Majid Molki
Distinguished Research Professor of Mechanical Engineering
Department of Mechanical and Mechatronics Engineering
Southern Illinois University Edwardsville
Edwardsville, IL 62026-1805

mmolki@siue.edu; (618) 650-2372
Visit Google Scholar.

Education

Ph.D. Mechanical Engineering, University of Minnesota, 1982
M.S. Mechanical Engineering, University of Nebraska-Lincoln, 1979
B.S. Mechanical Engineering, Sharif University of Technology, 1975

Employment

Department Chair, SIUE, 2013 -- 2019
Distinguished Research Professor, SIUE, 2013 -- present
Professor, SIUE, 2004--2013
Professor and Graduate Program Director, SIUE, 2005 -- 2009
Visiting Professor, Brown University, July -- December 2007
Associate Professor, SIUE, 2000 -- 2004
Associate Research Scientist, University of Maryland, 1998 -- 2000
Professor, Isfahan University of Technology, 1994 -- 1997
Visiting Scholar, University of Rhode Island, 1992 -- 1993
Associate Professor, Isfahan University of Technology, 1989 -- 1994
Assistant Professor, Isfahan University of Technology, 1985 -- 1989
Assistant Professor, Tufts University, Massachusetts, 1982--1985

Teaching

Focus: The teaching of undergraduate and graduate-level courses; supervision of undergraduate and graduate students in their theses, independent study courses, and design projects; the close coupling of research and classroom teaching.

Current Teaching: Heat Transfer (ME 410), Gas Dynamics (ME 414), Department of Mechanical and Mechatronics Engineering, SIUE.

Courses Taught: At SIUE, the University of Maryland, the University of Rhode Island, Tufts University, the University of Minnesota, and Isfahan University of Technology:

Undergraduate	**Graduate**
Thermodynamics	Advanced Fluid Mechanics
Fluid Mechanics	Computational Fluid Dynamics
Gas Dynamics	CFD and Heat Transfer
Heat Transfer	Conduction Heat Transfer
Engineering Statics	Convective Heat Transfer
Gas Turbine and Jet Engine	Radiative Heat Transfer
Solar Energy	Advanced Heat Transfer
Dynamics System Modeling	Continuum Mechanics
	Turbulent Flows

Research Experience

Experimental and Computational heat and mass transfer: fluid-solid interaction; vortex dynamics; flow-boiling in minichannels; corona-enhanced heat transfer in ducts; electrohydrodynamics (EHD) in frost control, condensation of refrigerants, boiling of CO_2 in microchannels, and boiling of refrigerants in microfin tubes; electronics cooling; heat transfer enhancement; turbulence modeling; flow separation; rough surfaces; external flow with vortex shedding; natural convection; flow visualization; heat-mass transfer analogy; melting and solidification of metals; numerical modeling of continuous casting; numerical modeling of heat transfer for the steel industry.

Mentoring Undergraduate Students in Research

- Comparison of Feeding and Jumping in the Northern Leopard Frog, URCA, SIUE, 2006-2007 (with Dr. Rick Essner)
- Modeling flow in a shock tube, URCA-Assistant, SIUE, Spring 2012.

- Droplet impact and spreading over a flat surface, URCA-Assistant, SIUE, Fall 2012.
- Effects of Droplets Impacting a Flat Surface, URCA-Assistant, SIUE, Spring 2013.
- Droplet Impact and the Effect of Charge on Droplets, URCA-Assistant, SIUE, Fall 2013.
- Mitigating Negative Effects of Liquid Rope Coiling, URCA-Associate, SIUE, Fall 2013 and Spring 2014
- Twin Liquid Rope Coiling, URCA-Assistant, Fall 2014.
- Design of Experimental Setup for CPU Cooler, Spring 2019.
- Heat Transfer Measurements of CPU Cooler, Fall 2019.

Sponsored Research

Throughout my academic career, I have submitted numerous internal and external grant proposals, many of which have been funded. The following list highlights the funded projects.

