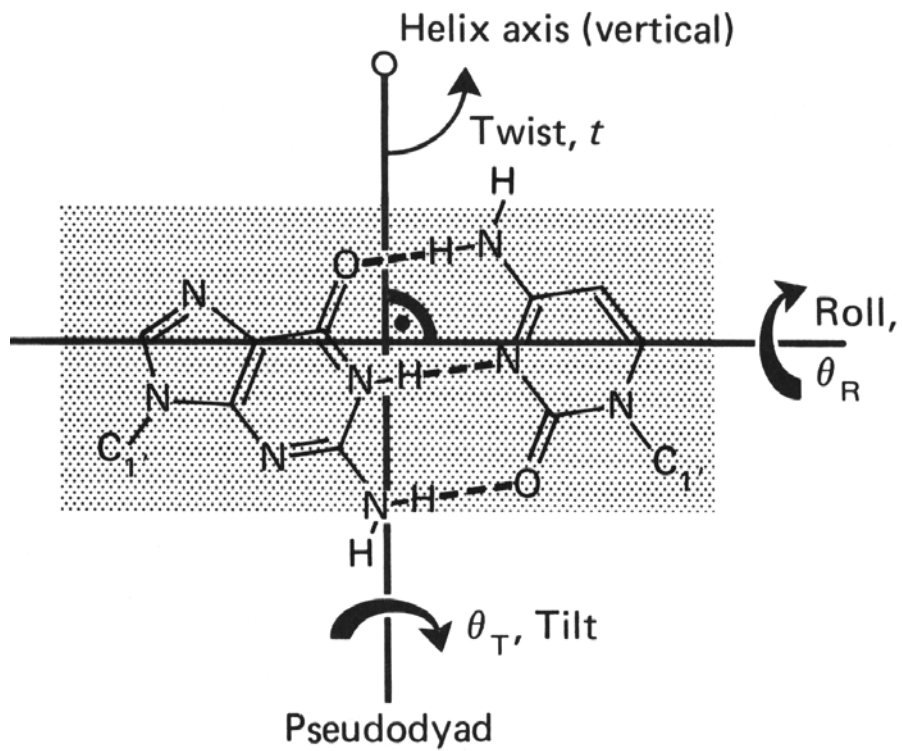
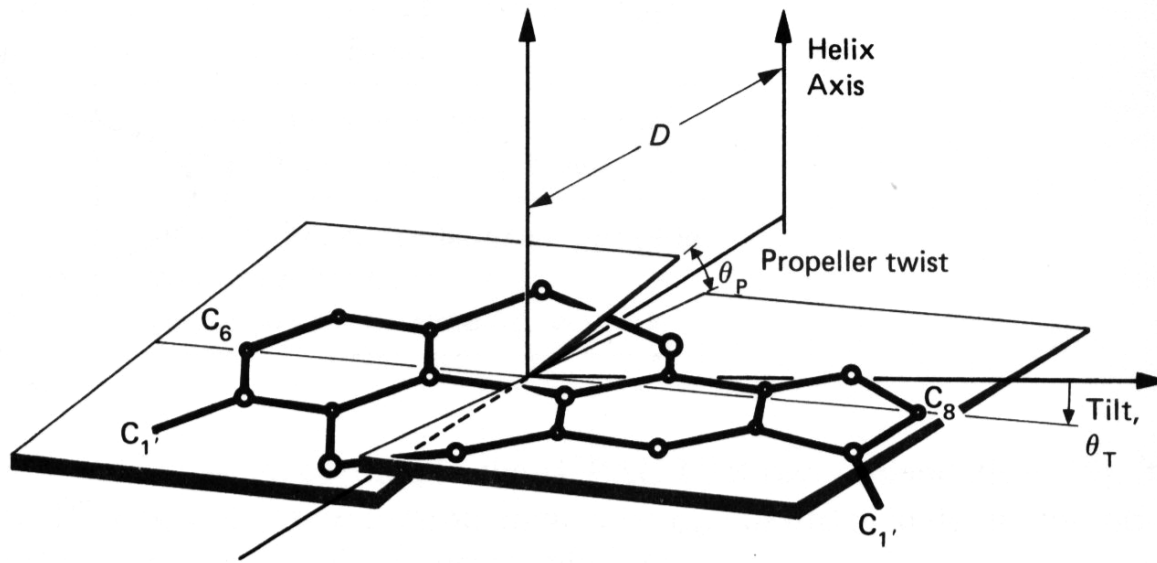
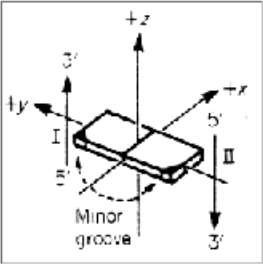
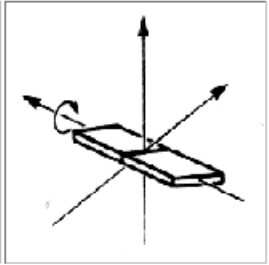
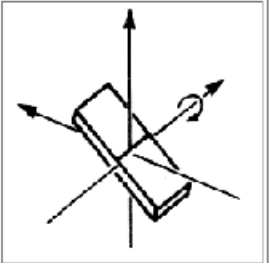
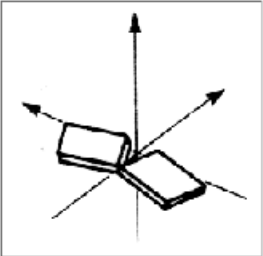
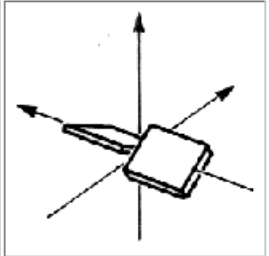
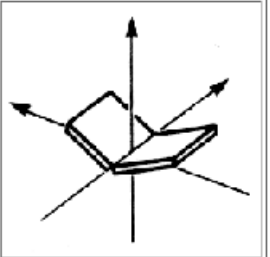
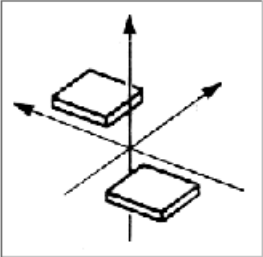
