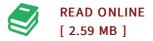




# Capillary Flow and Collapse in Wedge-Shaped Channels

By Jörg Klatte

Cuvillier Verlag Jan 2012, 2012. Buch. Book Condition: Neu. 212x147x12 mm. Neuware - The forced, isothermal, and incompressible capillary channel flow has been studied theoretically, experimentally, and numerically in this work using the example of an open wedge-shaped channel with a finite length. The curvature of the interface at the open side of the channel is coupled to the pressure difference between the surrounding gas pressure and liquid pressure along the flow path, and thus, a flow rate limit exists, above which the interface collapses. This work investigates this collapse phenomenon as a function of the channel geometry. The derivation of a one-dimensional differential flow equation is based on the streamline theory. The local pressure loss and both principal mean radii of curvature at the free surface are considered. To approximate the local pressure loss, the fullydeveloped flow profiles were compared to the threedimensional numerical flow profiles. The physical understanding of the collapse behavior is generalized with the detection of a second characteristic collapse phenomena. In the inertial limit, the interface chokes at the smallest crosssection. In the viscous limit, the interface collapses at the outlet. A dimensionless number has been introduced, which classifies the inertial and viscous regime. Three...



#### Reviews

This publication will be worth purchasing. It is writter in straightforward words and not hard to understand. I am just very happy to explain how here is the best ebook we have read in my own lifestyle and might be he best publication for at any time.

-- Devante Mante

This is the greatest book i have read through till now. It usually fails to charge excessive. You can expect to like how the blogger publish this ebook.

-- Adan Dickinson

# You May Also Like



#### Programming in D

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware - The main aim of this book is to teach D to readers who are new to computer programming. Although...



## **Psychologisches Testverfahren**

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG, Eignungstest für das Medizinstudium, Adult Attachment Interview,...



# Adobe Indesign CS/Cs2 Breakthroughs

Peachpit Press, 2005. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Adobe InDesign is taking the publishing world by storm and users are hungry for breakthrough solutions to...



#### When Santa Claus Prayed

Xulon Press. Paperback. Book Condition: New. Paperback. 28 pages. Dimensions: 9.0in. x 8.1in. x 0.3in.Dad, youre wrong about Santa Claus! I cant sit on baby Jesuss lap or even see him! I cant send letters to Jesus! Santa Claus is the star...



# The Java Tutorial (3rd Edition)

Pearson Education, 2001. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Praise for "The Java' Tutorial, Second Edition" includes: "This book stands above the rest because it has...



## Have You Locked the Castle Gate?

Addison-Wesley Professional. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Is your computer safe Could an intruder sneak in and steal your information, or plant a virus Have...