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Bipolarplatten für Polymerelektrolytmembran-Brennstoffzellen aus thermisch und elektrisch hochleitfähigen thermoplastischen Kunststoffen Research and Applications in Structural Engineering, Mechanics and Computation □ □ □ 3D□ □ □ 3D□ □ □ □ Polymer 3D Printing and 3D C Technology Management, Information and Educational Engineering Handbook of Software Solutions for ICME Handbook of Optomechanical Engineering New Technologies, Development and Application VI Advances in Polymer Processing 2020 Comprehensive Materials Finishing Design and Manufacturing of Plastics Products McGraw-Hill Machining and Metalworking Handbook Encyclopedia of Chemical Processing (Online) Flow-Induced Alignment in Composite Materials Single and Multi-objective Process Optimization of Injection Molding Using Numerical Simulation with Surrogate Modeling Approaches and Genetic Algorithms Modern Plastics Worldwide Discontinuous Fiber Composites Handbook of Plastic Optics Enhanced Material, Parts Optimization and Process Intensification Mechanical Properties of Polycarbonate Injection Moulding 2002 Design and Manufacture of Structural Composites Mesoscale simulation of the mold filling process of Sheet Molding Compound Advanced High Strength Natural Fibre Composites in Construction International Conference on Manufacturing Automation Advances in Manufacturing II Entwicklung von Spritzgießsonderverfahren zur Herstellung von Mikrobauteilen durch galvanische Replikation □ □ □ □ □ □ □ □ □ □ □ □ Handbook of Metal Injection Molding Composite Reinforcements for Optimum Performance Computational Fluid Dynamics Technologiefusion für multifunktionale Leichtbaustrukturen Vstřikování plastů Advances in Materials and Processing Technologies □ □ □ □ Flexible Automation and Intelligent Manufacturing: Establishing Bridges for More Sustainable Manufacturing Systems Advances in Lightweight Materials and Structures □ □ □ □ □ □ Kunststoffpraxis: Eigenschaften □ □ □ □ □ □ □ □

Bipolarplatten für Polymerelektrolytmembran-Brennstoffzellen aus thermisch und elektrisch hochleitfähigen thermoplastischen Kunststoffen 2008 vor dem hintergrund der verknappung nichtregenerativer primarenergietrager und im zuge der steten diskussion um die einflusse anthropogener klimaveranderungen erlebt die brennstoffzellen forschung in europa den vereinigten staaten und japan seit einigen jahren eine renaissance alle grossen automobilhersteller arbeiten mit hochdruck an brennstoffzellenfahrzeugen doch nicht nur im mobilen bereich ruckt die polymerelektrolytmembran brennstoffzelle pembz ins zentrum des interesses auch die stationare pembz zur dezentralen energieversorgung betrieben z b im kraft warmekopplungsbetrieb vaillant bz systeme bosch junkers wird als sehr attraktiv angesehen da systemminiaturisierung und gewichtsreduktion nicht in dem masse erforderlich sind wie in der mobilen bz anwendung erwartet man hier eine markteinfuhrung serienreifer systeme deutlich fruher neben dem wichtigen ziel der gewichtsreduktion des stacks gewichtsanteil der end und bipolarplatte am gesamtgewicht des stacks z zt 50 90 fur mobile bz anwendungen muss insbesondere durch kostenreduktion der endverbrauchermarkt gewonnen werden preistreibend sind 3 baugruppen die polymerelektrolytmembran das katalysatorsystem und die bipolarplatten bpp die massenproduktionstauglichen herstellverfahren der kunststofftechnologie ermoglichen es werkzeugfallend und hochintegriert zu fertigen somit sind diese verfahren pradestiniert zur herstellung von massgeschneiderten brennstoffzellen komponenten auf polymerbasis wie bipolarplatte endplatten zellrahmen oder peripheriekomponenten fokus dieser promotion ist die entwicklung einer bipolarplatte bpp auf der basis thermoplastischer hochtemperaturkunststoffe zur anwendung in pembz bis zu 200 die schwerpunkte dieser arbeit konzentrieren si ch auf fragestellungen der c materialauswahl und der rezeptierung vor dem hintergrund der optimalen leitfahigkeitsgenerierung bei reduziertem fullstoffanteil aber auch auf die rheologie dieser thermisch und elektrisch hochleitfahigen compounds sowie der fur diese werkstoffsysteme applizierbaren bpp herstellmoglichkeiten mit der auslegung von profilextrusions und spritzgiesswerkzeugen die aus diesen neuartigen hochgefullten compounds in unterschiedlicher weise urformend hergestellten bpp wurden im brennstoffzellenbetrieb sowohl als einzellig aufgebautes system mit einer elektrochemisch aktiven flache von 25 cm 2 als auch in dreizellig aufgebauten kleinstacks mit einer aktiven gesamtflache von 75 cm 2 bis zu 130 c zelltemperatur charakterisiert

