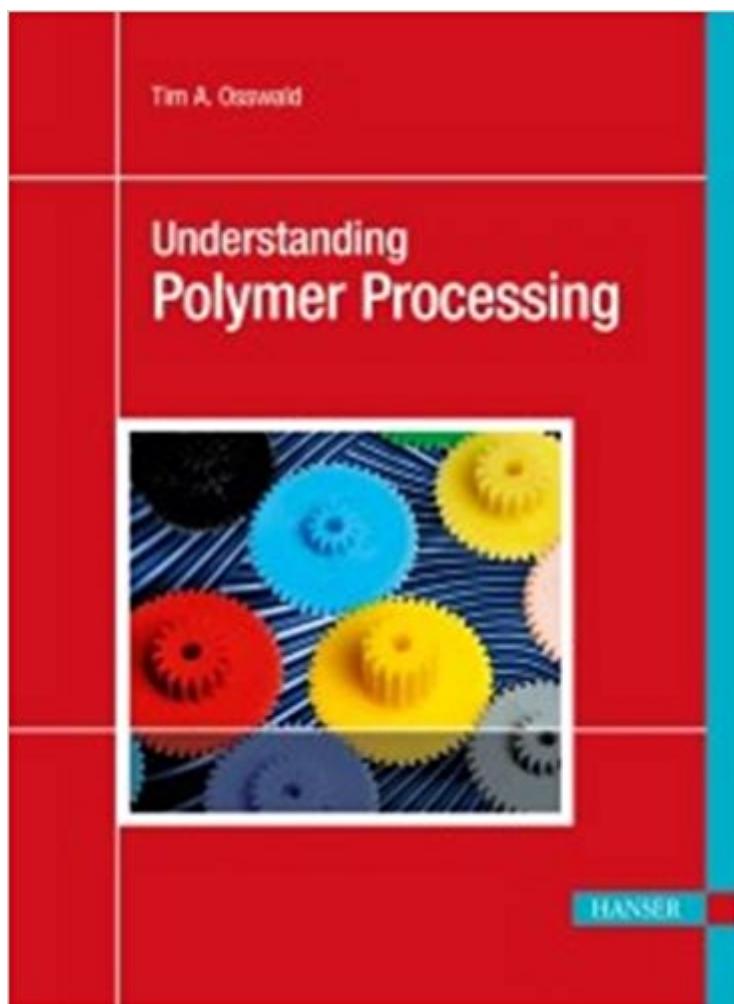


The book was found

# Understanding Polymer Processing: Processes And Governing Equations



## Synopsis

This book provides the background needed to understand not only the wide field of polymer processing but also the emerging technologies associated with the plastics industry in the 21st century. The book combines practical engineering concepts with modeling of realistic polymer processes. It is divided into three sections that provide the reader sufficient knowledge of polymer materials, polymer processing, and modeling. Understanding Polymer Processing is intended for the person who is entering the plastics manufacturing industry and as a textbook for students taking an introductory course in polymer processing. This three-part book also serves as a guide to the practicing engineer when choosing a process, determining important parameters and factors during the early stages of process design, and when optimizing such a process. Practical examples illustrating basic concepts are presented throughout the book. Contents: Part I Polymeric Materials. This section gives a general introduction to polymers, including mechanical behavior of polymers and melt rheology. Part II Polymer Processing. The major polymer processes are introduced in this section, including extrusion, mixing, injection molding, thermoforming, blow molding, film blowing, and many others. Part III Modeling. This last section delivers the tools to allow the engineer to solve back-of-the-envelop polymer processing models. It includes dimensional analysis and scaling, transport phenomena in polymer processing, and modeling polymer processes.

## Book Information

Perfect Paperback: 286 pages

Publisher: Hanser (September 1, 2010)

Language: English

ISBN-10: 1569904723

ISBN-13: 978-1569904725

Product Dimensions: 7.2 x 0.9 x 9.5 inches

Shipping Weight: 1.7 pounds (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars 2 customer reviews

Best Sellers Rank: #612,011 in Books (See Top 100 in Books) #35 in Books > Engineering & Transportation > Engineering > Chemical > Plastics #46 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Extraction & Processing #141 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Polymers & Textiles

## Customer Reviews

Tim Osswald is a Professor of Mechanical Engineering and Director of the Polymer Engineering

