

- Lehrbücher:

②

① Hoppe / Kolmann / Markel / Fiegler : Biophysik
Springer bis 1985 - Ein Lehrbuch

mit Abstand am besten!

② Winter / Noll : Methoden der Biophysikal. Chemie
Teubner 1990

③ Adam / Längs / Stark : Physikal. Chemie und Biophysik
Springer 1995

④ Damm : Molekulare Biophysik
Vieweg 1993

NEU: Schümmann : Biophysik - Eine Einführung, Springer
- intermolekulare Wechselwirkungen, 2005

* Israelachvili : Intermolecular and Surface
Forces, Academic Press, 1992

- Physiko-Chemie:

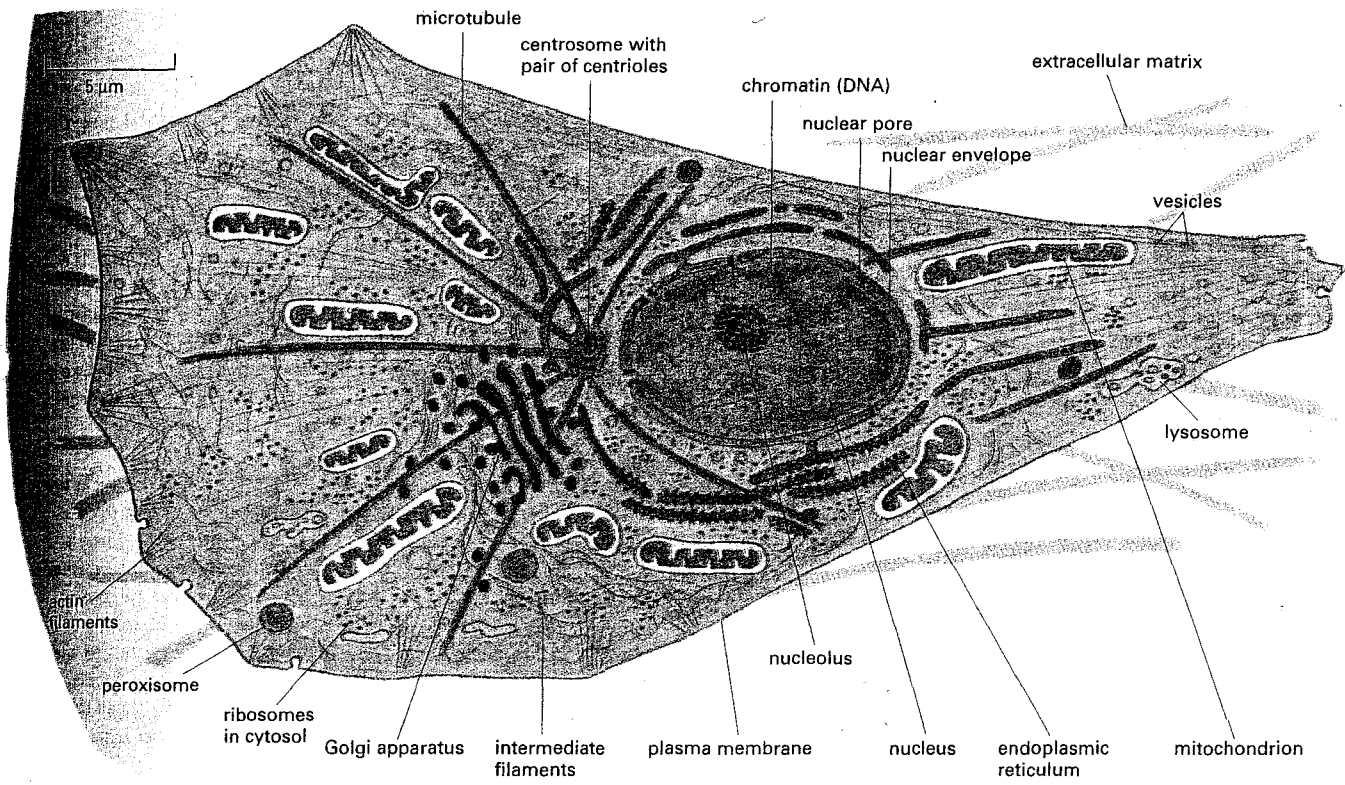
Athens : (Kurzlehrbuch) Physikal. Chemie
Spektrum Akad. Verlag 1993

