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Particle Technology and Applications 2016-04-19

particle technology and applications presents the theoretical and technological background of particle science and explores up to date applications of particle technologies in the chemical petrochemical energy mechanical and materials industries it looks at the importance of particle science and technology in the development of efficient chemi

Population Balances 2000-08-08

engineers encounter particles in a variety of systems the particles are either naturally present or engineered into these systems in either case these particles often significantly affect the behavior of such systems this book provides a framework for analyzing these dispersed phase systems and describes how to synthesize the behavior of the population particles and their environment from the behavior of single particles in their local environments population balances are of key relevance to a very diverse group of scientists including astrophysicists high energy physicists geophysicists colloid chemists biophysicists materials scientists chemical engineers and meteorologists chemical engineers have put population balances to most use with applications in the areas of crystallization gas liquid liquid liquid and solid liquid dispersions liquid membrane systems fluidized bed reactors aerosol reactors and microbial cultures ramkrishna provides a clear and general treatment of population balances with emphasis on their wide range of applicability new insight into population balance models incorporating random particle growth dynamic morphological structure and complex multivariate formulations with a clear exposition of their mathematical derivation is presented population balances provides the only available treatment of the solution of inverse problems essential for identification of population balance models for breakage and aggregation processes particle nucleation growth processes and more this book is especially useful for process engineers interested in the simulation and control of particulate systems additionally comprehensive treatment of the stochastic formulation of small systems provides for the modeling of stochastic systems with promising new areas of applications such as the design of sterilization systems and radiation treatment of cancerous tumors a clear and general treatment of population balances with emphasis on their wide range of applicability thus all processes involving solid fluid and liquid liquid dispersions biological populations etc are encompassed provides new insight into population balance models incorporating random particle growth dynamic morphological structure and complex multivariate formulations with a clear exposition of their mathematical derivation presents a wide range of solution techniques monte carlo simulation methods with a lucid exposition of their origin and scope for enhancing computational efficiency an account of self similar solutions of population balance equations and their significance to the treatment of data on particulate systems the only available treatment of the solution of inverse problems essential for identification of population balance models for breakage and aggregation processes particle nucleation and growth processes and so on a comprehensive treatment of the stochastic formulation of small systems with several new applications

Low Reynolds number hydrodynamics 2012-12-06

one studying the motion of fluids relative to particulate systems is soon impressed by the dichotomy which exists between books covering theoretical and practical aspects classical hydrodynamics is largely concerned with perfect fluids which unfortunately exert no forces on the particles past which they move practical approaches to subjects like fluidization sedimentation and flow through porous media abound in much useful but uncorrelated empirical information the present book represents an attempt to bridge this gap by providing at least the beginnings of a rational approach to fluid particle dynamics based on first principles from the pedagogic viewpoint it seems worthwhile to show that the navier stokes equations which form the basis of all systematic texts can be employed for useful practical applications beyond the elementary problems of laminar flow in pipes and stokes law for the motion of a single particle although a suspension may often be viewed as a continuum for practical purposes it really consists of a discrete collection of particles immersed in an essentially continuous fluid consideration of the actual detailed boundary value problems posed by this viewpoint may serve to call attention to the limitation of idealizations which apply to the overall transport properties of a mixture of fluid and solid particles

Low Reynolds number hydrodynamics with special applications to particulate media 1965

presents the latest research on the flow and structure of complex particulate systems the adsorption behavior of polymers and the consolidation behavior and mechanical properties of films highlights recent advances in polymer functionality conformation and chemistry for biological biomedical and industrial applications

Polymers in Particulate Systems 2001-11-09

naturally occurring or manufactured through chemical and or physical processes particulate materials are substances consisting of individual particles which have significance to the global economy society and environments due to the diversity and intrinsic nature manufacturing handling and processing of particulate materials still face numerous challenges aimed at addressing these challenges this book contains a selection of papers discussing the state of the art research in

particulate materials science that were presented at the uk china particle technology forum iii held at birmingham uk in 2011 classified into four distinct topics namely synthesis characterisation processing and modelling the chapters showcase the advances in these areas including a range of advanced synthesis methods for example spray pyrolysis supercritical fluid synthesis assisted with ultrasound continuous synthesis using supercritical water hydrothermal synthesis of nano particulate materials and jet milling for characterisation various methods for characterising particulate materials at both particle and system levels are introduced and how these properties affect the behaviour of particulate materials in various processes such as inhalation filling and consolidation are discussed in the processing section recent advances such as capsule filling micro dosing dry granulation roll compaction milling and more are presented the last section concerns mathematical and numerical modelling in particulate materials for which the book includes both analytical methods and advanced numerical methods such as discrete element methods dem computational fluid dynamics cfd lattice boltzmann methods lbm coupled dem cfd and dem lbm and their applications particulate materials is aimed at research communities dealing with these diverse materials and scientists and engineers in powder handling industries such as pharmaceutical food fine chemical and detergents

