

## Complete list of publications

### 1 Monographs and book chapters

1. **Riipinen, I.**: *Monikomponenttinen tiivistymisen ilmakehän liuospisaroihin*, MSc thesis (in Finnish), Department of Physics, University of Helsinki, 2005.
2. **Riipinen, I.**: *Observations on the first steps of atmospheric particle formation and growth*, PhD thesis, Department of Physics, University of Helsinki. Published in: Report series for aerosol science, 2008.
3. Dal Maso, M., **Riipinen, I.**, Kulmala, M.: *Aerosol formation and growth*, in Hari, P. and Kulmala, L. (eds.): *Boreal forest and climate change*. Springer, 2008, pp. 167-171.
4. **Riipinen, I.**, Dal Maso, M., Petäjä, T., Kulmala, M.: *Aerosol particles in the air*, in Hari, P. and Kulmala, L. (eds.): *Boreal forest and climate change*. Springer, 2008, pp. 409-415.
5. Kulmala, M., **Riipinen, I.**, Dal Maso, M., Petäjä, T.: *Climate effects of increasing aerosols*, in Hari, P. and Kulmala, L. (eds.): *Boreal forest and climate change*. Springer, 2008, pp. 517-519.
6. Petäjä, T., Dal Maso, M., Sipilä, M., **Riipinen, I.**, Kerminen, V.-M., Kulmala, M.: *Formation and growth of atmospheric aerosol particles*, in Barnard A. S. and Guo, H. (eds): *Nature's Nanostructures*, Pan Stanford Publishing, 2011, pp. 399-440.
7. Kulmala, M., **Riipinen, I.**, Kerminen, V.-M.: *Aerosols and climate change*, in Haapala, I. (eds.): *From the Earth's Core to Outer Space*. Springer, 2012, pp. 219-227.
8. Olenius, T., Yli-Juuti, T., Elm, J., Kontkanen, J., **Riipinen, I.**: *New Particle Formation and Growth: Creating a New Atmospheric Phase Interface*, in Faust, J. A. and House, J. E. (eds.): *Physical Chemistry of Gas-Liquid Interfaces*. Elsevier, 2018, pp. 315-352.

### 2 Peer-reviewed articles

In total 128 peer-reviewed articles in scientific journals, (6869/6189 citations, *h*-index 42 from ISI Web of Knowledge). In the field of atmospheric science, the main authors (usually 1-3) appear in the beginning of the author list, and the senior authors (usually 1-2) at the end of the author list.

1. Kulmala, M., Laakso, L., Lehtinen, K.E.J., **Riipinen, I.**, Dal Maso, M., Anttila, T., Horrak, U., Vana, M., Tammet, H. 2004. Initial steps of aerosol growth. *Atmos. Chem. Phys.*, 4, 2553.
2. Dal Maso, M., Kulmala, M., **Riipinen, I.**, Wagner, R., Hussein, T., Aalto, P.P., Lehtinen, K.E.J. 2005. Formation and growth of fresh atmospheric aerosols: eight years of aerosol size distribution data from SMEAR II, Hyytiälä, Finland. *Boreal Environ. Res.*, 10, 323.
3. Winkler, P.M., Vrtala, A., Rudolf, R., Wagner, P.E., **Riipinen, I.**, Vesala, T., Lehtinen, K.E.J., Viisanen, Y., Kulmala, M. 2005. Condensation of water vapor: Experimental determination of mass and thermal accommodation coefficients. *J. Geophys. Res.*, 111 (D19), D19202.
4. Sihto, S.-L., Kulmala, M., Kerminen, V.-M., Dal Maso, M., Petäjä, T., **Riipinen, I.**, Korhonen, H., Arnold, F., Janson, R., Boy, M., Laaksonen, A., Lehtinen, K.E.J. 2006. Atmospheric sulphuric acid and aerosol formation: implications from atmospheric measurements for nucleation and early growth mechanisms. *Atmos. Chem. Phys.*, 6, 1.
5. **Riipinen, I.**, Svenningsson, B., Bilde, M., Gaman, A., Lehtinen, K.E.J., Kulmala M. 2006. A method for determining thermophysical properties of organic material in aqueous solutions: Succinic acid. *Atmos. Res.*, 82, 579.
6. Lauri, A., **Riipinen, I.**, Ketoja, J., Vehkamäki, H., Kulmala, M. 2006. Theoretical and experimental study on phase transitions and mass fluxes of supersaturated water vapor onto different insoluble flat surfaces. *Langmuir*, 22, 10061.
7. Hirsikko A., Bergman, T., Laakso, L., Dal Maso, M., **Riipinen, I.**, Horrak, U., Kulmala, M. 2006. Identification and classification of the formation of intermediate ions measured in boreal forest. *Atmos. Chem. Phys.*, 6, 9187.
8. Herrmann, E., Lihavainen, H., Hyvärinen, A., **Riipinen, I.**, Wilck, M., Stratmann, F., Kulmala, M. Nucleation simulations using the fluid dynamics software FLUENT with the fine particle model FPM. 2006. *J. Phys. Chem. A.*, 110, 12448.
9. Kulmala, M., Mordas, G., Petäjä, T., Grönholm, T., Aalto P.P., Vehkamäki, H., Hienola, A.I., Herrmann, E., Sipilä, M., **Riipinen, I.**, Manninen, H.E., Hämeri, K., Stratmann, F., Bilde, M., Winkler, P.M., Birmili, W.,

