

- 2005 **Fulbright Teaching and Research Fellow**
to *Tartu University, Dept. of Atmospheric Physics* www.tu.ee *Tartu, Estonia*
2006 • Lectured, advised and conducted research in atmospheric and aerosol physics.
- 2004 **Senior Research Scientist**
to *Helsinki U. of Technology, Dept. of Physics, Centre for New Materials* www.aalto.fi *Espoo, Finland*
2008 • Co-developed & managed projects, advised M.S. & Ph.D. students, developed physics models and software.
- 2003 **Deputy Manager**
to *VTT Processes (Tech. Research Centre of Finland), Aerosol Technology Group* www.vtt.fi *Espoo, Finland*
2004. • Co-developed & managed projects, advised M.S. & Ph.D. students, developed physics models and software.
- 2001 **CEO, Business Development Manager, Founder**
to *Particle Stream Technologies Oy (Optical fiber manufacturing technologies)* *Espoo, Finland*
2005 • Developed & managed core technology, performed daily operations and managed business and strategic planning.
- 1996 **CEO, Founder & Chief Research Scientist**
to *StreamWise (Scientific / engineering software / services)* www.streamwisecrd.eu *St. Petersburg, FL*
2008 • Managed industry and academic projects, designed & modeled processes, developed physics models and software.
- 1997 **Visiting Senior Research Scientist**
to *VTT (Tech. Research Centre of Finland) Energy, Chemical Technology & Processes Labs.* *Espoo, Finland*
2002 • Designed & modeled processes, developed physics models and software, advised MS & Ph.D. students
- 1992 **NASA Graduate Research Fellow (University of Cincinnati)**
to *Dept. of Civil and Environmental Engineering, Aerosol & Air Quality Research Lab* *Cincinnati, OH*
1996 *Dept. of Aerospace Engineering and Engineering Mechanics, Digital Simulation Lab* *Cincinnati, OH*
• Designed & modeled processes, developed physics models and software, lectured in graduate level courses
- 1996 **NSF/MITI Summer Institute in Japan, Invited Researcher**
Daikin Industries LTD, Mechanical, Electrical and Chemical (MEC) Engineering Lab. *Tsukuba, Japan*
• Performed experimental & computational optimization studies of photocatalytic air purification process.
- 1992 **Research Consultant**
to *Institute for Computational Mechanics (ICOM), NASA Lewis Research Center* *Cleveland, OH*
1993 • Developed new 3-D CFD code for designing the National Aerospace Plane & High Speed Civil Transport
- 1990 **Research Assistant**
to *NASA Health Monitoring Technology Center for Space Propulsion Systems* *Cincinnati, OH*
1992 *& The Aerospace Corp* *El Segundo, CA*
• Developed the “Aerospace Engine Model” for inverse rocket design applications.
- 1991 **Lab Technician**
to *University of Cincinnati, College of Medicine, Department of Environmental Health* *Cincinnati, OH*
1992 • Designed and constructed test facilities, formulated procedures and conducted experiments for workers safety.
- 1989 **Technical English Language Teacher**
Berkeley House Language Center *Tokyo, Japan*
• Taught technical English to engineers & researchers, co-developed comprehensive technical English fluency courses.
- 1986 **Lab Technician**
to *U. of Michigan Hydrodynamics Lab, College of Engineering, Dept. of Naval Architecture* *Ann Arbor, MI*
1988 • Assisted in the design, construction and operation of experiments for the U of Mich., the Army, the Navy, and ERIM

FOUNDER AND MEMBER OF THE BOARD OF DIRECTORS OF:

StreamWise Finland Oy, Helsinki, Finland	1/2001	– Present
Particle Stream Technologies Oy, Helsinki, Finland	5/2001	– 2007
Canatu Oy, Helsinki, Finland	2/2004	– 2015
Teicos Pharma Oy, Helsinki, Finland	5/2007	– Present
Almakoer LLC, Seattle, Washington, USA	3/2015	– Present
Almakor Oy, Helsinki, Finland	6/2015	– Present
BroadBit Batteries Oy, Espoo, Finland	11/2015	– Present

PATENTS Families only listed (total number of national patents and applications is approximately 250)