Center at the University of Wisconsin Madison. Originally from CÁcuta, Colombia, he received his B.S. and M.S. in Mechanical Engineering from the South Dakota School of Mines and Technology and his Ph.D. in Mechanical Engineering at the University of Illinois at Urbana-Champaign in the field of Polymer Processing. He spent two and a half years at the Institute for Plastics Processing (IKV) in Aachen, Germany, as an Alexander von Humboldt Fellow. He received the National Science Foundation's Presidential Young Investigator Award, as well as the 2001 VDI-K Dr--Richard-Escales-Preis. In 2006 he was named an Honorary Professor at the University of Erlangen-Nuremberg in Germany. Professor Osswald teaches polymer processing and designing with polymers and researches in the same areas. Professor Osswald has published over 100 papers and many books for Hanser, including Materials Science of Polymers for Engineers 3E (Â©2012), Injection Molding Handbook 2E (Â©2007) Compression Molding (Â©2003), Polymer Processing: Modeling and Simulation (Â©2006), Plastics Testing and Characterization (Â©2008), International Plastics Handbook (Â©2006), and Understanding Polymer Processing (Â©2010). Professor Osswald has also been consulted by several industries, is one of the co-founders of The Madison Group, and is the Director of the Technical Advisory Board of SIMTEC Silicone Parts.

Delivered as promised and the book matched its stated description.

Needed it for a class. It is a very good overview of polymer processing.

[Download to continue reading...](#)

Understanding Polymer Processing: Processes and Governing Equations Polymer Clay: The Ultimate Beginners Guide to Creating Animals in 30 Minutes or Less! (Polymer Clay - Polymer Clay for Beginners - Clay - Polymer Clay Animals - Polymer Clay Jewelry - Sculpture) Cute Polymer Clay Popsicles & Ice Cream: Polymer Clay Kawaii Food Charms (Polymer Clay Kawaii Charms Book 1) Transformations Of Coordinates, Vectors, Matrices And Tensors Part I: LAGRANGEÃ¢ -â„¢S EQUATIONS, HAMILTONÃ¢ -â„¢S EQUATIONS, SPECIAL THEORY OF RELATIVITY AND CALCULUS ... Mathematics From 0 And 1 Book 16) Differential Equations and Boundary Value Problems: Computing and Modeling (5th Edition) (Edwards/Penney/Calvis Differential Equations) [ Differential Equations, Dynamical Systems, and an Introduction to Chaos [ DIFFERENTIAL EQUATIONS, DYNAMICAL SYSTEMS, AND AN INTRODUCTION TO CHAOS BY Hirsch, Morris W. ( Author ) Mar-26-2012 ] By Hirsch, Morris W. ( Author ) [ 2012 ) [ Paperback ] Student's Solutions Manual for Fundamentals of Differential Equations 8e and Fundamentals of Differential Equations and Boundary Value Problems 6e How Einstein gives Dirac, Klein-Gordon and

SchrÃ¶dinger: Deriving the SchrÃ¶dinger, Dirac and Klein-Gordon Equations from the Einstein-Field-Equations via an Intelligent Zero Differential Equations: Computing and Modeling (5th Edition) (Edwards/Penney/Calvis Differential Equations) Applied Partial Differential Equations with Fourier Series and Boundary Value Problems (5th Edition) (Featured Titles for Partial Differential Equations) Numerical Partial Differential Equations: Conservation Laws and Elliptic Equations (Texts in Applied Mathematics) (v. 33) Algebra Essentials Practice Workbook with Answers: Linear & Quadratic Equations, Cross Multiplying, and Systems of Equations: Improve Your Math Fluency Series Algebra Essentials Practice Workbook with Answers: Linear & Quadratic Equations, Cross Multiplying, and Systems of Equations (Improve Your Math Fluency Series 12) Partial Differential Equations of Mathematical Physics and Integral Equations (Dover Books on Mathematics) Fundamentals of Differential Equations (8th Edition) (Featured Titles for Differential Equations) Student Solutions Manual to accompany Boyce Elementary Differential Equations 10e & Elementary Differential Equations with Boundary Value Problems 10e Elements of Polymer Science & Engineering, Second Edition: An Introductory Text and Reference for Engineers and Chemists (The Elements of Polymer Science and Engineering) Functional Polymer Coatings: Principles, Methods, and Applications (Wiley Series on Polymer Engineering and Technology) The Elements of Polymer Science and Engineering, Third Edition (Elements of Polymer Science & Engineering) Polymer clay: All the basic and advanced techniques you need to create with polymer clay

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)