

### **Considerations in analysing elemental carbon from marine engine exhaust using residual, distillate and biofuels**

Aakko-Saksa, P., Koponen, P., Aurela, M., Vesala, H., Piimäkorpi, P., Murtonen, T., Sippula, O., Koponen, H., Karjalainen, P., Kuittinen, N., Panteliadis, P., Rönkkö, T. & Timonen, H., Dec 2018, In : Journal of Aerosol Science. 126, p. 191-204 14 p.

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

### **Physical Characteristics of Particle Emissions from a Medium Speed Ship Engine Fueled with Natural Gas and Low-Sulfur Liquid Fuels**

Alanen, J., Isotalo, M., Kuittinen, N., Simonen, P., Martikainen, S., Kuuluvainen, H., Honkanen, M., Lehtoranta, K., Nyssönen, S., Vesala, H., Timonen, H., Aurela, M., Keskinen, J. & Rönkkö, T., 5 May 2020, In : Environmental Science and Technology. 54, 9, p. 5376-5384 9 p.

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

### **Impact of selective catalytic reduction on exhaust particle formation over excess ammonia events**

Amanatidis, S., Ntziachristos, L., Giechaskiel, B., Bergmann, A. & Samaras, Z., 7 Oct 2014, In : Environmental Science and Technology. 48, 19, p. 11527-11534 8 p.

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

### **Evaluation of an oxidation catalyst ("catalytic stripper") in eliminating volatile material from combustion aerosol**

Amanatidis, S., Ntziachristos, L., Giechaskiel, B., Katsaounis, D., Samaras, Z. & Bergmann, A., Mar 2013, In : Journal of Aerosol Science. 57, p. 144-155 12 p.

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

### **Comparative performance of a thermal denuder and a catalytic stripper in sampling laboratory and marine exhaust aerosols**

Amanatidis, S., Ntziachristos, L., Karjalainen, P., Saukko, E., Simonen, P., Kuittinen, N., Aakko-Saksa, P., Timonen, H., Rönkkö, T. & Keskinen, J., 2018, In : Aerosol Science and Technology. 52, 4, p. 1-13 13 p.

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

### **The critical velocity of rebound determined for sub-micron silver particles with a variable nozzle area impactor**

Arffman, A., Kuuluvainen, H., Harra, J., Vuorinen, O., Juuti, P., Yli-Ojanperä, J., Mäkelä, J. & Keskinen, J., 1 Aug 2015, In : Journal of Aerosol Science. 86, p. 32-43 12 p.

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

### **Differential diffusion analyzer**

Arffman, A., Juuti, P., Harra, J. & Keskinen, J., 2017, In : Aerosol Science and Technology. 51, 12, p. 1429-1437

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

### **Screening pretreatment methods to enhance thermophilic anaerobic digestion of pulp and paper mill wastewater treatment secondary sludge**

Bayr, S., Kaparaju, P. & Rintala, J., 1 May 2013, In : Chemical Engineering Journal. 223, p. 479-486 8 p.

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

### **Distinguishing fuel and lubricating oil combustion products in diesel engine exhaust particles**

Carbone, S., Timonen, H. J., Rostedt, A., Happonen, M., Rönkkö, T., Keskinen, J., Ristimäki, J., Korpi, H., Artaxo, P., Canagaratna, M., Worsnop, D., Canonaco, F., Prévôt, A. S. H., Hillamo, R. & Saarikoski, S., 4 May 2019, In : Aerosol Science and Technology. 53, 5, p. 594-607 14 p.

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

### **Effect of tungsten and selenium on C<sub>1</sub> gas bioconversion by an enriched anaerobic sludge and microbial community analysis**

Chakraborty, S., Rene, E. R., Lens, P. N. L., Rintala, J., Veiga, M. C. & Kennes, C., 2020, In : Chemosphere. 250, 9 p., 126105.