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8. Brown, D.P. (Nov 2, 2015) “A method and apparatus for controlling the use of an electronic device” US 62249944
9. Brown, D.P, Raynaud. Anisimov, A., O, Nasibulin A.G., Mikladal, B. (June 9, 2014) “Catalyst particle and a method for producing thereof” PCT/FI2014/050404
10. Brown, D.P, Anisimov, A., Raynaud. O, Mikladal, B. (May 23, 2014) “Method and apparatus for producing nanomaterial” PCT/FI2014/050404
11. Brown, D.P. (Feb 21, 2014) “Inhalation device and a method for inhaling powders” US 61942657
12. Brown, D.P., Varjos, I., Mikladal, B. F., Kärkkäinen, M. (Oct 9, 2012) “A touch interface device and design” PCT/FI2013/050972
13. Ruusunen, M.H., von Pfaler, J. Mikladal, B. F., Brown, D.P., Aitchison, B.J. (Feb 6, 2012) “A touch sensing device and a detection method” PCT/FI2013/050129
14. Mikladal, B. F., Brown, D.P., Aitchison, B.J. (Sep 30, 2011) “Touch sensitive film, touch sensing device, and electronic device” PCT/FI2012/050936
15. Mikladal, B. F., Brown, D.P., Aitchison, B.J. (Mar 5, 2010) “Touch sensitive film, touch sensing device, and electronic device” PCT/FI2011/050197
16. Brown, D.P., (Mar 5, 2010) “A method for the production of a conformal element, a conformal element and uses of the same” PCT/FI2011/050196
17. Brown, D. P., Aitchison, B. A. (Sep 4, 2009) “Touch screen and method for manufacturing a touch screen” PCT/FI2010/050684
18. Aitchison, B. A., Brown, D.P., Nasibulin, A. G. and Kauppinen, E. I., (Jan 28, 2009) ” Structures comprising high aspect ratio molecular structures and methods of fabrication” PCT/FI2010/050045
19. Brown, D. P., Aitchison, B. A. (Jun 27, 2008) “Uses of a carbon nanobud molecule and devices comprising the same”, PCT/FI2009/050578
20. Brown, D. P., von Pfaler, J. (Nov 19, 2008) “Crystalline surface structures and methods for their fabrication” PCT/FI2009/050939

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23. Jiang, H., Brown, D.P., Nasibulin, A. G. and Kauppinen, E.I. (Nov 28, 2006) "A method, computer program and apparatus for the characterization of molecules" PCT/FI2007/050518
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25. Kauppinen, E. I. Gonzalez, D., Nasibulin A., Brown, D. P (Mar 8, 2006) "Method for Moving High Aspect Ratio Molecular Structures" FI 20060227
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7. Mikkladal, B.F, Anisimov, A.S., Brown, D.P, Haajanen, J., Soininen, E.L., Varjos, I., Vuohelainen, R. (2013) Flexible Transparent Conductors and Touch Sensors for High Contrast Displays SID Symposium Digest of Technical Papers Volume 44, Issue 1, pages 795–79.
8. Nasibulin, A. G., Kaskela, A. O., Mustonen, K., Anisimov, A. S., Ruiz, V., Kivistö, S., Rackauskas, S., Timmermans, M. Y., Pudas, M., Aitchison, B., Kauppinen, M., Brown, D. P., Okhotnikov, O. G., Kauppinen, E. I., (2011) Multifunctional freestanding single-walled carbon nanotube films, *ACS Nano* 5, 3214-3221.
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Specialist Meeting on Nuclear Aerosols in Reactor Safety, Cologne, Germany 15-18 June 1998. NEA/CSNI/R(98)4, GRS-166.