Research and Applications in Structural Engineering, Mechanics and Computation 2013-08-15 research and applications in structural engineering mechanics and computation contains the proceedings of the fifth international conference on structural engineering mechanics and computation semc 2013 cape town south africa 2 4 september 2013 over 420 papers are featured many topics are covered but the contributions may be seen to fall

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Polymer 3D Printing and 3D Copying Technology 2023-07-21 this book focuses on 3d printing and molding copying technologies and approaches which innovatively proposes the concept of polymer 3d copying technology it introduces the two technologies of polymer 3d printing and 3d copying by analogy and elaborates the core principles and processes of polymer 3d copying technology the composition basic parameters and structure design of polymer 3d copying machines precision control methods defect generation mechanism and solutions of polymer 3d copying products and also discussed the future development of polymer 3d copying technology the novel concept of 3d copying is one of the major features of the book which is particularly suited for readers who are interested in rapid prototyping and molding the book is based on both traditional and new knowledges with novel content and concept focusing on both principles and engineering practice it systematically reflects the content and application of polymer 3d printing and 3d copying technology which can benefit researchers engineers and students of related majors engaged in the fields of polymer processing rapid prototyping 3d printing and molding copying etc

Management, Information and Educational Engineering 2015-06-11 this book contains selected computer management information and educational engineering related papers from the 2014 international conference on management information and educational engineering miee 2014 which was held in xiamen china on november 22 23 2014 the conference aimed to provide a platform for researchers engineers and academic

Handbook of Software Solutions for ICME 2016-10-31 as one of the results of an ambitious project this handbook provides a well structured directory of globally available software tools in the area of integrated computational materials engineering icme the compilation covers models software tools and numerical methods allowing describing electronic atomistic and mesoscopic phenomena which in their combination determine the microstructure and the properties of materials it reaches out to simulations of component manufacture comprising primary shaping forming joining coating heat treatment and machining processes models and tools addressing the in service behavior like fatigue corrosion and eventually recycling complete the compilation an introductory overview is provided for each of these different modelling areas highlighting the relevant phenomena and also discussing the current state for the different simulation approaches a must have for researchers application engineers and simulation software providers seeking a holistic overview about the current state of the art in a huge variety of modelling topics this handbook equally serves as a reference manual for academic and commercial software developers and providers for industrial users of simulation software

and for decision makers seeking to optimize their production by simulations in view of its sound introductions into the different fields of materials physics materials chemistry materials engineering and materials processing it also serves as a tutorial for students in the emerging discipline of icme which requires a broad view on things and at least a basic education in adjacent fields

Handbook of Optomechanical Engineering 2017-07-11 this comprehensive handbook covers all major aspects of optomechanical engineering from conceptual design to fabrication and integration of complex optical systems the practical information within is ideal for optical and optomechanical engineers and scientists involved in the design development and integration of modern optical systems for commercial space and military applications charts tables figures and photos augment this already impressive text fully revised the new edition includes 4 new chapters plastic optics optomechanical tolerancing and error budgets analysis and design of flexures and optomechanical constraint equations

