

## Appendix B - Lists and directories

### List of abbreviations

AEC	anion exchange chromatography
APBS	adaptive Poisson-Boltzmann solver
<i>Bc</i> -Csp	<i>Bacillus caldolyticus</i> Csp
<i>Bs</i> -CspB	<i>Bacillus subtilis</i> Csp
calc.	calculated
CD	circular dichroism
Csp / CSP	a specific cold shock protein / cold shock protein(s) (in general)
CSD	cold shock domain(s)
DEAE sepharose	diethyl-amino-ethyl sepharose ( a column material for anion exchange chromatography)
diglycerides	diacylphosphatidylglycerides
dT <sub>6</sub> , dC <sub>6</sub>	deoxyribo hexathymidine, deoxyribo hexacytidine
dT <sub>7</sub> , dC <sub>7</sub>	deoxyribo heptathymidine, deoxyribo heptacytidine
DNA	deoxyribonucleic acid
dNTP	deoxyribonucleoside triphosphate
<i>Ec</i> -CspA	<i>Escherichia coli</i> CspA
EDTA	ethylene-diamine-tetraacetate
FPLC	fast phase liquid chromatography
GFC	gel filtration chromatography
HCOH	formaldehyde
HIC	hydrophobic interaction chromatography
IPTG	isopropyl thiogalactoside
$K_A$ , $K_D$	equilibrium association and dissociation constants (see Equation 2.6 & Equation 2.7)
$k_{on}$ , $k_{off}$	association and dissociation rate constants
$k_{obs}$	observed quasi first-order rate constant in stopped-flow analyses (see Equation 2.10)
LB	Luria-Bertani medium for bacterial cell culture
mRNA	messenger RNA
mol.	molecular
MPD	2-methyl-2,4-pentanediol
MR	molecular replacement
OB-fold	oligonucleotide / oligosaccharide binding fold
PCR	polymerase chain reaction
pH	<i>potentia hydrogenii</i> ( $\log c_{H_3O^+}$ ), measure for acidity in aqueous solutions
pI	isoelectric point (pH at which a molecule has a net charge of 0)
PDB	Protein Data Bank, see [111]

## Appendix B

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RMSD	root mean square deviation
RNA	ribonucleic acid
RNP	ribonucleoprotein
rpm	rotations per minute
rxn.	reaction
PAGE	poly-acrylamide gel electrophoresis
PEG	polyethylene glycol
SDS	sodium dodecyl sulfate
ssDNA	single-stranded DNA
ssRNA	single-stranded RNA
TBE	TRIS-borate-EDTA buffer
TCA	tri chlorine acetate
TEMED	N,N,N',N'-tetramethylethylenediamine
TLS	translational, librational, & screw [parameters]
$T_M$	melting temperature
<i>Tm</i> -Csp	<i>Thermotoga maritima</i> Csp
TRIS	tris(hydroxymethyl)-aminomethan
UV / vis	ultraviolet / visible (light)
vs.	<i>versus</i> (= in comparison to)

### physical units

°C	temperature unit, degrees Celsius
Å	distance unit, Ångstroem ( $10^{-10}$ m)
A	electrical currency unit, Ampère
Da	molecular weight unit, Dalton, ~ g / mol
g	mass unit, gram
h	time unit, equal 60 minutes
l	volume unit, liter
m	distance unit, meter
mol	molecular unit, mole, equals $6.023 \cdot 10^{23}$ particles of a substance
M	concentration unit, molar, moles per liter
min	time unit, minute, equals 60 seconds
psi	pressure unit, 1 psi = 6894.8 Pa
Pa	pressure unit, Pascal (pressure unit)
s	time unit, second
u	(biological) activity unit, describes the activity of an enzyme
V	electrical voltage unit, Volt

### prefixes defining orders of magnitude

p	pico, $10^{-12}$	k	kilo, $10^3$
n	nano, $10^{-9}$	M	mega, $10^6$
μ	micro, $10^{-6}$	G	giga, $10^9$
m	milli, $10^{-3}$		

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