Comparing Heat Pipes With Enthalpy Wheels Airxchange

Two-phase Pressure Drops
ERDA Energy Research Abstracts
Solar Energy Update
Theory of Heat Pipes
Principles of Modern Chemistry
Industrializing Additive Manufacturing
Scientific and Technical Aerospace Reports
Energy Storage Systems
Encyclopedia of Renewable Energy, Sustainability and the Environment
Faber and Kell's Heating and Air Conditioning of Buildings
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AGARD Lecture Series
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Advances in Heat Pipe Technology
Advanced Research on Electronic Commerce, Web Application, and Communication
Fossil Energy Update
Functionality, Advancements and Industrial Applications of Heat Pipes
Energy: a Continuing Bibliography with Indexes
ASHRAE Journal
Handbook of Thermal Science and Engineering
Emerging Technologies in Airconditioning and Refrigeration
Thermal Design
Thermal Energy Systems
Energy Research Abstracts
Insights of Thermal Energy Storage
Heat Pipe Applications in Fission Driven Nuclear Power Plants
Introduction to Spacecraft Thermal Design
Design And Technology Of Heat Pipes For Cooling And Heat Exchange
Official Gazette of the United States Patent and Trademark Office
State-of-the-art Review of CO2 Demand Controlled Ventilation Technology and Application
Applied Mechanics Reviews
A Handbook on Low-Energy Buildings and District-Energy Systems
Journal of Heat Transfer
Advances in Heat Transfer
NASA Scientific and Technical Reports and Publications for 1969 - A Selected Listing
AIAA 90-1754 - AIAA 90-1795 (with omissions in numbering)
Oscillating Heat Pipes
Hydrogen: Its Technology and Implication

EMMALEE GRIMES

Two-phase Pressure Drops CRC Press Advances in Heat Pipe Technology covers the proceedings of the Fourth International Heat Pipe Conference, held at the Royal Aeronautical Society in London, United Kingdom on September 7-10, 1981. This conference focuses on the advances in heat pipe and thermosyphon technology. This book is organized into seven parts encompassing 69 chapters. The first part describes the design and features of heat pipes, as well as their terrestrial and spacecraft applications. The subsequent parts deal with the performance, heat transfer and hydrodynamic properties, and entrainment of thermosyphon and heat pipes, with an emphasis on their application to energy conservation. The last parts discuss the heat pipe theory, and the experimental techniques and life tests of heat pipes.

ERDA Energy Research Abstracts Elsevier First published in 1997. Routledge is an imprint of Taylor & Francis, an informa company.

Solar Energy Update John Wiley & Sons Principles of Modern ChemistryHarcourt Brace College Publishers

Theory of Heat Pipes Springer This book presents the Proceedings of the 3rd conference on Additive Manufacturing in Products and Applications AMPA2023, a conference that brought together engineers, designers, and managers to exchange ideas and knowledge on how to support real-world value chains by developing additive manufactured serial products. It covers a range of topics related to additive manufacturing (AM), including design for AM, physical and digital process chains, as well as for technology transfer into companies and applications. The book is divided in Sections such as Design for AM, Digital Process Chains, Emerging AM Technologies and Teaching & Training. In addition to these technical topics, the book also covers broader issues related to additive manufacturing, such as Manufacturing Readiness Levels, implementing AM machines into the existing production chain, and quality assurance and control mechanisms.

Principles of Modern Chemistry Elsevier A heat pipe is a self-contained structure which achieves very high thermal conductance by means of two-phase fluid flow with capillary circulation. A quantitative engineering theory for the design and performance analysis of heat pipes is given.