148. Valmari, T., Pyykönen, J., Brown, D., Jokiniemi, J. and Kauppinen, E. I., (1998) "Nucleation and Condensation of CsOH Vapour in Laminar Flow", *J. Aerosol Sci.*, Vol. 29 (S1) (1998) pp. 475-476.
149. Brown, D. P., Rubin, S. G., (1998) "Inlet, Nozzle and Plume Computations for Supersonic Aircraft", Proceedings of the 16th International Conference on Numerical Methods in Fluid Dynamics (ICNMFD) Arcachon, France.
150. Brown, D. P., Khosla, P. K., Rubin, S. G., Biswas P., (1998) "Nuclear Aerosol Formation: Simulation of CsOH Partitioning in a Tubular Furnace Reactor", Proceedings of the 1998 Asian Association of CFD Research, Dec, 7-11, Bombay, India.
151. Brown, D. P., Hagenmaier, M. A., Presser, C., Biswas P., (1998) "A Multiphase CFD Model for Spray Combustion", Proceedings of the 1998 American Aerosol Conference, Cincinnati, OH.
152. Brown, D. P., (1998) "Efficient CFD Model for Polydisperse Spray Combustion", NIST SBIR 97-1-58 Final Report.
153. Brown, D. P., Jokiniemi, J., Valmari, T., (1997) "Computationally Efficient Modeling of Multidimensional Fluid/Aerosol Processes", *J. Aerosol Science* Vol. 28 S.1 pp. S323-S324
154. Brown, D. P., Jokiniemi, J., Valmari, T., Biswas P., (1997) "Eulerian Moment Modeling of Polydisperse Aerosol Dynamics", Proceedings of the 1997 American Aerosol Conference, Boulder, CO.
155. Brown, D. P., Jokiniemi, J., Lehtinen, K (1997) "Computationally Efficient Modeling of Multidimensional Fluid/Aerosol Processes", Proceedings of the 1997 European Aerosol Conference, Hamburg, Germany.
156. Brown, D. P., (1996) "Development of a Three-Dimensional Coupled Flow, Species and Aerosol Model: Applications to Particle Deposition in Gas Turbines and Aerosol Formation and Growth in Jet Engine Exhausts", Ph. D. Dissertation, University of Cincinnati, Dept. of Civil and Environmental Engineering.
157. Yamashita, M., Kidera, Y., Miyashita, Y., and Brown, D. P., (1996) "Estimation of the Effectiveness of Photocatalysis in a Purification System", Second International Conference on TiO₂ Photocatalytic Purification and Treatment of Water and Air, Cincinnati, OH, October 27-29.
158. Brown, D. P., Biswas, P., Khosla, P. K., (1996) "Aerosol Formation and Evolution in Two and Three-Dimensional HSCT Nozzles and Plumes", Proceedings of the 1996 Technical Meeting of the Central States Section of the Combustion Institute International, St. Louis MO, May 5-8.
159. Brown, D. P., Rubin, S. G., Biswas, P., (1995) "Detailed Modeling of Gas to Particle Conversion in an Axisymmetric Nozzle Using a Coupled Flow and Aerosol Method", Proceedings of the 6th International Symposium on Computational Fluid Dynamics, Lake Tahoe, NV, September 4-8.
160. Brown, D. P., Rubin, S. G., Biswas, P., (1995) "Development and Demonstration of a Two/Three Dimensional Coupled Flow and Aerosol Model", Proceedings of the AIAA 13th Applied Aerodynamics Conference, San Diego CA, June 19-22, Paper AIAA-95-1811.
161. Brown, D. P., Biswas, P., and Rubin, S. G. (1994), "Transport and Deposition of Particles in Gas Turbines: Effects of Convection, Diffusion, Thermophoresis, Inertial Impaction and Coagulation", FACT-Vol. 18, *Combustion Modeling, Scaling and Air Toxins*, ASME 1994.
162. Brown, D. P., (1992) "Liquid Rocket Parameter Identification for Engine Design and Remote Fault Detection", Master's Thesis, University of Cincinnati, Dept. of Aerospace Engineering and Engineering Mechanics.

INVITED TALKS:

