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Education

- BS (Meteorology), National Taiwan University, (1967-1971)
- MS (Atmospheric Science), University of California-Los Angeles, 1973-1975
- PhD (Atmospheric Science), University of California-Los Angeles, 1975-1978

Professional Positions

- Research Atmospheric Physicist (1978-1980), Adjunct Assistant Professor (1980), Atmospheric Science Dept., UCLA
- Asst. Professor (1980-1984), Associate Professor (1984-1988), Professor (1988-2016), Professor Emeritus (2016-date), Univ. of Wisconsin-Madison.
- Chair, Department of Atmospheric and Oceanic Sciences, UW-Madison (1994-1997)
- Chair, Air Resources Management Program, UW-Madison (1998-2002)
- Chair, Fellowship Committee (Physical Sciences Division), UW-Madison (1997-2002)
- Visiting Professor, Department of Atmospheric Science, UCLA (1988)
- Chair, Cloud Physics Committee, American Meteorological Society (1991-1993)

- Visiting Professor, Dept. of Atmospheric Physics, University of Mainz, Germany (Spring, 1993)
- Visiting Professor, Atmospheric Science, National Taiwan University (Fall, 1993);
- Distinguished Chair Professor for Research, Atmospheric Science, National Taiwan University (2019-date)
- Professor (joint appoint.), Space and Remote Sensing Research, National Central University (2015-date)
- Visiting Professor, Dept. of Earth, Atmospheric, and Planetary Sci., Massachusetts Institute of Technology (Fall, 1997)
- Visiting Professor, Physics Department, University of Ferrara, Italy (2001)
- Visiting Professor, Max-Planck Institute for Chemistry, Germany (2003)
- Advisory Committee, Interaction of Cosmic and Atmospheric Particle Systems, European Space Agency, 2001-2009
- Advisory Committee, Center for Marine Environmental Sciences, University of Bremen, Germany (2005-2011)
- Consulting Editor, McGraw-Hill Encyclopedia of Science and Technology (2003-2009)
- Editor (Geophysics), Il Nuovo Cimento C (2009-2015)
- Associate Editor, Atmospheric Research (2010-date)
- Associate Editor, European Physical Journal Plus (2010-2015)
- International Advisory Board, Terrestrial, Atmospheric and Oceanic Sciences (2011-2014)
- President, Meteorological Society of Taiwan (2013-2017), Councilor, Chinese Geoscience Union (2013-date)
- Distinguished Research Fellow and Director, Research Center for Environmental Changes, Academia Sinica (2013-2020)

Honors and Recognitions

- Samuel C. Johnson Distinguished Fellowship (US), 1992
- Alexander von Humboldt Senior Research Award (Germany), 1993
- Ten Best Books, China Times (***Heaven and Earth***, Newton), 1996
- Ta-You Wu Popular Science Good Book Award（***Insights***, Commonwealth）, 2002
- Gold Caldron Good Book Award, Government Information Office (***Insights***, Commonwealth), 2002

- Gold Caldron Good Book Award, Government Information Office (***Big World from a Small Dust*****,** Rhythms), 2005
- Fellow, American Meteorological Society, 2005
- Fellow, Meteorological Society of Taiwan, 2008
- Academician, Academia Sinica, 2018

Complete scientific publication list

Books

1. Wang, Pao K., 2002: *Ice Microdynamics*. Academic Press, 273pp.
2. Wang, Pao K., 2013: *Physics and Dynamics of Clouds and Precipitation*. Cambridge University Press, 467pp.
3. Wang, Pao K., 2021: *Motions of Ice Hydrometeors in the Atmosphere Numerical Studies and Implications*. Springer Nature, 176 pp.

