

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

Long-term stability of bioelectricity generation coupled with tetrathionate disproportionation

Sulonen, M. L. K., Lakaniemi, A. M., Kokko, M. E. & Puhakka, J. A., 1 Sep 2016, In : Bioresource Technology. 216, p. 876-882 7 p.

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

Methodological approaches for fractionation and speciation to estimate trace element bioavailability in engineered anaerobic digestion ecosystems: An overview

van Hullebusch, E. D., Guibaud, G., Simon, S., Lenz, M., Yekta, S. S., Feroso, F. G., Jain, R., Duester, L., Roussel, J., Guillon, E., Skyllberg, U., Almeida, C. M. R., Pechaud, Y., Garuti, M., Frunzo, L., Esposito, G., Carliell-Marquet, C., Ortner, M. & Collins, G., 17 Aug 2016, In : Critical Reviews in Environmental Science and Technology. 46, 16, p. 1324-1366 43 p.

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

Hydrothermal carbonization of pulp mill streams

Wikberg, H., Ohra-aho, T., Honkanen, M., Kanerva, H., Harlin, A., Vippola, M. & Laine, C., 1 Jul 2016, In : Bioresource Technology. 212, p. 236-244 9 p.

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

Effect of heavy metal co-contaminants on selenite bioreduction by anaerobic granular sludge

Mal, J., Nancharaiyah, Y. V., van Hullebusch, E. D. & Lens, P. N. L., 1 Apr 2016, In : Bioresource Technology. 206, p. 1-8 8 p.

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

Release and characteristics of fungal fragments in various conditions

Mensah-Attipoe, J., Saari, S., Veijalainen, A. M., Pasanen, P., Keskinen, J., Leskinen, J. T. T. & Reponen, T., 15 Mar 2016, In : Science of the Total Environment. 547, p. 234-243 10 p.

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

Agronomic characteristics of five different urban waste digestates

Tampio, E., Salo, T. & Rintala, J., 15 Mar 2016, In : Journal of Environmental Management. 169, p. 293-302 10 p.

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

Cell-wall disruption and lipid/astaxanthin extraction from microalgae: Chlorella and Haematococcus

Kim, D. Y., Vijayan, D., Praveenkumar, R., Han, J. I., Lee, K., Park, J. Y., Chang, W. S., Lee, J. S. & Oh, Y. K., 2016, In : Bioresource Technology. 199, p. 300-310

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

Composites of high-temperature thermomechanical pulps and polylactic acid

Solala, I., Koistinen, A., Siljander, S., Vuorinen, J. & Vuorinen, T., 2016, In : BioResources. 11, 1, p. 1125-1140 16 p.

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

High efficiency dilute nitride solar cells: Simulations meet experiments

Tukiainen, A., Aho, A., Polojärvi, V., Ahorinta, R. & Guina, M., 2016, In : Journal of Green Engineering. 5, 3-4, p. 113-132 20 p., 8.

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 piggy 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

Airtightness of residential buildings in Finland

Vinha, J., Manelius, E., Korpi, M., Salminen, K., Kurnitski, J., Kiviste, M. & Laukkanen, A., 1 Nov 2015, In : Building and Environment. 93, P2, p. 128-140 13 p.

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

Cultivation of *Nannochloropsis* for eicosapentaenoic acid production in wastewaters of pulp and paper industry

Polishchuk, A., Valev, D., Tarvainen, M., Mishra, S., Kinnunen, V., Antal, T., Yang, B., Rintala, J. & Tyystjärvi, E., 1 Oct 2015, In : Bioresource Technology. 193, p. 469-476 8 p.

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

Effects of anode potentials on bioelectrogenic conversion of xylose and microbial community compositions

Kokko, M. E., Mäkinen, A. E., Sulonen, M. L. K. & Puhakka, J. A., 5 Sep 2015, In : Biochemical Engineering Journal. 101, p. 248-252 5 p.

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

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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

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

Combination of a novel electrode material and artificial mediators to enhance power generation in an MFC

Taskan, E., Özkaya, B. & Hasar, H., 2015, In : Water Science and Technology. 71, 3, p. 320-328 9 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

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

Improved biomass and lipid production in a mixotrophic culture of *Chlorella* sp. KR-1 with addition of coal-fired flue-gas

Praveenkumar, R., Kim, B., Choi, E., Lee, K., Park, J. Y., Lee, J. S., Lee, Y. C. & Oh, Y. K., 1 Nov 2014, In : Bioresource Technology. 171, p. 500-505 6 p.

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

Repeated use of stable magnetic flocculant for efficient harvest of oleaginous *Chlorella* sp.

