

## CURRICULUM VITAE OF RALPH GREIF

University of California at Berkeley  
Department of Mechanical Engineering  
Berkeley, California 94720  
(510) 642-6462  
Fax (510) 642-5539  
greif@me.berkeley.edu

### Education:

New York University, B.M.E., 1956  
University of California, Los Angeles, M.S., 1958  
(Thesis: Analysis of Boiling Heat Transfer Including Forced Convection)  
Harvard University, M.A., Ph.D., 1962  
(Dissertation: The Free Piston Shock Tube)

### Experience:

Staff Member, Hughes Research and Development Laboratories, Los Angeles, 1956-58.  
Faculty Member, University of California at Berkeley, 1963-present.  
Post Doctoral Research Fellow, Harvard University, Cambridge, 1963.  
Vice-Chairman for Instruction, Mechanical Engineering Department, University of California at Berkeley, 1974-76.  
Senior Faculty Scientist, Lawrence Berkeley, National Laboratory, 1977-present.  
Visiting Scholar, Imperial College of Science and Technology, London, 1969-70.  
Visiting Professor, Technion, Israel Institute of Technology, Haifa, 1977.

### Honors and Awards:

Charles Storer Storow Fellow, Harvard University, Cambridge, 1961-62.  
Post Doctoral Research Fellow, Harvard University, Cambridge, 1963.  
Tau Beta Pi, College of Engineering, Excellence in Teaching, University of California at Berkeley, 1967.  
Guggenheim Fellow, John Simon Guggenheim Memorial Foundation, 1969-70.  
Visiting Scholar, Imperial College of Science and Technology, London, 1970.  
Pi Tau Sigma, Mechanical Engineering Department, Excellence in Teaching, University of California at Berkeley, 1971.  
Lady Davis Fellow and Visiting Professor, Technion, Haifa, 1977.  
ASME, Associate Technical Editor, Journal of Heat Transfer, 1983-1989.  
ASME Heat Transfer Memorial Award, American Society of Mechanical Engineers, 1985.  
ASME Fellow, 1986.  
Journal of Materials Processing and Manufacturing Science, Editorial Board, 1992-.  
Journal of Chemical Vapor Deposition, Advisory Board, 1992-.  
International Journal of Heat and Mass Transfer, Honorary Editorial Advisory Board, 1995-  
International Communications in Heat and Mass Transfer, Honorary Editorial Advisory Board, 1995-  
Best Paper Award, American Nuclear Society, Sixth International Meeting, NURETH, Grenoble, with P. Peterson and V. Schrock, 1994.  
Research Fellowship, Japan Society for the Promotion of Science, 1995.  
ASME, Dedicated Service Award, 1996  
Heat Transfer Research, Editorial Advisory Board, 1997-  
International Journal of Heat and Mass Transfer, Associate Editor, 2006-2008, Editor, 2009 -  
International Communications in Heat and Mass Transfer, Associate Editor, 2006-2008, Editor, 2009- 2018  
Scientific Council of the International Centre for Heat and Mass Transfer, Member, 2009-  
International Journal of Microscale and Nanoscale Thermal and Fluid Transport Phenomena, Editorial Board, 2009-  
Smart Science, Editorial Board, 2013-  
International Conference on Computing and Precision Engineering, Honorary Chairman, 2015  
8th International Symposium on Multiphase Flow, Heat and Mass Transfer and Energy Conversion, Conference Science Committee, Xi'an Jiaotong University, China 2015-

Ph.D. Student Supervision:

