

VORTRÄGE [Stand 13. März 2014]

Paul E. Wagner

Invited Lectures

1. "Aerosole", Plenarvortrag im Rahmen der Eröffnung, 83. *Hauptversammlung der Deutschen Bunsengesellschaft für Physikalische Chemie*, Kaiserslautern, Bundesrepublik Deutschland, 1. Juni 1984.
2. "Expansion Chamber Measurements of Nucleation Rates and the Influence of the Heat of Cluster Formation", *Seminar on the Thermodynamics of Binary Droplets*, Institute for Advanced Study, West Berlin, 3. Juli 1986.
Koautor: R. Strey.
3. "Particle Formation, Condensation and Coagulation in Aerosols", Invited Review Lecture, *First International Workshop on Ultrafine Aerosols: Properties and Behaviour*, Universität Duisburg, Duisburg, Bundesrepublik Deutschland, 29. September 1986.
4. "Measurement of the Coagulation Function for Fine Particles - the Influence of Experimental Conditions and Observation Techniques", Opening Lecture, *Coagulation Workshop* (Gesellschaft für Aerosolforschung), Kernforschungszentrum Karlsruhe, Karlsruhe, Bundesrepublik Deutschland, 16. März 1988.
5. "Nucleation, Coagulation and Condensation in Aerosols", Opening Lecture, *Workshop on the Dynamical Behaviour of Aerosol Particles* (Finnish Meteorological Institute, Finnish Association for Aerosol Research and Department of Physics, University of Helsinki), Helsinki, Finnland, 15. September 1988.
6. "Aerosol Condensation and Nucleation", Opening Lecture, *Aerosol Symposium*, Department of Chemistry, Research Centre of the Defence Forces, Lakiala, Finnland, 15. August 1989.

7. "Nucleation Experiments", Keynote Lecture, *64th Colloid and Surface Science Symposium and Nucleation Symposium*, Lehigh University, Bethlehem, Pennsylvania, U.S.A., 19. Juni 1990.
Koautor: R. Strey.
8. "Experiments on Individual Dynamical Processes in Aerosols and Present Theoretical Interpretations", Plenary Lecture, *1990 Annual Meeting of the American Association for Aerosol Research*, Philadelphia, Pennsylvania, U.S.A., 22. Juni 1990.
9. "State of the Art of Condensation Methods for Aerosol Measurement", Invited Review Lecture, *Working Group on Instrumentation, European Aerosol Conference 1994*, Blois, Frankreich, 1. Juni 1994.
10. "Particle Nucleation, Growth, and Evaporation", Invited Tutorial Lecture, *4th International Aerosol Conference*, Los Angeles, California, U.S.A., 29. August 1994.
11. „Dynamics and Characterization of Nanoparticles“, Invited Review Lecture, *4th Seminar on Trends in Aerosol Research*, Gerhard Mercator Universität Duisburg, Duisburg, Bundesrepublik Deutschland, 27. Jänner 1995.
12. „Condensation Processes in Aerosols“, Plenary Lecture, *European Aerosol Conference 1995*, Helsinki, Finnland, 20. September 1995.
13. „Formation and Growth of Binary Particles“, *Seminar on Aerosols: Generation and Role in Medicine, Industry and Environment*, Indian Aerosol Science and Technology Association (IASTA), Bhabha Atomic Research Centre (BARC), Bombay, India, 22. Jänner 1997.
14. „Determination of Cluster Compositions for Binary Homogeneous Nucleation“, *Colloquium of the Japan Association of Aerosol Science and Technology*, Kyoto, Japan, 14. Februar 1998.
15. „Aerosol Nucleation“, Invited Tutorial Lecture, *5th International Aerosol Conference*, Edinburgh, Schottland, 13. September 1998.

16. "Homogeneous Nucleation", *Summer School: Formation and Transformation of Atmospheric Aerosols*, Station for Measuring Forest Ecosystem - Atmosphere Relationships (SMEAR), Hyytiälä, Finland, 12. August 1999.
17. "Condensation", *Summer School: Formation and Transformation of Atmospheric Aerosols*, Station for Measuring Forest Ecosystem - Atmosphere Relationships (SMEAR), Hyytiälä, Finland, 13. August 1999.
18. "Coagulation", *Summer School: Formation and Transformation of Atmospheric Aerosols*, Station for Measuring Forest Ecosystem - Atmosphere Relationships (SMEAR), Hyytiälä, Finland, 14. August 1999.
19. "What Do We Know About Phase Transition Processes Relevant to Atmospheric Aerosols?", Invited Plenary Lecture, *15th International Conference on Nucleation and Atmospheric Aerosols*, Rolla, Missouri, U.S.A., 8. August 2000.
20. "Expansion Chamber Experiments on Homogeneous and Heterogeneous Nucleation", Opening Lecture, *2nd Annual Conference of the Czech Aerosol Society*, Prague, 26. Oktober 2001.
21. "Homogeneous and Heterogeneous Nucleation", *Summer School: Aerosol Formation and Transformation*, Station for Measuring Forest Ecosystem - Atmosphere Relationships (SMEAR), Hyytiälä, Finland, 6. August 2003.
22. "Coagulation", *Summer School: Aerosol Formation and Transformation*, Station for Measuring Forest Ecosystem - Atmosphere Relationships (SMEAR), Hyytiälä, Finland, 7. August 2003.
23. "Condensation and Mass Accommodation", *Summer School: Aerosol Formation and Transformation*, Station for Measuring Forest Ecosystem - Atmosphere Relationships (SMEAR), Hyytiälä, Finland, 8. August 2003.

24. “Homogeneous and Heterogeneous Nucleation in Multicomponent Systems”, Invited Plenary Lecture, *European Aerosol Conference 2004*, Budapest, Hungary, 9. September 2004.
25. “Ten Years Aerosol Observations at Hyytiälä”, Invited Lecture, *Hyytiälä Anniversary Celebration 2005*, Hyytiälä, Finland, 11. August 2005.
26. “Heterogeneous Nucleation on Nanoparticles – a Review of Recent Results”, Invited Opening Lecture, *Joint iLEAPS, IGAC, SOLAS and ACCENT Workshop 2005: Formation and Growth of Secondary Atmospheric Aerosols*, Hyytiälä, Finland, 15. August 2005.
27. „Studies on Nucleation and Condensation in Vapours – 20 Years of Cooperation of the Universities of Helsinki and Vienna“, University of Helsinki, 23. Mai 2007.
28. „Condensation and Nucleation I, II“, *Summer School: Basic Aerosol Science Applied to Atmospheric Aerosols*, Universität Wien, 17. Juli 2007.
29. „Nucleation – Challenges and Importance“, Opening Address, *17th International Conference on Nucleation and Atmospheric Aerosols*, Galway, Ireland, 13. August 2007.
30. „Cluster Formation in Heterogeneous and Homogeneous Nucleation“, *SMEAR and Atmospheric Nucleation – 50th Anniversary Seminar of Acad. Prof. Markku Kulmala*, University of Helsinki, Helsinki, Finland, 30. Oktober 2008.
31. „Condensation and Nucleation I, II“, *Summer School: Basic Aerosol Science Applied to Atmospheric Aerosols*, Universität Wien, 7. Juli 2009.
32. “Aktivierung von Nanopartikeln und Einfluss elektrischer Ladung”, Festvortrag, *Symposium zu Ehren von Reinhard Streys 60. Geburtstag*, Universität zu Köln, Köln, Germany, 4. Juni 2010.
33. „Nucleation and Condensation in Vapours“, Invited Lecture, *Doshisha University Visiting Fellowship 2010/11*, Doshisha University, Kyoto, 9. Juli 2010.

