

**Particulate emissions of a modern diesel passenger car under laboratory and real-world transient driving conditions.** / Wihersaari, Hugo; Pirjola, Liisa; Karjalainen, Panu; Saukko, Erkka; Kuuluvainen, Heino; Kulmala, Kari; Keskinen, Jorma; Rönkkö, Topi.

In: *Environmental Pollution*, Vol. 265, No. Part B, 114948, 2020.

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, Eric D.; Guibaud, Gilles; Simon, Stéphane; Lenz, Markus; Yekta, Sepehr Shakeri; Feroso, Fernando G.; Jain, Rohan; Duester, Lars; Roussel, Jimmy; Guillon, Emmanuel; Skyllberg, Ulf; Almeida, C. Marisa R; Pechaud, Yoan; Garuti, Mirco; Frunzo, Luigi; Esposito, Giovanni; Carliell-Marquet, Cynthia; Ortner, Markus; Collins, Gavin.

In: *Critical Reviews in Environmental Science and Technology*, Vol. 46, No. 16, 17.08.2016, p. 1324-1366.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Application of an indoor air pollution metamodel to a spatially-distributed housing stock.** / Taylor, Jonathon; Shrubsole, Clive; Symonds, Phil; Mackenzie, Ian; Davies, Michael.

In: *Science of the Total Environment*, Vol. 667, 01.06.2019, p. 390-399.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Tuberculosis transmission : Modelled impact of air-tightness in dwellings in the UK.** / Taylor, Jonathon; Altamirano-Medina, Hector; Shrubsole, Clive; Das, Payel; Biddulph, Phillip; Davies, Michael; Mavrogianni, Anna; Oikonomou, Eleni.

2014. 60-67 Paper presented at 13th International Conference on Indoor Air Quality and Climate, Indoor Air 2014, Hong Kong, Hong Kong.

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, Lea Chua; Espinosa-Ortiz, Erika J.; Nancharaiyah, Yarlagadda V.; van Hullebusch, Eric D.; Gerlach, Robin; Lens, Piet Nl.

In: *Journal of Chemical Technology and Biotechnology*, Vol. 93, No. 8, 08.2018, 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, Lea Chua; Nancharaiyah, Yarlagadda V.; Lu, Shipeng; van Hullebusch, Eric D.; Gerlach, Robin; Lens, Piet N.L.

In: *Chemosphere*, Vol. 211, 01.11.2018, p. 684-693.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**HPLC-SEC : a new approach to characterise complex wastewater effluents.** / Szabo, Hilda Marta; Lepistö, Raghida; Tuhkanen, Tuula.

In: *International Journal of Environmental Analytical Chemistry*, Vol. 96, No. 3, 19.02.2016, p. 257-270.

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, Phil; Hutchinson, Emma; Ibbetson, Andrew; Taylor, Jonathon; Milner, James; Chalabi, Zaid; Davies, Michael; Wilkinson, Paul.

In: *Science of the Total Environment*, Vol. 697, 134105, 20.12.2019.

Research output: [Contribution to journal](#) › [Article](#) › [Scientific](#) › [peer-review](#)

**Thermophilic aerobic wastewater treatment, process performance, biomass characteristics, and effluent quality.** / Suvilampi, J.; Rintala, J.

In: *Reviews in Environmental Science and Bio-Technology*, Vol. 2, No. 1, 2003, p. 35-51.

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.

In: *Journal of Environmental Chemical Engineering*, Vol. 6, No. 2, 01.04.2018, p. 2606-2615.

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.

In: *Green Chemistry*, Vol. 20, No. 12, 2018, p. 2742-2762.

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

**Detailed internal characterisation of two Finnish landfills by waste sampling.** / Sormunen, Kai; Ettala, Matti; Rintala, Jukka.

In: *Waste Management*, Vol. 28, No. 1, 2008, p. 151-163.

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, Kai; Ettala, Matti; Rintala, Jukka.

In: *Journal of Hazardous Materials*, Vol. 160, No. 2-3, 30.12.2008, p. 601-607.

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?** / Soenne, Helena; Keskinen, Riikka; Heikkinen, Jaakko; Hyväluoma, Jari; Uusitalo, Risto; Peltoniemi, Krista; Velmala, Sannakajsa; Pennanen, Taina; Fritze, Hannu; Kaseva, Janne; Hannula, Markus; Rasa, Kimmo.

In: *Science of the Total Environment*, Vol. 731, 138955, 20.08.2020.

