

LIST OF PUBLICATIONS

16, April 2025

2025

104. Teinilä, K., Saarikoski, S., Lintusaari, H., Lepistö, T., Marjanen, P., Aurela, M., Hellén, H., Tykkä, T., Lampimäki, M., Lampilahti, J., Barreira, L., Mäkelä, T., Kangas, L., Hatakka, J., Harni, S., Kuula, J., Niemi, J. V., Portin, H., Yli-Ojanperä, J., Niemelä, V., Jäppi, M., Lehtipalo, K., Vanhanen, J., Pirjola, L., Manninen, H. E., Petäjä, T., Rönkkö, T., Timonen, H. (2025). Measurement report: Wintertime aerosol characterization at an urban traffic site in Helsinki Finland, *accepted to Atmospheric Chemistry and Physics*.
103. Lepistö, T., Aurela, M., Lintusaari, H., Silvonen, V., Markkula, L., Hoivala, J., Schins, R. P. F., Timonen, H., Jalava, P., Saarikoski, S., Rönkkö, T. (2025). The regional and local sources of particle lung deposited surface area (LDSAal) and aerosol physical and chemical characteristics in a major Central European city, *Atmos. Environ.*, 350, <https://doi.org/10.1016/j.atmosenv.2025.121181>.
102. Lintusaari, H., Lepistö, T., Saarikoski, S., Salo, L., Silvonen, V., Barreira, L. M. F., Aurela, M., Hoivala, J., Markkula, L., Ondracek, J., Wahle, T., Vojtisek-Lom, M., Topinka, J., Schins, R. P. F., Jalava, P., Timonen, H., Kanninen, K. M., Rönkkö, T. (2025). Importance of sub-23 nm particles in traffic environments: Particle number emission factors and extrathoracic deposition doses, *Environ. Pollut.*, 369, 125835, <https://doi.org/10.1016/j.envpol.2025.125835>.

2024

101. Barreira, L. M. F., Aurela, M., Saarikoski, S., Li, D., Teinilä, K., Virkkula, A., Niemi, J. V., Manninen, H. E., Pirjola, L., Petäjä, T., Rönkkö, T., Timonen, H. (2024). Characterizing winter-time brown carbon: Insights into chemical and light-absorption properties in residential and traffic environments. *Sci. Total Environ.* 955, 177089, <https://doi.org/10.1016/j.scitotenv.2024.177089>.
100. Harni, S. D., Aurela, M., Saarikoski, S., Niemi, J., Portin, H., Manninen, H., Leinonen, V., Aalto, P., Hopke, P., Petäjä, T., Rönkkö, T., Timonen, H. (2024). Source apportionment of particle number size distribution at the street canyon and urban background sites. *Atmos. Chem. Phys.*, 24, 12143–12160, <https://doi.org/10.5194/acp-24-12143-2024>.
99. Lepistö, T., Lintusaari, H., Salo, L., Silvonen, V., Barreira, L. M. F., Hoivala, J., Markkula, L., Niemi, J. V., Ondracek, J., Teinilä, K., Manninen, H. E., Saarikoski, S., Timonen, H., Dal Maso, M., Rönkkö, T. (2024). Comparison of size distribution and electrical particle sensor measurement methods for particle lung deposited surface area (LDSAal) in ambient measurements with varying conditions. *Aerosol Res.*, 2, 271–289, <https://doi.org/10.5194/ar-2-271-2024>.
98. Hakkarainen, H., Järvinen, A., Lepistö, T., Kuittinen, N., Markkula, L., Ihantola, T., Yang, M., Martikainen, M., Mikkonen, S., Timonen, H., Aurela, A., Barreira, L., Ihalainen, M., Saarikoski, S., Aakko-Saksa, P. T., Rönkkö, T., Jalava, P. (2024). Effects of fuel composition and vehicle operating temperature on in vitro toxicity of exhaust emissions, *Environmental Science: Atmospheres*, <https://doi.org/10.1039/D3EA00136A>
97. Saarikoski, S., Järvinen, A., Markkula, L., Aurela, M., Kuittinen, N., Hoivala, J., Barreira, L. M. F., Aakko-Saksa, P., Lepistö, T., Marjanen, P., Timonen, H., Hakkarainen, H., Jalava,

- P., Rönkkö, T. (2024). Towards zero pollution vehicles by advanced fuels and exhaust aftertreatment technologies, *Environ. Pollut.*, 347, <https://doi.org/10.1016/j.envpol.2024.123665>.
96. Salo, L., Saarnio, K., Saarikoski, S., Teinilä, K., Barreira, L. M. F., Marjanen, P., Martikainen, S., Keskinen, H., Mustonen, K., Lepistö, T., Aakko-Saksa, P., Hakkainen, H., Pfeiffer, T., Jalava, P., Karjalainen, P., Keskinen, J., Kuittinen, N., Timonen, T., Rönkkö, T. (2024). Black carbon instrument responses to laboratory generated particles, *Atmospheric Pollution Research*, 15, 5, <https://doi.org/10.1016/j.apr.2024.102088>.