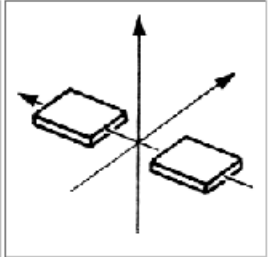
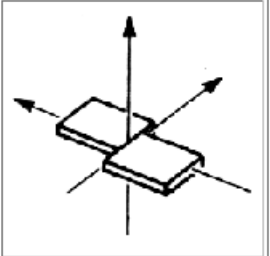
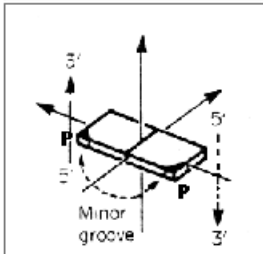
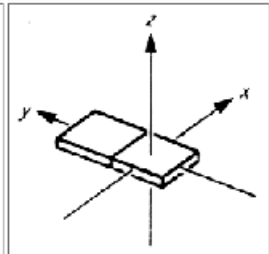
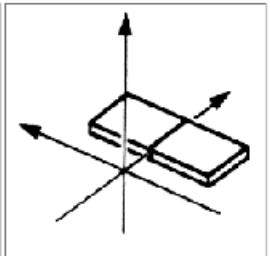
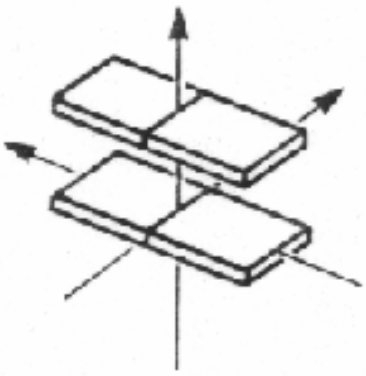
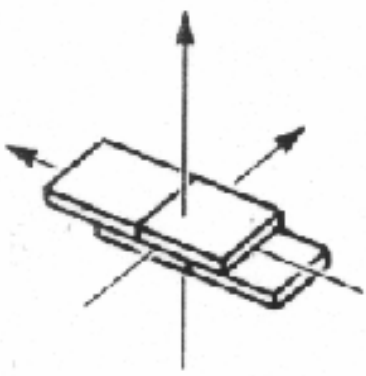
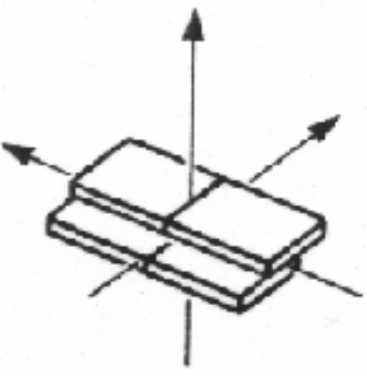
