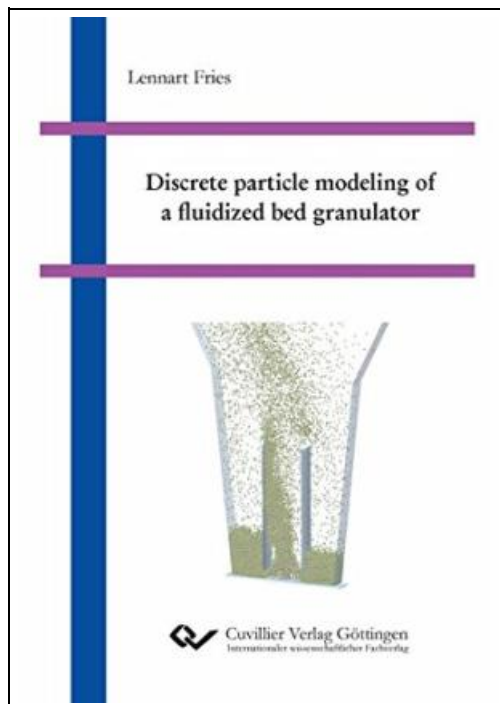# Discrete particle modeling of a fluidized bed granulator

Filesize: 1.52 MB

Reviews

This pdf might be well worth a study, and a lot better than other. It really is simplistic but excitement inside the fifty percent in the book. Its been printed in an exceedingly straightforward way which is just after i finished reading this ebook through which really modified me, modify the way i believe.

(Derick Brekke)

DISCRETE PARTICLE MODELING OF A FLUIDIZED BED GRANULATOR

Cuvillier Verlag Okt 2012, 2012. Taschenbuch. Condition: Neu. Neuware - Size-enlargement and structuration processes in fluidized beds such as granulation and agglomeration play an important role in the pharmaceutical and fine chemical industries as well as in food technology to improve the flowability and the instant properties of solid products. Dustfree and free-flowing particles can be produced in a process with favourable heat- and mass transfer conditions. Furthermore, this technology allows the formulation of particles with novel functionalities by applying coating layers or via the encapsulation of active ingredients. Several interdependent micro mechanisms including particle collisions, wetting, drying and phase transitions govern the process dynamics and complicate predictions on the effect of variable operating conditions on product properties such as structure, strength and re-dissolution behaviour. Profound knowledge on these mechanisms is needed to understand the influence of individual process parameters on the final product properties.A suitable approach to model the particle interactions in fluidized beds is the Discrete Element Method (DEM) coupled with Computational Fluid Dynamics (CFD). Information on gas and particle velocities, particle rotation and collision dynamics, which are very complicated to measure in fluidized beds, can be studied in detail with this technique.This thesis presents DEM-CFD simulation results for three different granulator configurations (top-spray, Wurster-coater, spouted bed) in comparison to experimental results, regarding the agglomeration of amorphous maltodextrin (DE 21). In simulation and experiment the identical geometry of the equipment was used. Mechanical material properties, such as the coefficient of restitution and the Young's modulus, which are required for the DEM model and which are frequently used as fitting parameters, were measured via static and dynamic deformation tests using maltodextrin agglomerates, beads and bars. The strength of the experimentally produced agglomerates was characterized with a compression tester. Their flow behaviour was assessed with the help of a shear...

- Read Discrete particle modeling of a fluidized bed granulator Online
- Download PDF Discrete particle modeling of a fluidized bed granulator

Relevant Books

Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Six Steps to Inclusive Preschool Curriculum: A UDL-Based Framework for Children's School Success, Eva M. Horn, Susan B. Palmer, Gretchen D. Butera, Joan A. Lieber, How...

Download eBook

»

Dom's Dragon - Read it Yourself with Ladybird: Level 2

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Dom's Dragon - Read it Yourself with Ladybird: Level 2, Mandy Ross, One day, Dom finds a little red egg and soon he is the owner...

Download eBook

»

Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age

Adams Media Corporation. Paperback. Book Condition: new. BRAND NEW, Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age, David Dutwin, TV. Web Surfing. IMing. Text Messaging. Video...

Download eBook

»

I Am Reading: Nurturing Young Children s Meaning Making and Joyful Engagement with Any Book

Heinemann Educational Books, United States, 2015. Paperback. Book Condition: New. 234 x 185 mm. Language: English . Brand New Book. It s vital that we support young children s reading in ways that nurture healthy...

Download eBook

»

A Dog of Flanders: Unabridged; In Easy-to-Read Type (Dover Children's Thrift Classics)

Dover Publications, 2011. Paperback. Book Condition: New. No Jacket. New paperback book copy of A Dog of Flanders by Ouida (Marie Louise de la Ramee). Unabridged in easy to read type. Dover Children's Thrift Classic....

Download eBook

»

Topsy and Tim: The Big Race - Read it Yourself with Ladybird: Level 2

Penguin Books Ltd. Paperback. Book Condition: new. BRAND NEW, Topsy and Tim: The Big Race - Read it Yourself with Ladybird: Level 2, Jean Adamson, This is an enhanced read-along audio ebook from Ladybird. An

Save Document

»

city and people. sociological narrative

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Publisher: Dalian University of Technology Press Pub. Date :2010-05-01. incorporated into the collection

Save Document

»

Coping with Chloe

Phoenix Yard Books. Paperback. Book Condition: new. BRAND NEW, Coping with Chloe, Rosalie Warren, Anna and Chloe are twins. They share everything. Even Chloe's terrible accident hasn't split them apart. But Anna is beginning to

Save Document

»

Kingfisher Readers: Dinosaur World (Level 3: Reading Alone with Some Help) (Unabridged)

Pan Macmillan. Paperback. Book Condition: new. BRAND NEW, Kingfisher Readers: Dinosaur World (Level 3: Reading Alone with Some Help) (Unabridged), Claire Llewellyn, For the first time, Kingfisher brings its expertise in beautifully-designed, trusted non-fiction to

Save Document

»

Tax Practice (2nd edition five-year higher vocational education and the accounting profession teaching the book)(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Pages Number: 282 Publisher: Higher Education Pub. Date :2009-01-01 version 2. This book is

Save Document

»