Book Chapters

1. Wang, P. K., 1985: Air Pollutant Measurements. Chap. 22 in *Handbook of Applied Meteorology*, D. D. Houghton, ed., Wiley Interscience, 667-678.
2. Wang, P. K., and De'er Zhang, 1991: Reconstruction of the 18th Century Precipitation of Nanjing, Suzhou, and Hangzhou using the Clear and Rain Records. in *Climate Since 1500 AD*, R. S. Bradley and P. D. Jones, Eds., Routledge, London , 184-209.
3. Winkler, M., and P. K. Wang, 1994: The late Pleistocene and Holocene climate of China: A Review of Biogeologic Evidence and a Comparison with GCM Climate Simulations. in *Global Climates Since Last Glacial Maximum*, Wright et al., eds, Univ. of Minnesota Press, 221-264.
4. Wang, Pao K., 2003: Acid Rain and Precipitation Chemistry. *Encyclopedia of Water Science*, Marcel-Dekker.
5. Wang, Pao K., 2004: Atmospheric Water Vapor. McGraw-Hill Y*ear Book of Science & Technology, 2004*, 14-16.McGraw-Hill.
6. Wang, Pao K., 2005: Isentropic Modeling of Atmospheric Motions. in *2005 Yearbook of Science and Technology,* McGraw-Hill (in press)
7. Wang, Pao K., 2007: The Wisconsin Dynamical/Microphysical Model (WISCDYMM) and the Use of It to Interpret Satellite-observed Storm Dynamics, in *Measuring Precipitation from Space EURAINSAT and the Future.* Edited by V. Levizzani, Peter Bauer and F. J. Turk, Springer, 435-446.
8. Wang, Pao K., 2009: Jumping Cirrus above Severe Storms. In *2009 Yearbook of Science and Technology,* McGraw-Hill, 187-190.
9. Wang, Pao K., Hsinmu Lin, Hui-Chun Liu, Mihai Chiruta and Robert E. Schlesinger, 2009: Recent Advances in Research on Micro- to Storm-scale Ice Microphysical Processes in

Clouds. In *Recent Progress in Atmospheric Sciences*, K. N. Liou and M. D. Chou, Ed., 419-437.

Papers Published in Refereed Journals

Cloud Physics and Cloud Dynamics

1. Wang, P. K., and H. R. Pruppacher, 1977a: Acceleration to Terminal Velocity of Cloud and Rain Drops. *J. Appl. Meteor., 16*, 275-280.
2. Martin, J. J., P. K. Wang, H. R. Pruppacher and R. L. Pitter, 1981: A Numerical Study of the Effect of Electric Charges on the Efficiency with which Planar Ice Crystals Collect Supercooled Water Drops. *J. Atmos. Sci., 38*, 2462-2469.
3. Wang, P. K., 1982: Mathematical Description of the Shape of Conical Hydrometeors. *J. Atmos. Sci.*, *39*, 2615-2622.
4. Wang, P. K. and S. M. Denzer, 1983: Mathematical Description of the Shape of Plane Hexagonal Snow Crystals. *J. Atmos. Sci., 40*, 1024-1028.
5. Wang, P. K., 1983a: On the Definition of Collision Efficiency of Atmospheric Particles. *J. Atmos. Sci., 40*, 1051-1052.
6. Wang, P. K., C. H. Chuang and N. L. Miller, 1985: Electrostatic, Temperature and Vapor Density Fields Surrounding Stationary Columnar Ice Crystals. *J. Atmos. Sci., 42*, 2371-2379.
7. Rasmussen, R., C. Walcek, H. R. Pruppacher, S. Mitra, J. Lew, V. Levizzani, P. K. Wang and U. Barth, 1985: A Wind Tunnel Investigation of the Effect of an External, Vertical Electric Field on the Shape of Electrically Uncharged Rain Drops. *J. Atmos. Sci., 42*, 1647-1652.
8. Wang, P. K., 1987: Two Dimensional Characterizations of Polygonally Symmetric Particles. *J. Colloid Interf. Sci., 117*, 271-281.
9. Wang, P. K., T. J. Greenwald and Jianlu Wang, 1987: A Three Parameter Representation of the Shape and Size Distributions of Hailstones - A Case Study. *J. Atmos. Sci., 44*, 1062-1070.
10. Wang, P. K., 1988: A Convective Diffusion Model for the Scavenging of Submicron Particles by Snow Crystals of Arbitrary Shapes- some Comments and Corrections. *Atmos. Res. 23*, 195-198.
11. Ji, Wusheng and P. K. Wang, 1989: Numerical Simulation of Three Dimensional Unsteady Viscous Flow Past Hexagonal Ice Crystals in the Air-Preliminary Results. *Atmos. Res. 25,* 539-557
12. Ji, W. and P. K. Wang, 1991: Numerical Simulation of Three-dimensional Unsteady Viscous Flow Past Finite Cylinders in an Unbounded fluid at Low Intermediate Reynolds Numbers. *Theor. Compu. Fluid Dynam*., *3,* 43-59.
13. Wang, P. K., 1992: Theoretical Studies on the Convective Diffusion around Two- and Three-dimensional Objects. *Trends in Heat and Mass Transfer*, 2, J. Menon, ed., 173-186.