- Wagner, P.E. 2007. The condensation particle counter battery (CPCB): A new tool to investigate the activation properties of nanoparticles. *Journal of Aerosol Science*, 38, 289.
10. **Riipinen, I.**, Sihto, S.-L., Kulmala, M., Arnold, F., Dal Maso, M., Birmili, W., Saarnio, K., Teinilä, K., Kerminen, V.-M., Laaksonen, A., Lehtinen, K.E.J. 2007a. Connections between atmospheric sulphuric acid and new particle formation during QUEST III-IV campaigns in Heidelberg and Hyytiälä. *Atmos. Chem. Phys.*, 7, 1899.
  11. Laakso L., Grönholm, T., Kulmala, L., Haapalainen, S., Hirsikko, A., Lovejoy, E.R., Kurten, T., Nilsson, E.d., Sogachev, A., **Riipinen, I.**, Kulmala, M. 2007. Hot-air balloon as a platform for boundary layer profile measurements during particle formation. *Boreal Environ. Res.*, 12, 279.
  12. Koponen, I.K., **Riipinen, I.**, Hienola, A., Kulmala, M., Bilde, M. 2007. Thermodynamic properties of malonic, succinic, and glutaric acids: Evaporation rates and saturation vapor pressures. *Environ. Sci. technol.*, 41, 3926.
  13. Dal Maso, M., Sogacheva, L., Aalto P.P., **Riipinen, I.**, Komppula, M., Tunved, P., Korhonen, L., Suur-Uski, V., Hirsikko, A., Kurten, T., Kerminen, V.-M., Lihavainen, H., Viisanen, Y., Hansson, H.-C., Kulmala, M. 2007. Aerosol size distribution measurements at four Nordic field stations: identification, analysis and trajectory analysis of new particle formation bursts. *Tellus*, B59, 350.
  14. Kulmala, M., **Riipinen, I.**, Sipilä, M., Manninen, H.E., Petäjä, T., Junninen, H., Dal Maso, M., Mordas, G., Mirme, A., Vana, M., Hirsikko, A., Laakso, L., Harrison, R.M., Hanson, I., Leung, C., Lehtinen, K.E.J., Kerminen, V.-M. 2007. Toward direct measurement of atmospheric nucleation. *Science*, 318, 89.
  15. **Riipinen, I.**, Koponen, I.K., Frank, G.P., Hyvärinen, A.-P., Vanhanen, J., Lihavainen, H., Lehtinen, K.E.J., Bilde, M., Kulmala, M. 2007b. Adipic and malonic acid aqueous solutions: Surface tensions and saturation vapor pressures. *J. Phys. Chem. A*, 111, 12995.
  16. Spracklen, D.V., Carslaw, K.S., Kulmala, M., Sihto, S.-L. **Riipinen, I.**, Merikanto, J.M., Mann, G.W., Chipperfield, M.P., Wiedensohler, A., Birmili, W., Lihavainen, H. 2008. Contribution of particle formation to global cloud condensation nuclei concentrations. *Geophys. Res. Lett.*, 35, L06808.
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  18. Svenningsson, B., Arneth, A., Hayward, S., Holst, T., Massling, A., Swietlicki, E., Hirsikko, A., Junninen, H., **Riipinen, I.**, Vana, M., Dal Maso, M., Hussein, T., Kulmala M. 2008. Aerosol particle formation events and analysis of high growth rates observed above a subarctic wetland–forest mosaic. *Tellus*, B60, 353.