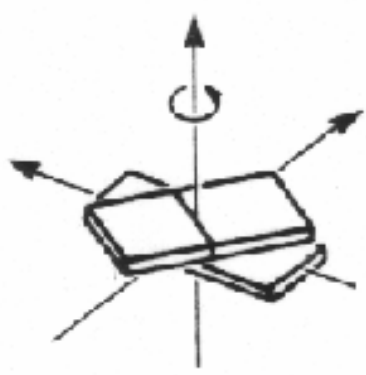
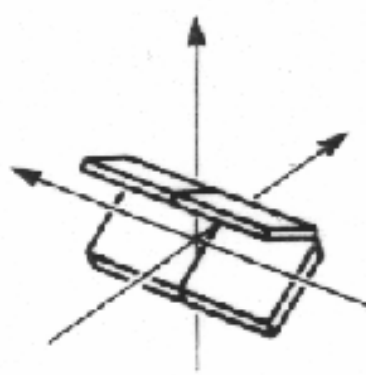
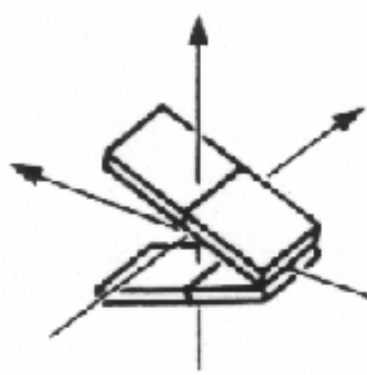


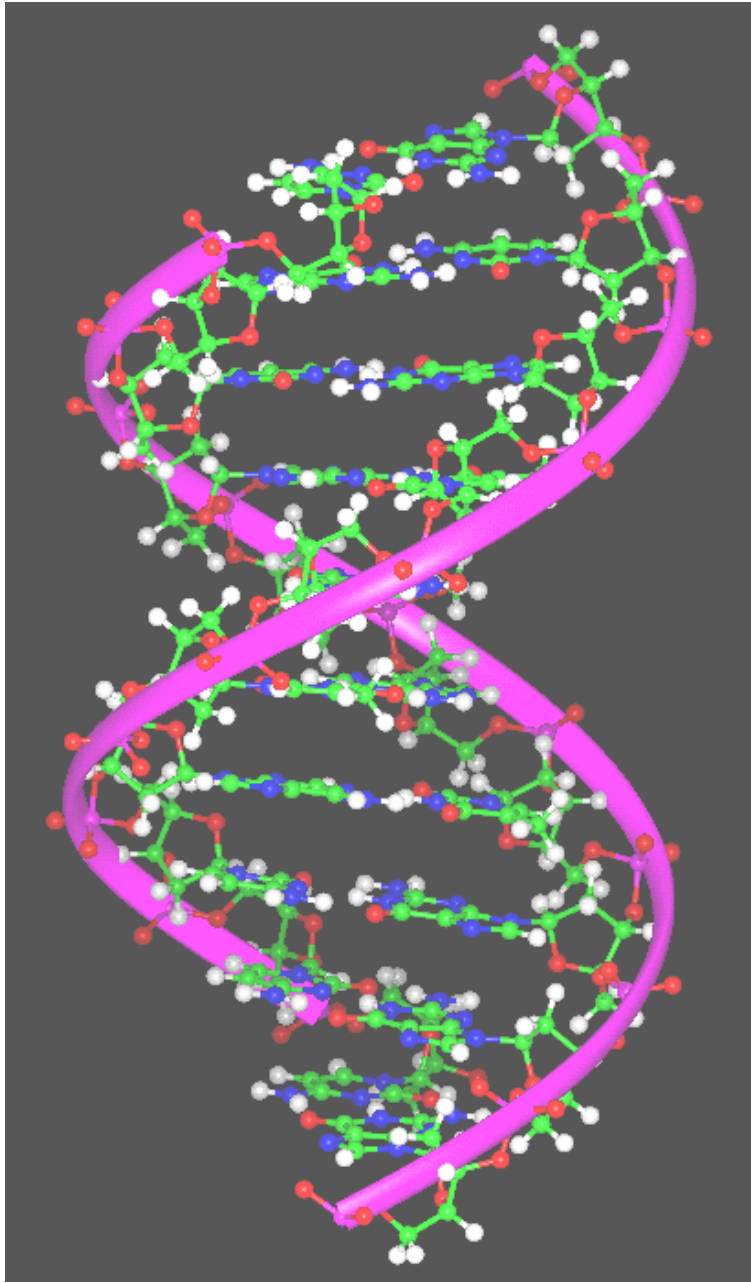
Table 9-1. Principal Crystalline Forms of DNA and RNA in Fibers: Dependence of Form on Counterion and Relative Humidity (Equivalent to Salt Concentration)^a

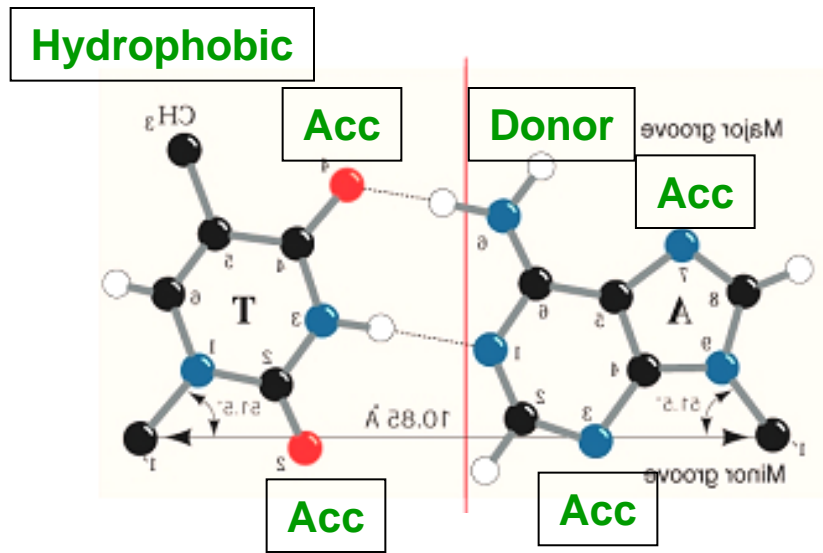