34. „Particle Formation in Multicomponent Systems“, Invited Lecture, *Doshisha University Visiting Fellowship 2010/11*, Doshisha University, Kyoto, 9. Juli 2010.
35. “Nucleation Experiments Bridging the Range from Molecules to Nanoparticles”, Invited Lecture, *Doshisha University Visiting Fellowship 2010/11*, Doshisha University, Kyoto, 16. Juli 2010.
36. „Possible Influence of Cosmic Rays on Global Climate – The CLOUD Project at CERN“, Invited Lecture, *Doshisha University Visiting Fellowship 2010/11*, Doshisha University, Kyoto, 23. Juli 2010.
Koautoren: CLOUD Collaboration.
37. „Condensation and Nucleation I, II“, *Summer School: Basic Aerosol Science Applied to Atmospheric Aerosols*, Universität Wien, 5. Juli 2011.
38. "Formation of Molecular Clusters and Aerosol Particles", Keynote Lecture, *8th Liquid Matter Conference*, Wien, Austria, 9. September 2011.
Koautor: P. Winkler.
39. "Nucleation of Clusters Bridging the Scale from Molecules to Nanoparticles", Invited Plenary Lecture at Conference Opening, Friedlander Lecture, *31st Annual Conference of the American Association for Aerosol Research*, Hyatt Regency Minneapolis, Minneapolis, Minnesota, USA, 9. Oktober 2012.
Koautor: P. M. Winkler.
40. "Nukleation von Clustern - Überbrückung des Bereiches von Molekülen zu Nanopartikeln", Eingeladener Vortrag, *Chemisch-Physikalische Gesellschaft*, Wien, 30. Oktober 2012.
41. „Condensation and Nucleation I, II“, *Summer School: Basic Aerosol Science Applied to Atmospheric Aerosols*, Universität Wien, 8. Juli 2013.
42. "Nucleation of Vapours - Molecular Content of Critical Clusters and Activation of Nanoparticles", Invited Plenary Lecture, *European Aerosol*

Conference 2013, Clarion Congress Hotel Prague, Prague, Czech Republic, 5. September 2013.

Koautor: P. M. Winkler.

43. "Recent Advances on Particle Formation and Growth Processes in the Atmosphere", Invited Keynote Lecture, *International Conference of Particulate Matter and Energy Security 2014*, Doshisha University, Kyoto, Japan, 6. März 2014.

44. "Light Scattering Technique for Studies of the Formation of Molecular Clusters and Nanoparticles", Invited Lecture, *International Conference on Optical Particle Characterization 2014*, Institute of Advanced Industrial Science and Technology, Tokyo, Japan, 13. März 2014.

Koautor: P. M. Winkler.

Conference Lectures

K1. "Kondensationskernzähler als Aerosolmeßgerät", *First International Congress on Aerosols in Medicine*, Baden bei Wien, 21. September 1973.

K2. "Optische Bestimmung der Tröpfchenkonzentration in einer Expansionskammer bei Kondensation an verschiedenen Kernen", *2. Jahrestagung der Gesellschaft für Aerosolforschung*, Bad Soden, Bundesrepublik Deutschland, 17. Oktober 1974.

K3. "Droplet Growth Law and Accomodation Coefficients", *Session on Fundamentals of Aerosol Dynamics, Gordon Research Conference on Environmental Sciences: Air*, New Hampton, New Hampshire, U.S.A., 21. August 1975.

K4. "Droplet Growth Kinetics and Design Principles for Condensation Nuclei Counters", *Aerosol Measurement Workshop*, University of Florida, Gainesville, Florida, U.S.A., 25. März 1976.

K5. "Brownian Coagulation in the Transition and Near Free Molecule Regimes", *International Conference on Colloids and Surfaces, 50th*

Colloid and Surface Science Symposium, San Juan, Puerto Rico, 22. Juni 1976.

Koautor: M. Kerker.

K6. "Brownsche Koagulation im Knudsenbereich", *4. Jahrestagung der Gesellschaft für Aerosolforschung*, Bad Soden, Bundesrepublik Deutschland, 4. November 1976.

Koautor: M. Kerker.

K7. "Dynamic Processes in Condensation Nuclei Counters - Model Calculations and Experimental Test", *9th International Conference on Atmospheric Aerosols, Condensation and Ice Nuclei*, University College Galway, Galway, Ireland, 23. September 1977.

Koautor: F. G. Pohl.

K8. "Einsatz einer prozeßgesteuerten Expansionsnebelkammer zur Überprüfung neuerer Tröpfchenwachstumstheorien", *6th Conference of the Gesellschaft für Aerosolforschung*, Universität Wien, 27. September 1978.

Koautor: F. G. Pohl.

K9. "Recent Experiments of the Working Group on Ultrafine Aerosols - the 1979 WUFA Workshop", *7th Conference of the Gesellschaft für Aerosolforschung*, Düsseldorf, Bundesrepublik Deutschland, 5. Oktober 1979.

Koautoren: B. Y. H. Liu, D. Y. H. Pui, R. L. McKenzie, J. K. Agarwal, R. Jaenicke, F. G. Pohl, O. Preining, G. Reischl, W. Szymanski.

K10. "Homogeneous Nucleation Rates Measured in a Two-Piston Expansion Chamber", *Symposium on Nucleation, Second Chemical Congress of the North American Continent*, Las Vegas, Nevada, U.S.A., 26. August 1980.

Koautor: R. Strey.

K11. "The Optical Determination of Droplet Size Distribution During a Growth Process in Supersaturated Vapor", *Symposium on Principles and Applications of Light Scattering, Second Chemical Congress of the North American Continent*, Las Vegas, Nevada, U.S.A., 27. August 1980.

Koautoren: W. Szymanski, F. G. Pohl.

- K12. "Heterogeneous Nucleation of Water Vapor on Ultrafine Particles", *Symposium on Nucleation, Second Chemical Congress of the North American Continent*, Las Vegas, Nevada, U.S.A., 28. August 1980.
Koautoren: B. Y. H. Liu, D. Y. H. Pui, R. L. McKenzie, J. K. Agarwal, F. G. Pohl, O. Preining, G. Reischl, W. Szymanski.
- K13. "Heterogeneous Nucleation of Water Vapor on Ultrafine Monodispersed Ag- and NaCl-Particles", *4th International Conference on Surface and Colloid Science*, Jerusalem, Israel, 9. Juli 1981.
Koautoren: J. Porstendörfer, H. G. Scheibel, F. G. Pohl, O. Preining, G. Reischl.
- K14. "Investigations of Heterogeneous Nucleation on Ultrafine Monodispersed Ag- and NaCl-Aerosol Particles by Means of the Size Analyzing Nuclei Counter SANC - Results of the 1980 WUFA Workshop", *9th Conference of the Gesellschaft für Aerosolforschung*, Duisburg, Bundesrepublik Deutschland, 23. September 1981.
Koautoren: J. Porstendörfer, H. G. Scheibel, F. G. Pohl, O. Preining, G. Reischl.
- K15. "The Two-Piston Expansion Chamber. Measurements of Homogeneous Nucleation Rates for Water Vapor and Various Carrier Gases", *Symposium on Nucleation Phenomena, 56th Colloid and Surface Science Symposium*, Blacksburg, Virginia, U.S.A., 14. Juni 1982.
Koautor: R. Strey.
- K16. "Heterogeneous Nucleation on Ultrafine Particles. Expansion Chamber Measurements for Ag- and NaCl-Particles in Water Vapor", *Symposium on Nucleation Phenomena, 56th Colloid and Surface Science Symposium*, Blacksburg, Virginia, U.S.A., 16. Juni 1982.
Koautoren: J. Porstendörfer, H. G. Scheibel, F. G. Pohl, O. Preining, G. Reischl.
- K17. "Energy of Cluster Formation for Homogeneous Nucleation in Supersaturated Vapors", *10th Conference of the Gesellschaft für Aerosolforschung*, Bologna, Italien, 16. September 1982.
Koautor: R. Strey.