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

### **Particle growth with photochemical age from new particle formation to haze in the winter of Beijing, China**

Chu, B., Dada, L., Liu, Y., Yao, L., Wang, Y., Du, W., Cai, J., Dällenbach, K. R., Chen, X., Simonen, P., Zhou, Y., Deng, C., Fu, Y., Yin, R., Li, H., He, X. C., Feng, Z., Yan, C., Kangasluoma, J., Bianchi, F., Jiang, J., Kujansuu, J., Kerminen, V.

M., Petäjä, T., He, H. & Kulmala, M., 2020, In : Science of the Total Environment. 753, 7 p., 142207.

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

**Improving urban air quality measurements by a diffusion charger based electrical particle sensors: A field study in Beijing, China**

Dal Maso, M., Gao, J., Järvinen, A., Li, H., Luo, D., Janka, K. & Rönkkö, T., 1 Dec 2016, In : Aerosol and Air Quality Research. 16, 12, p. 3001-3011 11 p.

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

**Chemolithotrophic denitrification in biofilm reactors**

Di Capua, F., Papirio, S., Lens, P. N. L. & Esposito, G., 2015, In : Chemical Engineering Journal. 280, p. 643-657 15 p.

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

**Adsorption of furfural from torrefaction condensate using torrefied biomass**

Doddapaneni, T. R. K. C., Jain, R., Praveenkumar, R., Rintala, J., Romar, H. & Kontinen, J., 2018, In : Chemical Engineering Journal. 334, p. 558-568 11 p.

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

**The mechanism of the oxidation of benzyl alcohol by iron(III)nitrate: Conventional versus microwave heating**

Dressen, M. H. C. L., Stumpel, J. E., Van De Kruijs, B. H. P., Meuldijk, J., Vekemans, J. A. J. M. & Hulshof, L. A., 2009, In : Green Chemistry. 11, 1, p. 60-64 5 p.

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**

Einola, J-K. M., Sormunen, K. M. & Rintala, J. A., 15 Dec 2008, In : Science of the Total Environment. 407, 1, p. 67-83 17 p.

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

**Volatile fatty acid production from Kraft mill foul condensate in upflow anaerobic sludge blanket reactors**

Eregowda, T., Kokko, M. E., Rene, E. R., Rintala, J. & Lens, P. N. L., 2020, In : Environmental Technology (United Kingdom). 14 p.

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

**Sorption of zinc onto elemental selenium nanoparticles immobilized in Phanerochaete chrysosporium pellets**

Espinosa-Ortiz, E. J., Shakya, M., Jain, R., Rene, E. R., van Hullebusch, E. D. & Lens, P. N. L., 2016, In : Environmental Science and Pollution Research. 23, 21, p. 21619-21630 12 p.

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

**Induction of genotoxic effects by chlorohydroxyfuranones, byproducts of water disinfection, in E. coli K-12 cells recovered from various organs of mice**

Fekadu, K., Parzefall, W., Kronberg, L., Franzen, R., Schulte-Hermann, R. & Knasmüller, S., 1994, In : Environmental and Molecular Mutagenesis. 24, 4, p. 317-324 8 p.

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

**Ring-chain tautomerism of chlorinated hydroxyfuranones and reaction with nucleosides**

Franzén, R., Tanabe, K. & Morita, M., Feb 1999, In : Chemosphere. 38, 5, p. 973-980 8 p.

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

**Isolation of a MX-guanosine adduct formed at physiological conditions**

Franzén, R., Tanabe, K. & Morita, M., Jun 1998, In : Chemosphere. 36, 13, p. 2803-2808 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**

Franzén, R. & Kronberg, L., 1994, In : Environmental Science and Technology. 28, 12, p. 2222-2227 6 p.

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

**Cell toxicity and oxidative potential of engine exhaust particles: Impact of using particulate filter or biodiesel fuel blend**

Gerlofs-Nijland, M. E., Totlandsdal, A. I., Tzamkiozis, T., Leseman, D. L. A. C., Samaras, Z., Låg, M., Schwarze, P., Ntziachristos, L. & Cassee, F. R., 4 Jun 2013, In : *Environmental Science and Technology*. 47, 11, p. 5931-5938 8 p.

