

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

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

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

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

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

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

Tan, L. C., Nancharaiyah, Y. V., Lu, S., van Hullebusch, E. D., Gerlach, R. & Lens, P. N. L., 1 Nov 2018, In : Chemosphere. 211, p. 684-693 10 p.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Finding H₂SO₄-H₂O nucleation rates in high H₂SO₄ 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 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

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Research output: Contribution to journal › Article › 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

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

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

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

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