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

**Weathering of gasification and grate bottom ash in anaerobic conditions.** / Sivula, Leena; Ilander, Aki; Väisänen, Ari; Rintala, Jukka.

In: *Journal of Hazardous Materials*, Vol. 174, No. 1-3, 15.02.2010, p. 344-351.

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, Suniti; Rinta-Kanto, Johanna M.; Kettunen, Riitta; Tolvanen, Henrik; Lens, Piet; Collins, Gavin; Kokko, Marika; Rintala, Jukka.

In: *Science of the Total Environment*, Vol. 691, 15.11.2019, p. 960-968.

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, Pauli; Kalliokoski, Joni; Karjalainen, Panu; Rönkkö, Topi; Timonen, Hilikka; Saarikoski, Sanna; Aurela, Minna; Bloss, Matthew; Triantafyllopoulos, Georgios; Kontses, Anastasios; Amanatidis, Stavros; Dimaratos, Athanasios; Samaras, Zissis; Keskinen, Jorma; Dal Maso, Miikka; Ntziachristos, Leonidas.

In: *Environmental Pollution*, Vol. 255, 113175, 01.12.2019.

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, Jung Yoon; Ramasamy, Praveenkumar; Kim, Bohwa; Seo, Jeong Cheol; Park, Ji Yeon; Na, Jeong Geol; Jeon, Sang Goo; Park, Seung Bin; Lee, Kyubock; Oh, You Kwan.

In: *Green Chemistry*, Vol. 18, No. 14, 2016, p. 3981-3989.

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

**Emission measurements with gravimetric impactors and electrical devices : An aerosol instrument comparison.** / Salo, Laura; Mylläri, Fanni; Maasikmets, Marek; Niemelä, Ville; Konist, Alar; Vainumäe, Keio; Kupri, Hanna Lii; Titova, Riina; Simonen, Pauli; Aurela, Minna; Bloss, Matthew; Keskinen, Jorma; Timonen, Hilikka; Rönkkö, Topi.

In: *Aerosol Science and Technology*, Vol. 53, No. 5, 01.03.2019, p. 526-539.

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

**Towards bioproduction of poly- $\alpha$ -olefins from lignocellulose.** / Salmela, Milla; Lehtinen, Tapio; Efimova, Elena; Santala, Suvi; Santala, Ville.

In: *Green Chemistry*, Vol. 22, No. 15, 2020, p. 5067-5076.

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, Sampo; Niemi, Jarkko V.; Rönkkö, Topi; Kuuluvainen, Heino; Järvinen, Anssi; Pirjola, Liisa; Aurela, Minna; Hillamo, Risto; Keskinen, Jorma.

In: *Aerosol and Air Quality Research*, Vol. 15, No. 2, 2015, p. 572-581.

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, Jorma.

In: *Aerosol Science and Technology*, Vol. 50, No. 2, 01.02.2016, p. 126-132.

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

**Performance evaluation of the HR-ELPI + inversion.** / Saari, Sampo; Arffman, Anssi; Harra, Juha; Rönkkö, Topi; Keskinen, Jorma.

In: *Aerosol Science and Technology*, Vol. 52, No. 9, 02.09.2018, p. 1037-1047.

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

**Flow rate-independent electrical aerosol sensor.** / Rostedt, A.; Keskinen, J.

In: *Aerosol Science and Technology*, Vol. 52, No. 11, 2018, p. 1283-1292.

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

**Characterization of charge in airborne fungal spores.** / Reponen, Tiina; Saari, Sampo; Mensah-Attipoe, Jacob; Ukkonen, Ari; Veijalainen, Annamaria; Pasanen, Pertti; Keskinen, Jorma.

Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate. International Society of Indoor Air Quality and Climate, 2014. p. 359-361.

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.

In: *Energy*, Vol. 52, 01.04.2013, p. 137-142.

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

**Landfill gas upgrading with countercurrent water wash.** / Rasi, S.; Läntelä, J.; Veijanen, A.; Rintala, J.

In: *Waste Management*, Vol. 28, No. 9, 2008, p. 1528-1534.

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

**Breaking dormancy : An energy-efficient means of recovering astaxanthin from microalgae.** / Ramasamy, Praveenkumar; Lee, Kyubock; Lee, Jiye; Oh, You Kwan.

In: *Green Chemistry*, Vol. 17, No. 2, 01.02.2015, p. 1226-1234.

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, Katri; Keskinen, Jorma; Yli-Ojanperä, Jaakko.

In: *Aerosol Science and Technology*, Vol. 50, No. 4, 02.04.2016, p. 373-379.