- Liquid Rope Coiling with Multiple Viscous Jets, XSEDE, computing allocation.
- Turbulent Heat Transfer in a Two-Phase Cubical Heat Sink, XSEDE, computing allocation.
- Analysis of Turbulent Air Flow in Computer Hard Disks, Summer Research Fellowship
- Research Equipment and Tools Competition, Graduate School Research and Development Fund
- Enhanced Jet Cooling of Electronic Equipment by Transient Mixed Convection, Summer Research Fellowship
- Patterns of Refrigerant Flow Boiling in Minichannel Evaporator Plates, Summer Research Fellowship
- A Novel Approach to Computational Fluid Dynamics, Excellence in Graduate Education Award
- EHD-Enhancement of Heat Transfer for Turbulent Airflow in Channels, Funded University Research
- Flow Boiling of Refrigerants in Evaporator Plates with Complex Internal Geometry, Summer Research Fellowship
- Microchannel Heat Exchangers with Carbon Dioxide, Sponsor: Air-Conditioning and Refrigeration Technology Institute (ARTI), Arlington, VA (with Drs. Ohadi and Radermacher)

- Boiling Heat Transfer Coefficient of R-134a in Plate Evaporator, Visteon Climate Control Systems, Plymouth, MI (with Dr. Ohadi)
- ASHRAE Grant, Undergraduate Senior Project, Development of a Variable-Capacity Sub-Compact Condenser with Computer-Controlled, On-Line/On-Demand Feature (with Dr. Ohadi)
- Received a grant from the National Science Foundation for a 2-year project entitled "Heat and mass transfer in a perturbed turbulent tube flow."
- Recipient of the Faculty Fund Award (Tufts University) to study "heat transfer characteristics of a corrugated duct."
- Principal investigator and recipient of several grants from the Research Council of IUT in the following areas: Convective Heat Transfer in Wavy-Walled Ducts, Transient Natural Convection in Rectangular Enclosures, Fixed-Bed Desorption with Chemical Reaction, Unsteady Natural Convection Heat Transfer from a Coil, Interaction Between a Buoyancy-Driven Flow and an Array of Annular Cavities, Injection of Fluid into the Flow Separation Zone and Its Effect on Heat Transfer, Enhancement of Heat Transfer in Enclosures.

Professional Distinctions

- Executive Editor, Heat Transfer Engineering (An International Journal), May 31, 2011, to January 21, 2020,
- Associate Editor, Heat Transfer Engineering (An International Journal), June 3, 1999, to May 31, 2011
- Recipient of the Omar Khayyam Plaque of Honor, Scientia Iranica, 2007.
- Regional Editor, Scientia Iranica (International Journal of Science and Technology).
- Member of the Editorial Advisory Board, International Journal of Engineering.
- Adjunct member of the Graduate Faculty, University of Maryland, December 1, 1998.
- Recipient of the First-Grade Research Award from the Research Council of IUT, September 1989.
- Nominee for Lillian Leibner Award, Department of Mechanical Engineering, Tufts University, March 1984.

Teaching Recognitions

- Disability Awareness Appreciation Award for the continuous support of students with disabilities, SIUE, October 31, 2012.
- The 2006 Outstanding Teacher of the Mechanical Engineering Department.

- Teaching Recognition Award, Southern Illinois University Edwardsville, the academic year 2005-2006.
- Nominated for Teaching Excellence Award by the Mechanical Engineering Department and the School of Engineering, SIUE, November 20, 2005.
- Nominee for Teaching Excellence Award, Mechanical Engineering Department, SIUE, November 20, 2001.