  19. Bonn, B., Kulmala, M., **Riipinen, I.**, Sihto, S.-L., Ruuskanen, T.M. 2008. How biogenic terpenes govern the correlation between sulfuric acid concentrations and new particle formation. *J. Geophys. Res.*, 113, D12209.
  20. Junninen, H., Hulkkonen, M., **Riipinen, I.**, Nieminen, T., Hirsikko, A., Suni, T., Boy, M., Lee, S-H., Vana, M., Tammet, H., Kerminen, V.-M., Kulmala M. 2008. Observations on nocturnal growth of atmospheric clusters. *Tellus*, B60, 365.
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  23. Laaksonen, A., Kulmala, M., Berndt, T., Stratmann, F., Mikkonen, S., Ruuskanen, A., Lehtinen, K. E. J., Dal Maso, M., Aalto, P., Petäjä, T., **Riipinen, I.**, Sihto, S.-L., Janson, R., Arnold, F., Hanke, M., Ücker, J., Umann, B., Sellegri, K., O'Dowd, C. D., Viisanen, Y. 2008. SO<sub>2</sub> oxidation products other than H<sub>2</sub>SO<sub>4</sub> as a trigger of new particle formation. Part 2: Comparison of ambient and laboratory measurements, and atmospheric implications. *Atmos. Chem. Phys.*, 8, 7255-7264.
  24. Kulmala, M., Kerminen, V.-M., Laaksonen, A., **Riipinen, I.**, Sipilä, M., Ruuskanen, T. M., Sogacheva, L., Hari, P., Bäck, J., Lehtinen, K. E. J., Viisanen, Y., Bilde, M., Svenningsson, B., Lazaridis, M., Tørseth, K., Tunved, P., Nilsson, E. D., Pryor, S., Sørensen, L.-L., Hörrak, U., Winkler, P. M., Swietlicki, E., Riekkola, M.-L., Krejci, R., Hoyle, C., Hov, Ø., Myhre, G., Hansson, H.-C. 2008. Overview of the biosphere–aerosol–cloud–climate interactions (BACCI) studies. *Tellus*, B60, 300.
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28. Hienola, A.I., Vehkamäki, H., **Riipinen, I.**, Kulmala, M. 2009. Homogeneous vs. heterogeneous nucleation in water-dicarboxylic acid systems. *Atmos. Chem. Phys.*, 9, 1873.
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32. Hytönen, K., Yli-Pirilä, P., Tissari, J., Gröhn, A., **Riipinen, I.**, Lehtinen, K. E. J., Jokiniemi J. 2009. Gas-Particle Distribution of PAHs in Wood Combustion Emission Determined with Annular Denuders, Filter, and Polyurethane Foam Adsorbent. *Aerosol Sci. Technol.*, 43, 442.
33. Nieminen, T., Manninen, H. E., Sihto, S.-L., Yli-Juuti, T., Mauldin, III, R. L., Petäjä, T., **Riipinen, I.**, Kerminen, V.-M., Kulmala, M. 2009. Connection of Sulfuric Acid to Atmospheric Nucleation in Boreal Forest. *Environ. Sci. Technol.*, 43, 4715.
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133. Schlesinger, D., Lowe, S. J., Olenius, T., Kong, X., Pettersson, J. B. C., and **Riipinen, I.**: A molecular perspective on water vapour accommodation into ice and its relevance to atmospheric processes, *manuscript in prep.*