Principles of Modern Chemistry
Proceedings of the NATO Advanced Study Institute, Çesme, Izmir, Turkey, 27 June-8 July, 1988
Industrializing Additive Manufacturing CRC Press
Encyclopedia of Renewable Energy, Sustainability and the Environment, Four Volume Set comprehensively covers all renewable energy resources, including wind, solar, hydro, biomass, geothermal energy, and nuclear power, to name a few. In addition to covering the breadth of renewable energy resources at a fundamental level, this encyclopedia delves into the utilization and ideal applications of each resource and assesses them from environmental, economic, and policy standpoints. This book will serve as an ideal introduction to any renewable energy source for students, while also allowing them to learn about a topic in more depth and explore related topics, all in a single resource.Instructors, researchers, and industry professionals will also benefit from this comprehensive reference. - Covers all renewable energy technologies in one comprehensive resource - Details renewable energies' processes, from production to utilization in a single encyclopedia - Organizes topics into concise, consistently formatted chapters, perfect for readers who are new to the field - Assesses economic challenges faced to implement each type of renewable energy - Addresses the challenges of replacing fossil fuels with renewables and covers the environmental impacts of each renewable energy
Scientific and Technical Aerospace Reports CRC Press
Volume II of this series provides detailed design information on systems necessary for the storage, transfer, and transmission of gaseous and liquid hydrogen.Cost factors, technical aspects, and models of hydrogen pipeline systems are included together with a discussion of materials for hydrogen service. Metallic hydride gaseous storage systems for the utility and transportation industry are covered in detail, and the design Dewars and liquid hydrogen transfer systems are examined.This series in 5 volumes represents a serious attempt at providing information on all aspects of hydrogen at the postgraduate and professional level. It discusses recent developments in the science and technology of hydrogen production; hydrogen transmission and storage; hydrogen utilization; and the social, legal, political environmental, and economic implications of hydrogen‘s adoption as an energy medium.
Energy Storage Systems Springer Science & Business Media
Develop a fundamental understanding of heat transfer analysis techniques as applied to earth based spacecraft with this practical guide. Written in a tutorial style, this essential text provides a how-to manual tailored for those who wish to understand and develop spacecraft thermal analyses. Providing an overview of basic heat transfer analysis fundamentals such as thermal circuits, limiting resistance, MLI, environmental thermal sources and sinks, as well as contemporary space based thermal technologies, and the distinctions between design considerations inherent to room temperature and cryogenic temperature applications, this is the perfect tool for graduate students, professionals and academic researchers.
Encyclopedia of Renewable Energy, Sustainability and the Environment DIANE Publishing
The two-volume set CCIS 143 and CCIS 144 constitutes the refereed proceedings of the International Conference on Electronic Commerce, Web Application, and Communication, ECWAC 2011, held in Guangzhou, China, in April 2011. The 148 revised full papers presented in both volumes were carefully reviewed and selected from a large number of submissions. Providing a forum for engineers, scientists, researchers in electronic commerce, Web application, and communication fields, the conference will put special focus also on aspects such as e-business, e-learning, and e-security, intelligent information applications, database and system security, image and video signal processing, pattern recognition, information science, industrial automation, process control, user/machine systems, security, integrity, and protection, as well as mobile and multimedia communications.
Faber and Kell's Heating and Air Conditioning of Buildings Blue Rose Publishers
Winner of Choice Magazine - Outstanding Academic Titles for 2007 Buildings account for over one third of global energy use and associated greenhouse gas emissions worldwide. Reducing energy use by buildings is therefore an essential part of any strategy to reduce greenhouse gas emissions, and thereby lessen the likelihood of potentially catastrophic climate change. Bringing together a wealth of hard-to-obtain information on energy use and energy efficiency in buildings at a level which can be easily digested and applied, Danny Harvey offers a comprehensive, objective and critical sourcebook on low-energy buildings. Topics covered include: thermal envelopes, heating, cooling, heat pumps, HVAC systems, hot water, lighting, solar energy, appliances and office equipment, embodied energy, buildings as systems and community-integrated energy systems (cogeneration, district heating, and district cooling). The book includes exemplary buildings and techniques from North America, Europe and Asia, and combines a broad, holistic perspective with technical detail in an accessible and insightful manner.
Preprints Springer Nature
The control of outdoor air intake rates in mechanically ventilated bldgs. based on indoor carbon dioxide (CO2) levels, often referred to as CO2 demand controlled ventilation (DCV), has the potential for reducing the energy consumption assoc. with bldg. ventilation in commercial and institutional bldgs. CO2 DCV has been studied for 20+ years, but questions still remain re: the actual energy savings potential as a function of climate, ventilation system features, and bldg. occupancy. In addition, questions exist as to the indoor air quality impacts of the approach and the best way to implement CO2 DCV in a given bldg. This report presents a state-of-the-art review of CO2 DCV technology and application incl. discussion of the concept and its application, and a literature review.
AGARD Lecture Series Springer Science & Business Media
Heat transfer is the exchange of heat energy between a system and its surrounding environment, which results from a temperature difference and takes place by means of a process of thermal conduction, mechanical convection, or electromagnetic radiation. Advances in Heat Transfer is designed to fill the information gap between regularly scheduled journals and university-level textbooks by providing in-depth review articles over a broader scope than is allowable in either journals or texts.
Unit Operations in Food Processing Harcourt Brace College Publishers
This long awaited second edition of a popular textbook has a simple and direct approach to the diversity and complexity of food processing. It explains the principles of operations and illustrates them by individual processes. The new edition has been enlarged to include sections on freezing, drying, psychrometry, and a completely new section on mechanical refrigeration. All the units have been converted to SI measure. Each chapter contains unworked examples to help the student gain a grasp of the subject, and although primarily intended

for the student food technologist or process engineer, this book will also be useful to technical workers in the food industry

Nuclear Science Abstracts Academic Press

PRINCIPLES OF MODERN CHEMISTRY has dominated the honors and high mainstream general chemistry courses and is considered the standard for the course. The fifth edition is a substantial revision that maintains the rigor of previous editions but reflects the exciting modern developments taking place in chemistry today. Authors David W. Oxtoby and H. P. Gillis provide a unique approach to learning chemical principles that emphasizes the total scientific process'from observation to application'placing general chemistry into a complete perspective for serious-minded science and engineering students. Chemical principles are illustrated by the use of modern materials, comparable to equipment found in the scientific industry. Students are therefore exposed to chemistry and its applications beyond the classroom. This text is perfect for those instructors who are looking for a more advanced general chemistry textbook.