New Technologies, Development and Application VI 2023-05-19 this book features papers focusing on the implementation of new and future technologies which were presented at the international conference on new technologies development and application held at the academy of science and arts of bosnia and herzegovina in sarajevo on 22 24 june 2023 it covers a wide range of future technologies and technical disciplines including complex systems such as industry 4 0 patents in industry 4 0 robotics mechatronics systems automation manufacturing cyber physical and autonomous systems sensors networks control energy and renewable energy sources automotive and biological systems vehicular networking and connected vehicles effectiveness and logistics systems smart grids nonlinear systems power social and economic systems education and iot this book is oriented towards fourth industrial revolution industry 4 0 which implementation will improve many aspects of human life in all segments and lead to changes in business paradigms and production models further new business methods are emerging transforming production systems transport delivery and consumption which need to be monitored and implemented by every company involved in the global market

Advances in Polymer Processing 2020 2020-03-10 this book gathers the proceedings of the international symposium on plastics technology which was held on march 10 2020 in aachen germany and was organised by the institute for plastics processing ikv in industry and craft at rwth aachen university peer reviewed by an international scientific committee the conference proceedings comprise the papers presented by the international speakers topics covered include circular economy extrusion lightweight technologies simulation and digitisation injection moulding hybrid materials and additive manufacturing in these fields key themes for plastics technologies have been identified that will shape the face of research and industry for the next decade in their contributions the authors present the latest scientific findings and discuss topical issues in plastics technologies the symposium offered an inspiring forum for the exchange on research and innovation for discussing urgent questions and providing impulses for the future of plastics technology

Comprehensive Materials Finishing 2016-08-29 finish manufacturing processes are those final stage processing techniques which are deployed to

bring a product to readiness for marketing and putting in service over recent decades a number of finish manufacturing processes have been newly developed by researchers and technologists many of these developments have been reported and illustrated in existing literature in a piecemeal manner or in relation only to specific applications for the first time comprehensive materials finishing three volume set integrates a wide body of this knowledge and understanding into a single comprehensive work containing a mixture of review articles case studies and research findings resulting from r d activities in industrial and academic domains this reference work focuses on how some finish manufacturing processes are advantageous for a broad range of technologies these include applicability energy and technological costs as well as practicability of implementation the work covers a wide range of materials such as ferrous non ferrous and polymeric materials there are three main distinct types of finishing processes surface treatment by which the properties of the material are modified without generally changing the physical dimensions of the surface finish machining processes by which a small layer of material is removed from the surface by various machining processes to render improved surface characteristics and surface coating processes by which the surface properties are improved by adding fine layer s of materials with superior surface characteristics each of these primary finishing processes is presented in its own volume for ease of use making comprehensive materials finishing an essential reference source for researchers and professionals at all career stages in academia and industry provides an interdisciplinary focus allowing readers to become familiar with the broad range of uses for materials finishing brings together all known research in materials finishing in a single reference for the first time includes case studies that illustrate theory and show how it is applied in practice

Design and Manufacturing of Plastics Products 2021-08-14 design and manufacturing of plastics products integrating conventional methods and innovative technologies brings together detailed information on design materials selection properties manufacturing and the performance of plastic products incorporating the utilization of the latest novel techniques and additive manufacturing technologies the book integrates the design of molded products and conventional manufacturing and molding techniques with recent additive manufacturing techniques to produce performant products and cost effective tools key areas of innovation are explained in detail including hybrid molds the integration of processing options with product properties and performance and sustainability factors such as eco design strategies recycling and lifecycle assessment other sections cover the development of plastics products including design methodologies design solutions specific to plastics and design for re use as well as manufacturing and performance with an emphasis on thermoplastic molding techniques recent advances on plastics tooling and the appraisal of the influence of processing options on product performance this is a valuable resource to plastics engineers design engineers mold makers and product or part designers across industries it will also be of interest to researchers and advanced students in plastics engineering polymer science additive manufacturing and mechanical engineering offers a thorough grounding in plastics part design thermoplastic material selection properties

manufacture and performance of plastic parts presents the latest advances including the integration of additive manufacturing in the plastics product development cycle hybrid molds and lifecycle and recycling considerations enables the reader to utilize traditional methods alongside cutting edge technologies in the production of performant plastic products and parts

McGraw-Hill Machining and Metalworking Handbook 2006 annotation since 1991 the mcgraw hill machining and metalworking handbook has proven to be one of the main sources of information for those working in the area now covering the latest equipment and most up to date technologies this third edition is completely revised for ease of use and includes 30 new information over the 2nd edition designed for the filled with data and practices the new sections of this book will include such cutting edge topics such as rapid prototyping process optimization product development cad cam cae product data management

