

CONTENTS

PREFACE	vii
CONTRIBUTORS	ix
1 BIOLOGICAL APPLICATIONS OF MULTIFUNCTIONAL MAGNETIC NANOWIRES	1
<i>Edward J. Felton and Daniel H. Reich</i>	
2 NUCLEIC ACID DELIVERY AND LOCALIZING DELIVERY WITH MAGNETIC NANOPARTICLES	23
<i>Christian Plank, Ulrike Schillinger, Dialekti Vlaskou, and Olga Mykhaylyk</i>	
3 MAGNETIC NANOPARTICLES IN CANCER DIAGNOSIS AND HYPERTHERMIC TREATMENT	65
<i>Robert H. Kraus, Jr. and Bradford Wright</i>	
4 BROWNIAN MOTION IN BIOLOGICAL SENSING	83
<i>Axel Hoffmann, Seok-Hwan Chung, Samuel D. Bader, Lee Makowski, and Liaohai Chen</i>	
5 DENDRIMERS AND HYPERBRANCHED POLYMERS FOR DRUG DELIVERY	105
<i>Rangaramanujam M. Kannan, Omathanu P. Perumal, and Sujatha Kannan</i>	
6 NANOGELS: CHEMISTRY TO DRUG DELIVERY	131
<i>Murali Mohan Yallapu, Maram K. Reddy, and Vinod Labhasetwar</i>	
7 TARGETED GOLD NANOPARTICLES FOR IMAGING AND THERAPY	173
<i>Raghuraman Kannan and Kattesh V. Katti</i>	

8 BUILDING BLOCKS OF NUCLEIC ACID NANOSTRUCTURES: UNFOLDING THERMODYNAMICS OF INTRAMOLECULAR DNA COMPLEXES	191
<i>Luis A. Marky, Souvik Maiti, Chris Olsen, Ronald Shikiya, Sarah E. Johnson, Mahima Kaushik, and Irine Khutsishvili</i>	
9 NANOTOXICOLOGY	227
<i>Diandra L. Leslie-Pelecky</i>	
INDEX	243
ABOUT THE EDITORS	251