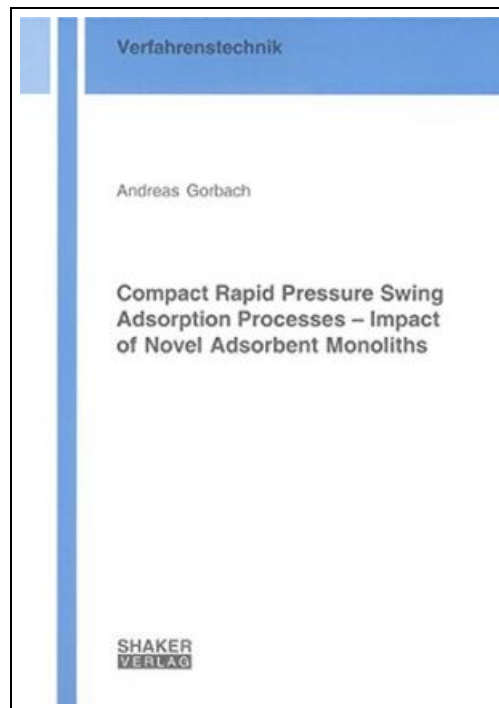


Compact Rapid Pressure Swing Adsorption Processes - Impact of Novel Adsorbent Monoliths



Filesize: 8.4 MB

Reviews

Comprehensive manual! Its this sort of excellent read through. We have read through and i also am certain that i will going to read through once more again later on. You wont sense monotony at at any time of your time (that's what catalogs are for regarding in the event you question me).

(Prof. Geraldine Monahan)

COMPACT RAPID PRESSURE SWING ADSORPTION PROCESSES - IMPACT OF NOVEL ADSORBENT MONOLITHS



Shaker Verlag Apr 2006, 2006. Taschenbuch. Book Condition: Neu. 210x149x14 mm. Neuware - Regarding the development of energetically efficient units for gas separation and gas purification, Pressure Swing Adsorption (PSA) processes offer a profitable approach. Particularly in small scale applications the compact design of the adsorber is crucial. To achieve the required high productivity, short cycle times must be applied and hence small adsorbent particles must be used, providing sufficiently fast adsorption kinetics. This has been characterized by the term Rapid Pressure Swing Adsorption (RPSA). However, high pressure drop and low mechanical stability of the adsorbent are the limiting factors for particle size and thus process optimization. The approach considered in this work is based upon the usage of novel monolithic adsorbent-polymer materials, featuring low pressure drop and high mechanical stability. The monoliths are manufactured by extrusion of highly filled zeolitic polymer matrices using thermoplastic materials as plasticizing aid and binder. After the forming process, the added wax is removed by thermal after-treatment, creating a secondary pore structure in the polymer matrix and hence specifying its resulting mass transport properties. The potential of this development is evaluated by comparing both adsorption equilibria and adsorption kinetics of the new-type adsorbents with commercial adsorbent pellets used in randomly packed beds. The thermodynamic equilibrium has been quantified in an automated, isothermal high vacuum apparatus based on a static-volumetric principle. The mass-transfer is determined by a common dynamic-column breakthrough method. The adsorption of water vapor on a Zeolite 4A-Polyamide compound is considered as example case. In a next step, proper models for adsorption equilibria and kinetics have been developed, fit to the measured data and implemented into a detailed RPSA process model. This model has been validated with an experimental setup of a single column RPSA unit. Since the approach of the Cyclic Steady...



[Read Compact Rapid Pressure Swing Adsorption Processes - Impact of Novel Adsorbent Monoliths Online](#)
[Download PDF Compact Rapid Pressure Swing Adsorption Processes - Impact of Novel Adsorbent Monoliths](#)

See Also



The Kid Friendly ADHD and Autism Cookbook The Ultimate Guide to the Gluten Free Casein Free Diet by Pamela J Compart and Dana Laake 2006 Hardcover

Book Condition: Brand New. Book Condition: Brand New.

[Read ePub »](#)



The About com Guide to Baby Care A Complete Resource for Your Babys Health Development and Happiness by Robin Elise Weiss 2007 Paperback

Book Condition: Brand New. Book Condition: Brand New.

[Read ePub »](#)



The Complete Idiots Guide Complete Idiots Guide to Baby Sign Language by Diane Ryan 2006 Paperback

Book Condition: Brand New. Book Condition: Brand New.

[Read ePub »](#)



Runners World Guide to Running and Pregnancy How to Stay Fit Keep Safe and Have a Healthy Baby by Chris Lundgren 2003 Paperback Revised

Book Condition: Brand New. Book Condition: Brand New.

[Read ePub »](#)



Edge China student growth must read: China Children's Encyclopedia of intellectual development (graphic. Single(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date: 2012 Pages: 207 Publisher: the Shantou University Shop Books all book...

[Read ePub »](#)

**Words That Must Somehow Be Said: Selected Essays, 1927-1984**

Farrar Straus & Giroux. PAPERBACK. Book Condition: New. 0865471886 12+ Year Old paperback book-Never Read-may have light shelf for handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy- I

[Save PDF »](#)

**Baby Must Haves The Essential Guide to Everything from Cribs to Bibs 2007 Paperback**

Book Condition: Brand New. Book Condition: Brand New.

[Save PDF »](#)

**The Pursued: Is That Drum Beats? Lamar Stein Heard Beats Warning of an Evil Set Loose on Piedmont! This Is the Root Hard or Die Story of the Life and Times of My Father and Mother. My Sister and Me, Bystanders on Appalachian Mountains Hillside. (Paperback**

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****.Euphoria broke out in the hitching alley by the time my father reached

[Save PDF »](#)

**Becoming Barenaked: Leaving a Six Figure Career, Selling All of Our Crap, Pulling the Kids Out of School, and Buying an RV We Hit the Road in Search Our Own American Dream. Redefining What It Meant to Be a Family in America.**

Createspace, United States, 2015. Paperback. Book Condition: New. 258 x 208 mm. Language: English . Brand New Book ***** Print on Demand *****.This isn't porn. Everyone always asks and some of our family thinks

[Save PDF »](#)

**Child and Adolescent Development for Educators with Free Making the Grade**

Book Condition: Brand New. Book Condition: Brand New.

[Save PDF »](#)