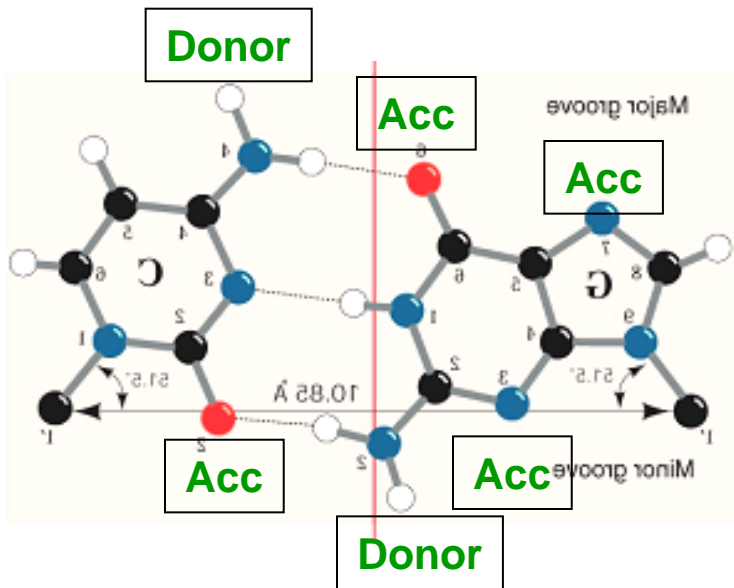
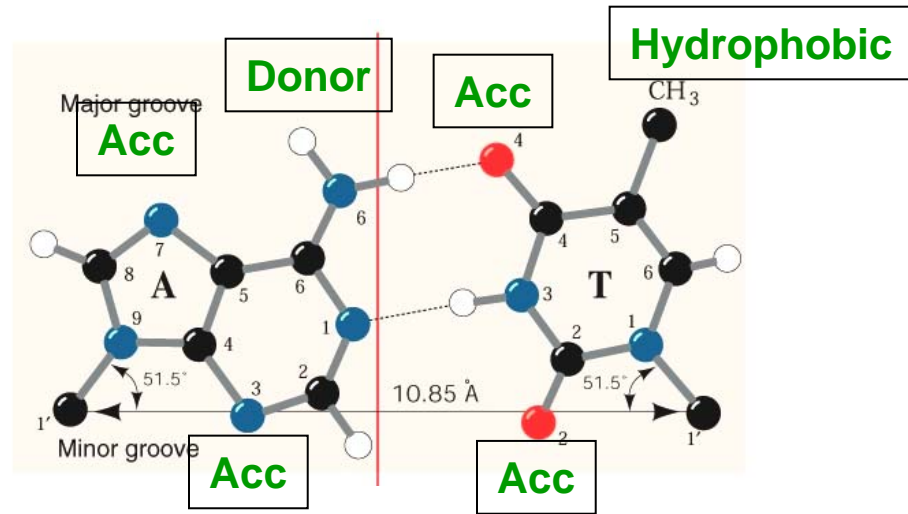
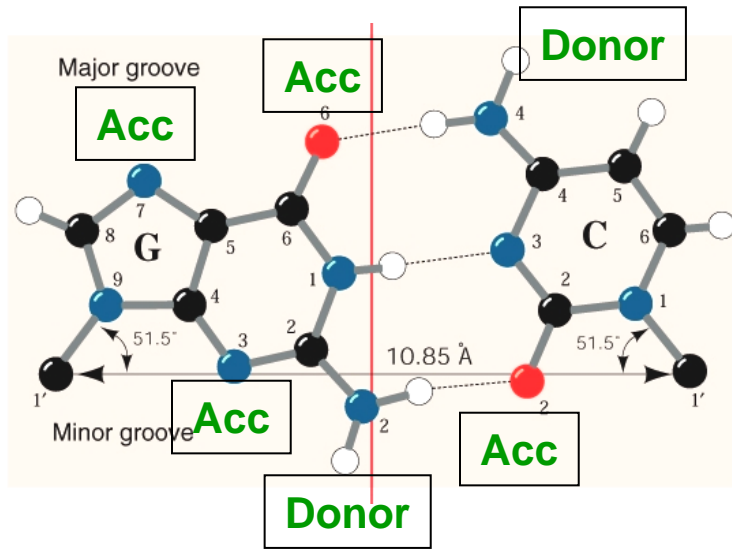
Polynucleotide	Counterion	Relative humidity (%)	Form
Native DNA	Na	75	A
	Na	92	B
	Li	57-66	C
	Li	44	C
	Li	66	B
Poly(dA)·poly(dT)	Na	70	β -B'
	Na	92	α -B'
Poly(dG)·poly(dC)	Na	75	A
	Na	92	B
Poly(dA-dT)·poly(dA-dT)	Na	75	D
	Na	Up to 98	A
