1. Record Nr. UNINA9910797522003321

Titolo	Microchannel phase change transport phenomena / / edited by Sujoy K. Saha
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : Butterworth-Heinemann, , 2016 ©2016
ISBN	0-12-804356-3
Descrizione fisica	1 online resource (0 p.)
Disciplina	621.4022
Soggetti	Heat - Transmission Integrated circuits - Cooling Microreactors
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	List of contributors. Foreword by G.F. Hewitt. Foreword by Cees W.M. van der Geld. Critical review by Masahiro Kawaji. Critical review by Lounes Tadrist. Editorial by Sujoy Kumar Saha. 1 Introduction / Sujoy K. Saha, Gian P. Celata -- References. 2 Onset of nucleate boiling, void fraction, and liquid film thickness / Durga P. Ghosh, Rishi Raj, Diptimoy Mohanty, Sandip K. Saha : Onset of nucleate boiling -- Void fraction in microchannels -- Liquid film thickness measurement -- References. 3 Flow patterns and bubble growth in microchannels / Lixin Cheng : Introduction -- Criteria for distinction of macro and microchannels -- Fundamentals of flow patterns in macro and microchannels -- Flow patterns and flow pattern maps in microchannels -- Current research progress on bubble growth in microchannels -- Concluding remarks -- References 4 Flow boiling heat transfer with models in microchannels / Lixin Cheng : Introduction -- Flow boiling heat transfer in microchannels -- Correlations and models of flow boiling heat transfer in microchannels -- Models of flow boiling heat transfer for specific flow patterns in microchannels -- Concluding remarks -- Nomenclature -- References. 5 Pressure drop / Sujoy K. Saha, Gian P. Celata : Introduction -- Studies on flow characteristics of water in microtubes -- Effect of header shapes on fluid flow characteristics --

Pressure loss investigation in rectangular channels with large aspect ratio -- Effect of shape and geometrical parameters on pressure drop closure -- Nomenclature -- References. 6 Critical heat flux for boiling in microchannels / P.K. Das, A.K. Das : Introduction -- CHF in pool boiling and flow boiling in microchannels: present state of understanding -- Some general observations on boiling in microchannels and associated CHF -- Experimental investigations of CHF -- Prediction of CHF through correlations -- Physical mechanism and mechanistic models -- Present state of understanding and prediction of CHF in microchannels -- Gray areas and research needs -- Nomenclature -- References. 7 Instability in flow boiling through microchannels / P.K. Das, A.K. Das : Introduction -- Instability: a general overview -- Experimental investigations -- Analysis of instability in flow boiling through microchannels -- Efforts to suppress the instability in flow boiling through microchannels -- Reduction of instability in flow boiling through microchannels: achievements and challenges -- Nomenclature -- References. 8 Condensation in microchannels / Gherhardt Ribatski, Jaqueline D. Da Silva : Introduction -- Convective condensation -- Condensation inside small diameter channels -- Methods for prediction of heat transfer coefficient and pressure drop for condensation inside small-diameter channels -- Nomenclature -- References. 9 Conclusions / Sujoy K. Saha, Gian P. Celata. Index.

Sommario/riassunto

This book offers the latest research and recommended models on the microsized cooling system, which not only significantly reduces the weight load but also enhances the capability to remove a much greater amount of heat than any large-scale cooling systems. A detailed reference to microchannel phase change (boiling and condensation) includes recommended models and correlations for various requirements such as pressure loss and heat transfer coefficient. Researchers, engineers, designers, and students will benefit from the collated, state-of-the-art research that is found in this book and its systematic addressing of the relevant issues and provision of a good reference for solving problems of critical analysis.

2. Record Nr. UNINA9910431347503321

Autore	Resch Klaus D. M.
Titolo	Key Concepts in MIN - Intracerebral Hemorrhage Evacuation : Volume 1: Basics / / by Klaus Dieter Maria Resch
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-46513-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XIX, 396 p. 470 illus., 464 illus. in color.)
Collana	Key-Concepts in MIN, , 2662-7213 ; ; 1
Disciplina	617.48
Soggetti	Nervous system - Surgery Endoscopic surgery Neurology Neurosciences Neurosurgery Minimally Invasive Surgery Neuroscience
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1 Evolution of the Keyhole Concept: The MIN-Key Concept -- Recent Roots of MIN -- The Role of Ergonomics for MIN -- The Multimodal Key Techniques of MIN -- Laboratory Simulation and Training for MIN -- Laboratory Simulation and Training for MIN -- Scientific Preliminaries for MIN -- Part 2 Clinical Cases -- Subcortical Bleedings -- Ganglia Bleedings -- Ventricular Bleedings -- Deep Seated Parenchymal Bleedings -- Neuropsych Effective Bleedings -- Complex Cases -- Not Operated Cases -- Contraindications -- Extraparenchymal Bleeding Cases -- Future perspectives.
Sommario/riassunto	This is the first of four volumes that together elaborate on an advanced minimally invasive neurosurgery (MIN) technique for cerebral hemorrhages, which makes it possible to prevent secondary injury by the hematoma and to preserve neurological function and accelerate neuropsychological recovery after the evacuation. It describes in detail the theoretical, technical and training procedures necessary to carry out successful intracerebral hemorrhage evacuations using MIN techniques.

A combination of mouth-tracked microsurgery, neuro-sonography, neuro-endoscopy, LASER and sealing makes highly effective, minimally invasive evacuation of all types of hematomas possible. The MIN Key Concept, an advanced new model based on the Keyhole Concept and MIN techniques is also presented. Lastly, the scientific basics of MIN are discussed and summarized. A historical curriculum vitae is included in memory of the main pioneer of innovative MIN techniques, Prof. Axel Perneczky, to whom this book is dedicated.