

Complete List of Consulted Publications during the Development of the *Particle Loss Calculator*:

General:

Allen, M. and Raabe, O.: Slip Correction Measurements of Spherical Solid Aerosol-Particles in an Improved Millikan Apparatus, *Aerosol Science and Technology*, 4, 269-286, 1985.

Bronstein, I. and Semendjajew, K.: Taschenbuch der Mathematik, Verlag Nauka Moskau, B.G. Teubner Verlagsgesellschaft Stuttgart und Leipzig, Verlag Harri Deutsch Thun und Frankfurt/Main, 25.Auflage, 1991.

Davies, C.: *Aerosol Science*, Academic Press, 1966.

Fuchs, N.: *The Mechanics of Aerosols*, Pergamon, Oxford, 1964.

Hinds, W.: *Aerosol Technology: Properties, Behavior, and Measurement of Airborne Particles*, Wiley-Interscience, New York, 1998.

Holman, J.P.: *Heat Transfer*, McGrawHill, New York, 1972.

Seinfeld, J. and Pandis, S.: *Atmospheric Chemistry and Physics: From Air Pollution to Climate Change*, Wiley-Interscience, New York, 2006.

Vincent, J.: *Aerosol Sampling. Science and Practice*, Wiley-Interscience, New York, 1989.

WaveMetrics: IGOR Pro 6, URL <http://wavemetrics.com>, [Online; accessed 20-August-2008], 2008.

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Aerosol Sampling:

Belyaev, S. and Levin, L.: Investigation of Aerosol Aspiration by Photographing Particle Tracks Under Flash Illumination, *Journal of Aerosol Science*, 3, 127-140, 1972.

Belyaev, S. and Levin, L.: Techniques for Collection of Representative Aerosol Samples, *Journal of Aerosol Science*, 5, 325-338, 1974.

Durham, M. and Lundgren, D.: Evaluation of Aerosol Aspiration Efficiency as a Function of Stokes Number, Velocity Ratio and Nozzle Angle, *Journal of Aerosol Science*, 11, 179-188, 1980.

Fuchs, N.: Sampling of Aerosols, *Atmospheric Environment*, 9, 697-707, 1975.

Grinshpun, S., Willeke, K. and Kalatoor, S.: A General Equation for Aerosol Aspiration by Thin-Walled Sampling Probes in Calm and Moving Air, Atmospheric Environment Part A - General Topics, 27, 1459-1470, 1993.

Grinshpun, S., Willeke, K. and Kalatoor, S.: Corrigendum: A General Equation for Aerosol Aspiration by Thin-Walled Sampling Probes in Calm and Moving Air, (27A, 1459-1470, 1993), Atmospheric Environment, 28, 375, 1994.

Hangal, S. and Willeke, K.: Aspiration Efficiency - Unified Model for All Forward Sampling Angles, Environmental Science & Technology, 24, 688-691, 1990a.

Hangal, S. and Willeke, K.: Overall Efficiency of Turbular Inlets Sampling at 0-90 Degrees From Horizontal Aerosol Flows, Atmospheric Environment Part A - General Topics, 24, 2379-2386, 1990b.

Jayasekera, P. and Davies, C.: Aspiration Below Wind Velocity of Aerosol With Sharp Edged Nozzles Facing the Wind, Journal of Aerosol Science, 11, 535-547, 1980.

Okazaki, K. Wiener, R. and Willeke, K.: The Combined Effect of Aspiration and Transmission on Aerosol Sampling Accuracy for Horizontal Isoaxial Sampling, Atmospheric Environment, 21, 1181-1185, 1987a.

Okazaki, K., Wiener, R. and Willeke, K.: Isoaxial Aerosol Sampling - Nondimensional Representation of Overall Sampling Efficiency, Environmental Science & Technology, 21, 178-182, 1987b.

Okazaki, K., Wiener, R. and Willeke, K.: Non-Isoaxial Aerosol Sampling - Mechanisms Controlling the Overall Sampling Efficiency, Environmental Science & Technology, 21, 183-187, 1987c.

Paik, S. and Vincent, J.: Aspiration Efficiency for Thin-Walled Nozzles Facing the Wind and for Very High Velocity Ratios, Journal of Aerosol Science, 33, 705-720, 2002.

Rader, D. and Marple, V.: A Study of the Effect of Anisokinetic Sampling, Aerosol Science and Technology, 8, 283-299, 1988.

