DNA PARTITIONS INTO TRIPLETS UNDER TENSION IN THE PRESENCE OF ORGANIC CATIONS, WITH SEQUENCE EVOLUTIONARY AGE PREDICTING THE STABILITY OF THE TRIPLET PHASE

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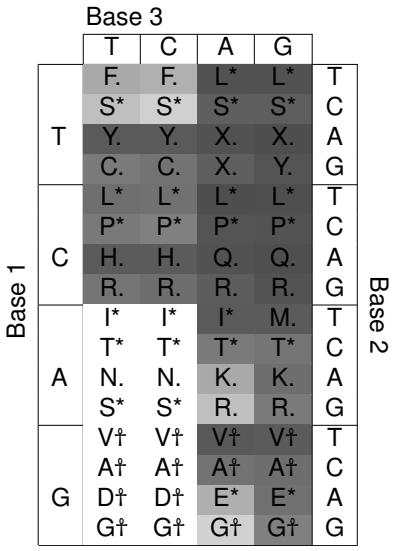
(a) Protozanova *et al.*

Amino Acid	codon · anticodon	$\Delta G_\tau\,/k_BT$
T*	ACC·GGT	1.38
G†	GGT·ACC	1.38
S*	AGT·ACT	1.51
A†	GCC·GGC	1.56
I*	ATC·GAT	1.57
D†	GAT·ATC	1.57
V†	GTC·GAC	1.61
N.	AAT·ATT	1.63
R.	AGA·TCT	2.40
F.	TTC·GAA	2.55
E*	GAA·TTC	2.55
K.	AAA·TTT	2.61
P*	CCC·GGG	3.20
C.	TGT·ACA	3.32
L*	CTC·GAG	3.54
M.	ATG·CAT	4.45
H.	CAT·ATG	4.47
Y.	TAT·ATA	4.57
Q.	CAA·TTG	5.41

(b) Lemkul *et al.*

Amino Acid	codon · anticodon	$\Delta G_\tau\,/k_BT$
S*	AGT·ACT	1.30
T*	ACT·AGT	1.30
A†	GCT·AGC	1.46
D†	GAT·ATC	1.47
I*	ATC·GAT	1.47
R.	CGT·ACG	1.68
E*	GAG·CTC	1.82
L*	CTC·GAG	1.83
V†	GTC·GAC	1.90
N.	AAT·ATT	2.02
K.	AAG·CTT	2.38
Y.	TAT·ATA	3.09
F.	TTC·GAA	3.57
M.	ATG·CAT	3.93
H.	CAT·ATG	3.94
Q.	CAG·CTG	4.32
G†	GGT·ACC	4.81
P*	CCT·AGG	4.82
C.	TGT·ACA	4.96

(c) Protozanova *et al.*



(d) Lemkul *et al.*

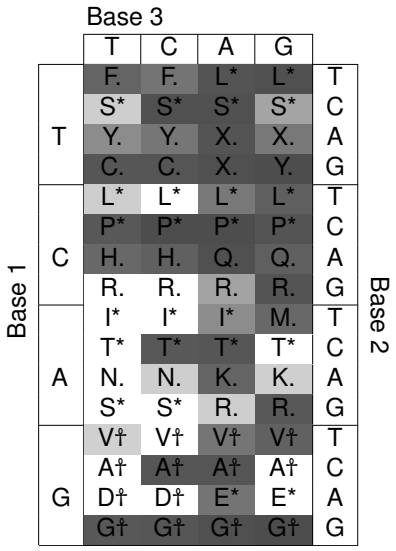


Figure S1. Triplet formation free energies and triplet disproportionation propensity with Protozanova *et al.*(a,c) and Lemkul *et al.*(b,d) datasets.