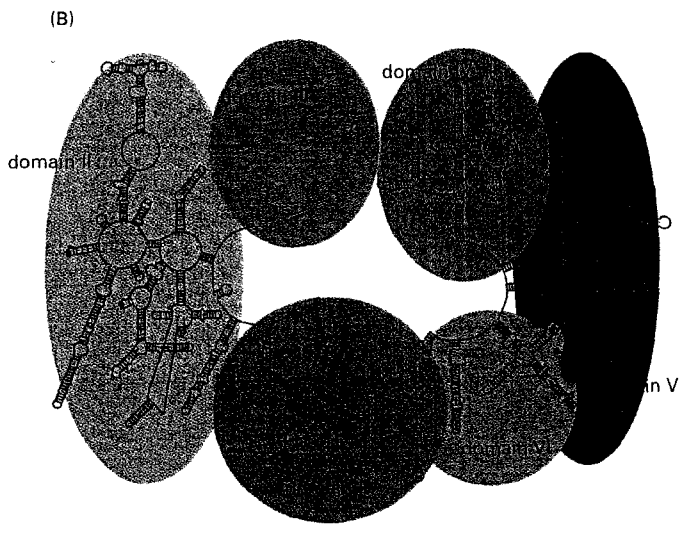
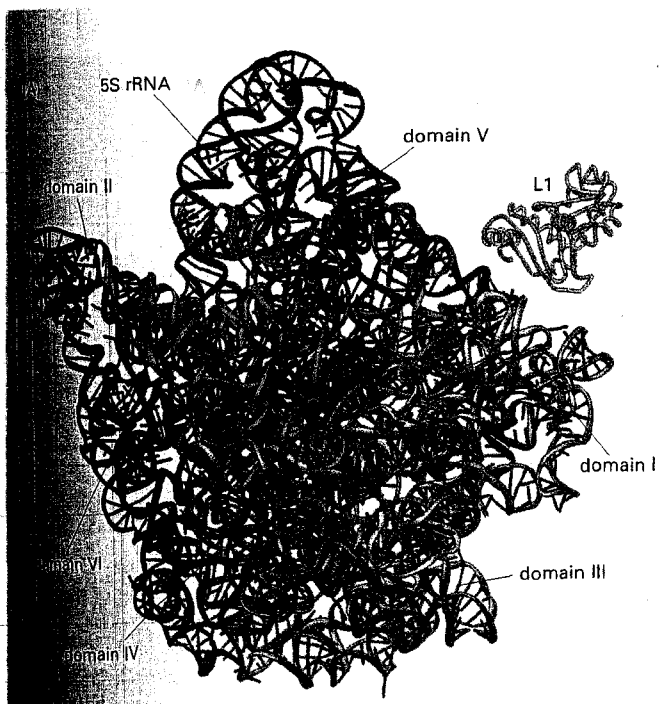
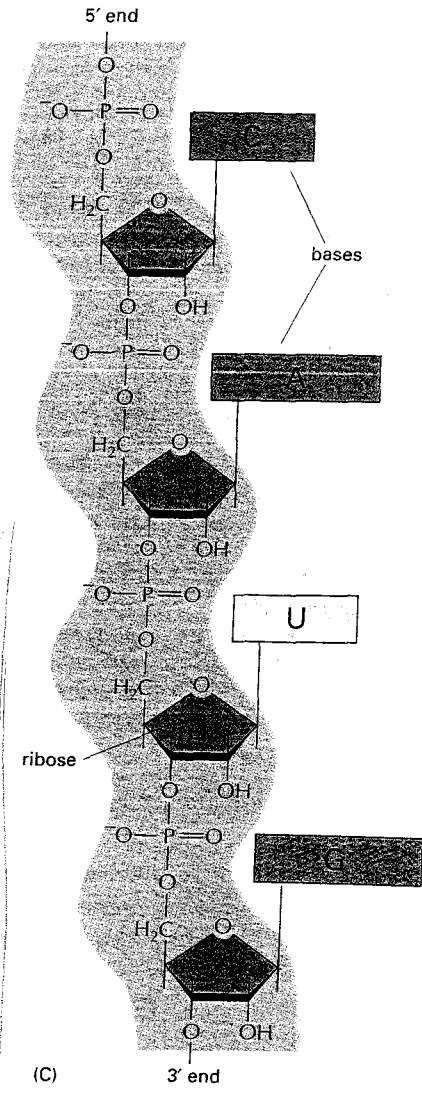
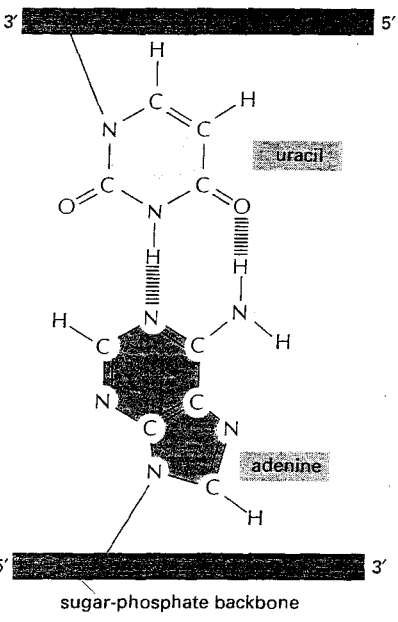
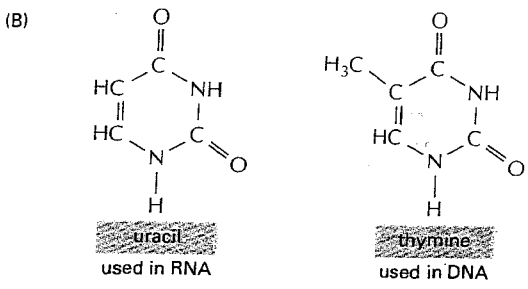
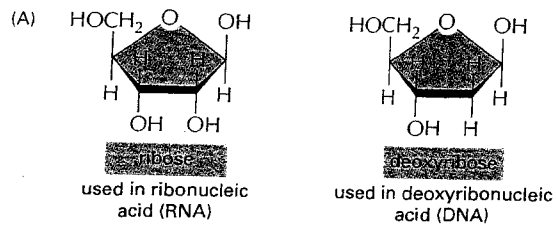
- Quantik: Brown : Modern Quantik