2023

95. Silvonen, V., Salo, L., Raunima, T., Vojtisek-Lom, M., Ondracek, J., Topinka, J., Schins, R. P. F., Lepistö, T., Lintusaari, H., Saarikoski, S., Barreira, L., Hoivala, J., Markkula, L., Kulmala, I., Vinha, J., Karjalainen, P., Rönkkö, T. (2023). Lung-depositing surface area (LDSA) of particles in office spaces around Europe: Size-distributions, I/O-ratios and infiltration, *Build. Environ.*, <https://doi.org/10.1016/j.buildenv.2023.110999>.
94. Rönkkö, T., Pirjola, L., Karjalainen, P., Simonen, P., Teinilä, K., Bloss, M., Salo, L., Datta, A., Lale, B., Hooda, R. K., Saarikoski, S., Timonen, H. (2023). Exhaust particle number and composition for diesel and gasoline passenger cars under transient driving conditions: real-world emissions down to 1.5 nm, *Environ.*, 338, 122645, <https://doi.org/10.1016/j.envpol.2023.122645>.
93. Lepistö, T., Lintusaari, H., Oudin, A., Barreira, L. M. F., Niemi, J. V., Karjalainen, P., Salo, L., Silvonen, V., Markkula, L., Hoivala, J., Marjanen, P., Martikainen, S., Aurela, M., Reyes, F., Oyola, P., Kuuvainen, H., Manninen, H. E., Schins, R. P. F., Vojtisek-Lom, M., Ondracek, J., Topinka, J., Timonen, H., Jalava, P., Saarikoski, S., Rönkkö, T. (2023). Particle lung deposited surface area (LDSA^{al}) size distributions in different urban environments and geographical regions: Towards understanding of the PM_{2.5} dose-response, *Environ. Int.*, DOI: 10.1016/j.envint.2023.108224.
92. Friman, M., Aurela, M., Saarnio, K., Teinilä, K., Kesti, J., Harni, S. D., Saarikoski, S., Hyvärinen, A., Timonen, H. (2023). Long-term characterization of organic and elemental carbon at three different background areas in northern Europe, *Atmos. Environ.*, 310, 119953, <https://doi.org/10.1016/j.atmosenv.2023.119953>.
91. Barreira, L. M. F., Lepistö, T., Salo, L., Helin, A., Aurela, M., Saarikoski, S., Kuittinen, N., Rönkkö, T., Timonen, H. (2023). Comprehensive characterization of wintertime submicron aerosol in a Nordic town influenced by residential wood combustion, traffic and industrial sources, *Atmos. Pollut.*, 14, 101835, <https://doi.org/10.1016/j.apr.2023.101835>.
90. Hakkainen, H., Järvinen, A., Lepistö, T., Salo, L., Kuittinen, N., Laakkonen, E., Yang, M., Martikainen, M.-V., Saarikoski, S., Aurela, M., Barreira, L., Teinilä, K., Ihalainen, M., Timonen, H., Rönkkö, T., Aakko-Saksa, P., Jalava, P. (2023). Toxicity of exhaust emissions from high aromatic and non-aromatic diesel fuels using in vitro ALI exposure system, *Sci Total Environ.*, PMID: 37230343, doi: 10.1016/j.scitotenv.2023.164215.
89. Lepistö, T., Barreira, L. M. F., Helin, A., Niemi, J. V., Kuittinen, N., Lintusaari, H., Silvonen, V., Markkula, L., Manninen, H. E., Timonen, H., Jalava, P., Saarikoski, S., Rönkkö, T. (2023). Snapshots of wintertime urban aerosol characteristics: Local sources

emphasized in ultrafine particle number and lung deposited surface area, *Environ. Res.*, 231, 116068, <https://doi.org/10.1016/j.envres.2023.116068>.

88. Saarikoski, S., Hellén, H., Praplan, A. P., Schallhart, S., Clusius, P., Niemi, J. V., Kousa, A., Tykkä, T., Kouznetsov, R., Aurela, M., Salo, L., Rönkkö, T., Barreira, L. M. F., Pirjola, L., Timonen, H. (2023). Characterization of volatile organic compounds and submicron organic aerosol in a traffic environment, *Atmos. Chem. Phys.*, 23, 2963–2982, <https://doi.org/10.5194/acp-23-2963-2023>.
87. Rönkkö, T., Saarikoski, S., Kuittinen, N., Karjalainen, P., Keskinen, H., Järvinen, A., Mylläri, F., Aakko-Saksa, P., Timonen, H. (2023). Review of black carbon emission factors from different anthropogenic sources. *Environ. Res. Lett.*, 18, 033004, <https://doi.org/10.1088/1748-9326/acbb1b>
86. Harni, S. D., Saarikoski, S., Kuula, J., Helin, A., Aurela, M., Niemi, J. V., Kousa, A., Rönkkö, T., Timonen, T. (2023). Effects of emission sources on the particle number size distribution of ambient air in the residential area, *Atmos. Environ.*, 293, 119419, <https://doi.org/10.1016/j.atmosenv.2022.119419>.

2022

85. Hakkarainen, H., Salo, L., Mikkonen, S., Saarikoski, S., Aurela, M., Teinilä, K., Ihlainen, M., Martikainen, S., Marjanen, P., Lepistö, T., Kuittinen, N., Saarnio, K., Aakko-Saksa, P., Pfeiffer, T. V., Timonen, H., Rönkkö, T., Jalava, P.-I. (2022). Black carbon toxicity dependence on particle coating: Measurements with a novel cell exposure method, *Sci. Total Environ.* 838, <https://doi.org/10.1016/j.scitotenv.2022.156543>
84. Marjanen, P., Kuittinen, N., Karjalainen, P., Saarikoski, S., Westerholm, M., Pettinen, R., Aurela, M., Lintusaari, H., Simonen, P., Markkula, L., Kalliokoski, J., Wihsaari, H., Timonen, H., Rönkkö, T. (2022). Exhaust emissions from a prototype non-road natural gas engine, *Fuel*, 316, 123387.
83. Martikainen, M.-V., Aakko-Saksa, P., van den Broek, L., Cassee, F. R., Carare, R. O., Chew, S., Dinnyes, A., Giugno, R., Kanninen, K. M., Malm, T., Muala, A., Nedergaard M., Oudin, A., Oyola, P., Pfeiffer, T. V., Rönkkö, T., Saarikoski, S., Sandström, T., Schins, R. P. F., Topinka, J., Yang, M.Zeng, X., Westerink, R. H. S., Jalava, P. I. (2022). TUBE Project: Transport-Derived Ultrafines and the Brain Effects. *Int. J. Environ. Res. Public Health* 2022, 19, 311. <https://doi.org/10.3390/ijerph19010311>
82. Lepistö, T., Kuuluvainen, H., Lintusaari, H., Kuittinen, N., Salo, L., Helin, A., Niemi, J. V., Manninen, H. E., Timonen, H., Jalava, P., Saarikoski, S., Rönkkö, T. (2022). Connection between lung deposited surface area (LDSA) and black carbon (BC) concentrations in road traffic and harbour environments, *Atmos. Environ.*, 272, 118931.
81. Teinilä, K., Timonen, H., Aurela, M., Kuula, J., Rönkkö, T., Hellén, H., Loukkola, K., Kousa, A., Niemi, J. V., Saarikoski, S. (2022). Characterization of particle sources and comparison of different particle metrics in an urban detached housing area, Finland, *Atmos. Environ.* 272, 118939
80. Aakko-Saksa, P., Kuittinen, N., Murtonen, T., Koponen, P., Aurela, M., Järvinen, A., Teinilä, K., Saarikoski, S., Barreira, L. M. F., Salo, L., Karjalainen, P., Ortega, I. K., Delhaye, D., Lehtoranta, K., Vesala, H., Jalava, P., Rönkkö, T., Timonen, H. (2022).