Encyclopedia of Chemical Processing (Online) 2005-11-01 this second edition encyclopedia supplies nearly 350 gold standard articles on the methods practices products and standards influencing the chemical industries it offers expertly written articles on technologies at the forefront of the field to maximize and enhance the research and production phases of current and emerging chemical manufacturing practices and techniques this collecting of information is of vital interest to chemical polymer electrical mechanical and civil engineers as well as chemists and chemical researchers a complete reconceptualization of the classic reference series the encyclopedia of chemical processing and design whose first volume published in 1976 this resource offers extensive a z treatment of the subject in five simultaneously published volumes with comprehensive indexing of all five volumes in the back matter of each tome it includes material on the design of key unit operations involved with chemical processes the design unit operation and integration of reactors and separation systems process system peripherals such as pumps valves and controllers analytical techniques and equipment and pilot plant design and scale up criteria this reference contains well researched sections on automation equipment design and simulation reliability and maintenance separations technologies and energy and environmental issues authoritative contributions cover chemical processing equipment engineered systems and laboratory apparatus currently utilized in the field it also presents expert overviews on key engineering science topics in property predictions measurements and analysis novel materials and devices and emerging chemical fields also available online this taylor francis encyclopedia is also available through online subscription offering a variety of extra benefits for both researchers students and librarians including citation tracking and alerts active reference linking saved searches and marked lists html and pdf format options contact taylor and francis for more information or to inquire about subscription options and print online combination packages us tel 1 888 318 2367 e mail e reference taylorandfrancis com international tel 44 0 20 7017 6062 e mail online sales tandf co uk

Flow-Induced Alignment in Composite Materials 2021-10-19 the purpose of aligning short fibers in a fiber reinforced material is to improve the

mechanical properties of the resulting composite aligning the fibers generally in a preferred direction allows them to contribute as much as possible to reinforcing the material the first edition of this book detailed in a single volume the science processing applications characterization and properties of composite materials reinforced with short fibers that have been orientated in a preferred direction by flows arising during processing the technology of fiber reinforced composites is continually evolving and this new edition provides timely and much needed information about this important class of engineering materials each of the original chapters have been brought fully up to date and new developments such as the advent of nano composites and the issues relating to their alignment the wider use of long fiber composites and the appearance of models able to capture their orientation during flow the wider use of flows in micro channels in the context of composites fabrication and the increase in computing power which has made relevant simulations especially coupling flow kinematics to fiber content and orientation much easier to perform are all covered in detail the book will be an essential up to date reference resource for materials scientists students and engineers who are working in the relevant areas of particulate composites short fiber reinforced composites or nanocomposites presents recent progress on flow induced alignment modelling and design of fiber and particulate filled polymer composites discusses important advances such as alignment of cnts in polymer nanocomposites and molecular alignment of polymers induced by the injection molding process in the presence of fillers such as short fibers presents fiber interaction diffusion modelling and also the fiber flexure breakage models

Single and Multi-objective Process Optimization of Injection Molding Using Numerical Simulation with Surrogate Modeling Approaches and Genetic Algorithms 2007 this book is a printed edition of the special issue discontinuous fiber composites that was published in j compos sci

Modern Plastics Worldwide 2005 a coherent overview of the current status of injection molded optics describing in detail all aspects of plastic optics from design issues to production technology and quality control this updated second edition is supplemented by a chapter on the equipment and process of injection wells as well as a look at recent applications the contributors each one a leading expert in their discipline have either a background in or strong ties to the industry thus combining a large amount of practical experience with its focus firmly set on practical applications this is an indispensable reference for all those working in optics research and development

