

### **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

### **Role of Lubricating Oil Properties in Exhaust Particle Emissions of an Off-Road Diesel Engine**

Ovaska, T., Niemi, S., Sirviö, K., Nilsson, O., Karjalainen, P., Rönkkö, T., Kulmala, K. & Keskinen, J., 14 Apr 2020, *SAE WCX 2020 World Congress Experience*. SAE International, 12 p. 2020-01-0386. (SAE Technical Papers).

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

### **CFD modeling the diffusional losses of nanocluster-sized particles and condensing vapors in 90° bends of circular tubes**

Olin, M. & Dal Maso, M., 2020, In : *Journal of Aerosol Science*. 150, 10 p., 105618.

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

### **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

### **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

### **Particulate emissions of a modern diesel passenger car under laboratory and real-world transient driving conditions**

Wihersaari, H., Pirjola, L., Karjalainen, P., Saukko, E., Kuuluvainen, H., Kulmala, K., Keskinen, J. & Rönkkö, T., 2020, In : *Environmental Pollution*. 265, Part B, 10 p., 114948.

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

### **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

### **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

### **Characterization of laboratory and real driving emissions of individual Euro 6 light-duty vehicles – Fresh particles and secondary aerosol formation**

Simonen, P., Kalliokoski, J., Karjalainen, P., Rönkkö, T., Timonen, H., Saarikoski, S., Aurela, M., Bloss, M., Triantafyllopoulos, G., Kontses, A., Amanatidis, S., Dimaratos, A., Samaras, Z., Keskinen, J., Dal Maso, M. & Ntziachristos, L., 1 Dec 2019, In : *Environmental Pollution*. 255, 113175.

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

**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

**Particle emissions of Euro VI, EEV and retrofitted EEV city buses in real traffic**

Järvinen, A., Timonen, H., Karjalainen, P., Bloss, M., Simonen, P., Saarikoski, S., Kuuluvainen, H., Kalliokoski, J., Dal Maso, M., Niemi, J. V., Keskinen, J. & Rönkkö, T., 1 Jul 2019, In : Environmental Pollution. 250, p. 708-716 9 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

**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

**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

**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

**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

**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

**Remediation of sedimented fiber originating from pulp and paper industry: Laboratory scale anaerobic reactor studies and ideas of scaling up**

Chatterjee, P., Lahtinen, L., Kokko, M. & Rintala, J., 15 Oct 2018, In : Water Research. 143, p. 209-217 9 p.

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

**Removal and recovery of uranium(VI) by waste digested activated sludge in fed-batch stirred tank reactor**

Jain, R., Peräniemi, S., Jordan, N., Vogel, M., Weiss, S., Foerstendorf, H. & Lakaniemi, A-M., 1 Oct 2018, In : *Water Research*. 142, p. 167-175 9 p.

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

**Vertical profiles of lung deposited surface area concentration of particulate matter measured with a drone in a street canyon**

Kuuluvainen, H., Poikkimäki, M., Järvinen, A., Kuula, J., Irjala, M., Dal Maso, M., Keskinen, J., Timonen, H., Niemi, J. V. & Rönkkö, T., 1 Oct 2018, In : *Environmental Pollution*. 241, p. 96-105 10 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

**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

**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

**Selenate removal in biofilm systems: Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community**

Tan, L. C., Espinosa-Ortiz, E. J., Nancharaiyah, Y. V., van Hullebusch, E. D., Gerlach, R. & Lens, P. N., Aug 2018, In : *Journal of Chemical Technology and Biotechnology*. 93, 8, p. 2380-2389

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

**Investigating the kinetics and biofuel properties of *Alstonia congensis* and *Ceiba pentandra* via torrefaction**

Oluoti, K., Doddapaneni, T. R. K. C. & Richards, T., 1 May 2018, In : *Energy*. 150, p. 134-141 8 p.

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

**Anaerobic digestion of 30–100-year-old boreal lake sedimented fibre from the pulp industry: Extrapolating methane production potential to a practical scale**

Kokko, M., Koskue, V. & Rintala, J., 15 Apr 2018, In : *Water Research*. 133, p. 218-226 9 p.

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

**Aqueous synthesis of Z-scheme photocatalyst powders and thin-film photoanodes from earth abundant elements**

Šutka, A., Vanags, M., Joost, U., Šmits, K., Ruža, J., Ločs, J., Kleperis, J. & Juhna, T., 1 Apr 2018, In : *Journal of Environmental Chemical Engineering*. 6, 2, p. 2606-2615 10 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

**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., Schaadt, 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

### **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

### **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

### **Technology review: prototyping platforms for monitoring ambient conditions**

Afolaranmi, S. O., Ramis Ferrer, B. & Martinez Lastra, J. L., 2018, In : *International Journal of Environmental Health Research*. 28, 3, p. 253-279 27 p.