Suitability of Different Methods for Measuring Black Carbon Emissions from Marine Engines. *Atmosphere*, 13, 31 <https://doi.org/10.3390/atmos13010031>

2021

79. Saarikoski, S., Niemi, J. V., Aurela, M., Pirjola, L., Kousa, A., Rönkkö, T., Timonen, H. (2021). Sources of black carbon at residential and traffic environments obtained by two source apportionment methods, *Atmos. Chem. Phys.*, 21, 14851–14869, doi.org/10.5194/acp-21-14851-2021.
78. Reyes, F., Ahumada, S., Rojas, F., Oyola, P., Vásquez, Y., Aguilera, C., Henriquez, A. R., Kang, C. M., Saarikoski, S., Teinilä, K., Aurela, M., Timonen, H. (2021). Impact of biomass burning on air quality in Temuco city, Chile, *Aerosol Air Qual. Res.*, 1, 210110. <https://doi.org/10.4209/aaqr.210110>.
77. Timonen, H., Mylläri, F., Simonen, P., Aurela, M., Maasikmets, M., Bloss, M., Kupri, H.-L., Vainumäe, K., Lepistö, T., Salo, L., Niemelä, V., Seppälä, S., Jalava, P. I., Teinemaa, E., Saarikoski, S., Rönkkö, T. (2021). Household solid waste combustion with wood increases particulate trace metal and lung deposited surface area emissions, *J. Environ. Manage.* 293, 112793, <https://doi.org/10.1016/j.jenvman.2021.112793>.
76. Helin, A., Virkkula, A., Backman, J., Pirjola, L., Sippula, O., Aakko-Saksa, P., Väätäinen, S., Mylläri, F., Järvinen, A., Bloss, M., Aurela, M., Jakobi, G., Karjalainen, P., Zimmermann, R., Jokiniemi, J., Saarikoski, S., Tissari, J., Rönkkö, T., Niemi, J. V., Timonen, H. (2021). Variation of Absorption Ångström Exponent in Aerosols from Different Emission Sources, *J. Geophys. Res.* 126, <https://doi.org/10.1029/2020JD034094>.
75. Salo, L., Rönkkö, T., Saarikoski, S., Teinilä, K., Kuula, J., Alanen, J., Arffman, A., Timonen, H., Keskinen, J. (2021). Concentrations and size distributions of particle lung-deposited surface area (LDSA) in an underground mine, *Aerosol Air Qual. Res.* 21, 200660, <https://doi.org/10.4209/aaqr.200660>.
74. Salo, L., Hyvärinen, A., Jalava, P., Teinilä, K., Hooda, R. K., Datta, A., Saarikoski, S., Lintusaari, H., Lepistö, T., Martikainen, S., Rostedt, A., Sharma, V. P., Rähmää, M. H. Subudhi, S., Asmi, E., Niemi, J. V., Lihavainen, H., Lal, B., Keskinen, J., Kuuluvainen, H., Timonen, H., Rönkkö, T. (2021). The characteristics and size of lung-depositing particles vary significantly between high and low pollution traffic environments, *Atmos. Environ.* 255, 118421, <https://doi.org/10.1016/j.atmosenv.2021.118421>.
73. Martikainen, S., Saarikoski, S., Juuti, P., Timonen, H., Keskinen, J., Karjalainen, P. (2021). Soot Particle Agglomeration Inlet (SPA) for Enabling Online Chemical Composition Measurement of Nanoparticles with the Aerosol Mass Spectrometer, *Aerosol Air Qual. Res.* <https://doi.org/10.4209/aaqr.200638>.
72. Barreira, L. M. F., Helin, A., Aurela, M., Teinilä, K., Friman, M., Kangas, L., Niemi, J. V., Portin, H., Kousa, A., Pirjola, L., Rönkkö, T., Saarikoski, S., Timonen, H. (2021). In-depth characterization of submicron particulate matter inter-annual variations at a street canyon site in Northern Europe, *Atmos. Chem. Phys.* 21, 6297–6314, <https://doi.org/10.5194/acp-21-6297-2021>.
71. Thaler, K. M., Gilardi, L., Kalliokoski, J., Simonen, P., Timonen, H., Aurela, M., Saarikoski, S., Martikainen, S., Karjalainen, P., Dal Maso, M., Keskinen, J., Niessner, R., Pang, G. A., Haisch, C. (2021). HEILOS/SICRIT/Mass Spectrometry: A New Tool for

Exhaust Aerosol Analysis, *Aerosol Sci. Technol.*
<https://doi.org/10.1080/02786826.2021.1909699>.

