

**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

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

El-Qelish, M., Chatterjee, P., Dessì, 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

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

Pastor-Poquet, V., Papirio, S., Trably, E., Rintala, J., Escudié, R. & Esposito, G., 2019, In : INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY.

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

**Editorial**

Länsivaara, T., 17 Dec 2018, In : Environmental Geotechnics. 5, 6, 1 p.

Research output: Contribution to journal > Editorial > Scientific

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

Tan, L. C., Nanchaiah, 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

**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

**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

**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., Apr 2018, In : Science of the Total Environment. 621, p. 398-406 9 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., Nancharaiyah, 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

**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

**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 Bio-Technology. 16, 2, p. 207-222 16 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

**Mitigation of propylene glycol emissions to groundwater and soil**

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

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

**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

**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

**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., Duyster, L., Roussel, J., Guillon, E., Skjellberg, 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

**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

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

Mal, J., Nancharaiah, 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

**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

**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

#### **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 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

#### **Airtightness of residential buildings in Finland**

Vinha, J., Manelius, E., Korpi, M., Salminen, K., Kurnitski, J., Kiviste, M. & Laukkarinen, 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**

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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

#### **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

#### **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

**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

**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

**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

**Software design for simulating microbial bioprocesses in bioreactor**

Nikhil, Puhakka, J. A., Visa, A. & Yli-Harja, O., 2014, *6th International Conference on Environmental Informatics, ISEIS 2007*. International Society for Environmental Information Sciences, 60700018  
Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › 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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**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**

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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

**Methane oxidation in a boreal climate in an experimental landfill cover composed from mechanically-biologically treated waste**

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**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

**Storing energy crops for methane production: Effects of solids content and biological additive**

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**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

**Biogas from energy crops - Optimal pre-treatments and storage, co-digestion and energy balance in boreal conditions**

Seppälä, M., Paavola, T., Lehtomäki, A., Pakarinen, O. & Rintala, J., 2008, In : Water Science and Technology. 58, 9, p. 1857-1863 7 p.

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**Anaerobic solubilisation of nitrogen from municipal solid waste (MSW)**

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

Suvilampi, J. & Rintala, J., 2003, In : Reviews in Environmental Science and Bio-Technology. 2, 1, p. 35-51 17 p.

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

Smeds, A., Franzen, R. & Kronberg, L., 1995, In : Environmental Science and Technology. 29, 7, p. 1839-1844 6 p.

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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