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Nomenclature

Symbols

η	Crowder density
γ	Solution constant
κ	Single strand elasticity
λ	Solution constant
ϕ	Fraction of open pairs
ρ	Anharmonicity in stacking
θ	Fraction of intact pairs
a	Inverse of potential width
b	range of anharmonicity
C_v	Specific heat
D	Potential depth
f	Free energy
F_c	Critical force
H	Hamiltonian
k_{eta}	Boltzmann constant
S	Entropy
T_m	Melting temperature
V_{M}	Morse potential

Nomenclature

Z Partition function

 Z_c Configurational part of the partition function

 Z_p Momentum part of the partition function

Acronyms

A Adenine

AFM Atomic force microscop

C Cytocine

CEE Constant extension ensemble

CFE Constant force ensemble

DNA Deoxyribonucleic Acid

dsDNA Double stranded DNA

G Guanine

MC Monte Carlo

MD Molecular Dynamics

mRNA Messenger RNA

MT Magnetic tweezer

OT Optical tweezer

PBD Peyrard Bishop Dauxois

RNA Ribonucleic acid

SMFE Single molecule force experiment

SMFS Single molecule force spectroscopy

ssDNA Single stranded DNA

T Thymine

tRNA Transfer RNA