

Contents

Fundamental Aspects of T7 RNA Polymerase Structure and Mechanism R. SOUSA	1
Transcription by T7 RNA Polymerase W.T. MCALLISTER	15
Pribnow Box Recognition and Melting by <i>Escherichia coli</i> RNA Polymerase S. DARST, J.W. ROBERTS, A. MALHOTRA, M. MARR, K. SEVERINOV, and E. SEVERINOVA	27
Extended -10 Promoters J.A. BOWN, K.A. BARNE, S.D. MINCHIN, and S.J.W. BUSBY	41
Promoter Selectivity Control of RNA Polymerase A. ISHIHAMA	53
The Effect of High Pressure on Transcription and on the Structure and Activity of <i>E. coli</i> RNA Polymerase L. ERIJMAN and R.M. CLEGG	71
Ribosomal RNA Promoter-RNA Polymerase Interactions and rRNA Transcription in <i>Escherichia coli</i> T. GAAL, W. ROSS, and R. GOURSE	87
Synergistic Activation of Transcription in <i>E. coli</i> A. HOCHSCHILD and J.K. JOUNG	101
Indirect Effects of DNA Sequence on Transcriptional Activation by Prokaryotic DNA Binding Proteins S. HILCHEY, J. XU and G. KOUDELKA	115
Transcriptional Activation by a Topologically Linkable Protein: Forging a Connection Between Replication and Gene Activity P. GEIDUSCHEK, T.-J. FU, G.A. KASSAVETIS, G.M. SANDERS, and R.L. TINKER-KULBERG	135

Translocation of DNA-Dependent <i>E. coli</i> RNA Polymerase During RNA Synthesis H. HEUMANN, E. ZAYCHIKOV, L. DENISSOVA, and T. HERMANN	151
Stabilisation of DNA Microloops by FIS – A Mechanism for Torsional Transmission in Transcription Activation and DNA Inversion G. MUSKHELISHVILI and A.A. TRAVERS	179
Transcription and DNA Topology in Eubacteria D.M.J. LILLEY	191
Modeling Large DNA Molecules: Long-Range Interactions and Regulation of Transcription J. LANGOWSKI	219
Structure of the POU Domain M.M. COX, R. BOELENS, P.C. van der VLIET, and R. KAPTEIN	237
Structural Studies of Eukaryotic Transcription Initiation S. BURLEY	251
Understanding SRY-Related 46X,Y Sex Reversal at the Atomic Level G.M. CLORE, M.H. WERNER, J.R. HUTH, and A.M. GRONENBORN	265
Nucleosomes and Transcription A.P. WOLFFE, K.P. NIGHTINGALE, and K. URA	275
Antirepression, Potentiation and Activation of Promoters in Reconstituted Chromatin R. SANDALTZOPoulos and P. BECKER	291
Acetylation, Activation and Toxicity; the Role of ADA/GCN5 Complex in Transcription N. SILVERMAN and L. GUARENTE	309
Index	325