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, Teemu; Niemi, Seppo; Sirviö, Katriina; Nilsson, Olav; Karjalainen, Panu; Rönkkö, Topi; Kulmala, Kari; Keskinen, Jorma.

SAE WCX 2020 World Congress Experience. SAE International, 2020. 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, Kehinde; Doddapaneni, Tharaka Rama K.C.; Richards, Tobias.

In: *Energy*, Vol. 150, 01.05.2018, p. 134-141.

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

**Simulation of the Formation Process of Diesel Exhaust Particle Emissions.** / Olin, Miska Petteri; Arffman, Anssi Sakari; Dal Maso, Miikka Ilmari; Keskinen, Jorma Olavi; Rönkkö, Topi Santeri.  
Physics Days 2014. Tampere, Finland : Finnish Physical Society, 2014.  
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, Miska Petteri; Dal Maso, Miikka Ilmari.  
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, 2015.  
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, Miska; Dal Maso, Miikka.  
EAC 2015, European Aerosol Conference. Milan, Italy : Italian Aerosol Society, 2015.  
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Professional

**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.  
Proceedings of the 20th International Conference on Nucleation and Atmospheric Aerosols. ed. / Roope Halonen; Anna Nikandrova; Jenni Kontkanen; Joonas A. Enroth; Hanna Vehkamäki. Aerosolitutkimusseura r.y., Finnish Association for Aerosol Research c/o University of Helsinki, Department of Physics, 2017. p. 476-479 (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, Miska; Dal Maso, Miikka.  
In: Journal of Aerosol Science, Vol. 150, 105618, 2020.  
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, Leonidas; Amanatidis, Stavros; Samaras, Zissis; Janka, Kauko; Tikkanen, Juha.  
In: SAE International Journal of Fuels and Lubricants, Vol. 6, No. 2, 04.2013.  
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, Leonidas; Amanatidis, Stavros; Samaras, Zissis; Janka, Kauko; Tikkanen, Juha.  
SAE 2013 World Congress and Exhibition. Vol. 2 SAE International, 2013.  
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, Leonidas; Amanatidis, Stavros; Samaras, Zissis; Giechaskiel, Barouch; Bergmann, Alexander.  
SAE 2013 World Congress and Exhibition. Vol. 2 SAE International, 2013.  
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, Leonidas; Amanatidis, Stavros; Samaras, Zissis; Giechaskiel, Barouch; Bergmann, Alexander.  
In: SAE International Journal of Fuels and Lubricants, Vol. 6, No. 2, 04.2013.  
Research output: Contribution to journal > Article > Scientific > peer-review

**Exhaust particle sensor for OBD application.** / Ntziachristos, Leonidas; Fragkiadoulakis, Pavlos; Samaras, Zissis; Janka, Kauko; Tikkanen, Juha.  
SAE 2011 World Congress and Exhibition. 2011.  
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, Niko P.; Tolvanen, Henrik; Saarinen, Teemu; Leppänen, Aino; Joronen, Tero.  
In: Energy, Vol. 128, 01.06.2017, p. 676-687.

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

**Release and characteristics of fungal fragments in various conditions.** / Mensah-Attipoe, Jacob; Saari, Sampo; Veijalainen, Anna Maria; Pasanen, Pertti; Keskinen, Jorma; Leskinen, Jari T T; Reponen, Tiina.  
In: Science of the Total Environment, Vol. 547, 15.03.2016, p. 234-243.

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.  
In: Science of the Total Environment, Vol. 610-611, 01.01.2018, p. 678-690.

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, Teemu; Kuuluvainen, Heino; Juuti, Paxton; Järvinen, Anssi; Arffman, Anssi; Rönkkö, Topi.  
In: Aerosol Science and Technology, Vol. 54, No. 8, 2020, p. 958-971.

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, Virpi; Prasauskas, Tadas; Du, Liuliu; Turunen, Mari; Kivistie, Mihkel; Aaltonen, Anu; Martuzevicius, Dainius; Haverinen-Shaughnessy, Ulla.

In: Science of the Total Environment, Vol. 621, 2017, p. 398-406.

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, Pablo; Jermakka, Johannes; Keller, Jurg; Freguia, Stefano.

In: Environmental Science and Technology Letters, Vol. 4, No. 3, 14.03.2017, p. 119-124.

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, Chyi-How; Kokko, Marika E.; Puhakka, Jaakko A.  
In: Energy, Vol. 91, 01.11.2015, p. 235-241.