14. Johnson, D. E., P. K. Wang, and J. M. Straka, 1993: Numerical Simulation of the 2 August 1981 CCOPE Supercell Storm with and without Ice Microphysics. *J. Appl. Meteor., 32*, 745-759.

15. Johnson, D. E., and P. K. Wang, and J. M. Straka, 1995: A Study of Microphysical Processes in the 2 August 1981 CCOPE Supercell Storm. *Atmos. Res. 33*, 93-123.

16. Magradze, G. J., and P. K. Wang, 1995: A Note on the Closed-form Mathematical Description of the Volume of Conical Hydrometeors. *Atmos. Res. 39*, 275-278.

17. Wang, P. K., and Wusheng Ji, 1997: Simulation of Three-dimensional Unsteady Flow Past Ice Crystals *J. Atmos. Sci., 54*, 2261-2274.

18. Wang, P. K., 1997: Characterization of Ice Particles in Clouds by Simple Mathematical Expressions Based on Successive Modification of Simple Shapes. *J. Atmos. Sci. 54*, 2035-2041.

19. Lin, Hsin-Mu and Pao K. Wang, 1997: A Numerical Study of Microphysical Processes in the 21 June 1991 Northern Taiwan Mesoscale Precipitation System. *Terres. Atmos. Oceanic Sci*., *8*, 385-404.

20. Ji, Wusheng, and Pao K. Wang, 1998: On the Ventilation Coefficients of Falling Ice Crystals at Low-intermediate Reynolds Numbers. *J. Atmos. Sci*., *56*, 829-836.

21. Wang, P. K., 1999: Three-dimensional Representations of Hexagonal Ice Crystals and Hail Particles of Elliptical Cross-sections, *J. Atmos. Sci*., 56, 1089-1093.

22. Wang, P. K., and Wusheng Ji, 2000: Collision Efficiencies of Ice Crystals at Low-Intermediate Reynolds Numbers Colliding with Supercooled Cloud Droplets: A Numerical Study. *J. Atmos. Sci*., 57, 1001-1009.

23. Wang, P. K., 2002: The Kansas Green Thunderstorm of 4 October 1998. . *Bull. Amer. Meteor. Soc*., *83*, 355-357.

24. Wang, P. K., 2002**:** Shape and Microdynamics of Ice Particles and Their Effects in Cirrus Clouds. Invited monograph in *Advances in Geophysics*, Vol**.** *45*, Academic Press, 1-265.

25. Liu, H. C., P. K. Wang, and R. E. Schlesinger, 2003a: A Numerical Study of Cirrus Clouds. Part I: Model Description. *J. Atmos. Sci*. , *60*, 1075-1084.

26. Liu, H. C., P. K. Wang, and R. E. Schlesinger, 2003b: A Numerical Study of Cirrus Clouds. Part II: Effects of Ambient Temperature and Stability on Cirrus Evolution. *J. Atmos. Sci*., *60*, 1097-1119.

27. Chiruta, M., and P. K. Wang, 2003: On the Capacitance of Bullet Rosette Crystals. *J. Atmos. Sci*., *60*, 836-846.

28. Wang, P. K., 2003: Moisture Plumes above Thunderstorm Anvils and Their Contributions to Cross Tropopause Transport of Water Vapor in Midlatitudes. *J. Geophys. Res.,* 108(D6), 4194, doi: 10.1029/2003JD002581, 2003.

29. Wang, P. K. 2004: A Cloud Model Interpretation of Jumping Cirrus above Storm Top, *Geophys. Res. Lett.*, 31, L18106, doi:10.1029/2004GL020787

30. Chiruta, M., and P. K. Wang, 2005: The Capacitance of Solid and Hollow Hexagonal Ice Columns. *Geophys. Res. Lett.,* VOL. 32, L05803, doi:10.1029/2004GL021771, 2005.