Low Reynolds Number Hydrodynamics 1983

aerosol measurement principles techniques and applications third edition is the most detailed treatment available of the latest aerosol measurement methods drawing on the know how of numerous expert contributors it provides a solid grasp of measurement fundamentals and practices a wide variety of aerosol applications this new edition is updated to address new and developing applications of aerosol measurement including applications in environmental health atmospheric science climate change air pollution public health nanotechnology particle and powder technology pharmaceutical research and development clean room technology integrated circuit manufacture and nuclear waste management

Particulate Materials 2011-11-16

understanding the unit operation of particulate drying is imperative to yield products with desired properties and characteristics and ensure safety energy efficiency and performance and low environmental impact the book gives an overview of particulate drying techniques advantages and limitations industrial applications and design methods

Particle Size: Measurement, Interpretation, and Application 1963

the book contains 11 chapters written by relevant scientists in the field of particle based methods and their applications in engineering and applied sciences the chapters cover most particle based techniques used in practice including the discrete element method the smooth particle hydrodynamic method and the particle finite element method the book will be of interest to researchers and engineers interested in the fundamentals of particle based methods and their applications

Aerosol Measurement 2011-09-09

aerosol technology an in depth and accessible treatment of aerosol theory and its applications the third edition of aerosol technology properties behavior and measurement of airborne particles delivers a thorough and authoritative exploration of modern aerosol theory and its applications the book offers readers a working knowledge of the topic that reflects the numerous advances that have been made across a broad spectrum of aerosol related application areas new updates to the popular text include treatments of nanoparticles the health effects of atmospheric aerosols remote sensing bioaerosols and low cost sensors additionally readers will benefit from insightful new discussions of modern instruments the authors maintain a strong focus on the fundamentals of the discipline while providing a robust overview of real world applications of aerosol theory new exercise problems and examples populate the book which also includes thorough introductions to aerosol technology key definitions particle size shape density and concentration as well as the properties of gases comprehensive explorations of uniform particle motion particle size statistics and straight line acceleration and curvilinear particle motion practical discussions of particle adhesion brownian motion and diffusion thermal and radiometric forces and filtration in depth examinations of sampling and measurement of concentration respiratory deposition coagulation condensation evaporation and atmospheric aerosols perfect for senior undergraduate and junior graduate students of science and technology aerosol technology properties behavior and measurement of airborne particles will also earn a place in the libraries of professionals working in industrial hygiene air pollution control climate science radiation protection and environmental science

Particulate Drying 2023-05-12

the aim of this handbook is to provide a comprehensive summary of the field of particle science and technology which includes most updated research findings and their applications in different industries it is hoped that the consolidated knowledge described by this handbook will inspire more innovative ideas to bring the field forward the size of the particles may range from nanometer scale as in pigments or aerosols to that of mined or quarried materials the handbook will cover the topics ranging from the formation and synthesis packing and flow and application

of these particles each part is explored in great details in different sections and chapters it is written by a pool of international well known scholars as well as industrial experts the handbook fully reflects the state of the art in particle science and technology

Particle-Based Methods 2011-02-17

this book is intended to gather recent studies on particle swarm optimization pso in this book readers can find the recent theoretical developments and applications on pso algorithm from the theoretical aspect pso has preserved its popularity because of the fast convergence rate and a lot of hybrid algorithms have recently been developed in order to increase the performance of the algorithm at the same time pso has also been used to solve different kinds of engineering optimization problems in this book a reader can find engineering applications of pso such as environmental economic dispatch and grid computing

Handbook of Particulate Drug Delivery: Applications 2008

fluidization is a technique that enables solid particles to take on some of the properties of a fluid despite being very widely used within the food processing industry understanding of this important technique is often limited applications of fluidization to food processing sets out the established theory of fluidization and relates this to food processing applications particularly in drying freezing mixing granulation fermentation this important and thorough book written by peter smith who has many years experience teaching and researching in food processing is an essential tool and reference for food scientists and technologists and engineers working within the food industry libraries and research and development groups within all universities and research establishments where food science food studies food technology physics and engineering are studied and taught should have copies of this useful book