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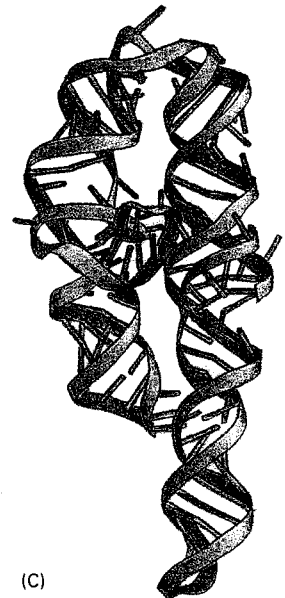
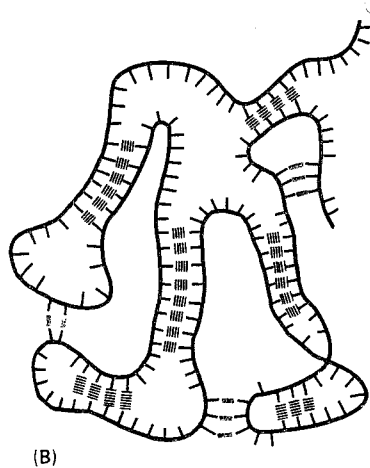
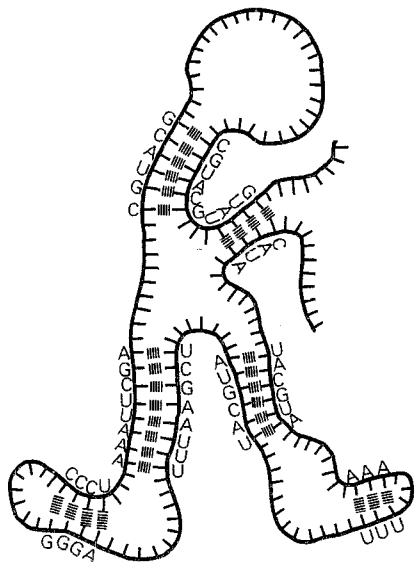
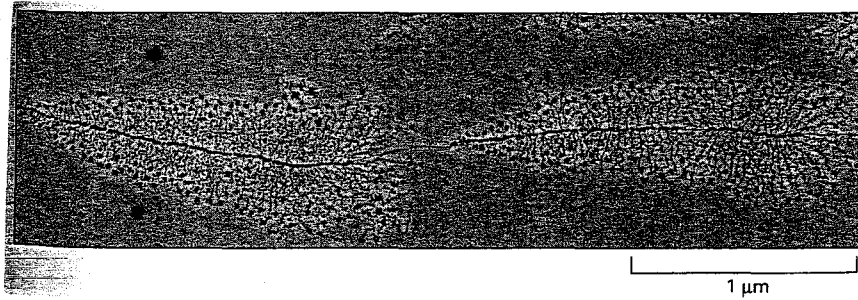
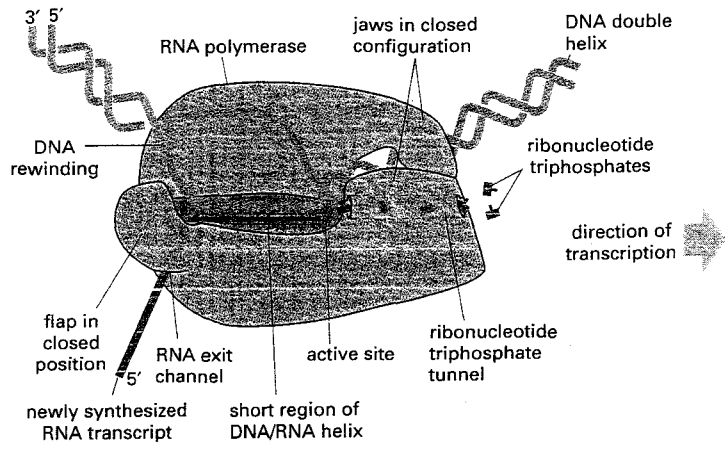
Alberts : Molecular Biology of the cell