Membership in Professional Organizations

- Pi Tau Sigma, Mechanical Engineering Honor Society, 2003 -- 2021
- The American Society of Mechanical Engineers (ASME), 1983 -- present

Publications

A. Archival Journals

1. Sparrow, E. M., Molki, M., and Chastain, S. R., 1981, "Turbulent Heat Transfer Coefficients and Fluid Flow Patterns on the Faces of a Centrally Positioned Blockage in a Duct," International Journal of Heat and Mass Transfer, Vol. 24, pp. 507-519.
2. Sparrow, E. M., and Molki, M., 1982, "Effect of a Missing Cylinder on Heat Transfer and Fluid Flow in an Array of Cylinders in Cross-Flow," International Journal of Heat and Mass Transfer, Vol. 25, pp. 449-456.
3. Molki, M., and Sparrow, E. M., 1983, "In-Tube Heat Transfer for Skewed Inlet Flow Caused by Competition Among Tubes Fed by the Same Plenum," ASME Journal of Heat Transfer, Vol. 105, pp. 870-877.
4. Sparrow, E. M., and Molki, M., 1984, "Turbulent Heat Transfer Coefficients in an Isothermal-Walled Tube for either a Built-In or Free Inlet," International Journal of Heat and Mass Transfer, Vol. 27, pp. 669-675.
5. Molki, M., and Sparrow, E. M., 1986, "An Empirical Correlation for the Average Heat Transfer Coefficient in Circular Tubes," ASME Journal of Heat Transfer, Vol. 108, pp. 482-484.
6. Molki, M., and Yuen, C. M., 1986, "Effect of Interwall Spacing on Heat Transfer and Pressure Drop in a Corrugated-Wall Duct," International Journal of Heat and Mass Transfer, Vol. 29, pp. 987-997.
7. Molki, M., and Mostoufizadeh, A. R., 1988, "Average Heat Transfer Coefficient in Rectangular Ducts with Baffle Blockages," Journal of Engineering, Vol. 1, pp. 211- 218.

8. Molki, M., and Hendesi, M., 1988 (winter), "Design and Fabrication of a Flowmeter for Turbulent Gas Flow Measurement in Tubes," Journal of Physics, Vol. 5, No. 4, pp. 175-178.
9. Molki, M., and Shahsavan, M., 1989, "Enhancement of Natural Convection Heat Transfer in Annular Enclosures," Journal of Engineering, Vol. 2, pp. 45-53.
10. Molki, M., and Mostoufizadeh, A. R., 1989, "Turbulent Heat Transfer in Rectangular Ducts with Repeated-Baffle Blockages," International Journal of Heat and Mass Transfer, Vol. 32, pp. 1491-1499.
11. Molki, M., and Shahsavan, M., 1990 (winter), "Heat Transfer in Pin Fins and Determination of Optimum Conditions," Amirkabir Journal of Science and Technology, Vol. 4, No. 13, pp. 5-10.
12. Molki, M., Astill, K. N., and Leal, E., 1990, "Convective Heat-Mass Transfer in the Entrance Region of a Concentric Annulus Having a Rotating Inner Cylinder," International Journal of Heat and Fluid Flow, Vol. 11, pp. 120-128.
13. Molki, M., and Sefid, M., 1991, "Two-Dimensional Effects on Heat Transfer from an Isolated Rectangular Fin," Amirkabir Journal of Science and Technology, Vol. 5, pp. 1-14.
14. Molki, M., and Etemad, M., 1990, "An Experimental Study Concerning Natural Convection from a Horizontal Thin Wire," Journal of Engineering, Vol. 3, pp. 154-162.
15. Molki, M., and Shiravi, A. H., 1991 (winter), "A Numerical Solution of Hydrodynamic and Thermal Boundary Layer," Amirkabir Journal of Science and Technology, Vol. 4, No. 16, pp. 203-209.
16. Molki, M., and Hashemi-Esfahanian, A., 1992, "Turbulent Convective Mass Transfer Downstream of a Perforated Baffle Blockage," International Journal of Heat and Fluid Flow, Vol. 13, pp. 116-123.
17. Molki, M., Faghri, M., and Ozbay, O., 1994, "A New Correlation for Pressure Drop in Arrays of Rectangular Blocks in Air-Cooled Electronic Units," ASME Journal of Fluids Engineering, Vol. 116, pp. 856-861.
18. Molki, M., and Faghri, M., 1994, "Conjugate Natural Convection Heat Transfer in a Vertical Annulus with Internal Circumferential Fins," Numerical Heat Transfer, Part A, Vol. 25, pp. 457-476.
19. Molki, M., 1993, "Heat Transfer in Rough Tubes and the Effect of Artificial Roughness on the Entrance Heat Transfer Coefficient," ISME Mechanical Engineering, Vol. 1, pp. 40-53.
20. Molki, M., Faghri, M., and Ozbay, O., 1995, "A Correlation for Heat Transfer and Wake Effect in the Entrance Region of an In-line Array of Rectangular Blocks Simulating Electronic Components," ASME Journal of Heat Transfer, Vol. 117, pp. 40-46.