Stevens, D.: Review of Aspiration Coefficients of Thin-Walled Sampling Nozzles, Journal of Aerosol Science, 17, 729-743, 1986.

Wiener, R., Okazaki, K.: Influence of Turbulence on Aerosol Sampling Efficiency, Atmospheric Environment, 22, 917-928, 1988.

Willeke, K. and Baron, P.: Aerosol Measurement: Principles, Techniques, and Applications, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Yamano, N. and Brockmann, J.: Aerosol Sampling and Transport Efficiency Calculation (ASTEC) and Application to Surtsey/DCH Aerosol Sampling System., NUREG/CR-525.SAND88-1447, Albuquerque, NM: Sandia National, 1989.

Diffusion:

Alonso, M. and Alguacil, F.J.: Penetration of Aerosol Undergoing Combined Electrostatic Dispersion and Diffusion in a Cylindrical Tube, *Journal of Aerosol Science*, 38, 481-493, 2007.

Gormley, P. and Kennedy, M.: Diffusion From a Stream Flowing Through a Cylindrical Tube, *Proc. R. Irish Acad.*, 163-169, 1949.

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Sedimentation:

Heyder, J. and Gebhart, J.: Gravitational Deposition of Particles From Laminar Aerosol Flow Through Inclined Circular Tubes, *Journal of Aerosol Science*, 8, 289-295, 1977.

Pich, J.: Theory of Gravitational Deposition of Particles From Laminar Flows in Channels, *Journal of Aerosol Science*, 3, 351-361, 1972.

Reynolds, A.: A Lagrangian Stochastic Model for Heavy Particle Deposition, *Journal of Colloid and Interface Science*, 215, 85-91, 1999.

Schwendiman, L., Stegen, G. and Glissmeyer, J.: Report BNWL-SA-5138, 1975.

Thomas, J.: Gravity Settling of Particles in a Horizontal Tube, *Journal of Air Pollution Control Association*, 8, 32, 1958.

Wang, C.-S.: Gravitational Deposition of Particles From Laminar Flows in Inclined Channels, *Journal of Aerosol Science*, 6, 191-204, 1975.

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Turbulent Inertial Deposition:

Chen, Q. and Ahmadi, G.: Deposition of Particles in a Turbulent Pipe Flow, *Journal of Aerosol Science*, 28, 789-796, 1997.

Friedlander, S. and Johnstone, H.: Deposition of Suspended Particles from Turbulent Gas Streams, *Industrial and Engineering Chemistry*, 49, 1151-1156, 1957.

Guha, A.: A Unified Eulerian Theory of Turbulent Deposition to Smooth and Rough Surfaces, *Journal of Aerosol Science*, 28, 1517-1537, 1997.

Lee, K. and Gieseke, J.: Deposition of Particles in Turbulent Pipe Flows, *Journal of Aerosol Science*, 25, 699-709, 1994.

Levin, L.: The Intake of Aerosol Samples, *Izv. Akad. Nauk SSSR Ser. Geofiz.*, 7, 914-925, 1957.

Liu, B., Zhang, Z. and Kuehn, T.: A Numerical Study of Inertial Errors in Anisokine-

tic Sampling, Journal of Aerosol Science, 20, 367-380, 1989.

Liu, B.Y. and Agarwal, J.K.: Experimental Observation of Aerosol Deposition in Turbulent Flow, Journal of Aerosol Science, 5, 145-155, 1974.

Muyshondt, A., Anand, N. and McFarland, A.: Turbulent Deposition of Aerosol Particles in Large Transport Tubes, Aerosol Science and Technology, 24, 107-116, 1996a.

Willeke, K. and Baron, P.: Aerosol Measurement: Principles, Techniques, and Applications, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Inertial Deposition in a Bend:

Crane, R. and Evans, R.: Inertial Deposition of Particles in a Bend Pipe, Journal of Aerosol Science, 8, 161-170, 1997.

McFarland, A., Gong, H., Muyshondt, A., Wentz, W. and Anand, N.: Aerosol Deposition in Bends With Turbulent Flow, Environmental Science & Technology, 31, 3371-3377, 1997.

Pui, D., Romaaynovas, F. and Liu, B.: Experimental Study of Particle Deposition in Bends of Circular Cross Section, Aerosol Science and Technology, 7, 301-315, 1987.