31. Wang, Pao K., 2005: The Wisconsin Dynamical/Microphysical Model (WISCDYMM) and the Use of It to Interpret Satellite-observed Storm Dynamics., in *MEASURING*

PRECIPITATION FROM SPACE EURAINSAT AND THE FUTURE. Edited by V. Levizzani, et al., bibl. (in press by Kluwer Academic Publishers)

32. Setvak, M., R. M. Robin and P. K. Wang, 2007: Contribution of MODIS Instrument to the Observations of Deep Convective Storms and Stratospheric Moisture Detection in GOES and MSG Imagery (accepted for publication in *Atmospheric Research*)
33. Lin, Hsin-mu, Pao K. Wang, and Robert E. Schlesinger, 2005: Three-Dimensional Nonhydrostatic Simulations of Summer Thunderstorms in the Humid Subtropics versus High Plains. *Atmos. Res., 78,* 103-145.
34. Wang, Pao K. 2007: The Thermodynamic Structure atop a Penetrating Convective Thunderstorm. *Atmospheric Research*, *83*, 254-262.
35. Setvak, M., D. T. Lindsey, R. Rabin, and P. K. Wang, 2008: Indication of Water Vapor Transport into the Lower Stratosphere above Midlatitude Convective Storms: Meteosat Second Generation Satellite Observations and Radiative Transfer Model Simulations, *Atmos. Res., 89*, 170-180.
36. Chiou-Jiu Chen and Pao K. Wang, 2009: Diffusion growth of solid and hollow hexagonal ice columns. *Il Nuovo Cimento,* 124, 87-97.
37. Pao K. Wang, M. Setvak, W. Lyons, W. Schmid and H. Lin, 2009: Further Evidence of Deep Convective Vertical Transport of Water Vapor through the Tropopause, *Atmos. Res*., *94*, 400-408.
38. Martin Setvák, Daniel T. Lindsey, Petr Novák, Pao K. Wang, Michaela Radová, Jochen Kerkmann5, Louie Grasso2, Shih-Hao Su3, Robert M. Rabin6,7, Jindich Šástka, Zdenêk Charvat, Hana Kyznarová, 2010: Cold-ring-shaped Cloud Top Features atop Convective Storms, *Atmospherci Research*, *97*, 80-96.
39. P. K.Wang, Shih-Hao Su., M. Setvak, H. M. Lin and R. Rabin, 2010: Ship Wave Signature at the Cloud Top of Deep Convective storms, *Atmos. Res*. *97*, 294-302.
40. A. I. Flossmann, V. Levizzani and P. K. Wang, 2010: On the Fundamental Role of Hans Pruppacher for Cloud Physics and Cloud Chemistry. Atmos. Res., 97, 393-395.
41. P. K. Wang, Hsin-Mu Lin; Shih-Hao Su., 2010: The Impact of Ice Microphysical Processes on the Life Span of a Midlatitude Supercell Storm, *Atmos. Res*. 97, 450-461.
42. P. K.Wang, , S, H. Su, Z. Charvat, J. Stastka and H. M. Lin, 2011: Cross Tropopause Transport of Water by Mid-latitude Deep Convective Storms: A Review. *Terr. Atmos, Ocean. Sci.*, *22*, 447-462.
43. Kubicek, A. and P. K. Wang, 2012: A Numerical Study of the Flow Fields around a Typical Conical Graupel Fallin at Various Inclination Angles. Atmos. Res., *118*, 15-26.
44. M. Setvak, K. Bedka, D. T. Lindsey, A. Sokol, Z. Charvat, J. Stastka and P. K. Wang, 2013: A-Train Observations of Deep Convective Storm Tops. *Atmos. Res*., *123*, 229-248.
45. P. K. Wang and A. Kubicek, 2013: Flow Fields of Graupel Falling in Air. *Atmos. Res., 124*, 158-169.
46. K. Y. Cheng and P. K. Wang, 2013: A Numerical Study of the Flow Fields around Falling Hails. *Atmos. Res*., *132-133*, 253-263.
47. K. Y. Cheng, , P. K. Wang, and C. K. Wang, 2014: A Numerical Study on the Ventilation Coefficients of Falling Hailstones. *J. Atmos. Sci.*, *71*, 2625-2634.
48. J. Panda, H. Singh, P. K. Wang, R. K. Giri and A. Routray, 2014: A Qualitative Study of Some of the Meteorological Features during Tropical Cyclone PHET Using Satellite