Discontinuous Fiber Composites 2019-01-15 this book reports on topics at the interface between material processing product and process optimization it covers new developments and challenges in welding brazing cutting and coating casting and molding additive manufacturing simulation and optimization techniques as well as functional and structural materials and composites gathering authoritative contributions on the latest research and applications presented at the international joint conference on enhanced material and part optimization and process intensification emporia 2020 organized by sfb1120 aachen sfb814 erlangen and cce darmstadt on may 19 20 2020 in aachen this book provides academics students and professionals with a timely snapshot of the main research trends and extensive information on cutting edge methods and

technologies in materials manufacturing and process engineering

Handbook of Plastic Optics 2011-02-10 mechanical properties of polycarbonate experiment and modeling for aeronautical and aerospace applications provides a detailed description on experimental characterization material modeling and finite element simulation method for polycarbonate in aeronautical and aerospace applications the book presents the experiment facilities and methods used in characterizing the mechanical properties of polycarbonate in a large range of strain rates and temperatures the constitutive modeling of polycarbonate and the finite element simulation of polycarbonate products under impact loading are illustrated in detail finally an optimization methodology is devised to optimize the injection molding process parameters for high mechanical performance of the product under impact loading provides a detailed description of experimental methods and modeling technologies for the characterization of polycarbonate in aeronautical and aerospace applications proposes an integrative method that combines treatment and mechanical simulations for polycarbonate products helps readers learn how to test the mechanical properties of polycarbonate in a wide range of strain rates and temperatures

Enhanced Material, Parts Optimization and Process Intensification 2021-03-07 design and manufacture of structural composites provides an overview of the main manufacturing challenges encountered when processing fibre reinforced composite materials composites are unique in that the material is created at the same time as the structure forming a very close link between the constituents the manufacturing process and the resulting mechanical performance this book takes an in depth look at material choices and the intermediate steps required to convert different fibre and matrix combinations into finished products it provides an insight into recent developments for each of the manufacturing processes covered addressing design cost rate and mechanical performance topics covered include an introduction to composite materials material preforming and conversion moulding digital design and sustainability which addresses waste reduction disassembly and fibre recovery this book has been developed primarily as a teaching resource with contributions from leading experts in the field the content has evolved from courses given by the authors to mechanical engineering and materials science students at both undergraduate and postgraduate levels it also draws upon experience gained during research projects and from leading industry experts it therefore provides non specialists with a valuable introduction to composite manufacturing techniques helping to determine the most suitable manufacturing routes and to understand the challenges associated with the production of high performance composite components provides an overview of the most common manufacturing routes for fibre reinforced composites including the influence of the manufacturing route on mechanical properties production volume and component cost discusses recent advances in composite manufacturing including the use of automation process simulation digital factories and solutions to improve sustainability looks at where the composites sector is heading and discusses some of the challenges faced by end users looking to scale up production and increase the uptake of fibre reinforced composites for structural applications

Mechanical Properties of Polycarbonate 2019-08-26 sheet molding compounds smc are discontinuous fiber reinforced composites that are widely applied due to their ability to realize composite parts with long fibers at low cost a novel direct bundle simulation dbs method is proposed in this work to enable a direct simulation at component scale utilizing the observation that fiber bundles often remain in a bundled configuration during smc compression molding

Injection Moulding 2002 2002 advanced high strength natural fibre composites in construction provides the basic framework and knowledge required for the efficient and sustainable use of natural fiber composites as a structural and building material along with information on the ongoing efforts to improve the efficiency of use and competitiveness of these composites areas of particular interest include understanding the nature and behavior of raw materials and their functional contributions to the advanced architectures of high strength composites part 1 discussing both traditional and novel manufacturing technologies for various advanced natural fiber construction materials part 2 examining the parameters and performance of the composites part 3 and finally commenting on the associated codes standards and sustainable development of advanced high strength natural fiber composites for construction this exposition will be based on well understood environmental science as it applies to construction part 4 the book is aimed at academics research scholars and engineers and will serve as a most valuable text or reference book that challenges undergraduate and postgraduate students to think beyond standard practices when designing and creating novel construction materials presents the first comprehensive review on the efficient and sustainable use of natural fiber composites in construction and building materials contains detailed information on the structure chemical composition and physical and mechanical properties of natural fibers covers both traditional and novel manufacturing technologies for high strength natural fiber composites includes material parameters and performance in use as well as associated codes standards and applied case studies presents contributions from leading international experts in the field

Design and Manufacture of Structural Composites 2022-11-30 the proceedings of the fourth icma in 2004 represent a huge contribution to research in this area everyone attending the conference was asked to submit their papers electronically which meant that 100 top quality papers from no less that 10 different countries contributed to the theme of the conference