1. Smart Cities, Zurich Switzerland
“Scalable Battery Technology for Urban Applications” 07/17
2. CleanTech Summit, Helsinki, Finland
“Better, Cheaper Batteries” 06/17
3. White Bull Summit, Barcelona, Spain
“Revolutionary Batteries Based on Table Salt” 06/17
4. Kasvu Open, Helsinki, Finland
“Rechargeable Batteries Based on Cheap and Abundant Raw Materials” 06/17
5. Startup Ole, Salamanca, Spain
“Scalable, High Performance and Low Cost Batteries” 04/17
6. Tahko Ski Lift Pitch, Kuopio, Finland
“Sodium Chloride Batteries for a Sustainable Future” 04/17
7. Energy Week, EnergySpin Forum, Vaasa, Finland
“Metallic Sodium Batteries for Grid Scale Energy Storage” 03/17
8. European Venture Summit, Dusseldorf, Germany
“Breakthrough Sodium Batteries” 12/16
9. European Commission, Innovation Radar Event, Overijse, Belgium
“BroadBit History and Plans since winning the Innovation Radar Award” 12/16
10. IDTechEx, Energy Storage Innovations, Santa Clara, California, USA
“Ground Breaking Metallic Sodium Batteries” 11/16
11. Cleantech Summit, Rotterdam, Netherlands
“Metallic Sodium Batteries for Cleantech applications” 11/16
12. Hightech Venture Fair, Dresden, Germany
“Breakthrough Sodium Battery Innovation” 10/16
13. Danske Bank Seminar on Battery Markets, Helsinki, Finland
“Battery Markets: Status, opportunities and Risk” 10/16
14. Making Marine Applications Greener, Reykjavik, Iceland
“Batteries from the Sea: Sodium Batteries for Marine Applications” 10/16
15. Lviv IT Arena, Lviv, Ukraine
“Hardware is the new Software: Creating innovations that will change our lives” 09/16
16. European Commission, ICT Conference, Bratislava, Slovakia
“BroadBit History and Plans since winning the Innovation Radar Award” 09/16
17. White Bull, Pathways to Exit, Stockholm, Sweden
“Breakthrough Sodium Battery Innovation” 05/16
18. EInnovest Venture Academy, Helsinki, Finland
“Breakthrough Sodium Battery Innovation” 04/16
19. Danske Bank Seminar on Climate Change
“Temperature and CO₂ from Geological to Political Time Scales” 03/16
20. Finnish Business Angels Network, PitchFinland Event
“Breakthrough Sodium Battery Innovation” 02/16
21. Singularity University Global Impact Challenge Finland
“Inhalation Therapy for Global Health Problems” 05/15
22. Large Area, Organic and Printed Electronics 2015, Munich, Germany (had to cancel at last minute)
“Carbon NanoBud transparent conductive films for flexible, foldable, and formable touch surfaces” 03/15
23. European Patent Office Annual Management Meeting 2015, The Hague, The Netherlands
“Turning Discoveries into Innovations: Canatu and Carbon Based Electronics” 02/15
24. CleanTech 2014, Rotterdam, The Netherlands
“Carbon Nanomaerials for Next Generation Electronics” 11/14
25. Be-Flexible 2014, Munich, Germany
“CNB Films for High Contrast, Flexible and Formable Touch” 11/14
26. Ecosummit 2014, Berlin, Germany
“Carbon Nanomaerials for Next Generation Electronics” 06/14
27. Printed Electronics Europe 2014, Berlin, Germany
“CNB Films for High Contrast, Flexible and Formable Touch” 04/14
28. Physics Days 2014, Tampere, Finland
“Business from Carbon NanoBud Films” 03/14
29. PRINSE 2014, Oulu, Finland
“Carbon NanoBud Optoelectronic Components and Manufacturing Technologies” 02/14