21. Molki, M., and Faghri, M., 1994, "Interaction Between a Buoyancy-Driven Flow and an Array of Annular Cavities," Sadhana: Academy Proceedings in Engineering Sciences, Indian Academy of Sciences, Vol. 19, Part 5, pp. 705-721.
22. Molki, M., and Mirzaee, I., 1994, "Local Heat Transfer Coefficient in a Rectangular Duct with Plate Blockages of Variable Streamwise Spacing," Journal of Engineering, Vol. 7, pp. 33-40.
23. Molki, M., and Moharreri, J., 1994, "Two-dimensional Temperature Field in a Finned Semi-infinite Wall," Journal of the Faculty of Engineering, TU, Vol. 54, pp. 65-84.
24. Molki, M., 1994, "Temperature of the Adiabatic Wall in Transient Natural Convection in Square Enclosures," Amirkabir Journal of Science and Technology, Vol. 7, No. 26, pp. 123-133.
25. Molki, M., 1994, "Local Heat Transfer Coefficient in Transient Natural Convection in Square Cavities," Accepted for publication, ISME Journal.
26. Faghri, M., Molki, M., Chrupcala, J., and Asako, Y., 1995, "Entrance Analysis of Turbulent Flow in an Array of Heated Rectangular Blocks," IEEE Transactions on Components, Packaging, and Manufacturing Technology, Part A, Vol. 18, No. 3, pp. 546-552.
27. Molki, M., and Kharidar, M. H., 1996, "Natural Convection from a Helical Heating Coil to the Surrounding Fluid," Journal of Engineering, Vol. 9, pp. 29-35.
28. Molki, M., 1996, "Oscillatory Heat Transfer Coefficient in Transient Natural Convection in Square Cavities," Journal of Science and Technology, Vol. 20, No. 3, Transaction B, pp. 351-359.
29. Molki, M., and Fotouhi, D., 1996, "Slow and periodic flow past a cylinder," Journal of Physics Research, Vol. 1, pp. 39-47.
30. Mottahed, B., and Molki, M., 1996, "Artificial Roughness Effects on Turbulent Transfer Coefficients in the Entrance Region of a Circular Tube," International Journal of Heat and Mass Transfer, Vol. 39, No. 12, pp. 2515-2523.
31. Molki, M., and Fotouhi, D., 1997, "Thermal Field Around a Circular Cylinder with Periodic Vortex Shedding," Journal of Engineering, Vol. 10, No. 1, pp. 27-36.
32. Molki, M., Zamani, B., Nezaminia, A., Bahman, H., and Mottaghi, M., 1997, "Thermal Field in Continuous Casting of Steel," ISME Journal of Mechanical Engineering, Vol. 1, pp. 54-64.
33. Ghasemi, B., and Molki, M., 1997, "Cyclic Melting and Solidification of Steel," Numerical Heat Transfer, Part A, Vol. 32, pp. 877-896.
34. Ghasemi, B., and Molki, M., 1999, "Melting of Unfixed Solids in Square Cavities," International Journal of Heat and Fluid Flow, Vol. 20, pp. 446-452.