- C.S. Landram, Combined Gaseous Radiative Transfer and Variable Properties Effects on Nusselt Number for Turbulent Flow Through a Heated Tube, 1967.
- I.S. Habib, Heat Transfer to a Radiating Gas Flowing Turbulently in a Tube: An Experimental and Theoretical Study, 1968.
- G.E. Dix, Vapor Void Fractions for Forced Convection with Subcooled Boiling at Low Flow Rates, 1971.
- T.C. Hsieh, The Free Piston Shock Tube and Infrared Radiation Studies, 1972.
- Z. Chiba, The Study of Heat Transfer with Radiation to Gases in Turbulent Flow Within Tubes, 1972.
- J.C. Lin, Absorption of Infrared Radiation by Gases, 1973.
- N. Lior, Heat Transfer with Flash Evaporation in a Stream with a Free Surface, 1973.
- J.A. Paterson, Heat Mass and Momentum Transport in Rotating Flows, 1973.
- R.N. Smith, A Study of Convective Transport at High Schmidt or Prandtl Numbers, 1974.
- J.T. Han, Boundary Layer Flow with Combustion and Thermal Radiation, 1975.
- A. Hashemi, Experimental and Theoretical Studies in Infrared Radiation, 1975.
- T.E. Donovan, Heat Transfer in Internal Flows Including Buoyancy and Thermal Radiation, 1976.
- A.S. Rao, A Study of Submerged and Surface Horizontal Buoyant Jets, 1976.
- M. Nikanjam, An Experimental and Theoretical Study of Unsteady Heat Transfer During Piston Compression, 1977.
- J.T. Teng, Experimental and Theoretical Studies in Convective Transport, 1978.
- K.H. Chu, Infrared Radiation Studies Including Applications to Piston Compression, 1978.
- D. Abdollahian, A Study of Heat Transfer in the Nucleate, Transition, and Inverted Annular Film Boiling Regions During Reflooding, 1979.
- W. Peake, Dispersed Flow Film Boiling During Reflooding, 1979.
- C.S. Wang, Heat and Mass Transfer from a Rotating Disk with Phase Change, 1979.
- H. Heperkan, An Experimental and Theoretical Study of Heat Transfer with Combustion, 1980.
- A. Mertol, Heat Transfer and Fluid Flow in Thermosyphons, 1980.
- J.B. Woodard, An Experimental and Theoretical Study of Heat Transfer in Constant Volume and Compression-Expansion Systems Including the Effects of Flame Propagation, 1982.
- M.W. Nansteel, Natural Convection in Enclosures, 1982.
- J.P. Coutier, Laminar Convection with Buoyancy in Tube Flows with a Surrounding Liquid Medium, 1983.
- S.R. Vosen, Unsteady Heat Transfer During the Interaction of a Laminar Flame with a Cold Wall, 1983.
- A. Lavine, A Three Dimensional Analysis of Natural Convection in a Toroidal Loop, 1985.
- C.H. Stern, An Experimental Study of the Flow and Heat Transfer in a Toroidal Thermosyphon, 1986.
- M. Choi, Studies of Heat and Mass Transfer During Chemical Vapor Deposition, 1987.
- W.M. Huang, An Experimental and Numerical Study of Heat and Mass Transfer with Combustion, 1987.
- F. Miller, An Experimental and Theoretical Investigation of the Radiant Heating of a Particle Suspension, 1988.
- J.H. Lu, Unsteady Heat Transfer During Flame-Wall Interactions, 1990.
- Y.T. Lin, Studies of Flow, Heat Transfer and Particle Motion during Chemical Vapor Deposition, 1991.
- J. Hwang, Flame Deposition Processes in Materials Manufacturing, 1991.
- O. Ezekoye, Experimental and Theoretical Studies of Heat Transfer with Combustion, 1991.
- S.Y. Joh, Studies of Heat Transfer and Flow in the Modified Chemical Vapor Deposition Process Including Effects of Chemistry, 1993.
- H.C. Tsai, A Study of Transport Phenomena in External Chemical Vapor Deposition Processes, 1994.
- M.M. Kilgo, The Influence of Ambient Medium Density on Laser Ablation Processes, 1995
- J.S. Zeng, Experimental and Theoretical Analysis of Transport Processes in a Nano-Structured Medium Aerogel, 1995
- A.L. Robinson, Radon Entry in Buildings: Effects of Atmospheric Fluctuations and Building Structural Factors, 1996.
- S. Jeong, Energy Coupling and Plume Dynamics During High Power Laser Heating of Metals, 1997.

C.K. Wu, Flow and Heat Transfer in External Chemical Vapor Deposition Including the Effects of Chemistry, 1997

L. Gabour Stewart, An Experimental and Theoretical Investigation of Flow and Particle Transport During Periodic Short Duration Back Flow Filtration, 1997, Cochair

F. Kusnadi, A Study of Convective Thermophoretic and Electrophoretic Transport with Chemical Vapor Deposition, 1997.

T. R. Shiu, Thermal-Mechanical Behavior of Laser Heated Glass, 1999, Cochair

S. L. Chou, A Study of Fluid Flow, Heat Transfer and Particle Deposition in Chemical Vapor Deposition Processes, 1999

S. Mao, Experimental and Theoretical Studies of Picosecond Laser Interactions with Electronic Materials Laser Ablation, 2000

J. Yoo, Enhanced Mass Removal due to Phase Explosion during High Irradiance Nanosecond Laser Ablation of Silicon, 2000

F. Hsu, Thermophoretic Transport in Chemically Reacting Flows, 2000

J. Chung, Chip-Level Electronics Cooling Diagnostics (Infrared Thermal Velocimetry), 2002, Cochair

R. Gamble, Decoupling, Complexity and Importance in the Design and Analysis of Complex Transport Systems, 2002, Cochair

X. Zeng, Laser Ablation of Electronic Materials Including the Effects of Energy Coupling and Plasma Interactions, 2005

C. Liu, A Study of Particle Generation During Laser Ablation with Applications, 2005

S. B. Wen, Laser-Surface Ablation including Radiation, Gas Dynamics and Ionization, 2006

M. T. Lee, Transport Phenomena in a Reformer with Micro-Power Applications, 2008

E. Urquiza-Fernandez, Transient Thermal, Hydraulic and Mechanical Analysis of a Counter Flow Off-Set Fin Intermediate Heat Exchanger, 2009, Cochair