30. Tekes Functional Materials Closing Seminar “Next-Generation Touch Enabled Applications from Novel Nanocarbons”	12/13
31. SLUSH, Helsinki, Finland “Universal Inhalation Formulation”	11/13
32. High Value Materials Graphene, Cambridge, England “Scaling of Carbon NanoBud Film Production for Commercial Apps in Touch and Display Devices”	11/13
33. Applied Materials Workshop Hanau, Germany “Green Carbon Nanomaterial Components for Flexible and Formable Electronics”	11/13
34. EVC HealthTech, Aarhus, Denmark “Universal Inhalation Formulation”	10/13
35. White Bull, Pathways to Exit Barcelona, Spain “Green Carbon Nanomaterial Components for Flexible and Formable Electronics”	10/13
36. International Conference on Printed and Flexible Electronics, Jeju, Korea “Flexible Transparent Conductors and Touch Sensors Enabling High Contrast Displays”	09/13
37. IHS EM Seminar, Seoul, Korea “Flexible Transparent Conductors and Touch Sensors Enabling High Contrast Displays”	08/13
38. Dry Powder Inhalers Conference, London, England “Novel ProFlow Technology: Premium Performance Inhalable Drug Powders” 06/13	
39. Large Area and Printed Electronics, Munich, Germany “CNB Based Flexible, Formable and Foldable Touch Sensors with Improved Optical Properties”	06/13
40. Smart Lighting, Frankfurt, Germany “Transparent Conductive Films for Flexible and Formable Lighting Applications”	05/13
41. LES Seminar, Oulu, Finland “IP from a Company Perspective: Real Life Examples and Lessons Learned”	04/13
42. Printed Electronics, Berlin, Germany “Flexible, No-Reflection Touch Sensors Ready for Production”	04/13
43. Electronic Displays Conference, Nuremberg, Germany “Flexible, Formable Touch from Carbon NanoBud Films”	02/13
44. Enterprise Finland Venture Forum, Helsinki, Finland “Green Carbon Manomaterial Component for Flexible and Formable Electronics”	01/13
45. Spinverse Seminar, Espoo, Finland “Canatu: From Technology to Products”	12/12
46. Mide Demo Day, Helsinki, Finland “Green Carbon Manomaterial Component for Flexible and Formable Electronics”	12/12
47. Be Flexible, Munich, Germany “Transparent, Formable Conductive Films by Direct Dry Printing”	11/12
48. Nordic Venture Forum, Copenhagen, Denmark “Green Carbon Nanomaterial Components for Flexible and Formable Electronics”	11/12
49. Printed Electronics and Photovoltaics, Dusseldorf, Germany “Flexible, Bendable, Formable NanoBud® Based Electronic Components by Direct Dry Printing”	10/12
50. White Bull, Pathways to Exit Barcelona, Spain “Green Carbon Nanomaterial Components for Flexible and Formable Electronics”	10/12
51. Papula-Nevinpat International Seminar Helsinki, Finland “What Role does IPR Play in Canatu’s Business? Real Life Examples and Lessons Learned”	09/12
52. International Conference on Flexible and Printed Electronics, Tokyo, Japan “Transparent, Flexible, Stretchable and Formable Electronic Components from NanoBud Films”	09/12
53. Printed Electronics Europe, “Carbon Nanomaterial Films for Thermformable Electronics”	03/12
54. PRINSE, “Green manufacturing of flexible and formable carbon based electronics by Direct Dry Printing”	03/12
55. NanoIsrael, Tel Aviv, Israel “Carbon Nanomaterial Films for Bendable and Thermoformable Electronics”	03/12
56. NanoTech Japan Conference, Tokyo, Japan “Sensors for flexible and formable touch screens”	01/12
57. Finnish Environmental Ministry FiBS Rio +20 Conference “Turning Sustainability into Business”	01/12
58. Lux Executive Summit, Cambridge, MA, USA “Hybrid Carbon Nanomaterials for Functional Films”	10/11
59. Eemeli Seminar, Finland	

