



# List of contents

## Nucleic acids

### Subvolume a: Crystallographic and structural data I

<b>1 Nomenclature, definitions and geometry of basic structure elements (W. SAENGER) . . . . .</b>	<b>1</b>
1.1 Abbreviations and symbols . . . . .	1
1.2 Description of conformation . . . . .	6
1.3 Geometry of helices . . . . .	14
1.4 Geometry of bases, sugars, and phosphate groups . . . . .	18
1.5 References for 1 . . . . .	21
<b>2 Structures of nucleic acids and their constituents . . . . .</b>	<b>22</b>
2.1 Crystal structures of bases, nucleosides, and nucleotides (M. SUNDARALINGAM, T.P. HAROMY) . . . . .	22
2.1.1 Introduction . . . . .	22
2.1.1.1 General remarks . . . . .	22
2.1.1.2 Experimental procedures . . . . .	22
2.1.1.3 Summary of data compilation . . . . .	22
2.1.1.4 Nucleoside and nucleotide conformation . . . . .	23
2.1.1.5 Analog structures . . . . .	31
2.1.2 Data . . . . .	33
2.1.2.1 Overview . . . . .	33
2.1.2.2 Base crystal structures . . . . .	35
2.1.2.3 Nucleoside crystal structures . . . . .	134
2.1.2.4 Mononucleotide crystal structures . . . . .	183
2.1.2.5 Di-(tri-) nucleotide crystal structures . . . . .	205
2.1.2.6 Conformational angles for nucleoside crystal structures . . . . .	211
2.1.2.7 Conformational angles for mononucleotide crystal structures . . . . .	221
2.1.2.8 Conformational angles for di-(tri-) nucleotide crystal structures . . . . .	227
2.1.3 References for 2.1 . . . . .	231
2.2 Crystal structures of oligonucleotides (O. KENNARD, W.N. HUNTER) . . . . .	255
2.2.1 Introduction . . . . .	255
2.2.1.1 General remarks . . . . .	255
2.2.1.2 Methods of structure solution and refinement . . . . .	255
2.2.1.3 Conventions used in interpreting structural information . . . . .	256
2.2.1.4 Arrangement of data . . . . .	257
2.2.1.4.1 Comparative tables . . . . .	257
2.2.1.4.2 Hydration patterns . . . . .	258
2.2.1.4.3 Results of individual structure determinations . . . . .	258
2.2.1.4.4 List of nucleic acid structures . . . . .	260
2.2.1.5 List of symbols and abbreviations . . . . .	261
2.2.2 Data . . . . .	262
2.2.2.1 Experimental details . . . . .	262
2.2.2.2 Average helical (or global) parameters . . . . .	264
2.2.2.3 Hydration . . . . .	265
2.2.2.4 Local parameters . . . . .	267
2.2.3 References for 2.2 . . . . .	359