70. Seppälä, S. D., Kuula, J., Hyvärinen, A.-P., Saarikoski, S., Rönkkö, T., Keskinen, J., Jalkanen, J.-P., Timonen, H. (2021). Effects of marine fuel sulfur restrictions on particle number concentrations and size distributions in ship plumes in the Baltic Sea, *Atmos. Chem. Phys.*, 21, 3215–3234.
69. Kuittinen, N., Jalkanen, J.-P., Alanen, J., Ntziachristos, L., Hannuniemi, H., Johansson, L., Karjalainen, P., Saukko, E., Isotalo, M., Aakko-Saksa, P., Lehtoranta, K., Keskinen, J., Simonen, P., Saarikoski, S., Asmi, E., Laurila, T., Hillamo, R., Mylläri, F., Lihavainen, H., Timonen, H., Rönkkö, T. (2020). Shipping Remains a Globally Significant Source of Anthropogenic PN Emissions Even after 2020 Sulfur Regulation, *Environ. Sci. Technol.* 55, 129–138.

2020

68. Martikainen, S., Karjalainen, P., Rönkkö, T., Järvinen, A., Kalliokoski, J., Keskinen, J., Ntziachristos, L., Teinilä, K., Saarikoski, S., Aurela, M., Timonen, H., Saveljeff, H., Lauren, M. (2020). Characterization of Physical and Chemical Properties of Particulate Emissions of a Modern Diesel-Powered Tractor under Real Driving Conditions, *SAE Technical Paper 2020-01-2204*, <https://doi.org/10.4271/2020-01-2204>.
67. Kuula, J., Friman, M., Helin, A., Niemi, J.V., Saarikoski, S., Aurela, M., Timonen, H. (2020). Utilization of scattering and absorption-based particulate matter sensors in the environment impacted by residential wood combustion, *J. Aerosol. Sci.* 150, 105671.

2019

66. Saarikoski, S., Salo, L., Bloss, M., Alanen, J., Teinilä, K., Reyes, F., Vázquez, Y., Keskinen, J., Oyola, P., Rönkkö, T., Timonen, H. (2019). Sources and Characteristics of Particulate Matter at Five Locations in an Underground Mine, *Aerosol Air Qual. Res.* 19, 2613–2624.
65. Saarikoski, S., Williams, L.R., Spielman, S.R., Lewis, G.S., Eiguren-Fernandez, A., Aurela, M., Hering, S.V., Teinilä, K., Croteau, P., Jayne, J.T., Hohaus, T., Worsnop, D.R., Timonen, H. (2019). Laboratory and field evaluation of the Aerosol Dynamics Inc. concentrator (ADIC) for aerosol mass spectrometry, *Atmos. Meas. Tech.* 12, 3907–3920.
64. Pirjola, L., Kuuluvainen, H., Timonen, H., Saarikoski, S., Teinilä, K., Salo, L., Datta, A., Simonen, P., Karjalainen, P., Kulmala, K., Rönkkö, T. (2019). Potential of renewable fuel to reduce diesel exhaust particle emissions, *Appl. Energy*, 254, 113636, [10.1016/j.apenergy.2019.113636](https://doi.org/10.1016/j.apenergy.2019.113636).
63. Karjalainen, P., Rönkkö, T., Simonen, P., Ntziachristos, L., Juuti, P., Timonen, H., Teinilä, K., Saarikoski, S., Saveljeff, H., Lauren, M., Happonen, M., Matilainen, P., Maunula, T., Nuottimäki, J., Keskinen, J. (2019). On the strategies to diminish the emissions of particles and secondary aerosol formation from diesel engines, *Environ. Sci. Technol.* 53, 10408–10416.
62. Kangasniemi, O., Kuuluvainen, H., Heikkilä, J., Pirjola, L., Niemi, J.V., Timonen, H., Saarikoski, S., Rönkkö, T., Dal Maso, M. (2019). Dispersion of a Traffic Related Nanocluster Aerosol Near a Major Road, *Atmosphere*, 10, 309.

61. Teinilä, K., Aurela, M., Niemi, J.V., Kousa, A., Petäjä, T., Järvi, L., Hillamo, R., Kangas, L., Saarikoski, S., Timonen, H. (2019). Concentration variation of gaseous and particulate pollutants in the Helsinki city centre - observations from a two-year campaign from 2013-2015, *Boreal Environ. Res.* 24, 115–136.
60. Simonen, P., Kalliokoski, J., Karjalainen, P., Rönkkö, T., Timonen, H., Saarikoski, S., Aurela, M., Bloss, M., Triantafyllopoulos, G., Kontses, A., Amanatidis, S., Dimaratos, A.M., Samaras, Z., Ntziachristos, L. (2019). Characterization of laboratory and real driving emissions of individual Euro 6 light-duty vehicles – fresh particles and secondary aerosol formation, *Environ. Pollut.* 255, 113175.
59. Järvinen, A., Timonen, H., Karjalainen, P., Bloss, M., Simonen, P., Saarikoski, S., Kuuluvainen, H., Kalliokoski, J., DalMaso, M., Niemi, J., Keskinen, J., Rönkkö, T. (2019). Particle emissions of Euro VI, EEV and retrofitted EEV city buses in real traffic, *Environ. Pollut.* 250, 708-716.
58. Saarikoski, S., Reyes, F., Vázquez, Y., Tagle, M., Timonen, H., Aurela, M., Carbone, S., Worsnop, D.R., Hillamo, R., Oyola, P. (2019). Characterization of submicron aerosol chemical composition and sources in the coastal area of Central Chile, *Atmos. Environ.* 199, 391-401, 10.1016/j.atmosenv.2018.11.040.
57. Carbone, S., Timonen, H., 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. (2019). Distinguishing fuel and lubricating oil combustion products in diesel engine exhaust particles, *Aerosol Sci. Technol.* DOI: 10.1080/02786826.2019.1584389.
56. Kuula, J., Kuuluvainen, H., Rönkkö, T., Niemi, J.V., Saukko, E., Portin, H., Aurela, M., Saarikoski, S., Rostedt, A., Hillamo, R., Timonen, H. (2019). Applicability of Optical and Diffusion Charging-Based Particulate Matter Sensors to Urban Air Quality Measurements, *Aerosol Air Qual. Res.* 10.4209/aaqr.2018.04.0143.