Observations and WRF Modeling System. *J. Indian Soc. Remote Sensing,* 11 July 2014*,* DOI: 10.1007/s12524-014-0386-4

49. T. Hashino, M. Chiruta, D. Polzin, A. Kubicek and P. K. Wang, 2014: Numerical Simulation of the Flow Fields around Falling Ice Crystals with Inclined Orientation and the Hydrodynamic Torque. *Atmos. Res*., *150,* 79-96.
50. Chueh, Chi-Cheh and P. K. Wang, 2015: A Numerical Study of Flow Fields of Lobed Hailstones Falling in Air. *Atmos. Res.*, *160*, 1-14.
51. K. Y. Cheng, P. K. Wang and T. Hashino, 2015: A Numerical Study on the Attitudes and Aerodynamics of Freely Falling Hexagonal Ice Plates. *J. Atmos. Sci*., *72*, 3685-3698.
52. T. Hashino, , K. Y. Cheng, C. C. Chueh and P. K. Wang, 2016: Numerical Study of Motion and Stability of Falling Columnar Crystals. J. Atmos. Sci., 73, 1923-1942.
53. P. K. Wang, K. Y. Cheng, M. Setvak and C. K. Wang, 2016: The origin of the gullwing-shaped cirrus above an Argentinian thunderstorm as seen in CALIPSO images. J. Geophys. Res. Atmos.,121, doi:10.1002/2015JD024111
54. Hernandez-Gonzalez, S., P. K. Wang, E. Gascon, F. Valero, and J. L. Sanchez, 2016: Latent cooling and microphysics effects in deep convection, Atmos. Res., 180, 189-199.
55. Huang, Y. C. and Pao K. Wang, 2017: The hydrometeor partitioning and microphysical processes over the Pacific Warm Pool in numerical modeling. Atmos. Res., 183, 308-321.
56. Chih-Che Chueh, Pao K. Wang and Tempei Hashino, 2017: A preliminary numerical study on the time-varying fall attitudes and aerodynamics of freely falling conical graupel particles. Atmospheric Research, 183, 58-72
57. Sunny Kant, Jagabandhu Panda, Ritesh Gautam, Pao K. Wang and S. P. Singh, 2017: Significance of Aerosols Influencing Weather and Climate over Indian Region. Int. J. Earth and Atmos. Sci., 4, 1-20.
58. Seela, Balaji Kumar, Jayalakshmi Janapati, Pay-Liam Lin, K. Krishna Reddy, Ryuichi Shirooka, and Pao K. Wang, 2017: A comparison study of summer season raindrop size distribution between Palau and Taiwan, two islands in Western Pacific. J. Geophys. Res., 122, 11787-11805
59. Chih.-Che Chueh, Pao K. Wang and Tempei Hashino, 2018: Numerical Study of Motion of Falling Conical Graupel. Atmos. Res., 199, 82-92.
60. Sunny Kant, Jagabandhu Panda, Shantanu Kumar Pani and Pao K. Wang, 2018: Long-term study of aerosol-cloud-precipitation interaction over the eastern part of India using satellite observations during pre-monsoon season. Theoretical and Applied Climatology., https://doi.org/10.1007/s00704-018-2509-2
61. Nettesheim, J., and P. K. Wang, 2018: A Numerical Study on the Aerodynamics of Freely Falling Planar Ice Crystals. Journal of the Atmospheric Science (accepted June 2018)
62. Seela, B. K., Janapati, J., Lin, P.-L., Wang, P. K., & Lee, M.-T., 2018: Raindrop size distribution characteristics of summer and winter season rainfall over north Taiwan. *Journal of Geophysical Research: Atmospheres, 123*, (20), 11,602–11,624. https://doi.org/10.1029/2018JD028307

63. Janapati, Jayalakshmi, Balaji Kumar Seela, Pay-Liam Lin, Pao K.Wang and Utpal Kumar, 2019, "An assessment of tropical cyclones rainfall erosivity for Taiwan", *Scientific Reports*, 9:15862. (SCIE) (IF: 4.122; SCIE ranking: 18.8%)