	“Carbon Nanomaterial Based Combined Touch and Haptics on Arbitrarily Shaped Surfaces”	06/11
60.	Printed Electronics and Photovoltaics, Dusseldorf, Germany “Carbon Nanomaterial Films for Thermoformable Electronics”	04/11
61.	SIBOS Conference, Amsterdam, The Neatherlands “Thin Film Components for Electronics, Energy and Beyond”	10/10
62.	Innovation Exchange, Copenhagen, Denmark “Thin Film Components for Electronics, Energy and Beyond”	10/10
63.	Finnish Architecture Society, Helsinki, Finland “Carbon Nanomaterials in Smart Architecture”	10/10
64.	Finnano, Helsinki, Finland “Monitizing the Material: Dry Printable Nanomaterial Films for Energy, Electronics and Beyond”	05/10
65.	Printed Electronics Europe Dresden, Germany “Low Cost, High Performance Carbon Nanomaterial Films for Energy, Electronics and Beyond”	04/10
66.	Tekes Functional Materials Seminar, Helsinki, Finland “Carbon Nanomaterial Films for Thermoformable Electronics”	04/10
67.	AMATI Conference “Low Cost, High Performance Carbon Nanomaterial Films for Energy, Electronics and Beyond”	03/10
68.	Printed Electronics USA and Photovoltaics USA San Jose, CA “Low Cost, High Performance Carbon Nanomaterial Films for Energy, Electronics and Beyond”	11/09
69.	Invest Tech “Company perspective to seed and early-stage financing”	10/09
70.	Connect Estonia 2009 Matchmaking Event, Tartu, Estonia “Energy, Electronics and Beyond”	06/09
71.	Connect Estonia 2009 Matchmaking Event, Tartu, Estonia “Energy from Science to Entrepreneur & from Entrepreneur to Science”	04/09
72.	Red Herring Europe 100 Awards, Berlin, Germany “Energy, Electronics and Beyond”	03/09
73.	CAPE Advanced Technology Lecture, Cambridge, England “Hybrid Carbon Nanomaterials for Functional Films”	02/09
74.	NanoTech, Tokyo, Japan “Energy, Electronics and Beyond”	02/09
75.	JETRO Bizmatch Talk, Tokyo, Japan “Hybrid Carbon Nanomaterials for Functional Films”	02/09
76.	Lux Innovation Summit, Boston, MA “Energy, Electronics and Beyond”	10/08
77.	FinPro, Helsinki, Finland “Superior Thin Film Components for Displays, Solar Cells and Beyond”	06/08
78.	Helsinki School of Creative Entrepreneurship, Helsinki, Finland “Innovation and Investment”	05/08
79.	NanoTech, Tokyo, Japan “Superior Thin Film Components for Displays, Solar Cells and Beyond”	03/08
80.	Nanotechnology Cluster Steering Group Meeting, Helsinki, Finland “Superior Thin Film Components for Displays, Solar Cells and Beyond”	01/08
81.	Cleantech 2007 Lahti, Finland “Carbon Based Nano-Materials for Electronics”	11/07
82.	INTRO Investment Forum, Helsinki, Finland “Superior Thin Film Components for Displays, Solar Cells and Beyond”	06/07
83.	Connect Estonia Springboard Event, Featured Speaker, Tallinn, Estonia “Preparing Canatu for Funding and Commercialization	11/06
84.	Summit on Commercialization of Basic Research, Lammi, Finland “Canatu: History and Future”	08/06
85.	Nanocluster School, Helsinki, Finland “Modelling of Catalyst Dynamics in Carbon Nanotube Reactors”	06/06
86.	NanoTech Northern Europe 2006, Helsinki, Finland “Carbon NanoBud TM Technology for High Tech Applications”	06/06
87.	Nanotechnology Congress 2006, Helsinki, Finland “Novel Hotwire Method for CNT Production/Fullerene-Functionalised CNTs”	06/06
88.	University of South Florida, Dept. of Chemical Engineering, Tampa, Florida “Aerosol Synthesis methods for Low Adhesion Pharmaceutical Inhalation Powders”	05/06