Lee, K., Lee, S. Y., Praveenkumar, R., Kim, B., Seo, J. Y., Jeon, S. G., Na, J. G., Park, J. Y., Kim, D. M. & Oh, Y. K., 2014, In : Bioresource Technology. 167, p. 284-290 7 p.

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

Magnetophoretic harvesting of oleaginous *Chlorella* sp. by using biocompatible chitosan/magnetic nanoparticle composites

Lee, K., Lee, S. Y., Na, J. G., Jeon, S. G., Praveenkumar, R., Kim, D. M., Chang, W. S. & Oh, Y. K., Dec 2013, In : Bioresource Technology. 149, p. 575-578 4 p.

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

The effect of organic loading rate and retention time on hydrogen production from a methanogenic CSTR
Pakarinen, O., Kaparaju, P. & Rintala, J., Oct 2011, In : *Bioresource Technology*. 102, 19, p. 8952-8957 6 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Two-stage anaerobic digestion of tomato, cucumber, common reed and grass silage in leach-bed reactors and upflow anaerobic sludge blanket reactors
Jagadabhi, P. S., Kaparaju, P. & Rintala, J., Apr 2011, In : *Bioresource Technology*. 102, 7, p. 4726-4733 8 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Effect of micro-aeration and leachate replacement on COD solubilization and VFA production during mono-digestion of grass-silage in one-stage leach-bed reactors
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Research output: Contribution to journal › Article › Scientific › peer-review

Weathering of gasification and grate bottom ash in anaerobic conditions
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Research output: Contribution to journal › Article › Scientific › peer-review

Biogas production from boreal herbaceous grasses - Specific methane yield and methane yield per hectare
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Research output: Contribution to journal › Article › Scientific › peer-review

Impact of crop species on bacterial community structure during anaerobic co-digestion of crops and cow manure
Wang, H., Lehtomäki, A., Tolvanen, K., Puhakka, J. & Rintala, J., Apr 2009, In : *Bioresource Technology*. 100, 7, p. 2311-2315 5 p.
Research output: Contribution to journal › Article › Scientific › peer-review

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

Methane oxidation in a boreal climate in an experimental landfill cover composed from mechanically-biologically treated waste
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Research output: Contribution to journal › Article › Scientific › peer-review

Storing energy crops for methane production: Effects of solids content and biological additive
Pakarinen, O., Lehtomäki, A., Rissanen, S. & Rintala, J., Oct 2008, In : *Bioresource Technology*. 99, 15, p. 7074-7082 9 p.
Research output: Contribution to journal › Article › Scientific › peer-review

Effects of storage on characteristics and hygienic quality of digestates from four co-digestion concepts of manure and biowaste
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Research output: Contribution to journal › Article › Scientific › peer-review

Effects of solid-liquid separation on recovering residual methane and nitrogen from digested dairy cow manure
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Research output: Contribution to journal › Article › Scientific › peer-review

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Seppälä, M., Paavola, T., Lehtomäki, A., Pakarinen, O. & Rintala, J., 2008, In : *Water Science and Technology*. 58, 9, p. 1857-1863 7 p.
Research output: Contribution to journal › Article › Scientific › peer-review

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

Thermophilic aerobic wastewater treatment, process performance, biomass characteristics, and effluent quality

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

Occurrence of some chlorinated enol lactones and cyclopentene-1,3-diones in chlorine-treated waters

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

Determination of chlorinated 5-methyl-5-hydroxyfuranones in drinking water, in chlorinated humic water, and in pulp bleaching liquor

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

Effects of wastewater constituents and operational conditions on the composition and dynamics of anodic microbial communities in bioelectrochemical systems

Kokko, M., Epple, S., Gescher, J. & Kerzenmacher, S., 1 Jun 2018, In : *Bioresource Technology*. 258, p. 376-389 14 p.
Research output: Contribution to journal > Review Article > Scientific > peer-review

Recent advances in nutrient removal and recovery in biological and bioelectrochemical systems

Nancharaiah, Y. V., Venkata Mohan, S. & Lens, P. N. L., Sep 2016, In : *Bioresource Technology*. 215, p. 173-185
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

Possible impacts of increasing maximum truck weight: Finland case study

Nykänen, L. & Liimatainen, H., May 2016, *Towards innovative freight and logistics: Research for innovative transports set*. Blanquart, C., Clausen, U. & Jacob, B. (eds.). Great Britain: Wiley-ISTE, Vol. 2. p. 121-133 13 p.
Research output: Chapter in Book/Report/Conference proceeding > Chapter > Scientific > peer-review

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
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Software design for simulating microbial bioprocesses in bioreactor

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

Editorial

Länsivaara, T., 17 Dec 2018, In : *Environmental Geotechnics*. 5, 6, 1 p.
Research output: Contribution to journal > Editorial > 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