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

### **CFD based reactivity parameter determination for biomass particles of multiple size ranges in high heating rate devolatilization**

Niemelä, N. P., Tolvanen, H., Saarinen, T., Leppänen, A. & Joronen, T., 1 Jun 2017, In : *Energy*. 128, p. 676-687 12 p.

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

### **Biohydrogen production from xylose by fresh and digested activated sludge at 37, 55 and 70 °C**

Dessi, P., Lakaniemi, A-M. & Lens, P. N. L., 15 May 2017, In : *Water Research*. 115, p. 120-129 10 p.

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, 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

### **Chasing measurements for real-world emissions of city buses**

Järvinen, A., Karjalainen, P., Bloss, M., Potila, O., Simonen, P., Kuuluvainen, H., Timonen, H., Saarikoski, S., Niemi, J. V., Keskinen, J. & Rönkkö, T., 2017.

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

### **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

### **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

### **Finding H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O nucleation rates in high H<sub>2</sub>SO<sub>4</sub> concentrations**

Olin, M., Kausiala, O., Alanen, J., Rönkkö, T. & Dal Maso, M., 2017, *Proceedings of the 20th International Conference on Nucleation and Atmospheric Aerosols*. Halonen, R., Nikandrova, A., Kontkanen, J., Enroth, J. A. & Vehkamäki, H. (eds.). Aerosolitutkimusseura r.y., Finnish Association for Aerosol Research c/o University of Helsinki, Department of Physics, p. 476-479 4 p. (Report Series in Aerosol Science; no. 200).

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

### **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

**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

**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

**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

**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

**Effect of temperature on selenium removal from wastewater by UASB reactors**

Dessi, P., Jain, R., Singh, S., Seder-Colomina, M., van Hullebusch, E. D., Rene, E. R., Ahammad, S. Z., Carucci, A. & Lens, P. N. L., 1 May 2016, In : *Water Research*. 94, p. 146-154 9 p.

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

**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

**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

**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

**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

**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

**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

**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., 15 Dec 2015, In : *Water Research*. 87, p. 105-111 7 p., 11500.

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

**Power generation in fed-batch and continuous up-flow microbial fuel cell from synthetic wastewater**

Lay, C-H., Kokko, M. E. & Puhakka, J. A., 1 Nov 2015, In : *Energy*. 91, p. 235-241 7 p.

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

**Modelling new particle formation and growth using combined power law and log-normal distribution model**

Olin, M. & Dal Maso, M., 8 Sep 2015, *EAC 2015, European Aerosol Conference*. Milan, Italy: Italian Aerosol Society

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

**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

**Experimental Investigation of Cyclic Variability on Combustion and Emissions of a High-Speed SI Engine**

Karvountzis-Kontakiotis, A., Ntziachristos, L., Samaras, Z., Dimaratos, A. & Peckham, M., 14 Apr 2015, *SAE 2015 World Congress and Exhibition*. April ed. SAE International, Vol. 2015-April.

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

**Modelling particle distribution using combined power-law and log-normal distribution model**

Olin, M. P. & Dal Maso, M. I., 12 Mar 2015, *Proceedings of the NOSA-FAAR Symposium 2015*. Kuopio, Finland:

Aerosolitutkimusseura r.y., Finnish Association for Aerosol Research c/o University of Helsinki, Department of Physics

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

**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

**Evaluating Particulate Emissions from a Flexible Fuel Vehicle with Direct Injection when Operated on Ethanol and Iso-butanol Blends**

Karavalakis, G., Short, D., Chen, V., Espinoza, C., Berte, T., Durbin, T., Asa-Awuku, A., Jung, H., Ntziachristos, L., Amanatidis, S. & Bergmann, A., 13 Oct 2014, *SAE 2014 International Powertrains, Fuels and Lubricants Meeting, FFL 2014*. SAE International, Vol. 2014-October.

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

### **Simulation of the Formation Process of Diesel Exhaust Particle Emissions**

Olin, M. P., Arffman, A. S., Dal Maso, M. I., Keskinen, J. O. & Rönkkö, T. S., 12 Mar 2014, (Unpublished) *Physics Days 2014*. Tampere, Finland: Finnish Physical Society

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

### **Tuberculosis transmission: Modelled impact of air-tightness in dwellings in the UK**

Taylor, J., Altamirano-Medina, H., Shrubsole, C., Das, P., Biddulph, P., Davies, M., Mavrogianni, A. & Oikonomou, E., 1 Jan 2014, p. 60-67. 8 p.

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

### **Using probabilistic sampling-based sensitivity analyses for indoor air quality modelling**

Das, P., Chalabi, Z., Davies, M., Hamilton, I., Jones, B., Mavrogianni, A., Shrubsole, C. & Taylor, J., 1 Jan 2014, p. 553-555. 3 p.