S. J. Barcelo, Characterization and High Throughput Analysis of Metal Hydrides for Hydrogen Storage, 2009, Cochair

C. X. Kronawitter, On the Design of Oxide Films, Nanomaterials, and Heterostructures for Solar Water Oxidation Photoanodes, 2012, Cochair

T. Ho, Advanced Organic Vapor Cycles for Improving Thermal Efficiency in Renewable Energy Systems, 2012, Cochair

T. W. Suen, A Mass Spectrometry Study of Isotope Separation in the Laser Plume, 2012

M. Fina, Electrical and Optical Enhancement in Internally Nanopatterned Organic Light-Emitting Diodes, 2012, Cochair

A. Chen, On the Development of Compact Electronic Neutron and Gamma Sources, 2013, Cochair

M. Beres, Growth Studies of CIGSe and CZTS Thin Films Fabricated by Pulsed Laser Deposition and Co-Electrodeposition Methods, 2014, Cochair

C. Zheng, Innovation in Photovoltaic Science, Engineering, and Policy: A Potential Trillion-Dollar Global Industry, 2014, Cochair

J. M. Lucas, Fool's Gold, Density Functional Theory, and the Future of Photovoltaics: Experimental and Computational Approaches to Reducing the Price of Solar, 2014, Cochair

M. Ting, Electronic Band Structure Tuning of Highly-Mismatched Alloys for Energy Conversion Applications, 2017, Cochair

Faculty Supervised:

Professor M. Choi  
 Department of Mechanical Engineering  
 Seoul National University  
 San 56-1, Shinlim-Dong, Kwanak-Ku  
 Seoul, Korea

Professor O. Ezekoye  
 University of Texas at Austin  
 Department of Mechanical Engineering  
 Austin, TX 78712

Professor J. Chung  
 Department of Mechanical Engineering  
 Korea University  
 Seoul 136-7 Korea

Professor I.S. Habib  
 University of Michigan  
 Division of Engineering  
 Dearborn, MI 48128

Prof. Hasan Heperkan  
Yildiz University  
Mechanical Engineering  
Istanbul, Turkey

Professor J. Hwang  
Department of Mechanical Engineering  
Yonsei University  
Seoul 120-749 Korea

Professor S. Jeong  
Hanyang University  
Seoul, 133-791  
Korea

Professor A. Lavine, Chair  
Dept of Mechanical and Aerospace  
Engineering

Professor J.H. Lu  
Department of Mechanical Engineering  
National Chung-Hsing University  
Taichung 40277  
Taiwan

Adjunct Professor S. Mao  
University of California at Berkeley  
Department of Mechanical Engineering  
Berkeley CA 94720

Professor F. J. Miller  
San Diego State University  
Department of Mechanical Engineering  
San Diego, CA 92182-1323

Professor M.W. Nansteel  
Mechanical and Aerospace  
Engineering Dept.  
Florida Institute of Technology  
150 West University Blvd.  
Melbourne, FL 32901

Professor S. B. Wen  
Texas A & M University  
Mechanical Engineering  
College Station, Texas 77843

Professor C. X. Kronawitter  
University of California  
Chemical Engineering  
Davis, California 95616

Professor Adrienne Lavine  
University of California Los Angeles, CA

Professor M. T. Lee  
National Tsing Hua University  
Mechanical Engineering  
Hsinchu City, Taiwan

Professor Y.T. Lin  
Department of Mechanical Engineering  
Yuan-Ze Institute of Technology  
Yaoyuan, Taiwan

Professor N. Lior  
University of Pennsylvania  
Department of Mechanical Engr and Applied  
Mechanics

212 Towne Bldg. - D3  
Philadelphia, PA 19174

Professor A. Robinson, Chairman  
Carnegie Mellon University  
Dept. of Mechanical Engineering  
Pittsburgh, PA 15213

Professor T. Shiu  
University of Wisconsin  
Dept. of Mechanical Engineering  
Milwaukee, WI 53201

Professor R.N. Smith  
Rensselaer Polytechnic  
Mechanical Engineering  
Troy, NY 12181

Professor C.H. Stern  
Virginia Polytechnic Institute  
and State University  
Mechanical Engineering  
Blacksburg, VA 24061

Dean J. T. Teng  
College of Engineering  
Chung Yuan Christian University  
Chung Li, Taiwan