89.	University of South Florida, Dept. of Chemical Engineering, Tampa, Florida "Advanced Computational Techniques for Gas-Particle Systems"	05/06
90.	University of South Florida, Dept. of Chemical Engineering, Tampa, Florida "Novel Carbon Nanomaterial Synthesis Methods and Hybrids"	05/06
91.	Estonian Academy of Physics, Tartu, Estonia "Floating and Supported Catalyst Synthesis of Carbon Nanotubes"	11/05
92.	Tartu University Dept. of Physics, Tartu Estonia "Novel Techniques for the Synthesis of Carbon Nanotubes"	10/05
93.	Tartu University Dept. of Physics, Tartu, Estonia "A Decade of Aerosol Related Research: From Airplanes to Nanotubes"	10/05
94.	NASA JSC, ES4-Structural Engineering Division, Houston, TX, USA "CFD-Aerosol Dynamics Modelling of FE Catalyst Particle Evolution in a Novel SWCNT Reactor"	5/04
95.	Paul Scherrer Institute for Solar Chemistry & Physics/Laboratory for Solar Technology, Villigen, Switzerland "Zinc Aerosol Production Processes for Novel Solar Power Generators"	10/04
96.	Wright-Patterson AFB, Wright Labs/Propulsion and Operations Systems, Dayton, OH, USA "Nucleation, Condensation and Evaporation Phenomenon in Supersonic Inlets and Plumes"	5/04
97.	AIChE Spring Meeting, New Orleans Nanoscale Science & Engineering Forum, Nanotech. Plenary Lecture "A CFD Method for Polydisperse Chemically Reacting Aerosol Flows With Applications to Nanoparticle Process Modeling"	4/04
98.	Perlos Pharmaceuticals, Joensuu, Finland "Computation Analysis Techniques for Dry Powder Inhaler and Drug Design"	10/03
99.	Orion Pharmaceuticals, 9 th Inhalation Delivery Technology Seminar, Espoo, Finland "Progress in Dry Particle Inhaler Sampling Techniques"	6/02
100.	University of Cincinnati, Dept. of Aerospace Engineering & Eng. Mechanics, Cincinnati, OH, USA "The State of the Art in CFD based Aerosol Dynamics and Transport Modeling"	9/01
101.	Orion Pharmaceuticals, 8 th Inhalation Delivery Technology Seminar, Espoo, Finland "Sampling Inhalers without Altering the Emitted Size Distribution"	6/01
102.	Liekki Fiber Optics, Lohja, Finland "CFD Analysis of CVD Processes for Active Optical Wave Fiber Manufacture"	1/01
103.	Kemira Metal Catalysts, Vaasa, Finland "Modelling of Surface Catalysis with CFD"	9/00
104.	Orion Pharmaceuticals, 7 th Inhalation Delivery Technology Seminar, Kuopio, Finland "Key Inhaler Design Principles"	6/00
105.	DuPont Engineering Technology, Wilmington, Delaware, USA "Fast CFD with Embedded Particle Processes"	5/00
106.	Orion Pharmaceuticals, 6 th Inhalation Delivery Technology Seminar, Espoo, Finland "Towards Optimal Aerosolization in Dry Particle Inhalers"	1/00
107.	Tieto-Enator, Super Computing Center, Espoo Finland "Overview of the StreamWise CFD Solution Procedure"	8/99
108.	ESF-NANO Workshop on High-Temperature Generated Nano-Particles and Computational Fluid Dynamics "Moment Methods in Fluent CFD"	6/99
109.	Orion Pharmaceuticals, 5 th Inhalation Delivery Technology Seminar, Espoo, Finland "Strategies to Enhance Small Particle Dosing in Dry Particle Inhalers"	6/99
110.	Kemira Pigments, Pori, Finland "Computational Fluid & Aerosol Dynamics for Designing a Novel TiO ₂ Processing Facility"	12/98
111.	Orion Pharmaceuticals, 4 th Inhalation Delivery Technology Seminar, Kuopio, Finland "Design of an Advanced Particle Sampling System for Dry Particle Inhalers"	11/98
112.	Hiroshima University, Dept. of Chemical Engineering, Hiroshima, Japan "Applications of a new Three-Dimensional Coupled Flow, Species and Aerosol Model for Titanium Dioxide Particle Synthesis Processes"	3/97
113.	University of Cincinnati, Dept. of Civil and Environmental Engineering, Cincinnati, OH, USA "Development of a Three-Dimensional Coupled Flow, Species and Aerosol Model: Applications to Particle Deposition in Gas Turbines and Aerosol Formation and Growth in Jet Engine Exhausts"	12/96
114.	VTT Finnish Natl. Research Cent., Chemical Tech. Branch, Seminar on Materials Synthesis, Espoo, Finland "Applications of a Comprehensive Fluid/Chemistry/Aerosol Model to Materials Synthesis"	5/96
115.	VTT Finnish Natl. Research Cent., Energy Branch, Espoo, Finland "Convective and Pressure Flux Split Procedure for Efficient Multi-Phase Calculations"	5/96
116.	University of Cincinnati, Dept. of Civil and Environmental Engineering, Cincinnati, OH, USA "Progress Towards the Modeling of Stratospheric Deposition of Aircraft Origin Aerosols"	5/96