- K18. "Strong Reduction of Homogeneous Nucleation Rates in Associating Vapors Caused by the Heat of Oligomer Formation", *Symposium on Nucleation Phenomena in Gases, Liquids and Solids, 59th Colloid and Surface Science Symposium*, Clarkson University, Potsdam, New York, U.S.A., 24. Juni 1985.
Koautoren: R. Strey, T. Schmeling.
- K19. "A Constant-Angle Mie Scattering Method (CAMS) for Investigation of Particle Formation Processes", *Symposium on Colloidal Optics and Spectroscopy, 59th Colloid and Surface Science Symposium*, Clarkson University, Potsdam, New York, U.S.A., 25. Juni 1985.
- K20. "Mutual Interactions of Heat and Mass Transport During the Condensational Growth of Aerosol Particles", *Symposium on Transport Phenomena in Colloidal Systems, 59th Colloid and Surface Science Symposium*, Clarkson University, Potsdam, New York, U.S.A., 28. Juni 1985.
- K21. "Strong Reduction of Homogeneous Nucleation Rates in Associating Vapors Caused by the Heat of Oligomer Formation", *13th Conference of the Gesellschaft für Aerosolforschung*, Garmisch-Partenkirchen, Bundesrepublik Deutschland, 26. September 1985.
Koautoren: R. Strey, T. Schmeling.
- K22. "Experimental Nucleation Rates of the n-Alcohols in Comparison with Theory", *13th Conference of the Gesellschaft für Aerosolforschung*, Garmisch-Partenkirchen, Bundesrepublik Deutschland, 26. September 1985.
Koautoren: R. Strey, T. Schmeling.
- K23. "Brownian Coagulation of Atmospheric Aerosols in the Presence of Nucleation Mode Aerosol Sources", *13th Conference of the Gesellschaft für Aerosolforschung*, Garmisch-Partenkirchen, Bundesrepublik Deutschland, 26. September 1985.
Koautor: A. Majerowicz.
- K24. "Measurements of Brownian Coagulation in Monodispersed and Bidispersed Dioctylphthalate (DOP) Aerosols", *2nd International Aerosol Conference*, West Berlin, 25. September 1986.
Koautoren: W. Szymanski, A. Majerowicz.

- K25. "Measurements of the Heteromolecular Homogeneous Nucleation of Non-Miscible Liquids", *European Aerosol Conference 1988*, Lund, Schweden, 30. August 1988.
Koautor: R. Strey.
- K26. "Expansion Chamber Experiments on Condensational Growth Rates in Supersaturated Unary and Binary Alcohol Vapors", *1990 Annual Meeting of the American Association for Aerosol Research*, Philadelphia, Pennsylvania, U.S.A., 21. Juni 1990.
Koautoren: R. Rudolf, A. Majerowicz.
- K27. "Observation of Steady-State Aerosol Formation by Nucleation in Vapor Mixtures during Adjustable Expansion Pulses", *3rd International Aerosol Conference*, Kyoto, Japan, 27. September 1990.
Koautor: R. Strey.
- K28. "Recent Experiments on Homogeneous Nucleation and Some Interpretations", *Workshop on Condensation*, Helsinki, Finland, 8. August 1991.
Koautoren: R. Strey, Y. Viisanen.
- K29. "On the Comparability of Various Aerosol Particle Counters Applicable for Global Monitoring of Atmospheric Aerosols", *XX. General Assembly of IUGG*, Wien, 13. August 1991.
Koautoren: O. Preining, W. W. Szymanski.
- K30. "Interaction of Simultaneously Condensing Aerosol Particles at Various Number Concentrations", *European Aerosol Conference 1991*, Karlsruhe, Deutschland, 18. September 1991.
Koautor: G. K. Nicolussi.
- K31. "Experiments on the Coagulation Enhancement for Ultrafine Aerosols", *NOSA and IV Finnish Aerosol Symposium*, Helsinki, Finland, 14. November 1991.
Koautoren: A. Majerowicz, K. Smidovitsch, G. P. Reischl, W. W. Szymanski.

- K32. "Experimental Study of Binary Nucleation in Water n-Alcohol Vapor Mixtures", *NOSA and IV Finnish Aerosol Symposium*, Helsinki, Finland, 14. November 1991.
Koautoren: R. Strey, Y. Viisanen.
- K33. "The Effect of Carrier Gas Pressure on Homogeneous Nucleation Rates in Supersaturated Vapors", *13th International Conference on Nucleation and Atmospheric Aerosols*, Salt Lake City, Utah, U.S.A., 24. August 1992.
Koautoren: R. Strey, Y. Viisanen.
- K34. "Sticking Probabilities for Condensation of Polar and Non-Polar Vapor Molecules", *13th International Conference on Nucleation and Atmospheric Aerosols*, Salt Lake City, Utah, U.S.A., 25. August 1992.
Koautoren: R. Rudolf, M. Itoh, Y. Viisanen.
- K35. "Experiments on Binary Condensational Particle Growth for the Nearly Immiscible System Water - n-Nonane", *13th International Conference on Nucleation and Atmospheric Aerosols*, Salt Lake City, Utah, U.S.A., 27. August 1992.
Koautor: R. Rudolf.
- K36. "Particle Formation by Simultaneous Condensation of Nearly Immiscible Components", *European Aerosol Conference 1992*, Oxford, England, 9. September 1992.
Koautor: R. Rudolf.
- K37. "Optical Observation of Fine Particle Formation Processes: The Extended CAMS Method", *3rd International Congress on Optical Particle Sizing*, Yokohama, Japan, 24. August 1993.
Koautoren: R. Rudolf, M. Itoh, K. Takahashi, O. Preining.
- K38. "Evaluation of Nucleation Rates from Gas Flow Diffusion Chamber Experiments", *European Aerosol Conference 1993*, Duisburg, Deutschland, 5. Oktober 1993.
Koautor: M. P. Anisimov.
- K39. "Experimental Observation of Homogeneous Nucleation Rates in Various Unary and Binary Vapors", *European Aerosol Conference 1993*, Duisburg, Deutschland, 5. Oktober 1993.

Koautoren: R. Strey, Y. Viisanen.