2018

55. Helin, A., Niemi, J.V., Virkkula, A., Pirjola, L., Teinilä, K., Backman, J., Aurela, M., Saarikoski, S., Rönkkö, T., Asmi, E., Timonen, H. (2018). Characteristics and source apportionment of black carbon in the Helsinki 1 metropolitan area, Finland. *Atmos. Environ.* 190, 87–98, doi:10.1016/j.atmosenv.2018.07.022.
54. Tagle, M., Reyes, F., Vásquez, Y., Carbone, S., Saarikoski, S., Timonen, H., Gramsch, E., Oyola, P. (2018). Spatiotemporal variation in composition of submicron particles in Santiago Metropolitan Region, Chile, *Frontiers of Environmental Science*, doi: 10.3389/fenvs.2018.00027.
53. Timonen, H., Teinilä, K., Aurela, M., Reyes, F., Vásquez, Y., Bloss, M., Oyola, P., Hillamo, R., Asmi, E., Saarikoski, S. (2018). Sources and composition of particulate matter in boreal arctic environment next to an active mining area, *Boreal Environ Res*, 23, 105–125.
52. Saarikoski, S., Teinilä, K., Timonen, H., Aurela, M., Laaksovirta, T., Reyes, F., Vásques, Y., Oyola, P., Artaxo, P., Pennanen, A., Junttila, S., Linnainmaa, M., Salonen, R., Hillamo, R. (2018). Particulate matter characteristics, dynamics and sources in an underground mine. *Aerosol Sci. Technol.* 52, 114–112, DOI: 10.1080/02786826.2017.1384788.

2017

51. Saarikoski, S., Timonen, H., Carbone, S., Kuuluvainen, H., Niemi, J. V., Kousa, A., Rönkkö, T., Worsnop, D., Hillamo, R., Pirjola, L. (2017). Investigating the chemical species in submicron particles emitted by city buses, *Aerosol Sci. Technol.* 51, 317–329, DOI:10.1080/02786826.2016.1261992.
50. Rönkkö, T., Kuuluvainen, H., Karjalainen, P., Keskinen, J., Hillamo, R., Niemi, J. V., Pirjola, L., Timonen, H. J., Saarikoski, S., Saukko, E., Järvinen, A., Silvennoinen, H., Rostedt, A., Olin, M., Yli-Ojanperä, J., Nousiainen, P., Kousa, A., and Dal Maso, M. (2017). Traffic is a major source of atmospheric nanocluster aerosol, *Proc. Nat. Acad. Sci.* 201700830, 10.1073/pnas.1700830114.
49. Alanen, J., Simonen, P., Saarikoski, S., Timonen, H., Kangasniemi, O., Saukko, E., Hillamo, R., Lehtoranta, K., Murtonen, T., Vesala, H., Keskinen, J., Rönkkö, T. (2017). Comparison of primary and secondary particle formation from natural gas engine exhaust and of their volatility characteristics. *Atmos. Chem. Phys.*, 17, 8739–8755.
48. Pirjola, L., Niemi, J. V., Saarikoski, S., Aurela, M., Enroth, J., Carbone, S., Saarnio, K., Kuuluvainen, H., Kousa, A., Rönkkö, T., Hillamo, R. (2017). Physical and chemical characterization of urban winter-time aerosols by mobile measurements in Helsinki, Finland. *Atmos. Environ.* 158, 60–75.
47. Timonen, H., Karjalainen, P., Saukko, E., Saarikoski, S., Aakko-Saksa, P., Simonen, P., Murtonen, T., Dal Maso, M., Kuuluvainen, H., Bloss, M., Ahlberg, E., Svenningsson, B., Pagels, J., Brune, W. H., Keskinen, J., Worsnop, D. R., Hillamo, R., Rönkkö, T. (2017). Influence of fuel ethanol content on primary emissions and secondary aerosol formation potential for a modern flex-fuel gasoline vehicle. *Atmos. Chem. Phys.* 17, 5311–5329.
46. Lehtoranta, K., Murtonen, T., Vesala, H., Koponen, P., Alanen, J., Simonen, P., Rönkkö, T., Timonen, H., Saarikoski, S., Maunula, T., Kallinen, K., and Korhonen, S. (2017). Natural Gas Engine Emission Reduction by Catalysts. *Emiss. Control Sci. Technol.* 3, 142–152.

2016

45. Enroth, J., Saarikoski, S., Niemi, J. V., Kousa, A., Ježek, I., Močník, G., Carbone, S., Kuuluvainen, H., Rönkkö, T., Hillamo, R., Pirjola, L. (2016). Chemical and physical characterization of traffic particles in four different highway environments in the Helsinki metropolitan area. *Atmos. Chem. Phys.* 16, 5497–5512.
44. Pirjola, L., Dittrich, A., Niemi, J. V., Saarikoski, S., Timonen, H., Kuuluvainen, H., Järvinen, A., Kousa, A., Rönkkö, T., Hillamo, R. (2016). Physical and chemical characterization of real-world particle number and mass emissions from city buses in Finland. *Environ. Sci. Technol.* 50, 294–304.
43. Karjalainen, P., Timonen, H., Saukko, E., Kuuluvainen, H., Saarikoski, S., Aakko-Saksa, P., Murtonen, T., Bloss, M., Dal Maso, M., Simonen, P., Ahlberg, E., Svenningsson, B., Brune, W. H., Hillamo, R., Keskinen, J., Rönkkö, T. (2016). Time-resolved characterization of primary particle emissions and secondary particle formation from a modern gasoline passenger car. *Atmos. Chem. Phys.*, 16, 8559–857.
42. Timonen, H., Cubison, M., Aurela, M., Brus, D., Lihavainen, H., Hillamo, R., Canagaratna, M., Nekat, B., Weller, R., Worsnop, D., Saarikoski, S. (2016). Applications and

limitations of constrained high-resolution peak fitting on low resolving power mass spectra from the ToF-ACSM. *Atmos. Meas. Tech.* 9, 3263–3281.