35. Molki, M., Ohadi, M. M., Baumgarten, B., Hasegawa, M., and Yabe, A., 2000, "Heat Transfer Characteristics of Airflow in a Channel Using Corona Discharge," Enhanced Heat Transfer, Vol. 7, pp. 411-425.
36. Molki, M., and Faghri, M., 2000, "Temperature of In-Line Array of Electronic Components Simulated by Rectangular Blocks," Electronics Cooling, Vol. 6, No. 2, pp. 26-32.
37. Molki, M., Ohadi, M. M., Da Silva, L. W., 2002, "EHD-Enhanced External Condensation of R-134a on Enhanced Tubes," International Journal of Heat Exchangers, Vol. III, pp. 49-66.
38. Gidwani, A., Molki, M., Ohadi, M. M., 2002, "EHD-Enhanced Condensation of Alternative Refrigerants in Smooth and Corrugated Tubes," International Journal of HVAC&R Research, Vol. 8, No. 3, pp. 219-237.
39. Rupani, A. P., Molki, M., Ohadi, M. M., Franca, F. H. R., 2003, "Enhanced Flow Boiling of R-134a in a Minichannel Plate Evaporator," Journal of Enhanced Heat Transfer, Vol. 10, Issue 1, pp. 1-7.
40. Molki, M., Mahendra, P., and Vengala, V., 2004, "Visualization and Modeling of Flow Boiling of R-134a in Minichannels with Transverse Ribs," Heat Transfer Engineering (An International Journal), Vol. 25, No. 3, pp. 94-103.
41. Molki, M., Bhamidipati, K. L., 2004, "Enhancement of Convective Heat Transfer in the Developing Region of Circular Tubes Using Corona Wind," International Journal of Heat and Mass Transfer, Vol. 47, No. 19-20, pp. 4301-4314.
42. Molki, M., and Vengala, V., 2005, "Flow Boiling Patterns of Refrigerant 134A in a Minichannel with Meandering Flow Passage," International Journal of Heat Exchangers, Vol. VI, No. 2, pp. 277-292.
43. Molki, M., and Nagalla, M. K., 2005, "Flow Characteristics of Rotating Disks Simulating a Computer Hard Drive," Numerical Heat Transfer, Part A: Applications, Vol. 48, No. 8, pp. 745-761.
44. Molki, M., Damronglerd, P., 2006, "Electrohydrodynamic Enhancement of Heat Transfer for Developing Air Flow in Square Ducts," Heat Transfer Engineering (An International Journal), Vol. 27, No. 1, pp. 35-45.
45. Molki, M., Harirchian, T., Lakshmi Chitta, V., 2006, "An Improved Solution of Electrodynamics Equations for Corona Discharge Using Explicit Artificial Viscosity," Numerical Heat Transfer, Part B: Fundamentals, Vol. 50, No. 4, pp. 315-332.
46. Molki, M., Panahshahi, N., Rossow, M., and Gumidelli, S., 2007, "The Response of Framed Steel Structures to Fire," Heat Transfer Engineering (An International Journal), Vol. 28, No. 4, pp. 343-356.