- K40. "Van der Waals Interaction of Coagulating Aerosol Particles", *Workshop on Fundamentals in Aerosol Physics, European Aerosol Conference 1993*, Duisburg, Deutschland, 6. Oktober 1993.
Koautor: A. Majerowicz.
- K41. "Experiments on the Sticking Probability for Condensation of Nitric Acid Vapor", *Nucleation Symposium, 68th Annual Colloid and Surface Science Symposium*, Stanford, California, U.S.A., 21. Juni 1994.
Koautor: R. Rudolf.
- K42. "Isothermal Homogeneous Nucleation Rates in Supersaturated Vapors from Nucleation Pulse Experiments", *Nucleation Symposium, 68th Annual Colloid and Surface Science Symposium*, Stanford, California, U.S.A., 21. Juni 1994.
Koautoren: R. Strey, Y. Viisanen.
- K43. "Water Droplet Growth at Nearly Ambient Supersaturations Observed in an Expansion Chamber with Long Sensitive Time - a new SANC System", *4th International Aerosol Conference*, Los Angeles, California, U.S.A., 30. August 1994.
Koautoren: R. Rudolf, Y. Viisanen.
- K44. "Observation of Non-Ideal Effects at Particle Formation by Binary Homogeneous Nucleation", *4th International Aerosol Conference*, Los Angeles, California, U.S.A., 2. September 1994.
Koautoren: R. Strey, Y. Viisanen.
- K45. "Dynamik ultrafeiner Aerosole und ihr Einfluß auf Wolkenbildung und Klimaentwicklung", *Fachausschuß Medizinische Physik, Biophysik und Umweltphysik, Jahrestagung 1994 der Österreichischen Physikalischen Gesellschaft*, Innsbruck, Österreich, 20. September 1994.
Koautoren: G. P. Reischl, R. Rudolf, W. W. Szymanski, A. Vrtala.
- K46. „Influence of Multiple Scattering on Optical Measurement of High Particle Concentrations“, *4th International Congress on Optical Particle Sizing*, Nürnberg, Bundesrepublik Deutschland, 22. März 1995.
Koautoren: D. Filipovicova, G. P. Reischl, R. Rudolf, W. W. Szymanski, A. Vrtala.

- K47. „Joint Experiments on Homogeneous Nucleation. Measurements of Nucleation Rates in Supersaturated n-Pentanol Vapor“, *14th International Conference on Nucleation and Atmospheric Aerosols*, Helsinki, Finland, 27. August 1996.
Koautor: J. Smolik.
- K48. „Attachment of Vapor Molecules to Cluster and Droplet Surfaces“, *European Aerosol Conference 1996*, Delft, The Netherlands, 12. September 1996.
- K49. „Determination of Gas Molecule Sticking Probabilities from the Growth Kinetics of Microdrops“, *5th International Aerosol Conference*, Edinburgh, Schottland, 15. September 1998.
Koautoren: R. Rudolf, A. Vrtala.
- K50. "Precision Measurement of Supersaturation and Temperature in Adiabatically Expanded Gases from the Observation of Drop Growth Rates", *European Aerosol Conference 1999*, Prague, Czech Republic, 6. September 1999.
Koautoren: S. Zach, A. Vrtala, G. P. Reischl.
- K51. "Expansion Chamber Experience at the University of Vienna", *CLOUD Collaboration Meeting*, University of Helsinki, 9. Dezember 1999.
- K52. "Mie Detector Readout", *CLOUD Collaboration Meeting*, University of Helsinki, 10. Dezember 1999.
- K53. "Experiments on Nucleation Processes in Aerosols", *Workshop on Ion-Aerosol-Cloud Interactions*, CERN, Genf, 19. April 2001.
- K54. "Change of Nanoparticle Size in the Presence of Different Vapors", *European Aerosol Conference 2001*, Leipzig, Germany, 3. September 2001.
Koautor: D. Petersen.
- K55. "Laboratory Experiments on Homogeneous and Heterogeneous Nucleation", *European Aerosol Conference 2001*, Leipzig, Germany, 4. September 2001.

- K56. "Measurement of Vapor Uptake Via Aerosol Droplet Growth Experiments", *Mass Accomodation Workshop*, Aerodyne Research, Inc., Billerica/Boston, 25. Februar 2002.
Koautoren: P. Winkler, A. Vrtala.
- K57. "Binary Heterogeneous Nucleation on Partially Soluble Nanoparticles", *16th International Conference on Nucleation and Atmospheric Aerosols*, Kyoto, Japan, 26. Juli 2004.
Koautoren: D. Kaller, A. Vrtala, A. Lauri, M. Kulmala, A. Laaksonen.
- K58. "Nucleation and Optical Measurement", *International Workshop on Optics, Nucleation and Nano-Technology (IWONN)*, Doshisha University, Kyoto, Japan, 30. Juli 2004.
- K59. "Time-Resolved Observation of the Kinetics of Nucleation and Condensation of Water Vapour using Constant-Angle Mie Scattering (CAMS)", *7th International Congress on Optical Particle Characterization*, Kyoto, Japan, 3. August 2004.
Koautoren: P. M. Winkler, A. Vrtala, M. Kulmala, K. E. J. Lehtinen, T. Vesala.
- K60. "Binary Heterogeneous Nucleation of Organic Vapour Mixtures", *CLOUD Collaboration Meeting*, CERN, Geneva, 16. November 2005.
- K61. "Heterogeneous Nucleation on Single Ion Molecules. Recent Experiments and their Interpretation", *Workshop on Atmospheric Nucleation*, Hyytiälä, Finland, 27. August 2010.
- K62. "Experimental Determination of Critical Cluster Sizes from Heterogeneous Nucleation Measurements Using Strictly Monodisperse Seed Ion Molecules", *8th International Aerosol Conference*, Helsinki, Finland, 1. September 2010.
Koautoren: A. Vrtala, P. M. Winkler, H. Vehkamäki, K. E. J. Lehtinen, G. Steiner, G. P. Reischl, M. Kulmala.

Posters

- P1. F. Pohl, P. Wagner, "Kondensationskernzähler", *Jahrestagung der Österreichischen Physikalischen Gesellschaft*, Johannes-Kepler-Universität, Linz, 29. September 1976.
- P2. R. Strey, P. E. Wagner, "Homogeneous Nucleation Rates Measured in a Two-Piston Expansion Chamber", *8th Conference of the Gesellschaft für Aerosolforschung*, Schmallenberg, Bundesrepublik Deutschland, 23. Oktober 1980.
- P3. W. Szymanski, P. E. Wagner, "Aerosol Size Distribution During a Condensational Growth Process. Measurements and Comparison with Theory", *10th Conference of the Gesellschaft für Aerosolforschung*, Bologna, Italien, 14. und 16. September 1982.
- P4. O. Preining, W. Szymanski, P. E. Wagner, "Investigations of Bidispersed Aerosols in a Steady State Flowing System", *10th Conference of the Gesellschaft für Aerosolforschung*, Bologna, Italien, 14. und 16. September 1982.
- P5. W. Szymanski, P. E. Wagner, "Model Calculations of Brownian Coagulation in Bidispersed Aerosols", *11th Conference of the Gesellschaft für Aerosolforschung*, München, Bundesrepublik Deutschland, 15. und 16. September 1983.
- P6. W. W. Szymanski, P. E. Wagner, "Particle Size and Number Concentration Measurements from Simultaneous Observation of Laser Scattering and Extinction", *International Symposium on Optical Particle Sizing: Theory and Practice*, Rouen, Frankreich, 12. bis 15. Mai 1987.
- P7. M. Kulmala, A. Majerowicz, P. E. Wagner, "Condensational Growth at Large Vapor Concentration: Limits of Applicability of the Mason Equation", *European Aerosol Conference 1989*, Universität Wien, 21. September 1989.
- P8. R. Strey, P. E. Wagner, "Binary Homogeneous Nucleation of Liquids with Different Degrees of Miscibility", *European Aerosol Conference 1989*, Universität Wien, 21. September 1989.