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

**Triboelectric charging of fungal spores during resuspension and rebound.** / Kuuluvainen, Heino; Saari, Sampo; Mensah-Attipoe, Jacob; Arffman, Anssi; Pasanen, Pertti; Reponen, Tiina; Keskinen, Jorma.

In: Aerosol Science and Technology, Vol. 50, No. 2, 01.02.2016, p. 187-197.

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, Heino; Poikkimäki, Mikko; Järvinen, Anssi; Kuula, Joel; Irjala, Matti; Dal Maso, Miikka; Keskinen, Jorma; Timonen, Hilikka; Niemi, Jarkko V.; Rönkkö, Topi.

In: Environmental Pollution, Vol. 241, 01.10.2018, p. 96-105.

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, Joel; Kuuluvainen, Heino; Rönkkö, Topi; Niemi, Jarkko V.; Saukko, Erkka; Portin, Harri; Aurela, Minna; Saarikoski, Sanna; Rostedt, Antti; Hillamo, Risto; Timonen, Hilikka.

In: Aerosol and Air Quality Research, Vol. 19, No. 5, 01.05.2019, p. 1024-1039.

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, Muthukannan Satheesh; Praveenkumar, Ramasamy; Ilavarasi, Asokraja; Rajeshwari, Kamaraj; Thajuddin, Nooruddin.

In: Bulletin of Environmental Contamination and Toxicology, Vol. 90, No. 6, 06.2013, p. 730-735.

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, Marika; Koskue, Veera; Rintala, Jukka.

In: *Water Research*, Vol. 133, 15.04.2018, p. 218-226.

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.

In: *Water Research*, Vol. 87, 11500, 15.12.2015, p. 105-111.

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

**Landfill methane oxidation in engineered soil columns at low temperature.** / Kettunen, Riitta H.; Einola, Juha Kalle M; Rintala, Jukka A.

In: *Water Air and Soil Pollution*, Vol. 177, No. 1-4, 11.2006, p. 313-334.

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, Apostolos; Ntziachristos, Leonidas; Samaras, Zissis; Dimaratos, Athanasios; Peckham, Mark.

SAE 2015 World Congress and Exhibition. Vol. 2015-April April. ed. SAE International, 2015.

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, Panu; Saari, Sampo; Kuuluvainen, Heino; Kalliohaka, Tapio; Taipale, Aimo; Rönkkö, Topi.

In: *Aerosol Science and Technology*, Vol. 51, No. 12, 2017, p. 1398-1408.

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, George; Short, Daniel; Chen, Vincent; Espinoza, Carlos; Berte, Tyler; Durbin, Thomas; Asa-Awuku, Akua; Jung, Heejung; Ntziachristos, Leonidas; Amanatidis, Stavros; Bergmann, Alexander.

SAE 2014 International Powertrains, Fuels and Lubricants Meeting, FFL 2014. Vol. 2014-October SAE International, 2014.

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

**Real-time effective density monitor (DENSMO) for aerosol nanoparticle production.** / Juuti, Paxton; Arffman, Anssi; Rostedt, Antti; Harra, Juha; Mäkelä, Jyrki M.; Keskinen, Jorma.

In: *Aerosol Science and Technology*, Vol. 50, No. 5, 03.05.2016, p. 487-496.

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

**Fabrication of fiber filters with antibacterial properties for VOC and particle removal.** / Juuti, Paxton; Nikka, Markus; Gunell, Marianne; Eerola, Erkki; Saarinen, Jarkko J.; Omori, Youichi; Seto, Takafumi; Mäkelä, Jyrki M.

In: *Aerosol and Air Quality Research*, Vol. 19, No. 8, 01.08.2019, p. 1892-1899.

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.

In: *Reviews in Environmental Science and Bio-Technology*, Vol. 2, No. 1, 2003, p. 67-77.

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

**Chasing measurements for real-world emissions of city buses.** / Järvinen, Anssi; Karjalainen, Panu; Bloss, Matthew; Potila, Outi; Simonen, Pauli; Kuuluvainen, Heino; Timonen, Hilka; Saarikoski, Sanna; Niemi, Jarkko V.; Keskinen, Jorma; Rönkkö, Topi.

2017. Paper presented at European Aerosol Conference 2017, Zürich, Switzerland.

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.

In: Aerosol Science and Technology, Vol. 52, No. 8, 03.08.2018, p. 828-840.