47. Molki, M., and Harirchian, T., 2008, "Enhancement of Natural Convection in Circular and Triangular Ducts Using Corona Discharge in Air and Nitrogen," Scientia Iranica, Vol. 15, No. 1, pp. 108-119.
48. Molki, M., and Fasig, D., 2009, "Thermal Response of Supersonic Airflow to a Fin Protrusion Situated on a Curved Surface," ASME Journal of Heat Transfer, Vol. 131, Issue 11, p. 111704 (5 pages).
49. Molki, M., and Abbasi, B., 2010, "Effect of Temperature on the Vorticity Field of an Evolving Water Droplet," International Journal of Heat and Mass Transfer Vol. 53, pp. 18-28.
50. Molki, M., and Breuer, K., 2010, "Oscillatory Motion of a Prestrained Compliant Membrane Caused by Fluid-Membrane Interaction," Journal of Fluids and Structures, Vol. 26, No. 3, pp. 339-358.
51. Baghaei Lakeh, R., and Molki, M., 2010, "Patterns of Airflow in Circular Tubes Caused by a Corona Jet with Concentric and Eccentric Wire Electrodes," ASME Journal of Fluids Engineering, Vol. 132, No. 8, 081201 (10 pages).
52. Baghaei Lakeh, R. and Molki, M., 2012, "Targeted Heat Transfer Augmentation in Circular Tubes Using a Corona Jet," Journal of Electrostatics Vol. 70, No. 1, pp. 31-42.
53. Molki, M., and Sattari, N., 2013, "Vortex Generation in Low-Speed Flow Over an Oscillating and Deforming Arc Airfoil," ASME Journal of Fluids Engineering, Vol. 135, 011102 (10 pages).
54. Baghaei Lakeh, R. and Molki, M., 2013, "Enhancement of convective heat transfer by electrically-induced swirling effect in laminar and fully-developed internal flows," Journal of Electrostatics, Vol. 71, No. 6, pp. 1086-1099.
55. Golozar, M., Molki, M., Darabi, J., 2017, "Computational and performance analysis of a continuous magnetophoretic bioseparation chip with alternating magnetic fields," Microfluidics and Nanofluidics, 21, 4, http://dx.doi.org/10.1007/s10404-017-1909-4
56. Molki, M., and Abdul Mohi, M., 2022, "An Analytical-Computational Model for Predicting the Temperature of a Computer Central Processing Unit Cooler." Heat Transfer Engineering 43, no. 14: 1241-1255.
57. Gupta, S. D., Darabi, J., and Molki, M., 2025, “Experimental and Numerical Investigation of Droplet Spreading on Solid Surfaces,” International Journal of Heat and Fluid Flow, Vol. 115, p. 109871.
58. Molki, M., Darabi, J., and Rhisat, F. N., 2026, “Vortex Shedding and Confined Vortices Behind an Isothermal Plate Positioned in a Parallel-Plate Duct,” ASME Journal of Heat and Mass Transfer, Vol. 148, No. 2, p. 021802.

B. Peer-Reviewed Conference Papers

1. Molki, M., Astill, K. N., and Leal, E., 1985, "Measurement of Heat Transfer in the Entrance Region of a Concentric Annulus with an Axial Flow Using a Sublimation Technique," Proceedings of Taylor Vortex Flow Working Party, Universität Fridericiana, Karlsruhe, pp. 22-26.
2. Molki, M., 1986, "Heat Transfer Characteristics of Corrugated Ducts with Variable Corrugation Angle," Proceedings of the Eighth International Heat Transfer Conference, San Francisco, U.S.A., pp. 2879-2884.
3. Molki, M., Faghri, M., and Ozbay, O., 1993, "A New Correlation for Pressure Drop in Arrays of Rectangular Blocks in Air-Cooled Electronic Units," ASME HTD-Vol. 237, Proceedings of the 29th National Heat Transfer Conference, August 8-11, Atlanta, GA, pp. 75-81.
4. Molki, M., Faghri, M., and Ozbay, O., 1994, "A Correlation for Heat Transfer and Wake Effect in the Entrance Region of an In-line Array of Rectangular Modules," the ASME/AIAA Thermophysics and Heat Transfer Conference, Colorado (U.S.A.).
5. Faghri, M., Molki, M., Chrupcala, J., and Asako, Y., 1994, "Entrance Analysis of Turbulent Flow in an Array of Heated Rectangular Blocks," I-THERM '94 Conference, May 4-7, Washington, D.C. (U.S.A.).
6. Badri, M. A., Molki, M., and Saeedi, M. S., 1995, "Numerical solution of laminar flow around cylindrical bodies at low Reynolds numbers," 3rd Fluid Dynamics Conference, Jan. 9-11, Sharif University of Technology, pp. 303-323.
7. Molki, M., 1995, "Transient Natural Convection Heat Transfer in Square Enclosures," Proceedings of the 3rd Annual ISME Conference, May 15-17, Vol. 1, pp. 297-306.
8. Molki, M., and Fotouhi, D., 1995, "Flow around cylinder and the behavior of the periodic vortices," Proceedings of the 3rd Annual ISME Conference, May 15-17, Vol. 1, pp. 139-146.
9. Molki, M., and Fotouhi, D., 1995, "Effect of periodic vortices on heat transfer in flow around a cylinder," Proceedings of the 3rd Annual ISME Conference, May 15-17, Vol. 1, pp. 157-164.
10. Molki, M., and Ghasemi, B., 1995, "Unsteady Natural Convection Heat Transfer from an Electronic Component," Proceedings of the 3rd Annual ISME Conference, May 15- 17, Vol. 1, pp. 331-338.
11. Ghasemi, B., and Molki, M., 1996, "Fluid Motion Caused by a Falling Object," Proceedings of the 4th Annual and 2nd International ISME Conference, May 14-17, Vol. 2, pp. 211-218.