- P9. E. Pfalzmann, P. E. Wagner, "Experimental Investigations of Aerosol Flow Stability at Low Reynolds Numbers", *European Aerosol Conference 1989*, Universität Wien, 22. September 1989.
- P10. A. Majerowicz, E. Pfalzmann, K. Smidovich, G. P. Reischl, W. W. Szymanski, P. E. Wagner, "An Experimental Study of Brownian Coagulation for Particles of Different Size and Composition", *European Aerosol Conference 1990*, Zürich, Schweiz, 1. Oktober 1990.
- P11. G. K. Nicolussi, P. E. Wagner, "Interaction of Simultaneously Condensing Aerosol Particles at Various Number Concentrations", *European Aerosol Conference 1991*, Karlsruhe, Deutschland, 19. September 1991.
- P12. R. Rudolf, P. E. Wagner, "Experiments on Binary Condensational Particle Growth for the Nearly Immiscible System Water - n-Nonane", *13th International Conference on Nucleation and Atmospheric Aerosols*, Salt Lake City, Utah, U.S.A., 25. August 1992.
- P13. M. Kulmala, T. Vesala, P. E. Wagner, "An Analytical Expression for the Rate of Binary Condensational Particle Growth: Comparison with Numerical Results", *European Aerosol Conference 1992*, Oxford, England, 10. September 1992.
- P14. A. Ankilov, A. Baklanov, M. Colhoun, K.-H. Enderle, D. Filipovicova, J. Gras, Yu. Julanov, A. Lindner, A. A. Lushnikov, A. E. Majerowicz, R. Mavliev, F. McGovern, A. Mirme, T. C. O'Connor, J. Podzimek, O. Preining, G. P. Reischl, R. Rudolf, G. Sem, W. W. Szymanski, E. Tamm, P. E. Wagner, W. Winklmayr, V. Zagaynov, "Workshop on Intercomparison of Condensation Nuclei and Aerosol Particle Counters, Vienna, 1993: An Overview", *European Aerosol Conference 1994*, Blois, Frankreich, 2. Juni 1994.
- P15. A. Ankilov, A. Baklanov, M. Colhoun, K.-H. Enderle, D. Filipovicova, J. Gras, Yu. Julanov, A. Lindner, A. A. Lushnikov, A. E. Majerowicz, R. Mavliev, F. McGovern, A. Mirme, T. C. O'Connor, J. Podzimek, O. Preining, G. P. Reischl, R. Rudolf, G. Sem, W. W. Szymanski, E. Tamm, P. E. Wagner, W. Winklmayr, V. Zagaynov, "Intercomparison of Various Methods for Aerosol Number Concentration Measurement:

Results of the Vienna Workshop 1993", *4th International Aerosol Conference*, Los Angeles, California, U.S.A., 30. August 1994.

- P16. P. van Remoortere, C. Heath, P. E. Wagner, R. Strey, „Effect of Supersaturation, Temperature and Total Pressure on the Homogeneous Nucleation of n-Pentanol“, *14th International Conference on Nucleation and Atmospheric Aerosols*, Helsinki, Finland, 28. August 1996.
- P17. P. E. Wagner, G. P. Reischl, „The Vienna Workshop on Intercomparison of Condensation Nuclei and Aerosol Particle Counters“, *14th International Conference on Nucleation and Atmospheric Aerosols*, Helsinki, Finland, 28. August 1996.
- P18. D. Filipovicova, G. P. Reischl, R. Rudolf, W. W. Szymanski, A. Vrtala, P. E. Wagner, „Measurement Standard for Determination of Aerosol Number Concentration“, *14th International Conference on Nucleation and Atmospheric Aerosols*, Helsinki, Finland, 28. August 1996.
- P19. D. Filipovicova, R. Ortner, A. Vrtala, P. E. Wagner, „Expansion Chamber Experiments on Heterogeneous Nucleation by Nanoparticles in Unary and Binary Vapor Systems“, *European Aerosol Conference 1997*, Hamburg, Deutschland, 16. September 1997.
- P20. S. Zach, A. Vrtala, P. E. Wagner, „Experimental Investigations on the Thermodynamic Conditions in Adiabatically Expanding Gases“, *European Aerosol Conference 1997*, Hamburg, Deutschland, 16. September 1997.
- P21. M. Kulmala, P. E. Wagner, "Sticking Probability and Uptake Coefficient - A Quantitative Comparison", *15th International Conference on Nucleation and Atmospheric Aerosols*, Rolla, Missouri, U.S.A., 7. August 2000.
- P22. D. Petersen, R. Ortner, A. Vrtala, A. Laaksonen, M. Kulmala, P. E. Wagner, "The Influence of Particle Solubility on Heterogeneous Nucleation in Binary Vapor Mixtures", *15th International Conference on Nucleation and Atmospheric Aerosols*, Rolla, Missouri, U.S.A., 9. August 2000.

- P23. S. Zach, A. Vrtala, G. P. Reischl, P. E. Wagner, "How Well Are Supersaturation and Temperature in Expansion Chambers Predicted by the Poisson-Equation?", *15th International Conference on Nucleation and Atmospheric Aerosols*, Rolla, Missouri, U.S.A., 9. August 2000.
- P24. R. Mazzucco, P. E. Wagner, "The Mean Charge on Electrostatically Classified Aerosol Particles", *European Aerosol Conference 2001*, Leipzig, Germany, 3.-7. September 2001.
- P25. P. E. Wagner, "Partikelentstehungsprozesse in der Atmosphäre", *Symposium: From Thermodynamics to Dynamical Systems*", Institut für Physikalische Chemie, Universität Wien, 17. Mai 2002.
- P26. I. Riipinen, P. M. Winkler, P. E. Wagner, A. I. Hienola, K. E. J. Lehtinen, M. Kulmala, „Condensational Growth of n-Propanol and n-Nonane Droplets: Experiments and Model Calculations“, *17th International Conference on Nucleation and Atmospheric Aerosols*, Galway, Ireland, 13. August 2007.
- P27. P. M. Winkler, G. W. Steiner, G. P. Reischl, A. Vrtala, P. E. Wagner, M. Kulmala, „Experimental Observation of Heterogeneous Nucleation Probabilities for Ion-induced Nucleation“, *17th International Conference on Nucleation and Atmospheric Aerosols*, Galway, Ireland, 14. August 2007.
- P28. A. Vrtala, P. M. Winkler, H. Vehkamäki, M. Kulmala, P. E. Wagner, "A Physically Consistent Heterogeneous Nucleation Probability (PCHNP) Function for Determination of Critical Cluster Size Using the Heterogeneous Nucleation Theorem", *European Aerosol Conference*, Thessaloniki, 26. August 2008.
- P29. S. Schobesberger, P. M. Winkler, A. Vrtala, P. E. Wagner, "Experiments on the Temperature Dependence of Heterogeneous Nucleation of n-Propanol Vapor on NaCl and Ag Particles", *European Aerosol Conference*, Thessaloniki, 26. August 2008.
- P30. T. Pinterich, S. Schobesberger, A. Vrtala, P. M. Winkler, P. E. Wagner, „Temperature dependence of the contact angle for n-propanol on silver

and on sodium chloride substrate”, *European Aerosol Conference*, Karlsruhe, 6.–11. September 2009.

- P31. L. Pichelstorfer, A. Vrtala, P. M. Winkler, P. E. Wagner, „Experiments on Heterogeneous Nucleation for Polar and Nonpolar Compounds“, *8th International Aerosol Conference*, Helsinki, Finland, 30. August – 3. September 2010.
- P32. T. Pinterich, P. M. Winkler, A. Vrtala, P. E. Wagner, “Wetting of Silver Surfaces by n-Propanol at Different Surface-Layer Thickness”, *8th International Aerosol Conference*, Helsinki, Finland, 30. August – 3. September 2010.
- P33. A. Kupc, A. Vrtala, P. M. Winkler, P. E. Wagner, CLOUD Collaboration, „A Unique UV Fibre-Optic System for H₂SO₄ Production Inside the CLOUD Chamber”, *8th International Aerosol Conference*, Helsinki, Finland, 30. August – 3. September 2010.
- P34. T. Pinterich, P. M. Winkler, P. E. Wagner, A. Vrtala, "Development of a Versatile Size Analyzing Nuclei Counter (vSANC)", *European Aerosol Conference*, Manchester, England, 5. - 9. September 2011.
- P35. A. Kupc, A. Vrtala, P. E. Wagner, P. M. Winkler, CLOUD Collaboration, "Heterogeneous Nucleation of Water Vapor on Nanoparticles an Ions, and its Temperature Dependence", *European Aerosol Conference*, Manchester, England, 5. - 9. September 2011.
- P36. T. Pinterich, P. M. Winkler, P. E. Wagner, A. Vrtala, "The vSANC - A versatile Size Analyzing Nuclei Counter", *Workshop on Atmospheric Nucleation*, Hyytiälä, Finland, 20. - 22. August 2012.