Mesoscale simulation of the mold filling process of Sheet Molding Compound 2022-07-12 this book covers a variety of topics related to machine manufacturing and concerning machine design product assembly technological aspects of production mechatronics and production maintenance based on papers presented at the 6th international scientific technical conference manufacturing 2019 held in poznan poland on may 19 22 2019 the different chapters reports on cutting edge issues in constructing machine parts mechatronic solutions and modern drives they include new ideas and technologies for machine cutting and precise processing chipless technologies such as founding plastic forming non metal construction materials and composites and additive techniques alike are also analyzed and thoroughly discussed all in all the book reports on significant scientific

contributions in modern manufacturing offering a timely guide for researchers and professionals developing and or using mechanical engineering technologies that have become indispensable for modern manufacturing

Advanced High Strength Natural Fibre Composites in Construction 2016-10-04 gegenstand ist die entwicklung eines verfahrens bei dem über das mehrkomponenten spritzgießen kombiniert mit der galvanoformung msg prozess metallische mikrobauteile mit oberflächenrauheiten von rz

International Conference on Manufacturing Automation 2004-12-27 [illegible]

Advances in Manufacturing II 2019-05-02 metal injection molding combines the most useful characteristics of powder metallurgy and plastic injection molding to facilitate the production of small complex shaped metal components with outstanding mechanical properties handbook of metal injection molding second edition provides an authoritative guide to this important technology and its applications building upon the success of the first edition this new edition includes the latest developments in the field and expands upon specific processing technologies part one discusses the fundamentals of the metal injection molding process with chapters on topics such as component design important powder characteristics compound manufacture tooling design molding optimization debinding and sintering part two provides a detailed review of quality issues including feedstock characterisation modeling and simulation methods to qualify a mim process common defects and carbon content control special metal injection molding processes are the focus of part three which provides comprehensive coverage of micro components two material two color structures and porous metal techniques as well as automation of the mim process and metal injection molding of large components finally part four explores metal injection molding of particular materials and has been expanded to include super alloys carbon steels precious metals and aluminum with its distinguished editor and expert team of international contributors the handbook of metal injection molding is an essential guide for all those involved in the high volume manufacture of small precision parts across a wide range of high tech industries such as microelectronics biomedical and aerospace engineering provides an authoritative guide to metal injection molding and its applications discusses the fundamentals of the metal injection molding processes and covers topics such as component design important powder characteristics compound manufacture tooling design molding optimization debinding and sintering comprehensively examines quality issues such as feedstock characterization modeling and simulation common defects and carbon content control

Entwicklung von Spritzgießsonderverfahren zur Herstellung von Mikrobauteilen durch galvanische Replikation 2014-09 composite reinforcements for optimum performance second edition has been brought fully up to date with the latest developments in the field it reviews the materials properties and modelling techniques used in composite production and highlights their uses in optimizing performance part i covers

materials for reinforcements in composites including chapters on fibers carbon nanotubes and ceramics as reinforcement materials in part ii different types of structures for reinforcements are discussed with chapters covering woven and braided reinforcements three dimensional fibre structures and two methods of modelling the geometry of textile reinforcements wisetex and texgen part iii focuses on the properties of composite reinforcements with chapters on topics such as in plane shear properties transverse compression bending and permeability properties finally part iv covers the characterization and modelling of reinforcements in composites with chapters focusing on microscopic and mesoscopic approaches x ray tomography analysis and modelling reinforcement forming processes with its distinguished editor and international team of contributors composite reinforcements for optimum performance second edition is an essential reference for designers and engineers working in the composite and composite reinforcement manufacturing industry as well as all those with an academic research interest in the subject discusses the characterization and modeling of reinforcements in composites focusing on such topics as microscopic and mesoscopic approaches x ray tomography analysis and modeling reinforcement forming processes provides comprehensive coverage of the types and properties of reinforcement in composites along with their production and performance optimization includes sections on ncf non crimp fabrics natural fiber reinforcements tufting composite reinforcements sustainability multiscale modeling knitted reinforcements and more