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

### **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

### **Building energy-efficiency interventions in North-East Europe: Effects on indoor environmental quality and public health**

Du, L., Prasauskas, T., Leivo, V., Turunen, M., Aaltonen, A., Kiviste, M., Martuzevicius, D. & Haverinen-Shaughnessy, U., 2014, *Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate*. International Society of Indoor Air Quality and Climate, p. 637-639 3 p.

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

### **Characterization of charge in airborne fungal spores**

Reponen, T., Saari, S., Mensah-Attipoe, J., Ukkonen, A., Veijalainen, A., Pasanen, P. & Keskinen, J., 2014, *Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate*. International Society of Indoor Air Quality and Climate, p. 359-361 3 p.

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

### **Use of a PPS sensor in evaluating the impact of fuel efficiency improvement technologies on the particle emissions of a euro 5 diesel car**

Amanatidis, S., Ntziachristos, L., Samaras, Z., Kouridis, C., Janka, K. & Tikkanen, J., 2014, *SAE 2014 World Congress and Exhibition*. SAE International, Vol. 1.

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

### **Impact of the dropping activity with vehicle age on air pollutant emissions**

Caserini, S., Pastorello, C., Gaifami, P. & Ntziachristos, L., Jul 2013, In : *Atmospheric Pollution Research*. 4, 3, p. 282-289 8 p.

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

### **Biochemical changes of fresh water cyanobacteria *dolichospermum flos-aquae* NTMS07 to chromium-induced stress with special reference to antioxidant enzymes and cellular fatty acids**

Kumar, M. S., Praveenkumar, R., Ilavarasi, A., Rajeshwari, K. & Thajuddin, N., Jun 2013, In : *Bulletin of Environmental Contamination and Toxicology*. 90, 6, p. 730-735 6 p.

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

### **Organic silicon compounds in biogases produced from grass silage, grass and maize in laboratory batch assays**

Rasi, S., Seppälä, M. & Rintala, J., 1 Apr 2013, In : *Energy*. 52, p. 137-142 6 p.

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

### **Application of the Pegasor Particle Sensor for the Measurement of Mass and Particle Number Emissions**

Ntziachristos, L., Amanatidis, S., Samaras, Z., Janka, K. & Tikkanen, J., Apr 2013, In : *SAE International Journal of Fuels and Lubricants*. 6, 2

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

### **Use of a Catalytic Stripper as an Alternative to the Original PMP Measurement Protocol**

Ntziachristos, L., Amanatidis, S., Samaras, Z., Giechaskiel, B. & Bergmann, A., Apr 2013, In : SAE International Journal of Fuels and Lubricants. 6, 2

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

### **Applicability of the Pegasor particle sensor to measure particle number, mass and PM emissions**

Amanatidis, S., Ntziachristos, L., Samaras, Z., Janka, K. & Tikkanen, J., 2013, *11th International Conference on Engines and Vehicles, ICE 2013*. Vol. 6.

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

### **Application of the pegasor particle sensor for the measurement of mass and particle number emissions**

Ntziachristos, L., Amanatidis, S., Samaras, Z., Janka, K. & Tikkanen, J., 2013, *SAE 2013 World Congress and Exhibition*. SAE International, Vol. 2.

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

### **Use of a catalytic stripper as an alternative to the original PMP measurement protocol**

Ntziachristos, L., Amanatidis, S., Samaras, Z., Giechaskiel, B. & Bergmann, A., 2013, *SAE 2013 World Congress and Exhibition*. SAE International, Vol. 2.

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

### **Thermophilic anaerobic digestion of pulp and paper mill primary sludge and co-digestion of primary and secondary sludge**

Bayr, S. & Rintala, J., 1 Oct 2012, In : Water Research. 46, 15, p. 4713-4720 8 p.

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

### **Exhaust particle sensor for OBD application**

Ntziachristos, L., Fragkiadoulakis, P., Samaras, Z., Janka, K. & Tikkanen, J., 2011, *SAE 2011 World Congress and Exhibition*.

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

### **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

### **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

### **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



**Detailed internal characterisation of two Finnish landfills by waste sampling**

Sormunen, K., Ettala, M. & Rintala, J., 2008, In : Waste Management. 28, 1, p. 151-163 13 p.

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

**Landfill gas upgrading with countercurrent water wash**

Rasi, S., Läntelä, J., Veijanen, A. & Rintala, J., 2008, In : Waste Management. 28, 9, p. 1528-1534 7 p.

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

**Mechanically-biologically treated municipal solid waste as a support medium for microbial methane oxidation to mitigate landfill greenhouse emissions**

Einola, J. K. M., Karhu, A. E. & Rintala, J. A., 2008, In : Waste Management. 28, 1, p. 97-111 15 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

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

Jokela, J. P. Y. & Rintala, J. A., 2003, In : Reviews in Environmental Science and Bio-Technology. 2, 1, p. 67-77 11 p.

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

**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.

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