117. Wright-Patterson AFB, Wright Labs/Propulsion and Operations Systems, Dayton, OH, USA
"A General Three-Dimensional Computational Model for Two and Three Phase Systems" 4/96
118. NASA LeRC, Combustion Technology Branch, Cleveland, OH, USA
"Flow, Chemistry and Aerosol Behavior in HSCT Nozzles and Plumes" 7/94
119. University of Cincinnati, Dept. of Civil and Environmental Engineering, Cincinnati, OH, USA
"Environmental Issues Related to Design and Operation of the National Aerospace Plane" 10/93
120. University of Cincinnati, Dept. of Aerospace Engineering & Engineering Mech.
"Liquid Rocket Parameter Identification for Engine Design and Remote Fault Detection" 10/92

HONORS AND AWARDS:

- **Fulbright Research and Teaching Fellowship** (2005-06) Environmental Physics, Tartu U., Estonia
- **Working Group Chair, High Temperature Aerosols, European Aerosol Conf.** (8/2001-2006)
- **Session Chair, AAAR** (1999-03), **EAC** (2001-04), **IAC** (2002) **Conferences**
- **Reviewer**, J. of Aerosol Sci., Aerosol Sci. & Tech., Computers & Fluids, Mendeleev Comms., Prog. Comp. Fluid Dyn.
- **Invited Researcher NSF/MITI Summer Institute in Japan**, Daikin MEC Lab (7-9/1996)
- **NASA Graduate Research Fellowship**, NASA Lewis Research Center (1992-95)
- **Graduate Scholarships/Research Assistantships** (AE 89-92; EE 93-96; NASA HMTTC 90-92)
- **Vice President, Aerospace Graduate Students Association**, University of Cincinnati (1991-92)
- **Dean's List for Academic Excellence**, University of Michigan (1988)
- **Numerous Invited Speakerships**: NASA JSC, Rice U., Am. Inst. of Chem. Eng. (AIChE), Paul Scherrer Institute (PSI) for Solar Chemistry & Physics, Swiss Tech. U. (ETH) Aerosol Process Lab, Perlos Pharmaceutical Div., Orion Pharmaceuticals Inhalation Products, Dupont Eng. Tech., Finnish Center for Supercomputing, VTT Tech. Research. Centre of Finland-Energy & Chemical Technology, Kemira Pigments, Wright-Patterson AFB Propulsion & Operations Sys., NASA LeRC Combustion Technology Branch, U. of Cincinnati Dept. of Aerospace Eng. Hiroshima U. Dept. of University Chem. Eng., Tartu U., Dept. of Physics, Estonian Inst. of Physics, INTRO Investment Forum, University of Florida, Dept. of Chem. Eng., Aalto University, Tampere University, Drug Delivery to the Lungs conference, Flex Tech Alliance conference, IDTechEx conference, Large Area and Organic Electronics conference, Society of Information Display conference, Energy Week conference etc. etc.
- **Numerous Presentation Awards**: Multiple Red Herring awards, Tech Tour awards, White Bull awards, European Venture Summit awards, SLUSH awards E!nnovest and a Singularity University award and an Energy Week award.
- **Chair**: AAAR High Temperature Aerosol Committee
- **Session Chair**: American Association of Aerosol Research
- **Referee**: Journal of Aerosol Science, Computers and Fluids, Mendeleev Communications
- **Nominated for the European Innovator of the Year award 2014 and 2015.**

RESEARCH AND R&D EXPERIENCE:

Aerosol Science/Multiphase Flow/Nucleation, Condensation/Evaporation, Coagulation, Transport
Computational Fluid Dynamics (Algorithm Development & Application)
Flow Reactor Design, Optimization and Analysis
Aerosol Drug Formulation & Drug Delivery System Design and Optimization (DPI and CPAP)
Nanomaterial & Surface Engineering via Aerosol Processes / Chemical Vapor Deposition
Carbon Nanotube, NanoBud and Nano Onion Synthesis via Floating Catalysis and Surface CVD
Combustion Processes & Pollution Prediction, Control, Transport & Atmospheric Deposition
Inlet / Turbine Cascade Design and Analysis, Turbine / Heat Exchanger Fouling
Prediction & Control of Nuclear Accident Aerosols
Optical Fiber and Optical Fiber Preform Manufacture
Design of Advanced Particle Sizing Equipment
Photocatalysis
Printed and Organic Electronics
Batteries and Supercapacitors
Energy Generation
Electronic Devices (e.g. transistors, user interfaces (e.g. touch sensors), solar cells, filters, pulsed lasers, speakers)