	Li	66	B
Poly(dA-dC)·poly(dG-dT)	Na	66	A
	Na	66-92	B
	Na	66	Z
Poly(dA-dG)·poly(dC-dT)	Na	66	C''
	Na	95	B
Poly(dG-dC)·poly(dG-dC)	Na	43	Z
	Na	Up to 92	A
	Li	81	B
Poly(dA-dA-dT)·poly(dA-dT-dT)	Na	66	D
	Na	92	B
Poly(dA-dG-dT)·poly(dA-dC-dT)	Na	Up to 98	A
	Li	98	B
	Li	66	C
Poly(dA-dI-dT)·poly(dA-dC-dT)	Na	66	D
	Na	81	C
	Na	92	B
Poly(dI-dC)·poly(dI-dC)	Na	66	B
	Na	75	D
Native RNA (reovirus)	--	--	--



Co-ordinate frame	Tip	Inclination
		
Opening	Propeller Twist	Buckle
		
Stagger	Stretch	Shear
		
P-P interstrand distance	y displacement	x displacement
		

Rise	Slide	Shift
		
Twist	Roll	Tilt
		





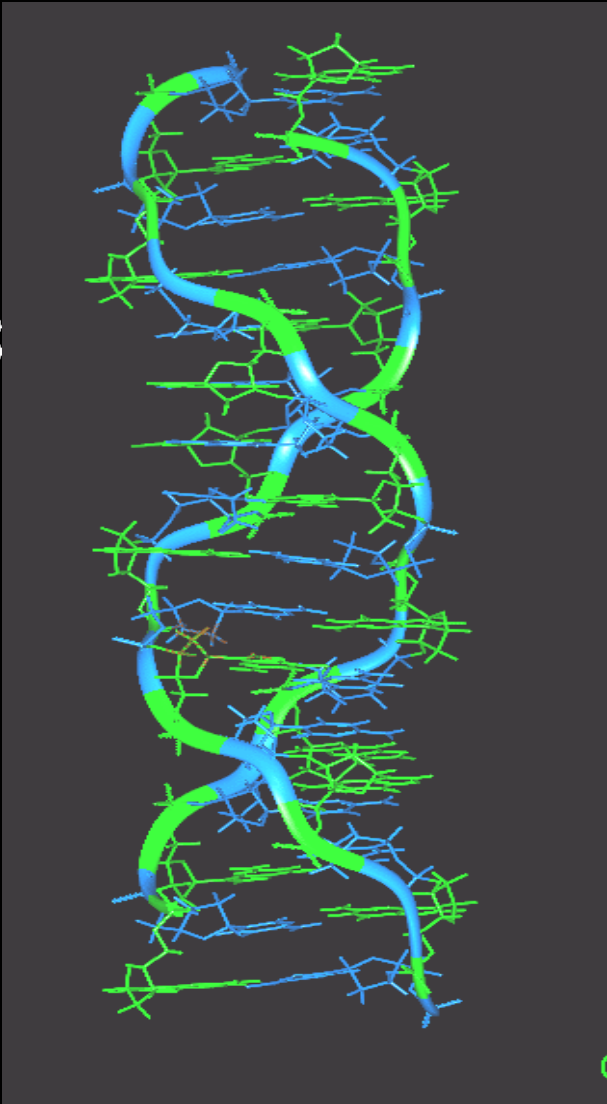
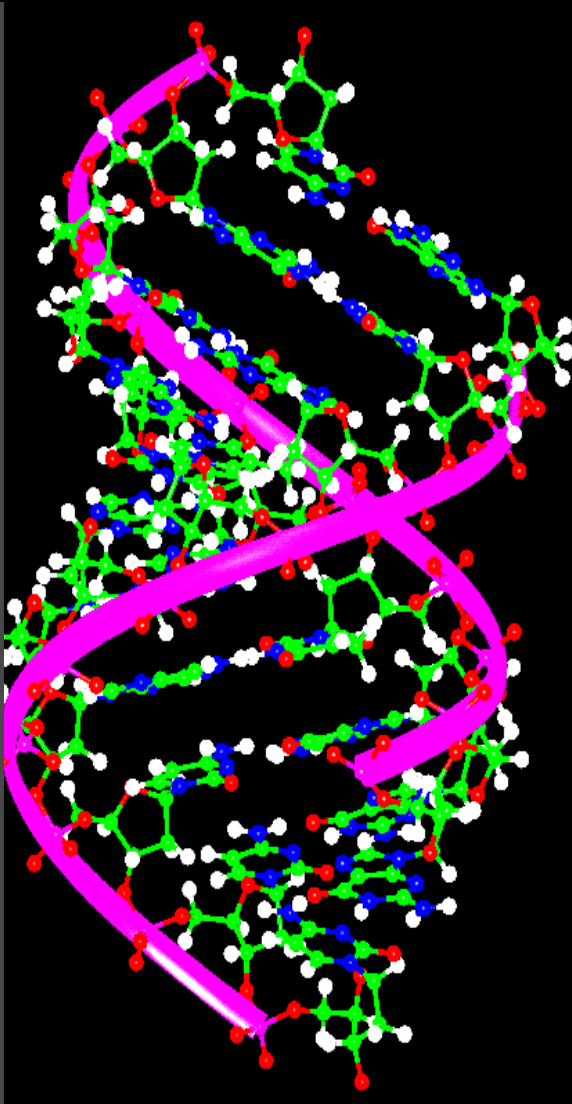
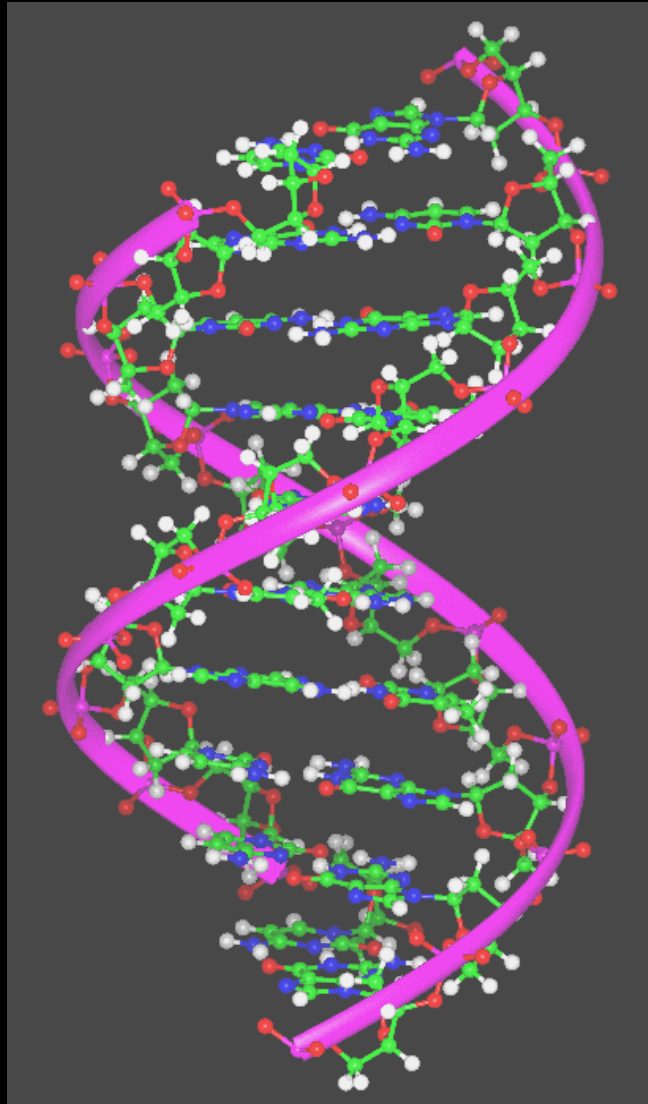