64. Wang, P. K., and C. C. Chueh, 2020: A numerical study on the ventilation coefficients of falling lobed hailstones. *Atmos. Res. 234*, 104737. https://doi.org/10.1016/j.atmosre

65. Janapati, J., B. K. Seela, P.-L. Lin, P.-K. Wang, C.-H. Tseng, K. K. Reddy, H. Hashiguchi, L. Feng, S. K. Das, and C. K. Unnikrishnan, 2020: Raindrop size distribution characteristics of Indian and Pacific Ocean tropical cyclones observed at India and Taiwan sites. J. Meteor. Soc. Japan, 98, 299–317, doi:10.2151/jmsj.2020-015.

Aerosol Physics and Chemistry

1. Wang, P. K. and H. R. Pruppacher, 1977b: An Experimental Determination of the Efficiency with which Aerosol Particles Are Collected by Water Drops in Subsaturated Air. *J. Atmos. Sci., 34*, 1664-1669.
2. Wang, P. K., S. N. Grover and H. R. Pruppacher, 1978: On the Effect of Electric Charges on the Scavenging of Aerosol Particles by Cloud and Small Rain Drops. *J. Atmos. Sci., 35*, 1735-1743.
3. Wang, P. K., 1979a: Particular Solutions to the Steady-state Diffusion Equation and their Application to Aerosol Scavenging Problems. *Papers Meteor. Res., 2,* 37-42.
4. Wang, P. K. and H. R. Pruppacher, 1980a: The Effect of an External Eelectric Field on the Scavenging of Aerosol Particles by Clouds and Small Rain Drops. *J. Coll. Interf. Sci., 75*, 286-297.
5. Wang, P. K. and H. R. Pruppacher, 1980b: On the Efficiency with Which Aerosol Particles of Radius Less Than One Micron Are Collected by Columnar Ice Crystals. *Pure Appl. Geophys., 118*, 1090-1108.
6. Martin, J. J., P. K. Wang, and H. R. Pruppacher, 1980a: On the Efficiency with Which Aerosol Particles of Radius Larger than 0.1 Micron are Collected by Simple Ice Plates. *Pure Appl. Geophys., 118*, 1109-1129.
7. Martin, J. J., P. K. Wang and H. R. Pruppacher, 1980b: A Theoretical Determination of the Efficiency with Which Aerosol Particles Are Collected by Simple Ice Plates. *J. Atmos. Sci., 37*, 1628-1638.
8. Martin, J. J., P. K. Wang and H. R. Pruppacher, 1980c: A Theoretical Study of the Effect of Electric Charges on the Efficiency with which Aerosol Particles Are Collected by Ice Crystal Plates. *J Colloid Interf. Sci., 78*, 44-56.
9. Walcek, C., P. K. Wang, J. H. Topalian, S. K. Mitra, and H. R. Pruppacher, 1981: An Experimental Test of a Ttheoretical Model Designed to Determine the Rate at which Freely Falling Water Drops Scavenge SO2 in Air. *J. Atmos. Sci., 38*, 871-876.
10. Wang, P. K., 1983b: Collection of Aerosol Particles by Conducting Spheres in an External Electric Field - Continuum Regime Approximation. *J. Coll. Interf. Sci., 94*, 301-318.
11. Wang, P. K., 1984: An Investigation of the Relationship between Climatic Conditions and the Occurrence of Flying Locusts Infestation in China in Historical Time. *Abst. 10th Int. Congress Biometeor.,* Tokyo, Japan, July 26-30, 1984, 246.
12. Wang, P. K., 1985: Air Pollutant Measurements. in *Handbook of Applied Meteorology*, D. D. Houghton, Ed., Chap.22, 667-678. Wiley Interscience, New York.

