# Topi RÃ¶nkkÃ¶

List of Publications by Year
in descending order

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| 120 | 4,283 | 94433 | 144013 |
|---|---|---|---|
| papers | citations | 37 h-index | 57 g-index |

| 133 | 133 | 133 | 3258 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Nucleation Mode Particles with a Nonvolatile Core in the Exhaust of a Heavy Duty Diesel Vehicle. Environmental Science & Technology, 2007, 41, 6384-6389. | 10.0 | 216 |
| 2 | Effect of dilution conditions and driving parameters on nucleation mode particles in diesel exhaust: Laboratory and on-road study. Atmospheric Environment, 2006, 40, 2893-2901. | 4.1 | 177 |
| 3 | Traffic is a major source of atmospheric nanocluster aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7549-7554. | 7.1 | 171 |
| 4 | Exhaust particles of modern gasoline vehicles: A laboratory and an on-road study. Atmospheric Environment, 2014, 97, 262-270. | 4.1 | 145 |
| 5 | Characteristics and source apportionment of black carbon in the Helsinki metropolitan area, Finland. Atmospheric Environment, 2018, 190, 87-98. | 4.1 | 118 |
| 6 | Dispersion of particles and trace gases nearby a city highway: Mobile laboratory measurements in Finland. Atmospheric Environment, 2006, 40, 867-879. | 4.1 | 115 |
| 7 | Spatial and temporal characterization of traffic emissions in urban microenvironments with a mobile laboratory. Atmospheric Environment, 2012, 63, 156-167. | 4.1 | 100 |
| 8 | The formation and physical properties of the particle emissions from a natural gas engine. Fuel, 2015, 162, 155-161. | 6.4 | 98 |
| 9 | Winter and summer time size distributions and densities of traffic-related aerosol particles at a busy highway in Helsinki. Atmospheric Chemistry and Physics, 2006, 6, 2411-2421. | 4.9 | 81 |
| 10 | First Online Measurements of Sulfuric Acid Gas in Modern Heavy-Duty Diesel Engine Exhaust: Implications for Nanoparticle Formation. Environmental Science & Technology, 2012, 46, 11227-11234. | 10.0 | 78 |
| 11 | Mobile measurements of ship emissions in two harbour areas in Finland. Atmospheric Measurement Techniques, 2014, 7, 149-161. | 3.1 | 78 |
| 12 | Vehicle Engines Produce Exhaust Nanoparticles Even When Not Fueled. Environmental Science & Technology, 2014, 48, 2043-2050. | 10.0 | 77 |
| 13 | Can Real-World Diesel Exhaust Particle Size Distribution be Reproduced in the Laboratory? A Critical Review Jorma Keskinen. Journal of the Air and Waste Management Association, 2010, 60, 1245-1255. | 1.9 | 76 |
| 14 | Time-resolved characterization of primary particle emissions and secondary particle formation from a modern gasoline passenger car. Atmospheric Chemistry and Physics, 2016, 16, 8559-8570. | 4.9 | 76 |
| 15 | Overview of Sources and Characteristics of Nanoparticles in Urban Traffic-Influenced Areas. Journal of Alzheimer's Disease, 2019, 72, 15-28. | 2.6 | 76 |
| 16 | Exhaust emissions of non-road mobile machine: Real-world and laboratory studies with diesel and HVO fuels. Fuel, 2017, 202, 154-164. | 6.4 | 75 |
| 17 | Effects of Gaseous Sulphuric Acid on Diesel Exhaust Nanoparticle Formation and Characteristics. Environmental Science & Technology, 2013, 47, 11882-11889. | 10.0 | 74 |
| 18 | Alzheimer's disease and alpha-synuclein pathology in the olfactory bulbs of infants, children, teens and adults â‰¤40 years in Metropolitan Mexico City. APOE4 carriers at higher risk of suicide accelerate their olfactory bulb pathology. Environmental Research, 2018, 166, 348-362. | 7.5 | 71 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 19 | Heavy Duty Diesel Engine Exhaust Aerosol Particle and Ion Measurements. Environmental Science & Technology, 2009, 43, 163-168. | 10.0 | 70 |