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

**Review of motor vehicle particulate emissions sampling and measurement: From smoke and filter mass to particle number**

Giechaskiel, B., Maricq, M., Ntziachristos, L., Dardiotis, C., Wang, X., Axmann, H., Bergmann, A. & Schindler, W., Jan 2014, In : *Journal of Aerosol Science*. 67, p. 48-86 39 p.

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

**Effects of anode materials on electricity production from xylose and treatability of TMP wastewater in an up-flow microbial fuel cell**

Haavisto, J., Dessì, P., Chatterjee, P., Honkanen, M., Noori, M. T., Kokko, M., Lakaniemi, A. M., Lens, P. N. L. & Puhakka, J. A., 15 Sep 2019, In : *Chemical Engineering Journal*. 372, p. 141-150 10 p.

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

**Kinetics and modelling of thiosulphate biotransformations by haloalkaliphilic *Thioalkalivibrio versutus***

Hajdu-Rahkama, R., Özkaya, B., Lakaniemi, A. M. & Puhakka, J. A., 2020, In : *Chemical Engineering Journal*. 401, 9 p., 126047.

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

**Toward elemental analysis of ambient single particles using electrodynamic balance and laser-induced breakdown spectroscopy**

Heikkilä, P., Rossi, J., Rostedt, A., Huhtala, J., Järvinen, A., Toivonen, J. & Keskinen, J., 2020, In : *Aerosol Science and Technology*.

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

**Quantitative characterization of pore structure of several biochars with 3D imaging**

Hyväluoma, J., Kulju, S., Hannula, M., Wikberg, H., Källi, A. & Rasa, K., Sep 2018, In : *Environmental Science and Pollution Research*. 25, 26, p. 1-11 11 p.

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

**CO-digestion of grass silage and cow manure in a CSTR by re-circulation of alkali treated solids of the digestate**

Jagadabhi, P. S., Lehtomäki, A. & Rintala, J., Oct 2008, In : *Environmental Technology*. 29, 10, p. 1085-1093 9 p.

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

**Effect of macro- and micro-nutrients addition during anaerobic mono-digestion of grass silage in leach-bed reactors**

Jagadabhi, P. S., Kaparaju, P., Väisänen, A. & Rintala, J., 2019, In : *Environmental Technology*. 40, 4, p. 418-429 12 p.

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

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

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

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

**Higher Cd adsorption on biogenic elemental selenium nanoparticles**

Jain, R., Dominic, D., Jordan, N., Rene, E. R., Weiss, S., van Hullebusch, E. D., Hübner, R. & Lens, P. N. L., Sep 2016, In : *ENVIRONMENTAL CHEMISTRY LETTERS*. 14, 3, p. 381-386 6 p.

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

**Extending the Faraday cup aerosol electrometer based calibration method up to 5 µm**

Järvinen, A., Keskinen, J. & Yli-Ojanperä, J., 3 Aug 2018, In : *Aerosol Science and Technology*. 52, 8, p. 828-840 13 p.

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

**Real-time effective density monitor (DENSMO) for aerosol nanoparticle production**

Juuti, P., Arffman, A., Rostedt, A., Harra, J., Mäkelä, J. M. & Keskinen, J., 3 May 2016, In : Aerosol Science and Technology. 50, 5, p. 487-496 10 p.

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

**Fabrication of fiber filters with antibacterial properties for VOC and particle removal**

Juuti, P., Nikka, M., Gunell, M., Eerola, E., Saarinen, J. J., Omori, Y., Seto, T. & Mäkelä, J. M., 1 Aug 2019, In : Aerosol and Air Quality Research. 19, 8, p. 1892-1899 8 p.

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

**Thermophilic anaerobic digestion of industrial orange waste**

Kaparaju, P. L. N. & Rintala, J. A., Jun 2006, In : Environmental Technology. 27, 6, p. 623-633 11 p.

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

**The effects of post-treatments and temperature on recovering the methane potential of >2 mm solid fraction of digested cow manure**

Kaparaju, P. L. N. & Rintala, J. A., Jun 2005, In : Environmental Technology. 26, 6, p. 625-631 7 p.