13. Wang, P. K., 1985b: A Convective Diffusion Model for the Scavenging of Submicron Particles by Snow Crystals of Arbitrary Shapes. *J. de Rech. Atmos., 19*, 185-191.
14. Wang, P. K., 1985c: Brownian Diffusion of Charged Fine Particles Surrounding a Conducting Cylinder in the Presence of an External Electric Field. *J. Aerosol Sci., 17*, 201-209.
15. Miller, N. L. and P. K. Wang, 1989: A Theoretical Determination of the Efficiency with which Aerosol Particles are Collected by Falling Columnar Ice Crystals. *J. Atmos. Sci., 46*, 1656-1663.
16. Sauter, D. P. and P. K. Wang, 1989: An Experimental Study of the Scavenging of Aerosol Particles by Natural Snow Crystals. *J. Atmos. Sci., 46,* 1650-1655.
17. Miller, N. L., and P. K. Wang, 1991: Comparison of the Efficiencies with which Aerosol Particles are collected by Planar and Columnar Ice Crystals. *Atmos. Environ., 25A*, 2593-2606.
18. Wang, P. K. and T. Jaroszczyk, 1991: The Grazing Collision Angle of Aerosol Particles Colliding with Infinitely Long Circular Cylinders, *Aerosol Sci. Tech., 15,* 149-155.
19. Wang, P. K. and Ho Lin, 1995: Comparison between the Collection Efficiency of Aerosol Particles by Individual Water Droplets and Ice Crystals in a Subsaturated Atmosphere. *Atmos. Res. 38*, 381-390.
20. Liu, G. Z. and P. K. Wang, 1996: Numerical Investigation of Viscous Flow Fields around Multi-fiber Filters. *Aerosol Sci. and Tech*., *25*, 375-391.
21. Liu, G. Z. and P. K. Wang, 1997: Pressure Drop and Interception Efficiency of Multi-fiber Filters. *Aerosol Sci. and Tech*., *25*, 375-391.
22. Ohyama, Hirofumi, Isamu Morino, Voltaire A. Velazco, Theresa Klausner, Gerry Bagtasa5, Matthäus Kiel6, Matthias Frey, Akihiro Hori, Osamu Uchino1, Tsuneo Matsunaga1, Nicholas M. Deutscher2, Joshua P. DiGangi7, Yonghoon Choi, Glenn S. Diskin, Sally E. Pusede, Alina Fiehn, Anke Roiger, Michael Lichtenstern, Hans Schlager, Pao K. Wang, Charles C.-K. Chou, Maria Dolores Andrés-Hernández, and John P. Burrows, 2020, "Validation of XCO2 and XCH4 retrieved from a portable Fourier transform spectrometer with those from in-situ profiles from aircraft borne instruments", *Atmos. Meas. Tech*., **13**, 5149–5163.

Historical Climate and Geophysical Phenomena

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2. Wang, P.K., and G. L. Siscoe, 1980: The Ancient Chinese Observations on the Physical Phenomena Attending Total Solar Eclipse. *Solar Phys., 66*, 187-193.
3. Wang, P. K., 1980: On the Possible Relationship between Winter Thunder and Climatic Changes in China over the Past 2,200 years. *Climatic Change, 3*, 37-46.
4. Wang, P. K. and J. H. Chu, 1982: Some Unusually Lightning Events Reported in Ancient Chinese Literature. *Weatherwise, 35*, 119-122.
5. Wang, P. K. and De'er Zhang, 1988: An Introduction of some Historical Governmental Weather Records in the 18th and 19th centuries of China. *Bull. Amer. Meteor. Soc., 69,* 753-758.

6. Wang, P. K., with COHMAP Members, 1988: Climatic Changes of the Last 18,000 years: Observations and Model Simulations. *Science, 241,* 1043-1052.
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8. Peng, G. and P. K. Wang, 1989: Influence of the Antarctic Sea-ice on the Northwest Pacific Subtropical High and its Ocean-atmosphere Circulation Background. *Kexue Tongbao, 1989*, *1*, 56-58.
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10. Wang, Pao K. and De'er Zhang, 1990: Use of Historical Documents of China to Reconstruct Past Climate. *World Resource Rev., 2*, 1-14.
11. Wang, P. K. and De'er Zhang, 1991: Reconstruction of the 18th Century Precipitation of Nanjing, Suzhou, and Hangzhou Using the Clear and Rain Records. in *Climate Since 1500 AD*, R. S. Bradley and P. D. Jones, Eds., Routledge, London , 184-209.
12. Wang, P. K. and De'er Zhang, 1992: Recent Studies of the Reconstruction of East Asian Monsoon Climate in the Past Using Historical Literature of China. *J. Meteor. Soc. Japan, 70*, 423-446.
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