□ □ □ □ □ □ □ 2014-12-25 this book is planned to publish with an objective to provide a state of art reference book in the area of computational fluid dynamics for cfd engineers scientists applied physicists and post graduate students also the aim of the book is the continuous and timely dissemination of new and innovative cfd research and developments this reference book is a collection of 14 chapters characterized in 4 parts modern principles of cfd cfd in physics industrial and in castle this book provides a comprehensive overview of the computational experiment technology numerical simulation of the hydrodynamics and heat transfer processes in a two dimensional gas application of lattice boltzmann method in heat transfer and fluid flow etc several interesting applications area are also discusses in the book like underwater vehicle propeller the flow behavior in gas cooled nuclear reactors simulation odour dispersion around windbreaks and so on

Handbook of Metal Injection Molding 2018-11-01 in diesem buch werden wesentliche forschungsergebnisse für neue technologiekombinationen die im rahmen der ersten förderperiode des exzellenzclusters merge erarbeitet wurden und sich durch besondere nachhaltigkeit und breitenwirkung auszeichnen vorgestellt im vordergrund stehen neue methoden lösungsansätze und beispielgebende pilotanwendungen für die nächste generation von funktionsintegrierenden leichtbaustrukturen die zugrundeliegenden produktionsverfahren basieren auf textil kunststoff und metallverarbeitungsprozessen die allesamt durch großserientauglichkeit flexibilität und reproduzierbarkeit gekennzeichnet sind

Composite Reinforcements for Optimum Performance 2020-10-22 technologie vstřikování termoplastů je jednou z nejrozšířenějších technologií zpracování plastů například při výrobě automobilů v elektrotechnice elektronice při výrobě spotřebního a sportovního zboží v průmyslu obalů atd

kniha se snaží komplexně popsat celý proces výroby a to jak v teoretické tak zejména v praktické rovině

Computational Fluid Dynamics 2011-07-05 advanced materials and processing are important areas of research in engineering science and technology and require a critical focus on bridging the gap between researchers and engineers advanced materials and processing play an increasingly important role in the global economy and in daily life researchers and engineers strive to develop new devices and processes using mathematical and analytical tools to create technologies to handle the rapidly expanding range of materials and manufacturing processes the advances in materials and processing technologies conference series creates a stimulating environment for the research collaboration of scholars at the local national and international levels contributes to the collective development of a knowledge based society and economy

Technologiefusion für multifunktionale Leichtbaustrukturen 2019-04-08 □

Vstřikování plastů 2018-05-14 this book reports on cutting edge research and developments in manufacturing giving a special emphasis to solutions fostering automation and sustainability topics cover manufacturing process optimization remanufacturing machines and mechanical design cad cam cae materials characterization and processing measurement and predictive maintenance techniques further topics include artificial intelligence and iot in manufacturing robotics and cutting edge issues in industry 4 0 5 0 based on proceedings of the 32nd edition of the international conference on flexible automation and intelligent manufacturing faim 2023 held on june 18 22 2023 in porto portugal this first volume of a 2 volume set provides academics and professionals with extensive technical information on trends and technologies in manufacturing yet it also discusses challenges and practice oriented experience in all the above mentioned areas

Advances in Materials and Processing Technologies 2009-12-21 this book presents select proceedings of the international conference on advanced lightweight materials and structures icalms 2020 and discusses the triad of processing structure and various properties of lightweight materials it provides a well balanced insight into materials science and mechanics of both synthetic and natural composites the book includes topics such as nano composites for lightweight structures impact and failure of structures biomechanics and biomedical engineering nanotechnology and micro engineering tool design and manufacture for producing lightweight components joining techniques for lightweight structures for similar and dissimilar materials design for manufacturing reliability and safety robotics automation and control fatigue and fracture mechanics and friction stir welding in lightweight sandwich structures the book also discusses latest research in composite materials and their applications in the field of aerospace construction wind energy automotive electronics and so on given the range of topics covered this book can be a useful resource for beginners researchers and professionals interested in the wide ranging applications of lightweight structures

□ □ □2004-10

Flexible Automation and Intelligent Manufacturing: Establishing Bridges for More Sustainable Manufacturing Systems 2023-08-23

Advances in Lightweight Materials and Structures 2020-10-13

□ □ □ □2002-04□

Kunststoffpraxis: Eigenschaften 1999

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