Aerosol Technology 2022-04-20

this volume in mathematics and its applications particulate flows processing and rheology is based on the proceedings of a very successful one week workshop with the same title which was an integral part of the 1995 1996 ima program on mathematical methods in materials science we would like to thank donald a drew daniel d joseph and stephen l passman for their excellent work as organizers of the meeting we also take this opportunity to thank the national science foundation nsf the army research office aro and the office of naval research onr whose financial support made the workshop possible a vner friedman robert gulliver v preface the workshop on particulate flows processing and rheology was held january 8 12 1996 at the institute for mathematics and its applications on the university of minnesota twin cities campus as part of the 1995 96 program on mathematical methods in materials science there were about forty participants and some lively discussions in spite of the fact that bad weather on the east coast kept some participants from attending and caused scheduling changes throughout the workshop heterogeneous materials can behave strangely even in simple flow situations for example a mixture of solid particles in a liquid can exhibit behavior that seems solid like or fluid like and attempting to measure the viscosity of such a mixture leads to contradictions and unrepeatable experiments even so such materials are commonly used in manufacturing and processing

Particle Size 1965

biomedical applications of magnetic particles discusses fundamental magnetic nanoparticle physics and chemistry and explores important biomedical applications and future challenges the first section presents the fundamentals of the field by explaining the theory of magnetism describing techniques to synthesize magnetic particles detailing methods to characterize magnetic particles and quantitatively describing the applied magnetic forces torques and the resultant particle motions the second section describes the wide range of biomedical applications including chemical sensors cellular actuators drug delivery magnetic hyperthermia magnetic resonance imaging contrast enhancement and toxicity additional key features include covers both introduction to physics and characterization of magnetic nanoparticles and the state of the art in biomedical applications authoritative reference for scientists and engineers for all new or old to the field describes how the size of magnetic nanoparticles affects their magnetic properties colloidal properties and biological properties written by a team of internationally respected experts this book provides an up to date authoritative reference for scientists and engineers

Application of Coriolis Mass Flowmeters in Bubbly Or Particulate Two-phase Flows 2009

aerosol science technology and applications aerosols influence many areas of our daily life they are at the core of environmental problems such as global warming photochemical smog and poor air quality they can also have diverse effects on human health where exposure occurs in both outdoor and indoor environments however aerosols can have beneficial effects too the delivery of drugs to the lungs the delivery of fuels for combustion and the production of nanomaterials all rely on aerosols advances in particle measurement technologies have made it possible to take advantage of rapid changes in both particle size and concentration likewise aerosols can now be produced in a controlled fashion reviewing many technological applications together with the current scientific status of aerosol modelling and measurements this book includes satellite aerosol remote sensing the effects of aerosols on climate change air pollution and health pharmaceutical aerosols and

pulmonary drug delivery bioaerosols and hospital infections particle emissions from vehicles the safety of emerging nanomaterials radioactive aerosols tracers of atmospheric processes with the importance of this topic brought to the public's attention after the eruption of the Icelandic volcano Eyjafjallajökull this book provides a timely concise and accessible overview of the many facets of aerosol science

Applications of Particle Technology 2018-03-15

this volume compiles eight recent surveys that present state of the art results in the field of active matter at different scales modeled by agent based kinetic and hydrodynamic descriptions following the previously published volume these chapters were written by leading experts in the field and accurately reflect the diversity of subject matter in theory and applications several mathematical tools are employed throughout the volume including analysis of nonlinear pdes network theory mean field approximations control theory and flocking analysis the book also covers a wide range of applications including biological network formation social systems control theory of sparse systems dynamics of swarming and flocking systems stochastic particles and mean field approximations mathematicians and other members of the scientific community interested in active matter and its many applications will find this volume to be a timely authoritative and valuable resource

Particle Swarm Optimization with Applications 2018-05-30

positioning itself at the common boundaries of several disciplines this work provides new perspectives on modern nanoscale problems where fundamental science meets technology and computer modeling in addition to well known computational techniques such as finite difference schemes and ewald summation the book presents a new finite difference calculus of flexible local approximation methods flame that qualitatively improves the numerical accuracy in a variety of problems