41. Aurela, M., Beukes, J. P., van Zyl, P., Vakkari, V., Teinilä, K., Saarikoski, S., Laakso, L. (2016). The composition of ambient and fresh biomass burning aerosols at a savannah site, South Africa. *S. Afr. J. Sci.* 112, DOI: <http://dx.doi.org/10.17159/sajs.2016/20150223>

2015

40. Noziere, B., Kalberer, M., Claeys, M., Allan, J., D'Anna, B., Decesari, S.; Finessi, E., Glasius, M., Grgic, I., Hamilton, J., Hoffmann, T., Iinuma, Y., Jaoui, M., Kahnt, A., Kampf, C., Kourtchev, I., Maenhaut, W., Marsden, N., Saarikoski, S., Schnelle-Kreis, J., Surratt, J., Szidat, S., Szmigielski, R., Wisthaler, A. (2015). The Molecular Identification of Organic Compounds in the Atmosphere: State of the Art and Challenges. *Chem. Rev.* 115, 3919–3983.
39. Aurela, M., Saarikoski, S., Niemi, J. V., Canonaco, F., A. S. H., Frey, A., Carbone, S., Kousa, A., Hillamo, R. (2015). Chemical and source characterization of submicron particles at residential and traffic sites in the Helsinki Metropolitan area, Finland. *Aerosol Air Qual. Res.* 15, 1213–1226.
38. Carbone, S., Onasch, T., Saarikoski, S., Timonen, H., Saarnio, K., Sueper, D., Rönkkö, T., Pirjola, L., Häyrinen, A., Worsnop, D., Hillamo, R. (2015). Characterization of trace metals on soot particles with the SP-AMS: detection and quantification. *Atmos. Meas. Tech.* 8, 4803–4815

2014

37. Saarikoski, S., Carbone, S., Cubison, M. J., Hillamo, R., Keronen, P., Sioutas, C., Worsnop, D. R., Jimenez, J. L. (2014). Evaluation of the performance of a particle concentrator for on-line instrumentation. *Atmos. Meas. Tech.* 7, 2121–2135.
36. Paglione, M., Saarikoski, S., Carbone, S., Hillamo, R., Facchini, M.C., Finessi, E., Giulianelli, L., Carbone, C., Fuzzi, S., Moretti, F., Tagliavini, E., Swietlicki, E., K. Eriksson Stenström, K., Prevot, A. S. H., Massoli, P., Canagaratna, M., Worsnop, D., Decesari, S. (2014). Primary and secondary biomass burning aerosols determined by proton nuclear magnetic resonance (1H-NMR) spectroscopy during the 2008 EUCAARI campaign in the Po Valley (Italy). *Atmos. Chem. Phys.* 14, 5089–5110.
35. Carbone, S., Aurela, M., Saarnio, K., Saarikoski, S., Frey, A., Timonen, H., Sueper, D., Ulbrich, I., Jimenez, J.-L., Kulmala, M., Worsnop D., Hillamo, R. (2014). Wintertime aerosol chemistry in sub-arctic urban air. *Aerosol Sci. Technol.* 48, 312–322.
34. Timonen, H., Aurela, M., Carbone, S., Saarnio, K., Frey, A., Saarikoski, S., Teinilä, K., Kulmala, M., Hillamo R. (2014). Seasonal and diurnal changes in inorganic ions, carbonaceous matter and mass in ambient aerosol particles at an urban, background area. *Boreal. Env. Res.* 19, 71–86
33. Crippa, M., Canonaco, F., Lanz, V. A., Äijälä, M., Allan, J. D., Carbone, S., Capes, G., Dall'Osto, M., Day, D. A., DeCarlo, P. F., Di Marco, C. F., Ehn, M., Eriksson, A., Freney, E., Hildebrandt Ruiz, L., Hillamo, R., Jimenez, J.-L., Junninen, H., Kiendler-Scharr, A., Kortelainen, A.-M., Kulmala, M., Mensah, A. A., Mohr, C., Nemitz, E., O'Dowd, C., Ovadnevaite, J., Pandis, S.N., Petäjä, T., Poulain, L., Saarikoski, S., Sellegrí, K.,

Swietlicki, E., Tiitta, P., Worsnop, D. R., Baltensperger, U., Prévôt, A. S. (2014). Organic aerosol components derived from 25 AMS datasets across Europe using a newly developed ME-2 based source apportionment strategy. *Atmos. Chem. Phys.* 14, 6159–6176.

