

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 C₁ 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- α -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

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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

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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

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

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

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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

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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

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

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Performance evaluation of the HR-ELPI + inversion

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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

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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

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

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

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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

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

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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

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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

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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

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Flow rate-independent electrical aerosol sensor

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Technology review: prototyping platforms for monitoring ambient conditions

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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

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

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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

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

Chasing measurements for real-world emissions of city buses

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

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

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

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

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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

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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

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

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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

Effect of temperature on selenium removal from wastewater by UASB reactors

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

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

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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

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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

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

Downstream integration of microalgae harvesting and cell disruption by means of cationic surfactant-decorated Fe₃O₄ nanoparticles

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

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

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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

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

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

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

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

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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

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

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

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

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

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

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

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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.

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

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

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

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

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

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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

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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.

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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

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

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

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

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

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