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

**Particle emissions of Euro VI, EEV and retrofitted EEV city buses in real traffic.** / Järvinen, Anssi; Timonen, Hilikka; Karjalainen, Panu; Bloss, Matthew; Simonen, Pauli; Saarikoski, Sanna; Kuuluvainen, Heino; Kalliokoski, Joni; Dal Maso, Miiikka; Niemi, Jarkko V.; Keskinen, Jorma; Rönkkö, Topi.

In: Environmental Pollution, Vol. 250, 01.07.2019, p. 708-716.

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, Rohan; Peräniemi, Sirpa; Jordan, Norbert; Vogel, Manja; Weiss, Stephan; Foerstendorf, Harald; Lakaniemi, Aino-Maija.

In: Water Research, Vol. 142, 01.10.2018, p. 167-175.

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

**Quantitative characterization of pore structure of several biochars with 3D imaging.** / Hyväluoma, Jari; Kulju, Sampo; Hannula, Markus; Wikberg, Hanne; Källi, Anssi; Rasa, Kimmo.

In: Environmental Science and Pollution Research, Vol. 25, No. 26, 09.2018, p. 1-11.

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, Paavo; Rossi, Jussi; Rostedt, Antti; Huhtala, Janne; Järvinen, Anssi; Toivonen, Juha; Keskinen, Jorma.

In: Aerosol Science and Technology, 2020.

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, Barouch; Maricq, Matti; Ntziachristos, Leonidas; Dardiotis, Christos; Wang, Xiaoliang; Axmann, Harald; Bergmann, Alexander; Schindler, Wolfgang.

In: Journal of Aerosol Science, Vol. 67, 01.2014, p. 48-86.

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

**Sorption of zinc onto elemental selenium nanoparticles immobilized in Phanerochaete chrysosporium pellets.** / Espinosa-Ortiz, Erika J.; Shakya, Manisha; Jain, Rohan; Rene, Eldon R.; van Hullebusch, Eric D.; Lens, Piet N. L.

In: Environmental Science and Pollution Research, Vol. 23, No. 21, 2016, p. 21619-21630.

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.

In: Science of the Total Environment, Vol. 407, No. 1, 15.12.2008, p. 67-83.

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, Juha Kalle M; Karhu, A. Elina; Rintala, Jukka A.

In: Waste Management, Vol. 28, No. 1, 2008, p. 97-111.

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, Liuliu; Prasauskas, Tadas; Leivo, Virpi; Turunen, Mari; Aaltonen, Anu; Kiviste, Mihkel; Martuzevicius, Dainius; Haverinen-Shaughnessy, Ulla.

Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate. International Society of Indoor Air Quality and Climate, 2014. p. 637-639.

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, Mark H C L; Stumpel, Jelle E.; Van De Kruijs, Bastiaan H P; Meuldijk, Jan; Vekemans, Jef A J M; Hulshof, Lambertus A.

In: Green Chemistry, Vol. 11, No. 1, 2009, p. 60-64.

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

**Effect of temperature on selenium removal from wastewater by UASB reactors.** / Dessì, Paolo; Jain, Rohan; Singh, Satyendra; Seder-Colomina, Marina; van Hullebusch, Eric D.; Rene, Eldon R.; Ahammad, Shaikh Ziauddin; Carucci, Alessandra; Lens, Piet N L.

In: *Water Research*, Vol. 94, 01.05.2016, p. 146-154.

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.** / Dessì, Paolo; Lakaniemi, Aino-Maija; Lens, Piet N L.

In: *Water Research*, Vol. 115, 15.05.2017, p. 120-129.

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

**Using probabilistic sampling-based sensitivity analyses for indoor air quality modelling.** / Das, Payel; Chalabi, Zaid; Davies, Michael; Hamilton, Ian; Jones, Benjamin; Mavrogianni, Anna; Shrubsole, Clive; Taylor, Jonathon. 2014. 553-555 Paper presented at 13th International Conference on Indoor Air Quality and Climate, Indoor Air 2014, Hong Kong, Hong Kong.

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, Miikka; Gao, Jian; Järvinen, Anssi; Li, Hui; Luo, Datong; Janka, Kauko; Rönkkö, Topi.

In: *Aerosol and Air Quality Research*, Vol. 16, No. 12, 01.12.2016, p. 3001-3011.

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, Biwu; Dada, Lubna; Liu, Yongchun; Yao, Lei; Wang, Yonghong; Du, Wei; Cai, Jing; Dällenbach, K. R.; Chen, Xuemeng; Simonen, Pauli; Zhou, Ying; Deng, Chenjuan; Fu, Yueyun; Yin, Rujing; Li, Haiyan; He, Xu Cheng; Feng, Zeming; Yan, Chao; Kangasluoma, Juha; Bianchi, Federico; Jiang, Jingkun; Kujansuu, Joni; Kerminen, Veli Matti; Petäjä, Tuukka; He, Hong; Kulmala, Markku.