| 20 | Effects of Fresh Lubricant Oils on Particle Emissions Emitted by a Modern Gasoline Direct Injection Passenger Car. Environmental Science & Technology, 2015, 49, 3644-3652. | 10.0 | 70 |
| 21 | Particulate Mass and Nonvolatile Particle Number Emissions from Marine Engines Using Low-Sulfur Fuels, Natural Gas, or Scrubbers. Environmental Science & Technology, 2019, 53, 3315-3322. | 10.0 | 69 |
| 22 | Lung deposited surface area size distributions of particulate matter in different urban areas. Atmospheric Environment, 2016, 136, 105-113. | 4.1 | 67 |
| 23 | The characterization of surgical smoke from various tissues and its implications for occupational safety. PLoS ONE, 2018, 13, e0195274. | 2.5 | 64 |
| 24 | Chemical composition and size of particles in emissions of a coal-fired power plant with flue gas desulfurization. Journal of Aerosol Science, 2014, 73, 14-26. | 3.8 | 58 |
| 25 | Dependence between Nonvolatile Nucleation Mode Particle and Soot Number Concentrations in an EGR Equipped Heavy-Duty Diesel Engine Exhaust. Environmental Science & Technology, 2010, 44, 3175-3180. | 10.0 | 57 |
| 26 | Influence of fuel ethanol content on primary emissions and secondary aerosol formation potential for a modern flex-fuel gasoline vehicle. Atmospheric Chemistry and Physics, 2017, 17, 5311-5329. | 4.9 | 55 |
| 27 | Effect of Open Channel Filter on Particle Emissions of Modern Diesel Engine. Journal of the Air and Waste Management Association, 2009, 59, 1148-1154. | 1.9 | 54 |
| 28 | Nanoparticle Emissions from a Heavy-Duty Engine Running on Alternative Diesel Fuels. Environmental Science & Technology, 2009, 43, 9501-9506. | 10.0 | 51 |
| 29 | Particle emissions characterization from a medium-speed marine diesel engine with two fuels at different sampling conditions. Fuel, 2016, 186, 456-465. | 6.4 | 48 |
| 30 | Development of particle number size distribution near a major road in Helsinki during an episodic inversion situation. Atmospheric Environment, 2007, 41, 1759-1767. | 4.1 | 47 |
| 31 | Effect of Fuel Injection Pressure on a Heavy-Duty Diesel Engine Nonvolatile Particle Emission. Environmental Science & Technology, 2011, 45, 2504-2509. | 10.0 | 46 |
| 32 | Vertical profiles of lung deposited surface area concentration of particulate matter measured with a drone in a street canyon. Environmental Pollution, 2018, 241, 96-105. | 7.5 | 46 |
| 33 | A new oxidation flow reactor for measuring secondary aerosol formation of rapidly changing emission sources. Atmospheric Measurement Techniques, 2017, 10, 1519-1537. | 3.1 | 44 |
| 34 | Chemical and physical characterization of traffic particles in four different highway environments in the Helsinki metropolitan area. Atmospheric Chemistry and Physics, 2016, 16, 5497-5512. | 4.9 | 43 |
| 35 | Diurnal variation of nanocluster aerosol concentrations and emission factors in a street canyon. Atmospheric Environment, 2018, 189, 98-106. | 4.1 | 43 |
| 36 | Physical and Chemical Characterization of Real-World Particle Number and Mass Emissions from City Buses in Finland. Environmental Science & Technology, 2016, 50, 294-304. | 10.0 | 41 |

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|---|---|---|---|
| 37 | Particulate emissions of a modern diesel passenger car under laboratory and real-world transient driving conditions. Environmental Pollution, 2020, 265, 114948. | 7.5 | 39 |
| 38 | Physical and chemical characterization of urban winter-time aerosols by mobile measurements in Helsinki, Finland. Atmospheric Environment, 2017, 158, 60-75. | 4.1 | 38 |