12. Molki, M., 1996, "Transient Natural Convection from a Heating Coil," Proceedings of the 4th Annual and 2nd International ISME Conference, May 14-17, Vol. 2, pp. 105-112.
13. Ghasemi, B., and Molki, M., 1996, "Effect of Archimedes Number and Natural Convection on Falling Objects in Enclosures," 4th Fluid Dynamics Conference, Oct. 14- 16, pp. 233-242.
14. Ghasemi, B., and Molki, M., 1997, "Effect of Convective Motions in Melting Process," Proceedings of the 5th Annual ISME Conference, Vol. 1, pp. 11-18.
15. Fotouhi, D., and Molki, M., 1997, "Mixed Convective Heat Transfer in Laminar Flow Around Cylinders," Proceedings of the 5th Annual ISME Conference, Vol. 1, pp. 43-48.
16. Molki, M., Zamani, B., Nezaminia, A., Bahman, H., and Mottaghi, M., 1997, "Thermal Field in Continuous Casting of Steel," Proceedings of the 5th Annual ISME Conference, Vol. 2, pp. 705-712.
17. Ohadi, M. M., B. Mo, and M. Molki, 1998, "Natural Refrigerants -- Historical Development and an Updated Review of Recent Heat Transfer Research Progress," Proceedings of International Conference on Energy Research and Development, Kuwait, Nov. 9-11.
18. Zhao, Y., Ohadi, M. M., Dessiatoun, S. V., Molki, M., and Darabi, J., 1999, "Forced Convection Boiling Heat Transfer of CO2 in Horizontal Tubes," Paper No. AJTE99-6249, 5th ASME/JSME Thermal Engineering Joint Conference, March 14-19, 1999, San Diego, California, USA.
19. Ohadi, M. M., Mo, B., Dessiatoun, S. V. and Molki, M., 1999, "Experimental and Analytical Investigation of an EHD-enhanced Capillary Pumped Loop," Proceedings of International Two-Phase Technology '99: Workshop on Ambient and Cryogenic Thermal Control Devices, Greenbelt, MD, May 17-19.
20. Bloshteyn, M., Molki, M., and Ohadi, M., 1999, "EHD-Controlled Frost Reduction on a Vertical Flat Plate Under Natural Convection," 99-IMECE/PID-1, The 1999 ASME International Mechanical Engineering Congress and Exposition, November 14-19, 1999, Nashville, Tennessee.
21. Mo, B., Ohadi, M. M., Dessiatoun, S. V., and Molki, M., 2000, "Feasibility Investigation on Potential Working Fluids for Electrohydrodynamically-Assisted CPLs," AIP Conference Proceedings, January 19, 2000, Volume 504, Issue 1, pp. 766-771.
22. Zhao, Y., Molki, M., Ohadi, M. M., and Dessiatoun, S. V., 2000, "Flow Boiling of CO2 in Microchannels," ASHRAE Transactions 2000, Vol. 106, Part 1, pp. 437-445.