Applications of Fluidization to Food Processing 2008-04-15

this book is well organized and comprehensive an eloquent and enduring statement of significant hydrodynamic principles aiche journal microhydrodynamics concerns the flow and related phenomena pertinent to the motion of small particles suspended in viscous fluids this text focuses on determining the motion of a particle or particles through a viscous fluid in bounded and unbounded flow its central theme is the mobility relation between particle motion and forces microhydrodynamics principles and selected applications functions as a manual that explains methods for solving particulate flows at low reynolds number from analytical to computational methods the ever increasing growth in computational power has resulted in a similar growth in the range of solvable problems in microhydrodynamics suitable for graduate students in engineering and applied mathematics this text treats the mathematical foundations and highlights the interplay of both mathematical and physical insights guiding readers through single particle theory and problems related to multiparticle analyses

Aerosols 1984

this book is focused on composites involving powders as the starting materials it provides relevant information for questions related to the selection of constituent phases most economic fabrication routes proper testing procedures and product optimization the field is sufficiently advanced that predictive models guide many decisions applications are illustrated over a broad range of material and property combinations this title includes selection of phases with consideration of intersolubility interface microstructure especially the role of phase connectivity fabrication approaches especially net shape consolidation assessment of typical properties testing techniques industry standards design trade off decisions involved in optimization including cost applications both those that have matured and some emerging prospects the reader may have little appreciation for how particulate composites are literally everywhere examples include new wear resistant consumer products apple watch longer lasting automotive tires with reduced rolling resistance yokohama tires and new diamond heat sinks for computers element six substrates particulate composites also form critical components in applications such as magnets dental fillings brakes darts bio implants cutting tools particulate composites are a multi billion dollar industry and can be a cost effective solution ripe for innovation and continued rapid growth for the engineer the wide range of particulate composite formulation and property combinations offers the ability to design for a variety of application and provides ample opportunity for innovation particulate composites fundamentals applications is ideal for use in a one semester eng course at the senior ug graduate level and is also suitable as a practical reference for materials scientists in academia and industry

Effectiveness of Selected Diesel Particulate Matter Control Technologies for Underground Mining Applications 2006

particle technology is a term used to refer to the science and technology related to the handling and processing of particles and powders the production of particulate materials with controlled properties tailored to subsequent processing and applications is of major interest to a wide range of industries including chemical and process food pharmaceuticals minerals and metals companies and the handling of particles in gas and liquid solutions is a key technological step

in chemical engineering this textbook provides an excellent introduction to particle technology with worked examples and exercises based on feedback from students and practitioners worldwide it has been newly edited and contains new chapters on slurry transport colloids and fine particles size enlargement and the health effects of fine powders topics covered include characterization size analysis processing granulation fluidization particle formation granulation size reduction storage and transport hopper design pneumatic conveying standpipes slurry flow separation filtration settling cyclones safety fire and explosion hazards health hazards engineering the properties of particulate systems colloids respirable drugs slurry rheology this book is essential reading for undergraduate students of chemical engineering on particle technology courses it is also valuable supplementary reading for students in other branches of engineering applied chemistry physics pharmaceuticals mineral processing and metallurgy practitioners in industries in which powders are handled and processed may find it a useful starting point for gaining an understanding of the behavior of particles and powders review of the first edition taken from high temperatures high pressures 1999 31 243 251 this is a modern textbook that presents clear cut knowledge it can be successfully used both for teaching particle technology at universities and for individual study of engineering problems in powder processing