| 39 | Characterization of laboratory and real driving emissions of individual Euro 6 light-duty vehicles â€“ Fresh particles and secondary aerosol formation. Environmental Pollution, 2019, 255, 113175. | 7.5 | 38 |
| 40 | Variation of Absorption Ã…ngstrÃ¶m Exponent in Aerosols From Different Emission Sources. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034094. | 3.3 | 37 |
| 41 | Traffic-originated nanocluster emission exceeds H<sub>2</sub>SO<sub>4</sub>-driven photochemical new particle formation in an urban area. Atmospheric Chemistry and Physics, 2020, 20, 1-13. | 4.9 | 36 |
| 42 | Physical and chemical characteristics of flue-gas particles in a large pulverized fuel-fired power plant boiler during co-combustion of coal and wood pellets. Combustion and Flame, 2017, 176, 554-566. | 5.2 | 35 |
| 43 | Long-term sensor measurements of lung deposited surface area of particulate matter emitted from local vehicular and residential wood combustion sources. Aerosol Science and Technology, 2020, 54, 190-202. | 3.1 | 35 |
| 44 | Spatiotemporal variation and trends in equivalent black carbon in the Helsinki metropolitan area in Finland. Atmospheric Chemistry and Physics, 2021, 21, 1173-1189. | 4.9 | 33 |
| 45 | Seasonal and Diurnal Variations of Fluorescent Bioaerosol Concentration and Size Distribution in the Urban Environment. Aerosol and Air Quality Research, 2015, 15, 572-581. | 2.1 | 33 |
| 46 | Model studies of volatile diesel exhaust particle formation: are organic vapours involved in nucleation and growth?. Atmospheric Chemistry and Physics, 2015, 15, 10435-10452. | 4.9 | 32 |
| 47 | Shipping Remains a Globally Significant Source of Anthropogenic PN Emissions Even after 2020 Sulfur Regulation. Environmental Science & Technology, 2021, 55, 129-138. | 10.0 | 31 |
| 48 | Physical Characteristics of Particle Emissions from a Medium Speed Ship Engine Fueled with Natural Gas and Low-Sulfur Liquid Fuels. Environmental Science & Technology, 2020, 54, 5376-5384. | 10.0 | 30 |
| 49 | Potential of renewable fuel to reduce diesel exhaust particle emissions. Applied Energy, 2019, 254, 113636. | 10.1 | 29 |
| 50 | Distinguishing fuel and lubricating oil combustion products in diesel engine exhaust particles. Aerosol Science and Technology, 2019, 53, 594-607. | 3.1 | 29 |
| 51 | Computation of maximum rate of waterâ€“sulphuric acid nucleation in diesel exhaust. Journal of Aerosol Science, 2006, 37, 1596-1604. | 3.8 | 28 |
| 52 | Exhaust particle and NOx emission performance of an SCR heavy duty truck operating in real-world conditions. Atmospheric Environment, 2016, 126, 136-144. | 4.1 | 27 |
| 53 | Particle emissions of Euro VI, EEV and retrofitted EEV city buses in real traffic. Environmental Pollution, 2019, 250, 708-716. | 7.5 | 27 |
| 54 | Characterization of trace metals on soot aerosol particles with the SP-AMS: detection and quantification. Atmospheric Measurement Techniques, 2015, 8, 4803-4815. | 3.1 | 26 |

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| 55 | Comparative performance of a thermal denuder and a catalytic stripper in sampling laboratory and marine exhaust aerosols. Aerosol Science and Technology, 2018, 52, 420-432. | 3.1 | 26 |
| 56 | Strategies To Diminish the Emissions of Particles and Secondary Aerosol Formation from Diesel Engines. Environmental Science & Technology, 2019, 53, 10408-10416. | 10.0 | 26 |
| 57 | The Effect of Sulphur in Diesel Exhaust Aerosol: Models Compared with Measurements. Aerosol Science and Technology, 2008, 42, 916-929. | 3.1 | 25 |
| 58 | Heavy Duty Diesel Exhaust Particles during Engine Motoring Formed by Lube Oil Consumption. Environmental Science & Technology, 2016, 50, 12504-12511. | 10.0 | 25 |