### 3 Conference and seminar presentations

**Invited scientific talks in international conferences, seminar series and research institutes:**

1. Seminar, Inst. für experimentalphysik, University of Vienna, Austria, 06/2005.
2. Seminar, Chemistry Dept., University of Copenhagen, Denmark, 11/2006.
3. Invited talk, ACCESS IX: The Atmospheric Chemistry Colloquium for Emerging Senior Scientists, MO, USA, 08/2007.
4. Seminar, Inst. für experimentalphysik, University of Vienna, Austria, 10/2007.
5. Seminar, School of Earth and Environment, Leeds University, Leeds, UK, 04/2008.
6. Seminar, Carnegie Mellon University, Pittsburgh, PA, USA, 08/2008.
7. Seminar, Aerodyne Research Ltd., Billerica, MA, USA, 08/2008.
8. Invited talk, EUCAARI annual meeting 2008, Helsinki, Finland, 11/2008.
9. Invited talk, 10th anniversary EUROFLUX workshop, Hyytiälä, Finland, 12/2008.
10. Plenary lecture in the 18th ICNAA conference, Prague, Czech Republic, 08/2009.
11. Keynote lecture in the 5th NorWip workshop, Helsinki, Finland, 08/2009.
12. Seminar, Dept. of Mechanical Engineering, University of Minnesota, MN, USA, 09/2009.
13. Seminar, Dept. of Physics and Atmospheric Sci., Dalhousie University, Halifax, NS, Canada, 11/2009.
14. Seminar, Dept. of Environmental Engineering, ETH Zürich, Switzerland, 02/2010.
15. Seminar, Dept. of Applied Environmental Science, Stockholms Universitet, Sweden, 04/2010.
16. Seminar, School of Earth and Environment, University of Leeds, United Kingdom, 06/2010.
17. Invited talk, American Geophysical Union Fall Meeting, San Francisco, CA, USA, 12/2010.
18. Invited talk, ISSI team meeting, Zurich, Switzerland, 01/2011.
19. Invited talk, CLOUD open workshop, Vienna, Austria, 02/2011.
20. Seminar, Dept. of Physics and Atmospheric Sci., Dalhousie University, Halifax, NS, Canada, 04/2011.
21. Seminar, Dept. of Chemistry, University of Gothenburg, Göteborg, Sweden, 01/2012.
22. Seminar, Dept. of Geoscience, University of Oslo, Oslo, Norway, 02/2012.
23. Seminar, Max Planck Institute for Chemistry, Mainz, Germany, 02/2012.
24. Seminar, Forschungszentrum Juelich, Juelich, Germany, 09/2012.
25. Invited talk, Annual meeting of the American Geophysical Union, San Francisco, CA USA, 12/2012.
26. Invited talk, Seminar on diversity in mathematics and physics, Helsinki, Finland, 03/2013.
27. Seminar of the mechanics department of KTH, Stockholm, Sweden, 04/2013.
28. Invited talk, ECHAM-HAMMOZ workshop, Zurich, Switzerland, 04/2013.
29. Invited talk, Workshop on ice and planet formation, Lund, Sweden, 05/2013.
30. Seminar, Leibniz Institute for Tropospheric Research, Leipzig, Germany, 06/2013.
31. Keynote presentation, The Bolin symposium organized associated of the release of the IPCC summary for policymakers, Kungliga Vetenskapsakademin, Stockholm, Sweden 09/2013
32. Seminar, Meteorological Institute of Stockholm University (MISU), Stockholm, Sweden, 11/2013
33. Seminar, Max Planck Institute for Chemistry, Mainz, Germany, 06/2014
34. Invited talk, Telluride Science Conference on Organic particles in the atmosphere, Telluride, CO, USA, 07/2014
35. Invited talk, Annual Meeting of the American Association for Aerosol Research (AAAR), Orlando, FL, USA, 10/2014
36. Invited talk, The International Union of Geodesy and Geophysics (IUGG), Prague, Czech Republic, 06/2015
37. Keynote presentation, the Goldschmidt Conference, Prague, Czech Republic, 08/2015
38. Invited talk, American Chemical Society (ACS) fall meeting, Boston, MA, USA, 08/2015
39. Invited talk, Telluride Science Conference on aerosol-cloud-climate interactions, Telluride, CO, USA, 06/2016
40. Invited talk, Conference "Towards a molecular understanding of atmospheric aerosol", Santa Cruz, CA, USA, 08/2016
41. Seminar, Max Planck Institute for Chemistry, Mainz, Germany, 01/2017
42. Invited talk, 10<sup>th</sup> Anniversary of the European Research Council, Brussels, Belgium, 03/2017
43. Keynote presentation, Gordon Research Conference on atmospheric chemistry, MN, USA, 07/2017
44. Keynote presentation, Gordon Research Conference on biogenic hydrocarbons in the atmosphere, Les Diablerets, Switzerland, 06/2018
45. Invited talk, European Science Open Forum (ESOF) conference, Toulouse, France, 07/2018
46. Plenary presentation, International Aerosol Conference, MS, USA, 09/2018

**Other scientific talks at international scientific conferences:**

1. European Aerosol Conference 2004, Budapest, Hungary, 09/2004.
2. Department of Applied Physics, University of Kuopio, Finland, 11/2004.