Advances in Heat Pipe Technology Springer

This Handbook provides researchers, faculty, design engineers in industrial R&D, and practicing engineers in the field concise treatments of advanced and more-recently established topics in thermal science and engineering, with an important emphasis on micro- and nanosystems, not covered in earlier references on applied thermal science, heat transfer or relevant aspects of mechanical/chemical engineering. Major sections address new developments in heat transfer, transport phenomena, single- and multiphase flows with energy transfer, thermal-bioengineering, thermal radiation, combined mode heat transfer, coupled heat and mass transfer, and energy systems. Energy transport at the macro-scale and micro/nano-scales is also included. The internationally recognized team of authors adopt a consistent and systematic approach and writing style, including ample cross reference among topics, offering readers a user-friendly knowledgebase greater than the sum of its parts, perfect for frequent consultation. The Handbook of Thermal Science and Engineering is ideal for academic and professional readers in the traditional and emerging areas of mechanical engineering, chemical engineering, aerospace engineering, bioengineering, electronics fabrication, energy, and manufacturing concerned with the influence thermal phenomena.

Advanced Research on Electronic Commerce, Web Application, and Communication Elsevier

This book presents a new and innovative approach for the use of heat pipes and their application in a number of industrial scenarios, including space and nuclear power plants. The book opens by describing the heat pipe and its concept, including sizing, composition and binding energies. It contains mathematical models of high and low temperature pipes along with extensive design and manufacturing models, characteristics and testing programs. A detailed design and safety analysis concludes the book, emphasizing the importance of heat pipe implementation within the main cooling system and within the core of the reactor, making this book a useful resource for students, engineers, and researchers.

Fossil Energy Update Routledge

This book delves into advanced methodologies for storing thermal energy, emphasizing the high energy density and isothermal benefits of latent heat storage (LHS) using phase change materials (PCM). Focusing on solar water heating applications, the study explores the enhancement of LHS performance through both experimental and numerical analyses, with a central focus on the impacts of geometrical and operational parameters, including various fin configurations and the use of nanomaterials to improve the thermal properties of paraffin wax. The book presents comprehensive experimental results on LHS charging and discharging under diverse conditions, comparing modified geometries and nanomaterial-enhanced PCMs. Additionally, a robust numerical model simulates these processes and performs exergy analysis, highlighting the significance of fin configurations and nanomaterial dispersion. "Insights of Thermal Energy Storage" is an essential resource for researchers and practitioners aiming to optimize thermal energy storage systems for solar applications, providing in-depth analysis and practical solutions for enhanced energy efficiency.

Functionality, Advancements and Industrial Applications of Heat Pipes Routledge

This book presents the fundamental fluid flow and heat transfer principles occurring in oscillating heat pipes and also provides updated developments and recent innovations in research and applications of heat pipes. Starting with fundamental presentation of heat pipes, the focus is on oscillating motions and its heat transfer enhancement in a two-phase heat transfer system. The book covers thermodynamic analysis, interfacial phenomenon, thin film evaporation, theoretical models of oscillating motion and heat transfer of single phase and two-phase flows, primary factors affecting oscillating motions and heat transfer, neutron imaging study of oscillating motions in an oscillating heat pipes, and nanofluid’s effect on the heat transfer performance in oscillating heat pipes. The importance of thermally-excited oscillating motion combined with phase change heat transfer to a wide variety of applications is emphasized. This book is an essential resource and learning tool for senior undergraduate, graduate students, practicing engineers, researchers, and scientists working in the area of heat pipes. This book also · Includes detailed descriptions on how an oscillating heat pipe is fabricated, tested, and utilized · Covers fundamentals of oscillating flow and heat transfer in an oscillating heat pipe · Provides general presentation of conventional heat pipes

Energy: a Continuing Bibliography with Indexes Academic Press

This book describes the characteristics of heat pipes under steady-state and transient operating conditions. It emphasizes the physical aspects of heat pipe behavior and develops design formulas on the basis of mathematical models and empirical observation. The author take a tutorial approach, presenting information on the application of heat pipe technology, design methods, and data to heat pipe cooling and heat exchange requirements. He provides the nonspecialist with sufficient understanding of heat pipe technology to appreciate and assess its application potential, while also meeting the needs of the experienced heat pipe designer and researcher.