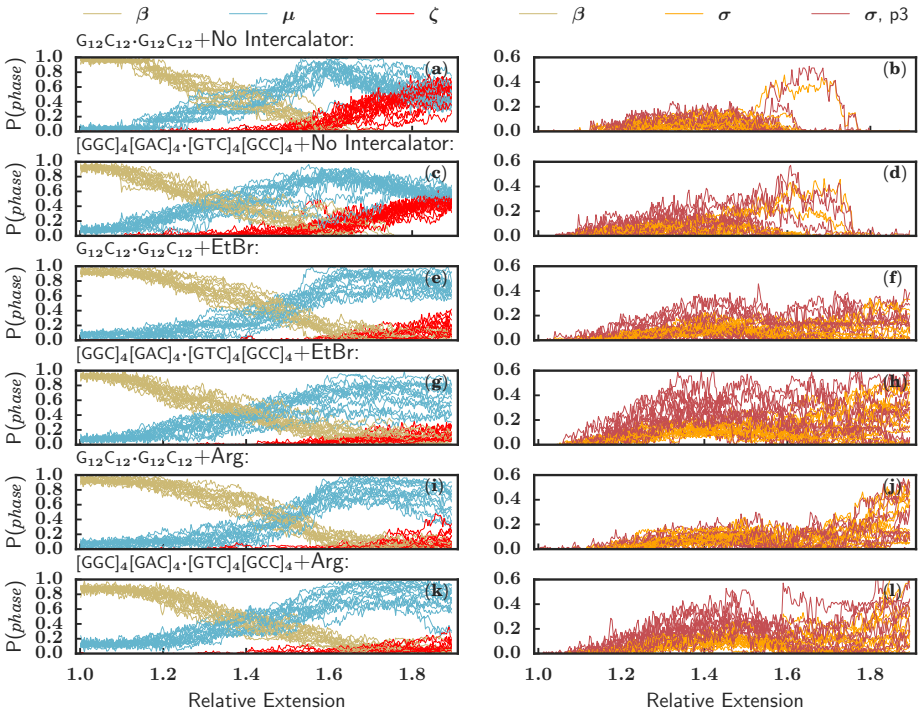


Figure S2. Inter-run variation of the proportion of different local conformations of different phases. Trends are consistent between replicates up to extensions of >1.5, where (especially without intercalator) strong kinetic lock-in becomes evident.

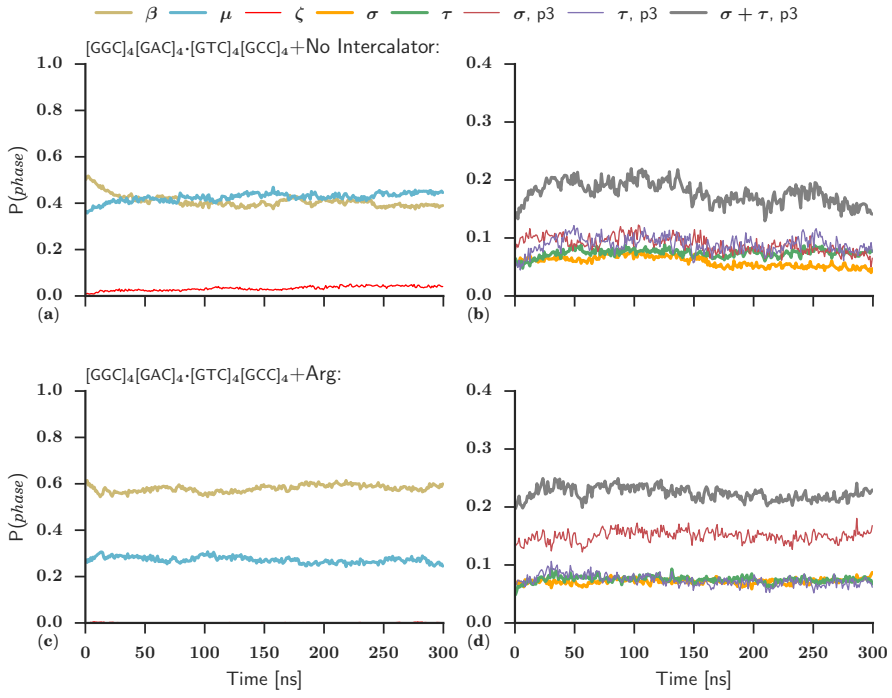


Figure S3. Proportion of each classified conformation versus time, at constant extension of 1.45, averaged over 16 replicates and also smoothed over a 1ns window. The proportion of each conformation remained approximately constant over 300ns.