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

**Effects of temperature on post-methanation of digested dairy cow manure in a farm-scale biogas production system**

Kaparaju, P. L. N. & Rintala, J. A., 2003, In : Environmental Technology. 24, 10, p. 1315-1321 7 p.

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

**Agricultural potential of anaerobically digested industrial orange waste with and without aerobic post-treatment**

Kaparaju, P., Rintala, J. & Oikari, A., 1 Jan 2012, In : Environmental Technology. 33, 1, p. 85-94 10 p.

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

**Performance of ventilation filtration technologies on characteristic traffic related aerosol down to nanocluster size**

Karjalainen, P., Saari, S., Kuuluvainen, H., Kalliohaka, T., Taipale, A. & Rönkkö, T., 2017, In : Aerosol Science and Technology. 51, 12, p. 1398-1408 11 p.

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

**Strategies To Diminish the Emissions of Particles and Secondary Aerosol Formation from Diesel Engines**

Karjalainen, P., Rönkkö, T., Simonen, P., Ntziachristos, L., Juuti, P., Timonen, H., Teinilä, K., Saarikoski, S., Saveljeff, H., Lauren, M., Happonen, M., Matilainen, P., Maunula, T., Nuottimäki, J. & Keskinen, J., 3 Sep 2019, In : Environmental science & technology. 53, 17, p. 10408-10416 9 p.

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

**Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells**

Karvinen, J., Joki, T., Ylä-Outinen, L., Koivisto, J. T., Narkilahti, S. & Kellomäki, M., 1 Mar 2018, In : Reactive and Functional Polymers. 124, p. 29-39 11 p.

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

**Landfill methane oxidation in engineered soil columns at low temperature**

Kettunen, R. H., Einola, J. K. M. & Rintala, J. A., Nov 2006, In : Water Air and Soil Pollution. 177, 1-4, p. 313-334 22 p.

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

**Testing the near field/far field model performance for prediction of particulate matter emissions in a paint factory**

Koivisto, A. J., Jensen, A. C. Ø., Levin, M., Kling, K. I., Maso, M. D., Nielsen, S. H., Jensen, K. A. & Koponen, I. K., 1 Jan 2015, In : Environmental Sciences: Processes and Impacts. 17, 1, p. 62-73 12 p.

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

#### **Applicability of optical and diffusion charging-based particulate matter sensors to urban air quality measurements**

Kuula, J., Kuuluvainen, H., Rönkkö, T., Niemi, J. V., Saukko, E., Portin, H., Aurela, M., Saarikoski, S., Rostedt, A., Hillamo, R. & Timonen, H., 1 May 2019, In : *Aerosol and Air Quality Research*. 19, 5, p. 1024-1039 16 p.

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

#### **Triboelectric charging of fungal spores during resuspension and rebound**

Kuuluvainen, H., Saari, S., Mensah-Attipoe, J., Arffman, A., Pasanen, P., Reponen, T. & Keskinen, J., 1 Feb 2016, In : *Aerosol Science and Technology*. 50, 2, p. 187-197 11 p.

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

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

Ledezma, P., Jermakka, J., Keller, J. & Freguia, S., 14 Mar 2017, In : *Environmental Science and Technology Letters*. 4, 3, p. 119-124 6 p.

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

#### **Detection of gaseous species during KCl-induced high-temperature corrosion by the means of CPFAAS and CI-API-TOF**

Lehmusto, J., Olin, M., Viljanen, J., Kalliokoski, J., Mylläri, F., Toivonen, J., Dal Maso, M. & Hupa, L., 30 Aug 2019, In : *Materials and Corrosion*. 10 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

#### **Measurement of the human respiratory tract deposited surface area of particles with an electrical low pressure impactor**

Lepistö, T., Kuuluvainen, H., Juuti, P., Järvinen, A., Arffman, A. & Rönkkö, T., 2020, In : *Aerosol Science and Technology*. 54, 8, p. 958-971 15 p.