Particulate Flows 2012-07-01

introduces the detailed basis and recent development of single molecule particle nanocatalysis based on single molecule techniques this unique book introduces and summarizes the recent development of single molecule particle nanocatalysis to provide both comprehensive coverage of fundamentals for different methods now in widespread use and the extensive applications in different catalytic systems chapters are mainly based on different detection methods including single molecule fluorescence microscopy surface plasmon resonance spectroscopy x ray microscopy and surface enhanced raman spectroscopy the book also includes numerous basic principles of different methods and application examples and features illustrations that help clarify presentations single particle nanocatalysis fundamentals and applications starts with the history and development of single molecule techniques for nanocatalysis it then shows readers how single molecule fluorescence microscopy smfm reveals catalytic kinetics and dynamics of individual nanocatalysts next it examines traditional smfm based single molecule nanocatalysis without super resolution sr imaging before moving on to the topic of smfm based sr imaging in single molecule nanocatalysis following chapters cover scanning electrochemical microscopy for single particle nanocatalysis surface plasmon resonance spectroscopy for single particle nanocatalysis reactions x ray based microscopy of single particle nanocatalysis and surface enhanced raman spectroscopy for single particle nanocatalysis the book finishes by introducing some less practiced techniques for single particle nanocatalysis electrochemistry presents a systematical and complete introduction to the subject of single particle nanocatalysis covering all of its fundamentals and applications helps readers fully understand the basis role and recent development of single molecule nanocatalysis teaches researchers how to gain new knowledge to successfully conduct their own studies within this rapidly increasing new area of research single particle nanocatalysis fundamentals and applications is an excellent reference book for experts in this area as well as for general researchers who want to learn how to study nanocatalysis at single molecule particle level

Biomedical Applications of Magnetic Particles 2020-12-17

this book presents the most recent and established developments of particle swarm optimization pso within a unified framework by noted researchers in the field provided by publisher

Aerosol Science 2014-02-03

the pharmaceutical applications of powder technology have long been recognized yet while many books focus on aspects of powder formation and behavior there has been no text that explores the power of particulate science in the design manufacture and control of quality medicines until now a guide to pharmaceutical particulate science discusses key principles of particulate science and their practical applications the authors cover particulate material its form and production sampling from bodies of powder particle size descriptors and statistics behavior of particles instrumental analysis particle size measurement and synergy of adopted techniques physical behavior of a powder and in vitro and in vivo performance criteria they draw the components of particulate science into a single concise description of their current and potential uses in product development exploring the growth in knowledge of particle properties and the variety of technological advances in particle manufacture a guide to pharmaceutical particulate science gives readers the tools they need to grasp the science and its use in the industry

Active Particles, Volume 2 2019-09-03

focuses on the transport of neutral particles neutrons and photons using the finite element method to address practical problems in nuclear power and mineral prospecting includes discussions of how the method began and has matured to become a practical tool complementing the stochastic monte carlo method spatial finite elements examples of calculations equivalent forms of the boltzmann equation neutron streaming in voids some aspects of discontinuous variational solutions complementary principles and benchmarking time dependent transport and modelling three dimensional systems double spaced annotation copyright by book news inc portland or

Computational Methods for Nanoscale Applications 2007-12-24

particle swarm optimization pso is one of the recently developed swarm intelligent optimization technologies that offer the advantages of simplicity and fast biological convergence the technique originated from the theory of artificial life and evolution which is based on the optimization that is achieved as a result of swarm behaviour pso can be easily implemented due to fewer parameters for adjustment hence it has been applied broadly in various engineering fields this book reviews advances in research and applications of pso

Particle Characterization in Technology: Applications and microanalysis 1984

at the frontiers of physics and chemistry lies the new and rapidly emerging area of complex plasma systems the study of complex plasma systems that contain colloid nano microscopic particles is now actively pursued in a diverse range of scientific fields from plasma and gas discharge physics to astrophysics materials science and engineering this book highlights in a systematic insightful and perceptive way the fundamental physics and industrial applications of complex plasmas with emphasis on the conditions relevant to laboratory gas discharges and industrial plasma reactors it provides a specialized and comprehensive description of the most recent theoretical experimental and modeling efforts to understand the unique properties of complex plasma systems involving the stability dynamics and self organization of colloid particles and their associations special attention is focused on the physical understanding of up to date developments in major technological applications of micron and nano sized particles each chapter is presented in a concise and comprehensive manner with a categorized overview of the underlying physics followed by an in depth description the book will appeal to scientists and researchers as well as undergraduate and graduate students wishing to explore the flourishing interdisciplinary field of complex plasma systems contents basics of plasma dust particle interactions production and diagnostics of complex plasmas particle dynamics in a complex plasma structures and phase transitions in complex plasmas waves and instabilities in complex plasmas fine particles in industrial applications readership undergraduate and graduate students scientists and researchers in plasma physics applied physics soft condensed matter physics and related areas key features a systematic exploration of the fundamental physics and industrial applications of complex self organized colloid plasma systems encompassing the physical insights of advanced theoretical models and the results of extensive computer simulations provides a detailed presentation of the basic well established techniques and methodologies for analytical numerical and experimental investigation of complex plasma systems keywords complex dusty plasma long range interactions dust charging particle dynamics dust structures collective phenomena dust origin and growth nanoparticles industrial applications reviews the knowledge is presented in a concise and comprehensive manner with a categorized overview of the underlying physics followed by up to date details leading references are given to key original research results describing the unique features and high tech applications of complex plasmas as such the book is suitable for undergraduate and graduate students as well as for researchers who work either inside or outside the field the book will be interesting to researchers and students working in the areas of gas discharge and plasma physics applied physics space physics and astrophysicists soft condensed matter physics and materials and electrical engineering zentralblatt math