Colloquium und Seminar Lectures

- A1. "Experimental Investigations of Droplet Growth", University of Missouri-Rolla, Rolla, Missouri, U.S.A., 15. Juli 1975.
- A2. "Design Criteria for Condensation Nuclei Counters", Washington University, St. Louis, Missouri, U.S.A., 18. Juli 1975.

- A3. "Kinetics of Droplet Growth in Supersaturated Vapors", University of Rochester, Rochester, New York, U.S.A., 5. August 1975.
- A4. "Growth of Aerosol Droplets", Clarkson College of Technology, Potsdam, New York, U.S.A., 16. September 1975.
- A5. "Aerosol Coagulation in the Transition Regime", State University of New York at Buffalo, Buffalo, New York, U.S.A., 22. September 1975.
- A6. "Aerosol Growth in the Expansion Cloud Chamber", *Panel Discussion: Experimental Techniques for the Study of the Nucleation and Growth of Aerosols*, Institute of Colloid and Surface Science, Clarkson College of Technology, Potsdam, New York, U.S.A., 7. Oktober 1975.
- A7. "Coagulation in Aerosols", Clarkson College of Technology, Potsdam, New York, U.S.A., 9. Dezember 1975.
- A8. "Nucleation and Condensation", Georgia Institute of Technology, Atlanta, Georgia, U.S.A., 12. April 1976.
- A9. "Droplet Growth in Aerosols", Environmental Sciences Research Laboratory, United States Environmental Protection Agency, Research Triangle Park, North Carolina, U.S.A., 14. April 1976.
- A10. "Coagulation of Aerosols in the Transition Regime", Clarkson College of Technology, Potsdam, New York, U.S.A., 20. Mai 1976.
- A11. "Coagulation of Aerosols in the Transition Regime", University of Texas, Austin, Texas, U.S.A., 30. Juni 1976.
- A12. "Design Principles for Condensation Nuclei Counters", National Center of Atmospheric Research, Boulder, Colorado, U.S.A., 8. Juli 1976.
- A13. "Coagulation of Aerosols in the Transition Regime", Department of Health, State of California, Berkeley, California, U.S.A., 21. Juli 1976.
- A14. "Koagulation im Knudsenbereich", Fraunhofer-Institut für Aerobiologie, Graftschaft, Bundesrepublik Deutschland, 16. August 1976.

- A15. "Lichtstreuung als Methode zur Untersuchung von Kondensationsvorgängen", Max-Planck-Institut für Biophysikalische Chemie, Göttingen, Bundesrepublik Deutschland, 22. April 1977.
- A16. "Phasenübergangskinetik in übersättigtem Wasserdampf", *Meteorologisches Kolloquium* (Meteorologische Institute der Universitäten Darmstadt, Frankfurt, Mainz und des Max-Planck-Instituts für Chemie, Mainz), Johann-Wolfgang-Goethe-Universität, Frankfurt, Bundesrepublik Deutschland, 19. April 1979.
- A17. "Phasenübergangskinetik in übersättigtem Wasserdampf", Max-Planck-Institut für Biophysikalische Chemie, Göttingen, Bundesrepublik Deutschland, 24. April 1979.
- A18. "Homogene Kondensation in einer Zwei-Kolben-Expansionskammer: Erste Ergebnisse", Max-Planck-Institut für Biophysikalische Chemie, Göttingen, Bundesrepublik Deutschland, 19. Dezember 1979.
- A19. "Nucleation and Droplet Growth in Supersaturated Vapor", National Bureau of Standards, Washington, D. C., U.S.A., 4. August 1980.
- A20. "Homogeneous Nucleation Rates Measured in a Two-Piston Expansion Chamber", State University of New York at Buffalo, Buffalo, New York, U.S.A., 6. August 1980.
- A21. "Homogeneous Nucleation Rates Measured in a Two-Piston Expansion Chamber", Clarkson College of Technology, Potsdam, New York, U.S.A., 4. September 1980.
- A22. "Aerosolbildung durch homogene Nukleation in übersättigten Dämpfen", *Kolloquium Forschungsschwerpunkt Wasser-Luft-Lärm*, Universität Duisburg, Duisburg, Bundesrepublik Deutschland, 11. Jänner 1982.
- A23. "The Two-Piston Expansion Chamber. Measurements of Homogeneous Nucleation Rates for Water Vapor and Various Carrier Gases", Yale University, New Haven, Connecticut, U.S.A., 18. Juni 1982.
- A24. "Homogeneous Nucleation Experiments Using a Two-Piston Expansion Chamber", University of Missouri-Rolla, Rolla, Missouri, U.S.A., 23. Juni 1982.

- A25. "Heterogeneous Nucleation and Droplet Growth. Measurements with a Pressure-Defined Expansion Chamber", University of Missouri-Rolla, Rolla, Missouri, U.S.A., 25. Juni 1982.
- A26. "Heterogeneous Nucleation and Kinetics of Droplet Growth - Experimental Investigations Using a Process Controlled Expansion Chamber", Brookhaven National Laboratory, Upton, New York, U.S.A., 2. Juli 1982.
- A27. "Experimental Investigations of Droplet Growth by Condensation", University of Maine, Orono, Maine, U.S.A., 6. Juli 1982.
- A28. "Interactions of Heat and Mass Transport During the Condensational Growth of Aerosol Particles", Tschechoslowakische Akademie der Wissenschaften, Prag, CSSR, 16. Mai 1985.
- A29. "The Influence of Brownian Coagulation on the Size Distributions of Atmospheric Aerosols", Southern Research Institute, Birmingham, Alabama, U.S.A., 10. Juni 1985.
- A30. "The Influence of Brownian Coagulation on the Size Distributions of Atmospheric Aerosols", Washington University, St. Louis, Missouri, U.S.A., 13. Juni 1985.
- A31. "Homogeneous Nucleation Experiments and Effect of Association", University of Missouri-Rolla, Rolla, Missouri, U.S.A., 17. Juni 1985.
- A32. "The Influence of Brownian Coagulation on the Size Distributions of Atmospheric Aerosols", University of Missouri-Rolla, Rolla, Missouri, U.S.A., 17. Juni 1985.
- A33. "Brownian Coagulation of Atmospheric Aerosols in the Presence of Nucleation Mode Aerosol Sources", University of Minnesota, Minneapolis, Minnesota, U.S.A., 19. Juni 1985.
- A34. "Principles and Applications of Condensation Nuclei Counters", Liquid Air Corporation, Countryside, Illinois, U.S.A., 1. Juli 1985.