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

#### **Screening for potential fermentative hydrogen production from black water and kitchen waste in on-site UASB reactor at 20°C**

Luostarinen, S., Pakarinen, O. & Rintala, J., Jun 2008, In : *Environmental Technology*. 29, 6, p. 691-699 9 p.

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

#### **Assessing urban population vulnerability and environmental risks across an urban area during heatwaves – Implications for health protection**

Macintyre, H. L., Heaviside, C., Taylor, J., Picetti, R., Symonds, P., Cai, X. M. & Vardoulakis, S., 1 Jan 2018, In : *Science of the Total Environment*. 610-611, p. 678-690 13 p.

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

#### **Occurrence and removal of organic pollutants in sewages and landfill leachates**

Martinen, S. K., Kettunen, R. H. & Rintala, J. A., 1 Jan 2003, In : *Science of the Total Environment*. 301, 1-3, p. 1-12 12 p.

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

#### **Screening of physical-chemical methods for removal of organic material, nitrogen and toxicity from low strength landfill leachates**

Martinen, S. K., Kettunen, R. H., Sormunen, K. M., Soimasuo, R. M. & Rintala, J. A., 2002, In : *Chemosphere*. 46, 6, p. 851-858 8 p.

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

#### **Removal of DEHP in composting and aeration of sewage sludge**

Marttinen, S. K., Hänninen, K. & Rintala, J. A., Jan 2004, In : *Chemosphere*. 54, 3, p. 265-272 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

#### **Hierarchical Self-Assembly of Halogen-Bonded Block Copolymer Complexes into Upright Cylindrical Domains**

Milani, R., Houbenov, N., Fernandez-Palacio, F., Cavallo, G., Luzio, A., Haataja, J., Giancane, G., Saccone, M., Priimägi, A., Metrangolo, P. & Ikkala, O., 9 Mar 2017, In : *CheM*. 2, 3, p. 417-426 10 p.

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

#### **Influence of electron acceptor availability and microbial community structure on sedimentary methane oxidation in a boreal estuary**

Myllykangas, J. P., Rissanen, A. J., Hietanen, S. & Jilbert, T., 2020, In : *BIOGEOCHEMISTRY*. 148, 3, p. 291-309 19 p.

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

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

Nykänen, H., Mpamah, P. A. & Rissanen, A. J., 2018, In : *Isotopes in Environmental and Health Studies*. 54, 6

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

#### **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

#### **Improving the signal-to-noise ratio of Faraday cup aerosol electrometer based aerosol instrument calibrations**

Pihlava, K., Keskinen, J. & Yli-Ojanperä, J., 2 Apr 2016, In : *Aerosol Science and Technology*. 50, 4, p. 373-379 7 p.

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

#### **Effects of fresh lubricant oils on particle emissions emitted by a modern gasoline direct injection passenger car**

Pirjola, L., Karjalainen, P., Heikkilä, J., Saari, S., Tzamkiozis, T., Ntziachristos, L., Kulmala, K., Keskinen, J. & Rönkkö, T., 17 Mar 2015, In : *Environmental Science and Technology*. 49, 6, p. 3644-3652 9 p.

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

#### **Physical and Chemical Characterization of Real-World Particle Number and Mass Emissions from City Buses in Finland**

Pirjola, L., Dittrich, A., Niemi, J. V., Saarikoski, S., Timonen, H., Kuuluvainen, H., Järvinen, A., Kousa, A., Rönkkö, T. & Hillamo, R., 5 Jan 2016, In : *Environmental Science and Technology*. 50, 1, p. 294-304 11 p.

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

#### **Nanocluster Aerosol Emissions of a 3D Printer**

Poikkimäki, M., Koljonen, V., Leskinen, N., Närhi, M., Kangasniemi, O., Kausiala, O. & Dal Maso, M., 7 Nov 2019, In : *Environmental Science and Technology*. 53, 23, p. 13618-13628 11 p.