| 59 | In-depth characterization of submicron particulate matter inter-annual variations at a street canyon site in northern Europe. Atmospheric Chemistry and Physics, 2021, 21, 6297-6314. | 4.9 | 25 |
| 60 | Sources of black carbon at residential and traffic environments obtained by two source apportionment methods. Atmospheric Chemistry and Physics, 2021, 21, 14851-14869. | 4.9 | 25 |
| 61 | High-resolution low-pressure cascade impactor. Journal of Aerosol Science, 2014, 78, 97-109. | 3.8 | 24 |
| 62 | Mobile Particle and NOx Emission Characterization at Helsinki Downtown: Comparison of Different Traffic Flow Areas. Aerosol and Air Quality Research, 2014, 14, 1372-1382. | 2.1 | 24 |
| 63 | Natural Gas Engine Emission Reduction by Catalysts. Emission Control Science and Technology, 2017, 3, 142-152. | 1.5 | 22 |
| 64 | Applicability of Optical and Diffusion Charging-Based Particulate Matter Sensors to Urban Air Quality Measurements. Aerosol and Air Quality Research, 2019, 19, 1024-1039. | 2.1 | 22 |
| 65 | Investigating the chemical species in submicron particles emitted by city buses. Aerosol Science and Technology, 2017, 51, 317-329. | 3.1 | 21 |
| 66 | Comprehensive emission characterisation of exhaust from alternative fuelled cars. Atmospheric Environment, 2020, 236, 117643. | 4.1 | 21 |
| 67 | Comparison of primary and secondary particle formation from natural gas engine exhaust and of their volatility characteristics. Atmospheric Chemistry and Physics, 2017, 17, 8739-8755. | 4.9 | 20 |
| 68 | Sensitivity of spatial aerosol particle distributions to the boundary conditions in the PALM model system 6.0. Geoscientific Model Development, 2020, 13, 5663-5685. | 3.6 | 20 |
| 69 | The characteristics and size of lung-depositing particles vary significantly between high and low pollution traffic environments. Atmospheric Environment, 2021, 255, 118421. | 4.1 | 19 |
| 70 | Connection between lung deposited surface area (LDSA) and black carbon (BC) concentrations in road traffic and harbour environments. Atmospheric Environment, 2022, 272, 118931. | 4.1 | 18 |
| 71 | New particle formation in the fresh flue-gas plume from a coal-fired power plant: effect of flue-gas cleaning. Atmospheric Chemistry and Physics, 2016, 16, 7485-7496. | 4.9 | 17 |
| 72 | Performance evaluation of the HR-ELPIâ€‰+â€‰inversion. Aerosol Science and Technology, 2018, 52, 1037-1047. | 3.1 | 17 |

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| 73 | Measurement of the human respiratory tract deposited surface area of particles with an electrical low pressure impactor. Aerosol Science and Technology, 2020, 54, 958-971. | 3.1 | 17 |
| 74 | Size Distribution, Chemical Composition, and Hygroscopicity of Fine Particles Emitted from an Oil-Fired Heating Plant. Environmental Science & Technology, 2013, 47, 14468-14475. | 10.0 | 16 |
| 75 | Sulfur Driven Nucleation Mode Formation in Diesel Exhaust under Transient Driving Conditions. Environmental Science & Technology, 2014, 48, 140206134439008. | 10.0 | 16 |
| 76 | Monitoring urban air quality with a diffusion charger based electrical particle sensor. Urban Climate, 2015, 14, 441-456. | 5.7 | 16 |
| 77 | Performance of ventilation filtration technologies on characteristic traffic related aerosol down to nanocluster size. Aerosol Science and Technology, 2017, 51, 1398-1408. | 3.1 | 16 |
| 78 | Considerations in analysing elemental carbon from marine engine exhaust using residual, distillate and biofuels. Journal of Aerosol Science, 2018, 126, 191-204. | 3.8 | 16 |
| 79 | Black carbon toxicity dependence on particle coating: Measurements with a novel cell exposure method. Science of the Total Environment, 2022, 838, 156543. | 8.0 | 16 |