- A35. "Brownsche Koagulation in Aerosolen", BBC-Brown-Boveri Forschungszentrum, Baden - Dättwil, Schweiz, 20. Dezember 1985.
- A36. "Koagulation monodisperser und bidisperser Aerosole", Fraunhofer-Institut für Toxikologie und Aerosolforschung, Hannover, Bundesrepublik Deutschland, 26. Mai 1986.
- A37. "Experimente zur Brownschen Koagulation monodisperser und bidisperser Aerosole", *LAF Kolloquium*, Kernforschungszentrum Karlsruhe, Karlsruhe, Bundesrepublik Deutschland, 16. November 1987.
- A38. "Theoretical and Experimental Aerosol Research at the University of Vienna", University of Kuopio, Kuopio, Finland, 14. September 1988.
- A39. "Neuere Experimente zur heteromolekularen homogenen Nukleation teilweise unmischbarer Flüssigkeiten", Max-Planck-Institut für biophysikalische Chemie, Göttingen, Bundesrepublik Deutschland, 1. November 1988.
- A40. "Keimbildung und Kondensationswachstum von Aerosolteilchen", Universität für Bodenkultur, Wien, 29. November 1988.
- A41. "Experimente zur Aerosolkondensation im Knudsenbereich", Institut für Theoretische Physik, Johannes-Kepler-Universität, Linz, 12. Dezember 1988.
- A42. "Condensational Growth - Physical Principles and Expansion Chamber Experiments", Kyoto University, Kyoto, Japan, 11. April 1989.
- A43. "Nucleation and Coagulation in Aerosols", University of Osaka Prefecture, Osaka, Japan, 14. April 1989.
- A44. "Nucleation and Fine Particle Measurement", Kanazawa University, Kanazawa, Japan, 18. April 1989.
- A45. "Brownian Coagulation - Dynamic Regimes, Observation Techniques and Flow Experiments", Kyoto University, Kyoto, Japan, 21. April 1989.

- A46. "Homogeneous Nucleation in Unary and Binary Vapors - Experiments in an Expansion Pulse Chamber", Kyoto University, Kyoto, Japan, 25. April 1989.
- A47. "Light Scattering Resonances - CAMS Measurements of Particle Formation Rates and EXT Measurements of High Particle Number Concentrations", Kyoto University, Kyoto, Japan, 9. Mai 1989.
- A48. "Light Scattering in Aerosols and Applications to Aerosol Measurement", Doshisha University, Kyoto, Japan, 11. Mai 1989.
- A49. "Dynamical Properties of Aerosols and Measuring Techniques", Mechanical Engineering Research Laboratory, Hitachi Ltd., Tsuchiura-Shi, Japan, 16. Mai 1989.
- A50. "Formation, Behavior and Measurement of Ultrafine Aerosol Particles", Electrotechnical Laboratory, Tsukuba Science City, Japan, 19. Mai 1989.
- A51. "Measurements of Homogeneous Nucleation Rates in a Wilson-Type Expansion Chamber", Siberian Division of the Academy of Sciences of the USSR, Kemerowo, USSR, 10. August 1989.
- A52. "Homogeneous Nucleation of Partially Miscible Liquids", Institute of Colloid and Surface Science, Clarkson University, Potsdam, New York, U.S.A., 11. Juni 1990.
- A53. "Homogeneous Nucleation Experiments for Partially Miscible Liquids", University of California at Los Angeles, Los Angeles, California, U.S.A., 26. Juni 1990.
- A54. "Experiments on Homogeneous Nucleation of Partially Miscible Liquids", University of Missouri-Rolla, Rolla, Missouri, U.S.A., 2. Juli 1990.
- A55. "Sticking Probability for Vapor Molecules on Droplet and Cluster Surfaces", *International Colloquium on Current Aerosol Research*, Kyoto University, Kyoto, Japan, 18. September 1990.

- A56. "Die Kondensation in Theorie und Experiment", *Physikalisch-Chemisches Kolloquium*, Philipps-Universität, Marburg, Deutschland, 15. November 1990.
- A57. "Studies on Condensation and Coagulation", Karpov Institute of Physical Chemistry, Moscow, Rußland, 8. October 1991.
- A58. "Studies on Condensation and Coagulation", Institute of Chemical Kinetics and Combustion, Academy of Sciences, Novosibirsk, Rußland, 14. October 1991.
- A59. "Investigations of Condensation and Coagulation of Aerosols", Air Electricity Laboratory, Tartu University, Tartu, Estland, 6. November 1991.
- A60. "Homogeneous Nucleation from the Gas Phase - An Important Mechanism for Particle Formation in the Atmosphere", *Kollokvio*, University of Helsinki, Helsinki, Finland, 2. Dezember 1991.
- A61. "Binary Nucleation", University of Missouri-Rolla, Rolla, Missouri, USA, 3. August 1992.
- A62. "Report on Joint Experiments and First Results of 'Workshop on Intercomparison of Condensation Nuclei and Aerosol Particle Counters, Vienna, 7 June - 9 July 1993' ", Kyoto University, Kyoto, Japan, 6. September 1993.
- A63. "Constant Angle Mie Scattering and Extinction Method - Application to Optical Particle Sizing and Absolute Particle Number Concentration Measurement", *Satellite Seminar Kyoto - 3rd International Congress on Optical Particle Sizing Yokohama*, Kyoto University, Kyoto, Japan, 7. September 1993.
- A64. "Particle Formation by Condensation of Binary Vapor Mixtures", Hiroshima University, Hiroshima, Japan, 9. September 1993.
- A65. "Dynamik ultrafeiner Aerosole und ihr Einfluß auf Wolkenbildung und Klimaentwicklung", Kernforschungszentrum Karlsruhe, Karlsruhe, Deutschland, 23. September 1994.

- A66. „Dynamical Properties of Nanoparticles“, Tata Institute of Fundamental Research, Bombay, India, 20. Jänner 1997.
- A67. „Experimental Studies on Aerosol Condensation and Applications to Number Concentration Measurement“, Indian Institute of Technology, Bombay, India, 21. Jänner 1997.
- A68. „Beobachtung von Partikelentstehungsvorgängen mittels Mie-Streuung“, Universität zu Köln, Köln, Germany, 23. Juni 1997.
- A69. „Experimental Investigations of Homogeneous Nucleation Processes“, Doshisha University, Kyoto, Japan, 13. Februar 1998.
- A70. „Optical Measurement of High Particle Number Concentrations“, Kanazawa University, Kanazawa, Japan, 16. Februar 1998.
- A71. „Nukleation und Kondensation in übersättigten binären Dämpfen“, Max-Planck-Institut für Chemie, Mainz, Deutschland, 26. Februar 1998.
- A72. "Nucleation on Nanoparticles in Binary Vapors", Universität zu Köln, Köln, Germany, 26. Mai 1999.
- A73. "Anlagerungswahrscheinlichkeiten von Gasmolekülen an unären und binären Flüssigkeitsoberflächen", Universität zu Köln, Köln, Germany, 19. März 2001.
- A74. "Heterogene Keimbildung und Tröpfchenwachstum aus der Gasphase", Universität zu Köln, Köln, Germany, 11. September 2001.
- A75. "Binary Heterogeneous Nucleation on Nanoparticles", Doshisha University, Kyo-Tanabe, Kyoto, Japan, 28. Juli 2004.
- A76. "Homogeneous and Heterogeneous Nucleation in Multicomponent Systems", *Aerosoli- ja ympäristöfysiikan seminaari*, University of Helsinki, Helsinki, Finland, 29. September 2004.
- A77. "Heterogeneous Nucleation on Nanoparticles – a Review of Recent Results", SZFKI Szeminárium, Hungarian Academy of Science, Research Institute for Solid State Physics and Optics, Budapest, Hungary, 24. May 2006.