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

#### **Breaking dormancy: An energy-efficient means of recovering astaxanthin from microalgae**

Ramasamy, P., Lee, K., Lee, J. & Oh, Y. K., 1 Feb 2015, In : *Green Chemistry*. 17, 2, p. 1226-1234 9 p.

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

#### **Flow rate-independent electrical aerosol sensor**

Rostedt, A. & Keskinen, J., 2018, In : *Aerosol Science and Technology*. 52, 11, p. 1283-1292

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

**Seasonal and diurnal variations of fluorescent bioaerosol concentration and size distribution in the urban environment**

Saari, S., Niemi, J. V., Rönkkö, T., Kuuluvainen, H., Järvinen, A., Pirjola, L., Aurela, M., Hillamo, R. & Keskinen, J., 2015, In : Aerosol and Air Quality Research. 15, 2, p. 572-581 10 p.

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

**Identification of single microbial particles using electro-dynamic balance assisted laser-induced breakdown and fluorescence spectroscopy**

Saari, S., Järvinen, S., Reponen, T., Mensah-Attipoe, J., Pasanen, P., Toivonen, J. & Keskinen, J., 1 Feb 2016, In : Aerosol Science and Technology. 50, 2, p. 126-132 7 p.

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

**Performance evaluation of the HR-ELPI + inversion**

Saari, S., Arffman, A., Harra, J., Rönkkö, T. & Keskinen, J., 2 Sep 2018, In : Aerosol Science and Technology. 52, 9, p. 1037-1047 11 p.

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

**Assessment of pitting corrosion in bare and passivated (wet scCO<sub>2</sub>-induced patination and chemical passivation) hot-dip galvanized steel samples with SVET, FTIR, and SEM (EDS)**

Saarimaa, V., Fuertes, N., Persson, D., Zavalis, T., Kaleva, A., Nikkanen, J-P., Levänen, E. & Heydari, G., 2020, In : Materials and Corrosion. 10 p.

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

**Towards bioproduction of poly- $\alpha$ -olefins from lignocellulose**

Salmela, M., Lehtinen, T., Efimova, E., Santala, S. & Santala, V., 2020, In : Green Chemistry. 22, 15, p. 5067-5076 10 p.

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

**Anaerobic digestion of poultry slaughtering wastes**

Salminen, E. A. & Rintala, J. A., 1999, In : Environmental Technology. 20, 1, p. 21-28 8 p.

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

**The methane production of poultry slaughtering residues and effects of pre-treatments on the methane production of poultry feather**

Salminen, E., Einola, J. & Rintala, J., 2003, In : Environmental Technology. 24, 9, p. 1079-1086 8 p.

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

**Characterisation and anaerobic batch degradation of materials accumulating in anaerobic digesters treating poultry slaughterhouse waste**

Salminen, E., Einola, J. & Rintala, J., 2001, In : Environmental Technology. 22, 5, p. 577-585 9 p.

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

**Emission measurements with gravimetric impactors and electrical devices: An aerosol instrument comparison**

Salo, L., Mylläri, F., Maasikmets, M., Niemelä, V., Konist, A., Vainumäe, K., Kupri, H. L., Titova, R., Simonen, P., Aurela, M., Bloss, M., Keskinen, J., Timonen, H. & Rönkkö, T., 1 Mar 2019, In : Aerosol Science and Technology. 53, 5, p. 526-539 14 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

**Tri-functionality of Fe<sub>3</sub>O<sub>4</sub>-embedded carbon microparticles in microalgae harvesting**

Seo, J. Y., Lee, K., Ramasamy, P., Kim, B., Lee, S. Y., Oh, Y. K. & Park, S. B., 5 Nov 2015, In : Chemical Engineering Journal. 280, p. 206-214 9 p.

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

**Downstream integration of microalgae harvesting and cell disruption by means of cationic surfactant-decorated Fe<sub>3</sub>O<sub>4</sub> nanoparticles**

Seo, J. Y., Ramasamy, P., Kim, B., Seo, J. C., Park, J. Y., Na, J. G., Jeon, S. G., Park, S. B., Lee, K. & Oh, Y. K., 2016, In : Green Chemistry. 18, 14, p. 3981-3989 9 p.