| 80 | Reduction of Heavy-Duty Diesel Exhaust Particle Number and Mass at Low Exhaust Temperature Driving by the DOC and the SCR. SAE International Journal of Fuels and Lubricants, 0, 5, 1114-1122. | 0.2 | 15 |
| 81 | Optical and Chemical Characterization of Aerosols Emitted from Coal, Heavy and Light Fuel Oil, and Small-Scale Wood Combustion. Environmental Science & Technology, 2014, 48, 827-836. | 10.0 | 15 |
| 82 | Diesel Particle Emission Reduction by a Particle Oxidation Catalyst. , 2009, , . | | 14 |
| 83 | Adaptation of Black Carbon Footprint Concept Would Accelerate Mitigation of Global Warming. Environmental Science & Technology, 2019, 53, 12153-12155. | 10.0 | 14 |
| 84 | Dispersion of a Traffic Related Nanocluster Aerosol Near a Major Road. Atmosphere, 2019, 10, 309. | 2.3 | 14 |
| 85 | Toxicological evaluation of exhaust emissions from light-duty vehicles using different fuel alternatives in sub-freezing conditions. Particle and Fibre Toxicology, 2020, 17, 17. | 6.2 | 14 |
| 86 | CFD modeling of a vehicle exhaust laboratory sampling system: sulfur-driven nucleation and growth in diluting diesel exhaust. Atmospheric Chemistry and Physics, 2015, 15, 5305-5323. | 4.9 | 13 |
| 87 | Nonvolatile ultrafine particles observed to form trimodal size distributions in non-road diesel engine exhaust. Aerosol Science and Technology, 2020, 54, 1345-1358. | 3.1 | 13 |
| 88 | Measurement report: The influence of traffic and new particle formation on the size distribution of 1â€“800â€‰nm particles in Helsinki â€“ a street canyon and an urban background station comparison. Atmospheric Chemistry and Physics, 2021, 21, 9931-9953. | 4.9 | 13 |
| 89 | Experimental and numerical analysis of fine particle and soot formation in a modern 100 MW pulverized biomass heating plant. Combustion and Flame, 2022, 240, 111960. | 5.2 | 13 |
| 90 | Household solid waste combustion with wood increases particulate trace metal and lung deposited surface area emissions. Journal of Environmental Management, 2021, 293, 112793. | 7.8 | 12 |

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|---|---|---|---|
| 91 | Physical properties of aerosol particles measured from a bubbling fluidized bed boiler. Fuel, 2015, 139, 144-153. | 6.4 | 11 |
| 92 | Concentrations and Size Distributions of Particle Lung-deposited Surface Area (LDSA) in an Underground Mine. Aerosol and Air Quality Research, 2021, 21, 200660. | 2.1 | 11 |
| 93 | Performance of Particle Oxidation Catalyst and Particle Formation Studies with Sulphur Containing Fuels. SAE International Journal of Fuels and Lubricants, 0, 5, 611-619. | 0.2 | 10 |
| 94 | Effects of driving conditions on secondary aerosol formation from a GDI vehicle using an oxidation flow reactor. Environmental Pollution, 2021, 282, 117069. | 7.5 | 10 |
| 95 | Emission measurements with gravimetric impactors and electrical devices: An aerosol instrument comparison. Aerosol Science and Technology, 2019, 53, 526-539. | 3.1 | 8 |
| 96 | Effects of marine fuel sulfur restrictions on particle number concentrations and size distributions in ship plumes in the Baltic Sea. Atmospheric Chemistry and Physics, 2021, 21, 3215-3234. | 4.9 | 8 |
| 97 | Opinion: Insights into updating Ambient Air Quality Directive 2008/50/EC. Atmospheric Chemistry and Physics, 2022, 22, 4801-4808. | 4.9 | 8 |
| 98 | Effect of Exhaust Flow Conditions and External Cooling on the Performance of the Particle Oxidation Catalyst (POC). , 0, , . | | 7 |
| 99 | Improving Urban Air Quality Measurements by a Diffusion Charger Based Electrical Particle Sensors - A Field Study in Beijing, China. Aerosol and Air Quality Research, 2016, 16, 3001-3011. | 2.1 | 7 |