23. Molki, M., Ohadi, M. M., and Bloshteyn, M., 2000, "Frost Reduction under Intermittent Electric Field," NHTC 2000-12052, National Heat Transfer Conference, Pittsburgh, Pennsylvania, August 20-22.
24. Zhao, Y., Molki, M., and Ohadi, M. M., 2000, "Heat Transfer and Pressure Drop of CO2 Flow Boiling in Microchannels," HTD-Vol. 366-2, Proceedings of the ASME Heat Transfer Division, Vol. 2, pp. 243-249.
25. Salehi, M., Molki, M., and Ohadi, M. M., 2000, "Effect of Electric Field on Flow Pattern in Flow Boiling of R134a -- a Visualization Study," Advances in Enhanced Heat Transfer, Edited by R. Manglik, the 2000 IMECE, Orlando, FL, November 5-10, HTD365 PID Vol. 4, pp. 127-136.
26. Da Silva, L. W., Molki, M., and Ohadi, M. M., 2000, "Electrohydrodynamic Enhancement of R-134a Condensation on Enhanced Tubes," 35th IAS Annual Meeting and World Conference on Industrial Applications of Electrical Energy, Oct 8-Oct 12, 2000, Conference Record - IAS Annual Meeting (IEEE Industry Applications Society) Rome, Italy, Vol. 2, pp. 757-764.
27. Da Silva, L. W., Molki, M., and Ohadi, M. M., 2001, "Effect of Polarity on Electrohydrodynamic Enhancement of R-134a Condensation on Enhanced Tubes," NHTC2001-20067, Proceedings of the 35th National Heat Transfer Conference, Anaheim, California, June 10-12.
28. Zhao, Y., Molki, M., and Ohadi, M. M., 2001, "Predicting Flow Boiling Heat Transfer of CO2 in Microchannels," IMECE2001/HTD-24216, Vol. 1 (CD-ROM), New York, NY, November 11-16.
29. Zhao, Y., Molki, M., Ohadi, M. M., Franca, F. H. R., Radermacher, R., Cho, K., 2002, "Flow Boiling of CO2 with Miscible Oil in Microchannels," ASHRAE Transactions, Vol. 108, Part 1 (2002 ASHRAE Winter Meeting, Jan 13-16, Atlantic City, NJ), pp. 135-144.
30. Rupani, A. P., Molki, M., Ohadi, M. M., and Franca, F. H. R., 2002, "Flow Boiling of R-134a in a Minichannel Plate Evaporator with Augmented Surface," Proceedings of the Twelfth International Heat Transfer Conference, Grenoble, France, August 18-23, Vol. 4, p. 279.
31. Molki, M., Ohadi, M. M., and Da Silva, L. W., 2002, "EHD-Assisted Condensation of Refrigerant R-134a on Tube Bundles," AIAA 2002-3227, the 8th AIAA/ASME Joint Thermophysics and Heat Transfer Conference, St. Louis, Missouri, June 24-26.
32. Molki, M., Mahendra, P., and Vengala, V., 2003, "Flow Boiling of R-134a in Minichannels with Transverse Ribs," International Conference on Microchannels and Minichannels, Vol. 1, pp. 595-602.
33. Molki, M., 2003, "Turbulent Heat Transfer in a Duct with Periodic Wall-Attached Round-Edge Ribs," IMECE2003-41053, CD Vol. 1, ASME International

Mechanical Engineering Congress and Exposition, Washington, D.C., November 16-21, 2003.

34. Molki, M., and Harirchian, T., 2005, "The Enhancement Effects of Corona Discharge on Natural Convection Heat Transfer in Triangular Channels," American Society of Mechanical Engineers, Heat Transfer Division, (Publication) HTD, Vol. 376 HTD, No. 2, Proceedings of the ASME Heat Transfer Division, pp. 477-487.
35. Molki, M., and Olcay, I. H., 2005, "Vortex Breakdown in a Cylindrical Enclosure with a Rotating Lid," American Society of Mechanical Engineers, Fluids Engineering Division (Publication) FED, Vol. 261 FED, 2005, pp. 539-547.
36. Molki, M., Deshetty, A. B., and Rajendran, A. 2005, "Turbulent Heat Transfer and Flow Structure Downstream of a Plate Blockage," American Society of Mechanical Engineers, Heat Transfer Division, (Publication) HTD, Vol. 376 HTD, No. 1, Proceedings of the ASME Heat Transfer Division, pp. 51-60.
37. Panahshahi, N., Molki, M., Rossow, M., Rabiei, K., Gharib, K., 2006, "The Response of Framed Steel Structures to Fire," Proceedings of the Structures Congress and Exposition, Structures Congress 2006: Structural Engineering and Public Safety - Proceedings of the 2006 Structures Congress, p. 38.
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