3. BACCI Ion Workshop, University of Helsinki, Finland, 01/2005.
4. Finnish Center of Excellence evaluation workshop, Pallas, Finland, 03/2005.
5. European Aerosol Conference 2005, Ghent, Belgium 09/2005.
6. BACCI Ion Workshop 2006, Hyytiälä, Finland 03/2006.
7. Seminar of Aerosol and Environmental Physics, University of Helsinki, Finland, 04/2006.
8. BACCI Air ion and nanoparticle workshop, Pühajärve, Estonia, 08/2006.
9. Formation and growth atmospheric aerosols, workshop, Minneapolis, MN, USA, 09/2006.
10. NOSA 2006 Aerosol Symposium, Helsinki, Finland, 11/2006.
11. Seminar of Aerosol and Environmental physics, University of Helsinki, Finland, 04/2007.
12. 17<sup>th</sup> ICNAA conference, Galway, Ireland, 08/2007.
13. Finnish-Estonian air ion and aerosol workshop, Pühajärve, Estonia, 09/2007.
14. EUCAARI science conference, Helsinki, Finland, 11/2007.
15. Amazonian aerosols workshop, Brazil, 02/2008.
16. AAAR annual meeting, Orlando, FL, USA, 10/2008.
17. AAAR annual meeting, Minneapolis, MN, USA, 11/2009.
18. European Cosmic Ray Symposium, Turku, Finland, 08/2010.
19. International Aerosol Conference, Helsinki, Finland, 09/2010.
20. AAAR annual meeting, Portland, OR, USA, 10/2010.
21. European Aerosol Conference, Manchester, UK, 09/2011.
22. Annual meeting of the European Geosciences Union, Vienna, Austria, 04/2012.
23. Workshop for atmospheric aerosol formation and growth, Hyytiälä, Finland, 08/2012.
24. Annual meeting of the American Association for Aerosol Research (AAAR), Minneapolis, USA, 10/2012.
25. European Aerosol Conference (EAC), Prague, Czech Republic, 09/2013.
26. International Aerosol Conference (IAC), Busan, Korea, 08-09/2014.
27. AAAR annual meeting, Orlando, FL, USA, 10/2014.
28. AAAR annual meeting, Minneapolis, MN, USA, 10/2015
29. IAMA conference, Davis, CA, USA, 12/2015

+ several hundred peer-reviewed abstracts in various conference proceedings (not shown for brevity)

#### 4 Selected communication and outreach activities:

- **Interviews** for various print and broadcast media since 2008, e.g. *SVT*, *Sveriges radio*, *Yliopisto* (<https://www.helsinki.fi/fi/uutiset/ilmakehan-ilona>), *Kodin Kuvalehti*, *Forskning och framsteg* (<http://fof.se/tidning/2012/4/hon-soker-svar-bland-molnen>), *Näringsliv* (<http://www.naringsliv.se/tidningar/2013-3/energi-miljo/energi-miljo/hallbar-samhallsutveckling-fran-materiell-till-immateriell/>), *Economist* (<http://www.economist.com/news/science-and-technology/21587194-researchers-are-beginning-understand-aerosols-and-clouds-better-result>), *Utbildningsradio* (<http://urskola.se/Produkter/182248-Conspiracy-Chemtrails>), *Trendi*, *Yksi* (<http://yksilehti.fi/pilvessa/>), *Yleisradio*
- **Dance / audio performance *Deep tricks*** with the choreographer / performance artist Rea-Liina Brunou, Kiasma Museum of Contemporary Art, Helsinki, 2015 (see <http://realiinabrunou.blogspot.se/p/tulossa.html>)
- **"How health is the key to climate action" – a talk at the TEDx event** organized at the Stockholm School of Economics (<https://www.youtube.com/watch?v=2YN9OH5fOr0>)
- **Performance at the Think, Helsinki, think" event**, Helsinki, 2015 (<https://thinkhelsinkithink.com/>)
- **Popular science lectures at the Finnish Technology Days**, Espoo, 2014 (see <https://www.youtube.com/watch?v=HaB29piccP4>)
- **Heureka popular science lecture series "Ilma, jota hengitän"** ("The air that I breathe"), the Finnish science centre Heureka, 2013

- One of the two main authors of the the **webportal *Hiukkastieto*** ([www.hiukkastieto.fi](http://www.hiukkastieto.fi)), a handbook on aerosol particles and air pollution (in Finnish), 2010
- **Columnist/blogger** for *Yliopisto* (<https://university.helsinki.fi/fi/yliopisto-lehti>), 2009-2011, *Curie* (<http://www.tidningencurie.se/>) 2011-2012; *Luova* (<http://www.eluova.fi/>) 2010
- **Popular science lectures** at e.g. Turku science fair; Säteilevät naiset -seminar; Pohjois-Tapiolan lukio; Girls, science and technology camp; Tammerkoski school 100th anniversary in Finland over years 2004-2008
- **Working as press and public relations assistant and free-lance journalist** for science communication, authoring > 10 published popular science articles over 2002-2007