- Cantor / Schimmel Garland 1994
Biophysical Chemistry :

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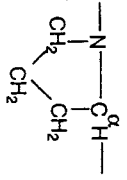
Übersicht V: Die Aminosäuren

Name der Aminosäure	3-Buchstaben-Code	1-Buchstaben-Code	Seitenkette R
Glycin	Gly	G	-H
<i>Aliphatisch</i>			
Alanin	Ala	A	-CH ₃
Valin	Val	V	-CH-(CH ₃) ₂
Leucin	Leu	L	-CH ₂ -CH-(CH ₃) ₂ -CH-CH ₂ -CH ₃
Isoleucin	Ile	I	-CH(CH ₃) -CH ₂ -CH ₃
Prolin*	Pro	P	
Cystein	Cys	C	-CH ₂ -SH
Methionin	Met	M	-(CH ₂) ₂ -S-CH ₃
<i>Aromatisch</i>			
Histidin	His	H	
Phenylalanin	Phe	F	
Tyrosin	Tyr	Y	
Tryptophan	Trp	W	
<i>Polar</i>			
Asparagin	Asn	N	-CH ₂ -C(=O)-NH ₂

Übersicht VI: Genetischer Code

Name der Aminosäure	3-Buchstaben-Code	1-Buchstaben-Code	Seitenkette R
<i>Polar</i>			
Glutamin	Gln	Q	-(CH ₂) ₂ -C(=O)-NH ₂
Serin	Ser	S	-CH ₂ OH
Threonin	Thr	T	-CH(OH)-CH ₃
<i>Geladen</i>			
Lysin	Lys	K	-(CH ₂) ₄ -NH ₃ ⁺
Arginin	Arg	R	-(CH ₂) ₃ -NH-C(=NH ₂) ⁺ NH ₂ ⁺
Aspartat	Asp	D	CH ₂ -COO ⁻
Glutamat	Glu	E	(CH ₂) ₂ -COO ⁻

*Man bemerke, daß der Ring des Prolins mit der NH-Gruppe vor dem C^α geschlossen wird:



Übersicht VI: Genetischer Code

Erste Base	Zweite Base			Dritte Base
	U	C	A	
U	Phe	Ser	Tyr	Cys
	Phe	Ser	Tyr	Cys
	Leu	Ser	Stop	Stop
	Leu	Ser	Stop	Trp
C	Leu	Pro	His	Arg
	Leu	Pro	His	Arg
	Leu	Pro	Gln	Arg
	Leu	Pro	Gln	Arg
A	Ile	Thr	Asn	Ser
	Ile	Thr	Asn	Ser
	Ile	Thr	Lys	Arg
	Met	Thr	Lys	Arg
G	Val	Ala	Asp	Gly
	Val	Ala	Asp	Gly
	Val	Ala	Glu	Gly
	Val	Ala	Glu	Gly