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

**Mutation spectra of the drinking water mutagen 3-chloro-4-methyl-5-hydroxy-2(5H)-furanone (MCF) in Salmonella TA100 and TA104: Comparison to MX**

Shaughnessy, D. T., Ohe, T., Landi, S., Warren, S. H., Richard, A. M., Munter, T., Franzén, R., Kronberg, L. & DeMarini, D. M., 2000, In : Environmental and Molecular Mutagenesis. 35, 2, p. 106-113 8 p.

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

**Weathering of gasification and grate bottom ash in anaerobic conditions**

Sivula, L., Ilander, A., Väisänen, A. & Rintala, J., 15 Feb 2010, In : Journal of Hazardous Materials. 174, 1-3, p. 344-351 8 p.

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

**Stabilisation of MSWI bottom ash with sulphide-rich anaerobic effluent**

Sivula, L., Väisänen, A. & Rintala, J., Mar 2008, In : Chemosphere. 71, 1, p. 1-9 9 p.

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

**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

**London Hybrid Exposure Model: Improving Human Exposure Estimates to NO<sub>2</sub> and PM<sub>2.5</sub> in an Urban Setting**

Smith, J. D., Mitsakou, C., Kitwiroon, N., Barratt, B. M., Walton, H. A., Taylor, J. G., Anderson, H. R., Kelly, F. J. & Beevers, S. D., 1 Nov 2016, In : Environmental Science and Technology. 50, 21, p. 11760-11768 9 p.

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

**Are there environmental or agricultural benefits in using forest residue biochar in boreal agricultural clay soil?**

Soinne, H., Keskinen, R., Heikkinen, J., Hyväluoma, J., Uusitalo, R., Peltoniemi, K., Velmala, S., Pennanen, T., Fritze, H., Kaseva, J., Hannula, M. & Rasa, K., 20 Aug 2020, In : Science of the Total Environment. 731, 138955.

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

**Internal leachate quality in a municipal solid waste landfill: Vertical, horizontal and temporal variation and impacts of leachate recirculation**

Sormunen, K., Ettala, M. & Rintala, J., 30 Dec 2008, In : Journal of Hazardous Materials. 160, 2-3, p. 601-607 7 p.

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

**Bio-electrochemical conversion of industrial wastewater-COD combined with downstream methanol synthesis-an economic and life cycle assessment**

Streeck, J., Hank, C., Neuner, M., Gil-Carrera, L., Kokko, M., Pauliuk, S., Schaad, A., Kerzenmacher, S. & White, R. J., 2018, In : Green Chemistry. 20, 12, p. 2742-2762 21 p.

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

**Biomass characterization of laboratory-scale thermophilic-mesophilic wastewater treatment processes**

Suvilampi, J., Lehtomäki, A. & Rintala, J., Jan 2006, In : Environmental Technology. 27, 1, p. 41-51 11 p.

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



**Comparison of activated sludge processes at different temperatures: 35°C, 2-55°C, and 55°C**

Suvilampi, J. & Rintala, J., 2002, In : Environmental Technology. 23, 10, p. 1127-1133 7 p.

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

**MicroEnv: A microsimulation model for quantifying the impacts of environmental policies on population health and health inequalities**

Symonds, P., Hutchinson, E., Ibbetson, A., Taylor, J., Milner, J., Chalabi, Z., Davies, M. & Wilkinson, P., 20 Dec 2019, In : Science of the Total Environment. 697, 134105.

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

**HPLC-SEC: a new approach to characterise complex wastewater effluents**

Szabo, H. M., Lepistö, R. & Tuhkanen, T., 19 Feb 2016, In : International Journal of Environmental Analytical Chemistry. 96, 3, p. 257-270 14 p.

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

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

Tan, L. C., Nancharaiah, 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

**Low concentration of zeolite to enhance microalgal growth and ammonium removal efficiency in a membrane photobioreactor**

Tao, R., Bair, R., Pickett, M., Calabria, J. L., Lakaniemi, A-M., van Hullebusch, E. D., Rintala, J. A. & Yeh, D. H., 2020, In : Environmental Technology. 15 p.