2013

32. Carbone, S., Saarikoski, S., Frey, A., Reyes, F., Reyes, P., Castillo, M., Gramsch, E., Oyola, P., Jayne, J., Worsnop, D. R., Hillamo, R. (2013). Chemical characterization of submicron aerosol particles in Santiago de Chile. *Aerosol Air Qual. Res.* 13, 462–473.
31. Happonen, M., Mylläri, F., Karjalainen, P., Frey, A., Saarikoski, S., Carbone, S., Hillamo, R., Pirjola, L., Häyrinen, A., Kytömaiki, J., Niemi, J., Keskinen, J., Rönkkö, T. (2013). Size distribution, chemical composition and hygroscopicity of fine particles emitted from an oil-fired heating plant. *Environ. Sci. Technol.* 47, 14468–14475.
30. Timonen, H., Carbone, S., Aurela, M., Saarnio, K., Saarikoski, S., Ng, N. L., Canagaratna, M. R., Kulmala, M., Kerminen, V.-M., Worsnop, D. R., Hillamo, R. (2013). Characteristics, sources and water-solubility of ambient submicron organic aerosol in springtime in Helsinki, Finland. *J. Aerosol Sci.* 56, 61–77.
29. Genberg, J., Denier van der Gon, H. A. C., Simpson, D., Swietlicki, E., Areskoug, H., Beddows, D., Ceburnis, D., Fiebig, M., Hansson, H. C., Harrison, R. M., Jennings, S. G., Saarikoski, S., Spindler, G., Visschedijk, A. J. H., Wiedensohler, A., Yttri, K. E., Bergström, R. (2013). Light absorbing carbon in Europe. Measurement and modelling, with a focus on residential wood combustion emissions. *Atmos. Chem. Phys.* 13, 8719–8738.
28. Saarnio, K., Teinilä, K., Saarikoski, S., Carbone, S., Gilardoni, S., Timonen, H., Aurela, M., Hillamo, R. (2013). Online determination of levoglucosan in ambient aerosols with Particle-into-Liquid Sampler – High-Performance Anion-Exchange Chromatography – Mass Spectrometry (PILS–HPAEC–MS). *Atmos. Meas. Tech.* 6, 2839–284.
27. Bougiatioti, A., Zarmpas, P., Koulouri, E., Antoniou, M., Theodosi, C., Kouvarakis, G., Saarikoski, S., Mäkelä, T., Hillamo R., Mihalopoulos, N. (2013). Organic, elemental and water-soluble organic carbon in size segregated aerosols, in the marine boundary layer of the Eastern Mediterranean. *Atmos. Environ.* 64, 251–262.

2012

26. Saarikoski, S., Carbone, S., Decesari, S., Julianelli, L., Angelini, F., Teinilä, K., Canagaratna, M., Ng, N. L., Trimborn, A., Facchini, M. C., Fuzzi, S., Hillamo, R., Worsnop, D. (2012). Chemical characterization of springtime submicrometer aerosol in Po Valley, Italy. *Atmos. Chem. Phys.* 12, 8401–8421.
25. Saarnio, K., Niemi, J. V., Saarikoski, S., Aurela, M., Timonen, H., Teinilä, K., Myllynen, M., Frey, A., Lamberg, H., Jokiniemi, J., Hillamo, R. (2012). Using monosaccharide anhydrides to estimate the impact wood combustion on fine particles in the Helsinki Metropolitan area. *Boreal Env. Res.* 17, 163–183.
24. Finessi, E., Decesari, S., Paglione, M., Julianelli, L., Carbone, C., Gilardoni, S., Fuzzi, S., Saarikoski, S., Raatikainen, T., Hillamo, R., Allan, J., Mentel, Th. F., Tiitta, P., Laaksonen, A., Petäjä, T., Kulmala, M., Worsnop, D. R., Facchini, M. C. (2012).

Determination of the biogenic secondary organic aerosol fraction in the boreal forest by NMR spectroscopy. *Atmos. Chem. Phys.* 12, 941–959

23. Karjalainen, P., Rönkkö, T., Lähde, T., Rostedt, A., Keskinen, J., Saarikoski, S., Aurela, M., Hillamo, R., Malinen A., Pirjola, L., Amberla, A. (2012). Reduction of Heavy-Duty Diesel Exhaust Particle Number and Mass at Low Exhaust Temperature Driving by the DOC and the SCR. *SAE Int. J. Fuels Lubr.* 5, doi:10.4271/2012-01-1664.

2011

22. Aurela, M., Saarikoski, S., Timonen, H., Aalto, P., Keronen, P., Saarnio, K., Teinilä, K., Kulmala, M., Hillamo, R. (2011). Carbonaceous aerosol at a forested and an urban background sites in Southern Finland. *Atmos. Environ.* 45, 1394–1401.
21. Kerminen, V.-M., Niemi, J. V., Timonen, H., Aurela, M., Frey, A., Carbone, S., Saarikoski, S., Teinilä, K., Hakkarainen, J., Tamminen, J., Vira, J., Prank, M., Sofiev, M., Hillamo, R. (2011). Characterization of a volcanic ash episode in southern Finland caused by the Grimsvötn eruption in Iceland in May 2011. *Atmos. Chem. Phys.* 11, 12227–12239.2010
20. Saarnio, K., Aurela, M., Timonen, H., Saarikoski, S., Teinilä, K., Mäkelä, T., Sofiev, M., Koskinen, J., Aalto, P. P., Kulmala, M., Kukkonen, J., Hillamo, R. (2010). Chemical composition of fine particles in fresh smoke plumes from boreal wild-land fires in Europe. *Sci. Total Environ.* 408, 2527–2542
19. Timonen, H., Aurela, M., Carbone, S., Saarnio, K., Saarikoski, S., Mäkelä, T., Kulmala, M., Kerminen, V.-M., Worsnop, D. R., Hillamo, R. (2010). High time-resolution chemical characterization of the water-soluble fraction of ambient aerosols with PILS-TOC-IC and AMS. *Atmos. Meas. Tech.* 3, 1063–1074.

2009

18. Niemi, J. V., Saarikoski, S., Aurela, M., Tervahattu, H., Hillamo, R., Westphal, D. L., Aarnio, P., Koskentalo, T., Makkonen, U., Vehkämäki, H., Kulmala, M. (2009). Long-range transport episodes of fine particles in southern Finland during 1999–2007. *Atmos. Environ.* 43, 1255–1264.
17. Frey, A. K., Tissari, J., Saarnio, K. M., Timonen, H. J., Tolonen-Kivimäki, O., Aurela, M. A., Saarikoski, S., Makkonen, U., Hytönen, K., Jokiniemi, J., Salonen, R. O., Hillamo, R. E. J. (2009). Chemical composition and mass size distribution of fine particulate matter emitted by a small masonry heater. *Boreal Env. Res.* 14, 255–271.