Condensation Particle Counting Technology and Its Applications 2024-08

anisotropic particle assemblies synthesis assembly modeling and applications covers the synthesis assembly modeling and applications of various types of anisotropic particles topics such as chemical synthesis and scalable fabrication of colloidal molecules molecular mimetic self assembly directed assembly under external fields theoretical and numerical multi scale modeling anisotropic materials with novel interfacial properties and the applications of these topics in renewable energy intelligent micro machines and biomedical fields are discussed in depth contributors to this book are internationally known experts who have been actively studying each of these subfields for many years this book is an invaluable reference for researchers and chemical engineers who are working at the intersection of physics chemistry chemical engineering and materials science and engineering it educates students trains the next generation of researchers and stimulates continuous development in this rapidly emerging area for new materials and innovative technologies

Microhydrodynamics 2013-04-26

rheology of particulate dispersions and composites provides comprehensive coverage of fundamental principles and equations that govern the rheology for particulate dispersions and two phase solid composites the rheological properties of suspensions emulsions bubbly liquids foams and other dispersions appear alongside those of solid composite materials for the first time in this unique single source the first section introduces applications definitions and important concepts such as fluid solid interfacial mechanics bulk stress in dispersed systems and dipole strength of particles subsequent chapters systematically consider the rheology for a wide variety of dispersions including systems of rigid spherical and nonspherical particles porous nonporous neutral electrically charged and magnetic particles nonrigid particles deformable solid particles droplets bubbles capsules and core shell particles the final sections address the elastic

properties of particle and fiber reinforced solid composite materials they also discuss dynamic viscoelastic behavior of particulate dispersions and composites from process design to novel materials development rheology of particulate dispersions and composites illustrates the need for understanding rheological behavior throughout numerous commercial and industrial applications this book is a versatile resource for students and scientists from a broad range of disciplines involved in the application research and development of dispersed systems

Particulate Composites 2016-06-22

this book describes the fundamentals of particle detectors as well as their applications detector development is an important part of nuclear particle and astroparticle physics and through its applications in radiation imaging it paves the way for advancements in the biomedical and materials sciences knowledge in detector physics is one of the required skills of an experimental physicist in these fields the breadth of knowledge required for detector development comprises many areas of physics and technology starting from interactions of particles with matter gas and solid state physics over charge transport and signal development to elements of microelectronics the book s aim is to describe the fundamentals of detectors and their different variants and implementations as clearly as possible and as deeply as needed for a thorough understanding while this comprehensive opus contains all the materials taught in experimental particle physics lectures or modules addressing detector physics at the master s level it also goes well beyond these basic requirements this is an essential text for students who want to deepen their knowledge in this field it is also a highly useful guide for lecturers and scientists looking for a starting point for detector development work

Introduction to Particle Technology 2008-06-09

colloids are submicron particles that are ubiquitous in both natural and industrial products colloids and colloidal systems play a significant role in human health as well as commercial and industrial situations colloids have important applications in medicine sewage disposal water purification mining photography electroplating agriculture and more this book gathers recent research from experts in the field of colloids and discusses several aspects of colloid morphology synthesis and applications the book is divided into three sections that cover different techniques for the synthesis of colloids the structure dynamic and stability of colloids and applications of colloidal particles respectively

Single Particle Nanocatalysis 2019-08-05

Particle Swarm Optimization and Intelligence: Advances and Applications 2010-01-31

A Guide to Pharmaceutical Particulate Science 2003-03-12

Finite Element Methods for Particle Transport 1997

Particle Swarm Optimization (PSO) 2017

Physics and Applications of Complex Plasmas 2005-09-07

Anisotropic Particle Assemblies 2018-07-16

Rheology of Particulate Dispersions and Composites 2006-11-22

Particle Detectors 2020-06-30

Colloids 2021-09-08

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