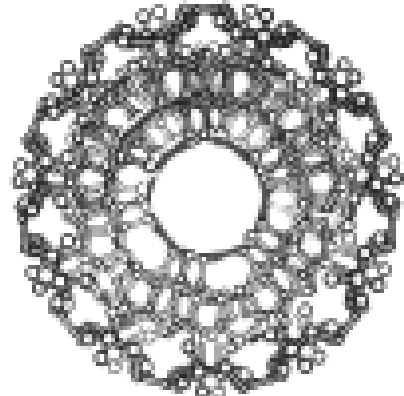
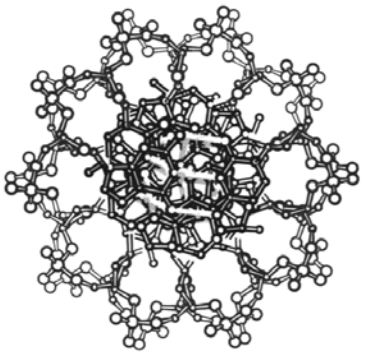
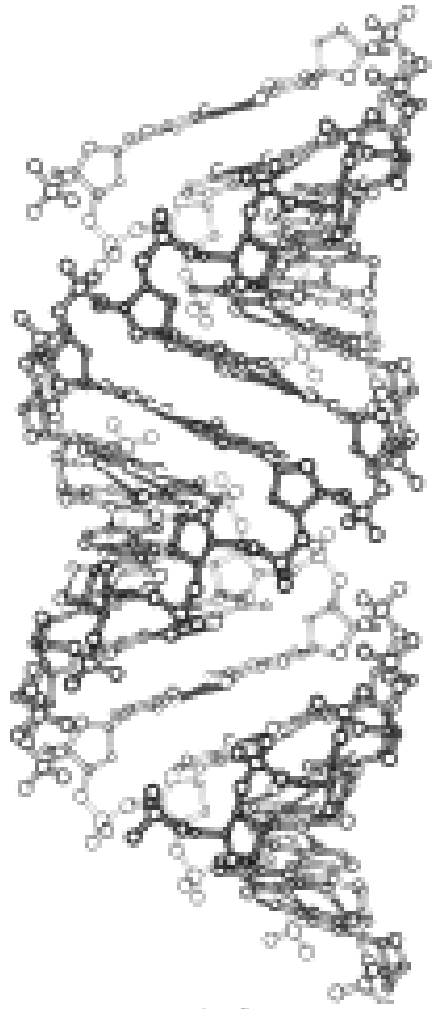
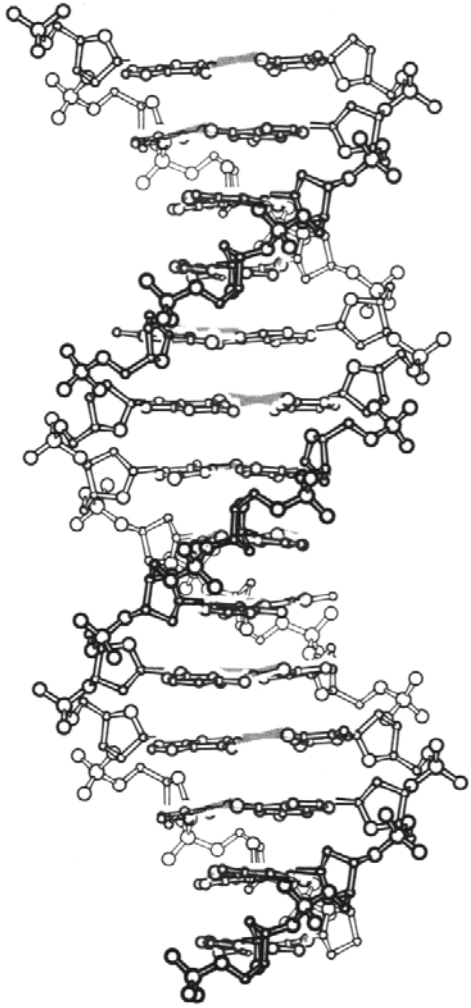
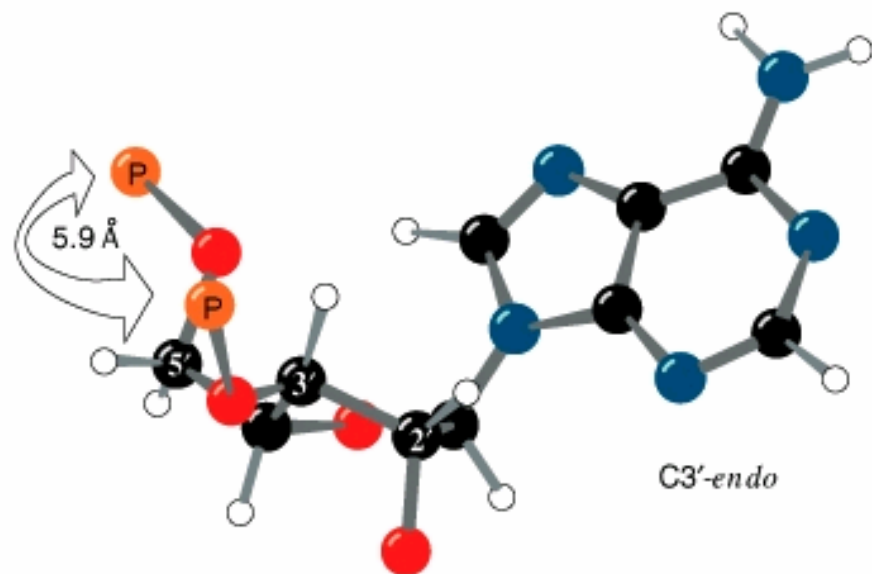


Table 3 Comparison of Structural Characteristics of A- and B-Type Polynucleotide Double Helices

Family type	A	B
Sugar pucker	$C_{3'}-endo$	$C_{2'}-endo$
Intrastrand phosphate phosphate distance	5.9 Å	7.0 Å
Dislocation of base-pairs from helix axis	4.4 to 4.9 Å in major groove	-0.2 to -1.8 Å in minor groove
Rotation per nucleotide	30° to 32.7°	36° to 45°
Axial rise per nucleotide	2.56 to 3.29 Å	3.03 to 3.37 Å
Base-pair tilt	Positive, 10° to 20.2°	Negative, -5.9° to -16.4°



(a)



(b)