In: *Science of the Total Environment*, Vol. 753, 142207, 2020.

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, Pritha; Lahtinen, Leija; Kokko, Marika; Rintala, Jukka.

In: *Water Research*, Vol. 143, 15.10.2018, p. 209-217.

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, Samayita; Rene, Eldon R.; Lens, Piet N.L.; Rintala, Jukka; Veiga, María C.; Kennes, Christian.

In: *Chemosphere*, Vol. 250, 126105, 2020.

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

**Impact of the dropping activity with vehicle age on air pollutant emissions.** / Caserini, Stefano; Pastorello, Cinzia; Gaifami, Pietro; Ntziachristos, Leonidas.

In: *Atmospheric Pollution Research*, Vol. 4, No. 3, 07.2013, p. 282-289.

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

**Distinguishing fuel and lubricating oil combustion products in diesel engine exhaust particles.** / Carbone, Samara; Timonen, Hilka J.; Rostedt, Antti; Happonen, Matti; Rönkkö, Topi; Keskinen, Jorma; Ristimäki, Jyrki; Korpi, Heikki; Artaxo, Paulo; Canagaratna, Manjula; Worsnop, Douglas; Canonaco, Francesco; Prévôt, Andre S.H.; Hillamo, Risto; Saarikoski, Sanna.

In: *Aerosol Science and Technology*, Vol. 53, No. 5, 04.05.2019, p. 594-607.

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, Suvi; Rintala, Jukka.

In: *Water Research*, Vol. 46, No. 15, 01.10.2012, p. 4713-4720.

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



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

Auvinen, Hannele; Gagnon, Vincent; Rousseau, Diederik P L; du Laing, Gijs.

In: *Reviews in Environmental Science and Bio-Technology*, Vol. 16, No. 2, 2017, p. 207-222.

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,

Anssi; Kuuluvainen, Heino; Harra, Juha; Vuorinen, Ossi; Juuti, Paxton; Yli-Ojanperä, Jaakko; Mäkelä, Jyrki; Keskinen, Jorma.

In: *Journal of Aerosol Science*, Vol. 86, 01.08.2015, p. 32-43.

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

**Differential diffusion analyzer. /** Arffman, A.; Juuti, P.; Harra, J.; Keskinen, J.

In: *Aerosol Science and Technology*, Vol. 51, No. 12, 2017, p. 1429-1437.

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, Stavros; Ntziachristos, Leonidas; Samaras, Zissis; Kouridis, Chariton; Janka, Kauko; Tikkanen, Juha.

SAE 2014 World Congress and Exhibition. Vol. 1 SAE International, 2014.

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, Stavros; Ntziachristos, Leonidas; Samaras, Zissis; Janka, Kauko; Tikkanen, Juha.

11th International Conference on Engines and Vehicles, ICE 2013. Vol. 6 2013.

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, Stavros; Ntziachristos, Leonidas; Giechaskiel, Barouch; Katsaounis, Dimitrios; Samaras, Zissis; Bergmann, Alexander.

In: *Journal of Aerosol Science*, Vol. 57, 03.2013, p. 144-155.

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, Stavros; Ntziachristos, Leonidas; Karjalainen, Panu; Saukko, Erkka; Simonen, Pauli; Kuittinen, Niina; Aakko-Saksa, Päivi; Timonen, Hilikka; Rönkkö, Topi; Keskinen, Jorma.

In: *Aerosol Science and Technology*, Vol. 52, No. 4, 2018, p. 1-13.

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

**Technology review : prototyping platforms for monitoring ambient conditions. /** Afolaranmi, Samuel Olaiya; Ramis Ferrer, Borja; Martinez Lastra, Jose Luis.

In: *International Journal of Environmental Health Research*, Vol. 28, No. 3, 2018, p. 253-279.

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, Päivi; Koponen, Päivi; Aurela, Minna; Vesala, Hannu; Piimäkorpi, Pekka; Murtonen, Timo; Sippula, Olli; Koponen, Hanna; Karjalainen, Panu; Kuittinen, Niina; Panteliadis, Pavlos; Rönkkö, Topi; Timonen, Hilikka.

In: *Journal of Aerosol Science*, Vol. 126, 12.2018, p. 191-204.

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