- A78. "Nukleation an Nanopartikeln und homogene Nukleation", Kolloquium, Universität zu Köln, Köln, Germany, 15. August 2008.
- A79. „Possible Influence of Cosmic Rays on Global Climate – The CLOUD Project at CERN“, University of Kanazawa, Kanazawa, 12. Juli 2010.
Koautoren: CLOUD Collaboration.
- A80. "Nucleation Experiments Bridging the Range from Molecules to Nanoparticles", Hiroshima University, Hiroshima, Japan, 21. Juli 2010.

Institute and Faculty Seminars

- S1. "Streuung kohärenten und inkohärenten Lichtes an kleinen Teilchen", I. Physikalisches Institut, Universität Wien, 1969.
- S2. "Umwandlung eines Pulvers in ein Aerosol mit Hilfe eines Fließbettgenerators", I. Physikalisches Institut, Universität Wien, 1970.
- S3. "Eine schnelle Expansionsnebelkammer zur Untersuchung von Kondensationsvorgängen", I. Physikalisches Institut, Universität Wien, 13. März 1974.
- S4. "Theorie des Tröpfchenwachstums in übersättigten Dämpfen", I. Physikalisches Institut, Universität Wien, 20. März 1974.
- S5. "Vergleich theoretischer Tröpfchenwachstumskurven mit experimentellen Resultaten", I. Physikalisches Institut, Universität Wien, 27. März 1974.
- S6. "Koagulation von Aerosolen im Knudsenbereich. I. Theorie", I. Physikalisches Institut, Universität Wien, 1. Dezember 1976.
- S7. "Koagulation von Aerosolen im Knudsenbereich. II. Experimentelle Ergebnisse", I. Physikalisches Institut, Universität Wien, 12. Jänner 1977.
- S8. "Tröpfchenwachstumstheorie erster Ordnung und Vergleich mit experimentellen Resultaten", Institut für Experimentalphysik, Universität Wien, 12. Juni 1978.

- S9. "The Process Controlled Expansion Cloud Chamber in Vienna", *Meeting of the Working Group on Ultrafine Aerosols*, Universität Wien, 29. September 1978.
- S10. "Messung homogener Keimbildungsraten", Institut für Experimentalphysik, Universität Wien, 16. Juni 1980.
- S11. "Experimentelle Bestimmung homogener Keimbildungsraten in einer Zwei-Kolben Expansionskammer. Ergebnisse einer Zusammenarbeit mit dem Max-Planck-Institut für Biophysikalische Chemie, Göttingen", Institut für Experimentalphysik, Universität Wien, 3. Dezember 1980.
- S12. "Ergebnisse des 1980 WUFA Workshops", Institut für Experimentalphysik, Universität Wien, 26. Jänner 1981.
- S13. "Theorie der homogenen Keimbildung", Institut für Experimentalphysik, Universität Wien, 30. November 1981.
- S14. "Experimente zur homogenen Keimbildung", Institut für Experimentalphysik, Universität Wien, 16. Dezember 1981.
- S15. "Kinetik von Kondensationsvorgängen in einer übersättigten Dampfphase", Habilitationsvortrag, Universität Wien, 29. April 1982.
- S16. "Das Laser Doppler Anemometer", Institut für Experimentalphysik, Universität Wien, 3. Mai 1982.
- S17. "Homogene Keimbildung in assoziierenden Dämpfen", *Aerosolkolloquium*, Institut für Experimentalphysik, Universität Wien, 16. Mai 1984.
- S18. "Homogene Kondensation - Diskrepanzen von 10^{22} und ihre Aufklärung", Institut für Experimentalphysik, Universität Wien, 27. März 1985.
- S19. "Numerische Untersuchung der Brownschen Koagulation in bimodalen Aerosolen", Institut für Experimentalphysik, Universität Wien, 22. Mai 1985.

- S20. "Neuere Untersuchungen der Keimbildung und Koagulation in Aerosolen", Institut für Experimentalphysik, Universität Wien, 4. Juni 1985.
- S21. "Fractal Growth", *Seminar: Fraktale in Chemie und Physik*, Universität Wien, 17. Dezember 1986.
- S22. "Homogene Nukleationsraten in übersättigten Dampfmischungen", *Aerosolkolloquium*, Institut für Experimentalphysik, Universität Wien, 17. Jänner 1990.
- S23. "Laser-Streulichtuntersuchung der Phasenbildung durch Nukleation und Kondensation", *Informationsseminar der Physikalischen Institute*, Universität Wien, 5. Juni 1991.
- S24. "Neue Experimente zur Bestimmung kritischer Clustergrößen bei homogener Nukleation", *Seminar Angewandte Statistische Physik und Simulation*, Institut für Experimentalphysik, Universität Wien, 9. November 1994.
- S25. „Dynamik und Charakterisierung von Nanopartikeln“, Universität Wien, 16. November 1995.
- S26. „Experimentelle Bestimmung von Akkomodationskoeffizienten bei der Kondensation übersättigter Dämpfe“, *Seminar Angewandte Statistische Physik und Simulation* und *Seminar Fortschritte in der Physikalischen Chemie*, Institut für Physikalische Chemie, Universität Wien, 13. Jänner 1999.
- S27. "Nukleation aus der Gasphase", *Seminar Dielektrische Festkörper*, Institut für Experimentalphysik, Universität Wien, 4. November 1999.
- S28. "Dynamik von Phasenübergängen in Aerosolen und Wolken", *Seminar Physik 2000*, Institut für Experimentalphysik, Universität Wien, 4. Dezember 2000.
- S29. "Nucleation in Multicomponent Systems I", *Seminar: Aktuelle Probleme der Aerosoldynamik und Aerosoptik*, Universität Wien, 27. Oktober 2004.

- S30. "Homogene und Heterogene Nukleation in Multikomponentensystemen", *Seminar: Angewandte Statistische Physik und Simulation (ASPUS)*, Universität Wien, 1. Dezember 2004.
- S31. "Nucleation in Multicomponent Systems II", *Seminar: Aktuelle Probleme der Aerosoldynamik und Aerosoloptik*, Universität Wien, 13. April 2005.
- S32. „Das heterogene Nukleationstheorem und Probleme bei der Anwendung auf experimentelle Aktivierungswahrscheinlichkeiten“, *Seminar: Aktuelle Probleme der Aerosoldynamik und Aerosoloptik*, Universität Wien, 30. November 2005.
- S33. "Experimental Determination of Critical Cluster Sizes from Heterogeneous Nucleation Measurements Using Strictly Monodisperse Seed Ion Molecules", *Seminar: Aktuelle Probleme der Aerosoldynamik und Aerosoloptik*, Universität Wien, 27. Oktober 2010.
- S34. "Nucleation and Condensation in Vapours", *Seminar: Aktuelle Probleme der Aerosoldynamik und Aerosoloptik*, Universität Wien, 9. März 2011.
- S35. "Nucleation - from Molecular Clusters to Nanoparticles", *VERA-Seminar*, Universität Wien, 15. März 2012.

Other Contributions

- M1. "Kondensationsvorgänge", *Lehrerfortbildungsseminar des Vereins zur Förderung des physikalischen und chemischen Unterrichts*, Bundesgymnasium Wien XVI, 17. November 1982.
- M2. "Physikalische Aerosol- und Staubmessung", *Universitätslehrgang Toxikologie*, Institut für Tumorbiologie - Krebsforschung, Universität Wien, 19. Oktober 2001.
- M3. "Beiträge Einsteins zur Revolution der Physik im 20. Jahrhundert", Lions Club Bad Vöslau – Baden, Bad Vöslau, 9. März 2007.

M4. „Revolution unseres Weltbildes durch physikalische Erkenntnisse – Die Relativitätstheorie“, Bundesrealgymnasium Wien I – Lise Meitner Realgymnasium Schottenbastei, 23. Oktober 2013.