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

**Application of an indoor air pollution metamodel to a spatially-distributed housing stock**

Taylor, J., Shrubsole, C., Symonds, P., Mackenzie, I. & Davies, M., 1 Jun 2019, In : Science of the Total Environment. 667, p. 390-399 10 p.

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

**Sulphate-reducing laboratory-scale high-rate anaerobic reactors for treatment of metal-and sulphate-containing mine wastewater**

Tuppurainen, K. O., Väisänen, A. O. & Rintala, J. A., 2002, In : Environmental Technology. 23, 6, p. 599-608 10 p.

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

**Optimised selection of new protective coatings for biofuel boiler applications**

Tuurna, S., Varis, T., Penttilä, K., Ruusuvoori, K., Holmström, S. & Yli-Olli, S., Jul 2011, In : Materials and Corrosion-Werkstoffe und Korrosion. 62, 7, p. 642-649 8 p.

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

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

Uusheimo, S., Huotari, J., Tulonen, T., Aalto, S. L., Rissanen, A. J. & Arvola, L., 20 Nov 2018, In : Environmental science & technology. 52, 22, p. 13343-13350 8 p.

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

**The effects of nutrients on natural organic matter (NOM) removal in biological activated carbon (BAC) filtration**

Vahala, R., Moramarco, V., Niemi, R. M., Rintala, J. & Laukkanen, R., May 1998, In : Acta Hydrochimica et Hydrobiologica. 26, 3, p. 196-199 4 p.

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

**The evaluation of drinking water treatment performed with HPSEC**

Vuorio, E., Vahala, R., Rintala, J. & Laukkanen, R., Jul 1998, In : Environment International. 24, 5-6, p. 617-623 7 p.

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

### **Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds**

Wang, M., Chen, D., Xiao, M., Ye, Q., Stolzenburg, D., Hofbauer, V., Ye, P., Vogel, A. L., Mauldin, R. L., Amorim, A., Baccarini, A., Baumgartner, B., Brilke, S., Dada, L., Dias, A., Duplissy, J., Finkenzeller, H., Garmash, O., He, X. C., Hoyle, C. R., Kim, C., Kvashnin, A., Lehtipalo, K., Fischer, L., Molteni, U., Petäjä, T., Pospisilova, V., Quéléver, L. L. J., Rissanen, M., Simon, M., Tauber, C., Tomé, A., Wagner, A. C., Weitz, L., Volkamer, R., Winkler, P. M., Kirkby, J., Worsnop, D. R., Kulmala, M., Baltensperger, U., Dommen, J., El-Haddad, I. & Donahue, N. M., 2020, In : Environmental Science and Technology. 54, 13, p. 7911-7921 11 p.

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

### **Molecular Composition and Volatility of Nucleated Particles from $\alpha$ -Pinene Oxidation between -50 °c and +25 °c**

Ye, Q., Wang, M., Hofbauer, V., Stolzenburg, D., Chen, D., Schervish, M., Vogel, A., Mauldin, R. L., Baalbaki, R., Brilke, S., Dada, L., Dias, A., Duplissy, J., El Haddad, I., Finkenzeller, H., Fischer, L., He, X., Kim, C., Kürten, A., Lamkaddam, H., Lee, C. P., Lehtipalo, K., Leiminger, M., Manninen, H. E., Marten, R., Mentler, B., Partoll, E., Petäjä, T., Rissanen, M., Schobesberger, S., Schuchmann, S., Simon, M., Tham, Y. J., Vazquez-Pufleau, M., Wagner, A. C., Wang, Y., Wu, Y., Xiao, M., Baltensperger, U., Curtius, J., Flagan, R., Kirkby, J., Kulmala, M., Volkamer, R., Winkler, P. M., Worsnop, D. & Donahue, N. M., 5 Nov 2019, In : Environmental Science and Technology. 53, 21, p. 12357-12365 9 p.

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