| 100 | Effect of Injection Parameters on Exhaust Gaseous and Nucleation Mode Particle Emissions of a Tier 4i Nonroad Diesel Engine. , 0, , . | | 6 |
| 101 | A New Miniaturized Sensor for Ultra-Fast On-Board Soot Concentration Measurements. SAE International Journal of Engines, 2017, 10, 1859-1865. | 0.4 | 6 |
| 102 | Inversely modeling homogeneous H<sub>2</sub>SO<sub>4</sub>â€‰â€”â€‰H<sub>2</sub>O nucleation rate in exhaust-related conditions. Atmospheric Chemistry and Physics, 2019, 19, 6367-6388. | 4.9 | 6 |
| 103 | Contribution of traffic-originated nanoparticle emissions to regional and local aerosol levels. Atmospheric Chemistry and Physics, 2022, 22, 1131-1148. | 4.9 | 6 |
| 104 | Can real-world diesel exhaust particle size distribution be reproduced in the laboratory? A critical review. Journal of the Air and Waste Management Association, 2010, 60, 1245-55. | 1.9 | 6 |
| 105 | Characteristics of particle emissions and their atmospheric dilution during co-combustion of coal and wood pellets in a large combined heat and power plant. Journal of the Air and Waste Management Association, 2019, 69, 97-108. | 1.9 | 5 |
| 106 | Suitability of Different Methods for Measuring Black Carbon Emissions from Marine Engines. Atmosphere, 2022, 13, 31. | 2.3 | 5 |
| 107 | Impact of Vehicle Development and Fuel Quality on Exhaust Nanoparticle Emissions of Traffic. Environmental Science & Technology, 2013, 47, 130715120557004. | 10.0 | 4 |
| 108 | The Effect of a Particle Oxidation Catalyst (POCÂ®) on Particle Emissions of a GDI Car during Transient Engine Operation. , 2013, , . | | 4 |

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|---|---|---|---|
| 109 | Using an oxidation flow reactor to understand the effects of gasoline aromatics and ethanol levels on secondary aerosol formation. Environmental Research, 2021, 200, 111453. | 7.5 | 4 |
| 110 | Characterization of particle sources and comparison of different particle metrics in an urban detached housing area, Finland. Atmospheric Environment, 2022, 272, 118939. | 4.1 | 3 |
| 111 | Input-adaptive linear mixed-effects model for estimating alveolar lung-deposited surface area (LDSA) using multipollutant datasets. Atmospheric Chemistry and Physics, 2022, 22, 1861-1882. | 4.9 | 3 |
| 112 | Globally and locally applicable technologies to accelerate electrification. , 2021, , 25-55. | | 2 |
| 113 | Exhaust emissions from a prototype non-road natural gas engine. Fuel, 2022, 316, 123387. | 6.4 | 2 |
| 114 | Secondary Organic and Inorganic Aerosol Formation from a GDI Vehicle under Different Driving Conditions. Atmosphere, 2022, 13, 433. | 2.3 | 2 |
| 115 | DYNAMOMETER VERSUS REAL-LIFE NANOPARTICLE EMISSIONS OF VEHICLES â€“ PROJECT LIPIKA. Journal of Aerosol Science, 2004, 35, S1035-S1036. | 3.8 | 1 |
| 116 | Chemical and physical characterization of oil shale combustion emissions in Estonia. Atmospheric Environment: X, 2021, 12, 100139. | 1.4 | 1 |
| 117 | Characterization of Physical and Chemical Properties of Particulate Emissions of a Modern Diesel-Powered Tractor under Real Driving Conditions. , 0, , . | | 1 |
| 118 | TUBE Project: Transport-Derived Ultrafines and the Brain Effects. International Journal of Environmental Research and Public Health, 2022, 19, 311. | 2.6 | 1 |
| 119 | Overview of Sources and Characteristics of Nanoparticles in Urban Traffic-Influenced Areas. Advances in Alzheimer's Disease, 2021, , . | 0.2 | 0 |
| 120 | CITYZER observation network and data delivery system. Geoscientific Instrumentation, Methods and Data Systems, 2020, 9, 397-406. | 1.6 | 0 |