Tsai, C. and Pui, D.: Numerical Study of Particle Deposition in Bends of a Circular Cross-Section Laminar-Flow Regime, Aerosol Science and Technology, 12, 813-831, 1990.

Willeke, K. and Baron, P.: Aerosol Measurement: Principles, Techniques, and Applications, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Inertial Deposition in a Contraction:

Chen, D. and Pui, D.: Numerical and Experimental Studies of Particle Deposition in a Tube With a Conical Contraction - Laminar-Flow Regime, Journal of Aerosol Science, 26, 563-574, 1995.

Habib, M.A., Ben-Mansour, R., Badr, H.M. and Kabir, M.E.: Erosion and Penetration Rated of a Pipe Protruded in a Sudden Contraction, Computer & Fluids, 37, 146-160, 2008.

Muyshondt, A., McFarland, A. and Anand, N.: Deposition of Aerosol Particles in Contraction Fittings, Aerosol Science and Technology, 24, 205-216, 1996b.

Willeke, K. and Baron, P.: Aerosol Measurement: Principles, Techniques, and Applications, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Ye, Y. and Pui, D.: Particle Deposition in a Tube With an Abrupt Contraction, Journal of Aerosol Science, 21, 29-40, 1990.

Inertial Deposition in an Enlargement:

Schade, H. and Kunz, E.: Strömungslehre, de Gruyter Lehrbuch, Berlin, New York, 1989.

Electrostatic Deposition:

Alonso, M. and Alguacil, F.J.: Penetration of Aerosol Undergoing Combined Electrostatic Dispersion and Diffusion in a Cylindrical Tube, *Journal of Aerosol Science*, 38, 481-493, 2007.

Becker, R., Anderson, V., Allen, J., Birkhoff, R. and Ferrel, T.: Electrical Image Deposition of Charges from Laminar-Flow in Cylinders, *Journal of Aerosol Science*, 11, 461-466, 1980.

Foster, W.: Deposition of Unipolar Charged Aerosol Particles by Mutual Repulsion, *British Journal of Applied Physics*, 10, 206-213, 1959.

Ljepojevic, N. and Balachandran, W.: Deposition of Charged-Particles in Cylindrical-Tubes by Image-Force - A New Approach, *Journal of Aerosol Science*, 24, 619-628, 1993.

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Yu, C.: Precipitation of Unipolarly Charged Particles in Cylindrical and Spherical Vessels, *Journal of Aerosol Science*, 8, 237-241, 1977.

Thermophoresis:

Derjaguin, B., Rabinovich, Y. Storozhilova, A. and Shcherbina, G.: Measurement of the Coefficient of Thermal Slip of Gases and the Thermophoreses Velocity of Large-Size Aerosol Particles, *Journal of Colloid and Interface Science*, 57, 451-461, 1976.

Talbot, L., Cheng, R., Schefer, R. and Willis, D.: Thermophoresis of Particles in a Heated Boundary Layer, *Journal of Fluid Mechanics*, 101, 737-758, 1980.

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Diffusiophoresis:

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Interception:

Willeke, K. and Baron, P.: *Aerosol Measurement: Principles, Techniques, and Applications*, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.

Coagulation:

Chatterjee, A. Kerker, M. and Cooke, D.: Brownian Coagulation of Aerosols in the Transition Regime, *Journal of Colloid and Interface Science*, 53, 71-82, 1975.

Davies, C.: Coagulation of Aerosols by Brownian Motion, *Journal of Colloid and Inter-*

face Science, 73, 244-247, 1980.

Fuchs, N.: On the Brownian Coagulation of Aerosols, Journal of Colloid and Interface Science, 73, 248-249, 1980.

Narshimhan, G. and Ruckenstein, E.: The Brownian Coagulation of Aerosol Over the Entire Range of Knudsen Numbers - Connection Between the Sticking Probability and the Interaction Forces, Journal of Colloid and Interface Science, 104, 344-369, 1985.

Sitarski, M. and Seinfeld, J.H.: Brownian Coagulation in the Transition Regime, Journal of Colloid and Interface Science, 61, 261-271, 1977.

Willeke, K. and Baron, P.: Aerosol Measurement: Principles, Techniques, and Applications, Van Nostrand Reinhold, Wiley-Interscience, New York, 2005.