2008

16. Saarikoski, S., Timonen, H., Saarnio, K., Aurela, M., Järvi, L., Keronen, P., Kerminen, V.-M., Hillamo, R. (2008). Sources of organic carbon in PM₁ in Helsinki urban air. *Atmos. Chem. Phys.* 8, 6281–6295.
15. Saarikoski, S., Frey, A., Mäkelä, T., Hillamo, R. (2008). Size distribution measurement of carbonaceous particulate matter using a low pressure impactor with quartz fiber substrates. *Aerosol Sci. Technol.* 42, 603–612.
14. Saarikoski, S., Sillanpää, M., Saarnio, K., Hillamo, R., Pennanen, A. S., Salonen, R. O. (2008). Impact of biomass combustion on urban fine particulate matter in Central and Northern Europe. *Water Air Soil Pollut.* 191, 265–277.

-
13. Timonen, H., Saarikoski, S., Tolonen-Kivimäki, O., Aurela, M., Saarnio, K., Petäjä, T., Aalto, P., Kulmala, M., Pakkanen, T., Hillamo, R. (2008). Size distributions, sources and source areas of water-soluble organic carbon in urban background air. *Atmos. Chem. Phys.* 8, 5635–5647.
 12. Timonen, H., Saarikoski, S., Aurela, M., Saarnio, K., Hillamo, R. (2008). Water-soluble organic carbon in urban aerosol: concentrations, size distributions and contribution to particulate matter. *Boreal Env. Res.* 13, 335–346
 11. Koulouri, E., Saarikoski, S., Theodosi, C., Markaki, Z., Gerasopoulos, E., Kouvarakis, G., Mäkelä, T., Hillamo, R., Mihalopoulos, N. (2008). Chemical composition and sources of fine and coarse aerosol particles in the Eastern Mediterranean. *Atmos. Environ.* 42, 6542–6550.
 10. Lihavainen, H., Kerminen, V.-M., Komppula, M., Hyvärinen, A.-P., Laakia, J., Saarikoski, S., Makkonen, U., Kivekäs, N., Hillamo, R., Kulmala, M., Viisanen, Y. (2008). Measurements of the relation between aerosol properties and microphysics and chemistry of low clouds in northern Finland. *Atmos. Chem. Phys.* 8, 6925–6938.

2007

9. Saarikoski, S., Sillanpää, M., Sofiev, M., Timonen, H., Saarnio, K., Teinilä, K., Karppinen, A., Kukkonen, J., Hillamo, R. (2007). Chemical composition of aerosols during a major biomass burning episode over northern Europe in spring 2006: experimental and modelling assessments. *Atmos. Environ.* 41, 3577–3589.
8. Gerasopoulos, E., Koulouri, E., Kalivitis, N., Kouvarakis, G., Saarikoski, S., Mäkelä, T., Hillamo, R., Mihalopoulos, N. (2007). Size-segregated mass distributions of aerosols over Eastern Mediterranean; seasonal variability and comparison with AERONET columnar size-distributions. *Atmos. Chem. Phys.* 7, 2551–2561.

2006

7. Niemi, J. V., Saarikoski, S., Tervahattu, H., Mäkelä, T., Hillamo, R., Vehkamäki, H., Sogacheva, L., Kulmala, M. (2006). Changes in background aerosol composition in Finland during polluted and clean periods studied by TEM/EDX individual particle analysis. *Atmos. Chem. Phys.* 6, 5049–5066.
6. Sillanpää, M., Hillamo, R., Saarikoski, S., Frey, A., Pennanen, A., Makkonen, U., Spolnik, Z., Van Grieken, R., Braniš, M., Brunekreef, B., Chalbot, M.-C., Kuhlbusch, T., Sunyer, J., Kerminen, V.-M., Kulmala, M., Salonen, R. O. (2006). Chemical composition and mass closure of particulate matter at six urban sites in Europe. *Atmos. Environ.* 40S2, 212–223.
5. Virkkula, A., Teinilä, K., Hillamo, R., Kerminen, V.-M., Saarikoski, S., Aurela, M., Koponen, I. K., Kulmala, M. (2006). Chemical size distributions of boundary layer aerosol over the Atlantic Ocean and at an Antarctic site. *J. Geophys. Res.* 11, D05306, doi:10.1029/2004JD004958.
4. Virkkula, A., Teinilä, K., Hillamo, R., Kerminen, V.-M., Saarikoski, S., Aurela, M., Viidanoja, J., Paatero, J., Koponen, I. K., Kulmala, M. (2006). Chemical composition of boundary layer aerosol over the Atlantic Ocean and at an Antarctic site. *Atmos. Chem. Phys.* 6, 3407–3421.

2005

3. Saarikoski, S., Mäkelä, T., Hillamo, R., Aalto, P. P., Kerminen, V.-M., Kulmala, M. (2005). Physico-chemical characterization and mass closure of size-segregated atmospheric aerosols in Hyytiälä, Finland. *Boreal Env. Res.* 10, 385–400.
2. Sillanpää, M., Saarikoski, S., Hillamo, R., Pennanen, A., Makkonen, U., Spolnik, Z., Van Grieken, R., Koskentalo, T., Salonen, R. O. (2005). Chemical composition, mass size distribution and source analysis of long-range transported wildfire smokes in Helsinki. *Sci. Total Environ.* 350, 119–135.

2003

1. Lind, T. L., Hokkinen, J., Jokiniemi, J., Saarikoski, S., Hillamo, R. (2003). Electrostatic precipitator collection efficiency and trace element emissions from co-combustion of biomass and recovered fuel in fluidized-bed combustion. *Environ. Sci. Technol.* 37, 2842–2846.