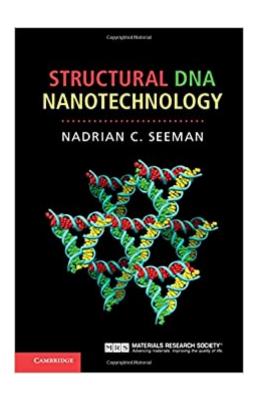


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Structural DNA Nanotechnology





Synopsis

Written by the founder of the field, this is the first text of its kind, providing a definitive introduction to structural DNA nanotechnology. Readers will learn everything there is to know about the subject from the unique perspective of the leading expert in the field. Topics covered range from origins and history, to design, experimental techniques, DNA nanomechanics devices, computing, and the uses of DNA nanotechnology in organising other materials. Clearly written, and benefiting from over 200 full colour illustrations, readers will find this an accessible and easy to follow text that is essential reading for anyone who wants to enter this rapidly growing field. Ideal for advanced undergraduate and graduate students, as well as researchers in a range of disciplines including nanotechnology, materials science, physics, biology, chemistry, computational science and engineering.

Book Information

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Customer Reviews

"The first of its kind, it will undoubtedly become the Bible for DNA self-assembly and nanoscale 3D printing. The visionary father of the field of structural DNA nanotechnology, Ned Seeman, lays out its principles lucidly and with superb graphics to match. For anyone curious about syntheticà Â DNA technologies or in connecting these principles with current research, this is a must-have-must-read." Yamuna Krishnan, University of Chicago"Ned Seeman invented and pioneered structural DNA nanotechnology in the 1980s and he has been in the front line of the field since then. For many years he was alone in the field and it was considered as a mere curiosity by many scientists and ignored by most others. However, during the past 15 years the field has

blossomed and today constitutes a unique approach to organize matter at the nanoscale by self-assembly. The book gives the best possible first-hand insight into this field and its amazing development." Kurt Vesterager Gothelf, Aarhus Universitet, Denmark"The book is an inspiring insight into the design and development of DNA motifs used as building blocks, molecular devices, and information processing tools. It is stimulating to both students and professionals with detailed introduction to blueprint composition and experimental strategies. These strategies have provided an exponential growth in the subject and established the field of DNA nanotechnology." Natasha Jonoska, University of South Florida"The pioneer of the field of structural DNA nanotechnology, Ned Seeman, presents the foundations, the state of the art, and the stories leading to the development of this fascinating field that today allows researchers around the globe to control matter with sub-nanometer precision by means of self-assembly. Students in nanoscience-related fields will greatly benefit from this book, and for researchers planning to work in the fast growing field of DNA nanotechnology, it is a must." Tim Liedl, Ludwig-Maximilians-Universit $\tilde{A}f\hat{A}$ the Munchen This is a wonderful book. It systematically covers all major aspects of DNA nanotechnology, a rapidly evolving research field. Though there are multiple books and reviews that cover the current topics of this field, this book is the only one that provides insights on how this field originated, developed, differentiated, and flourished. I enjoyed reading this book particularly because of its emphasis on structural bases of DNA molecules; quite often neglected by people now. I fully expect that this book will serve as a handy reference for practitioners in the field of DNA nanotechnology, as a textbook for graduate students and undergraduate students, and also as a historic book for people studying science history. For sure, this book will be the textbook for my graduate course, bionanotechnology, at Purdue University." Chengde Mao, Purdue University, Indiana

The definitive introduction to structural DNA nanotechnology, written by the founder of the field. Clearly written and with full colour illustrations throughout, this is an accessible, essential resource for advanced undergraduate and graduate students as well as researchers in nanotechnology, materials science, physics, biology, chemistry, computational science and engineering.

Very good book

It is very good

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