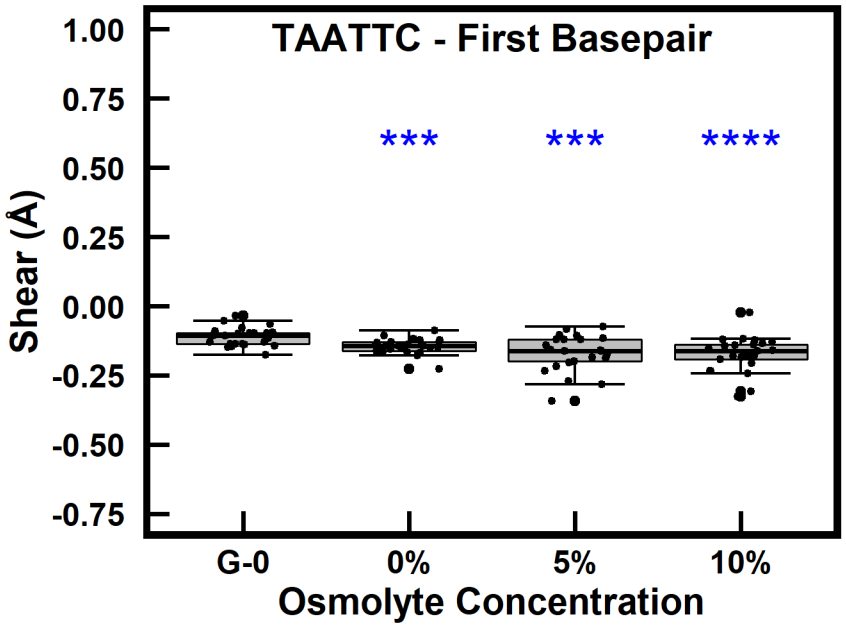
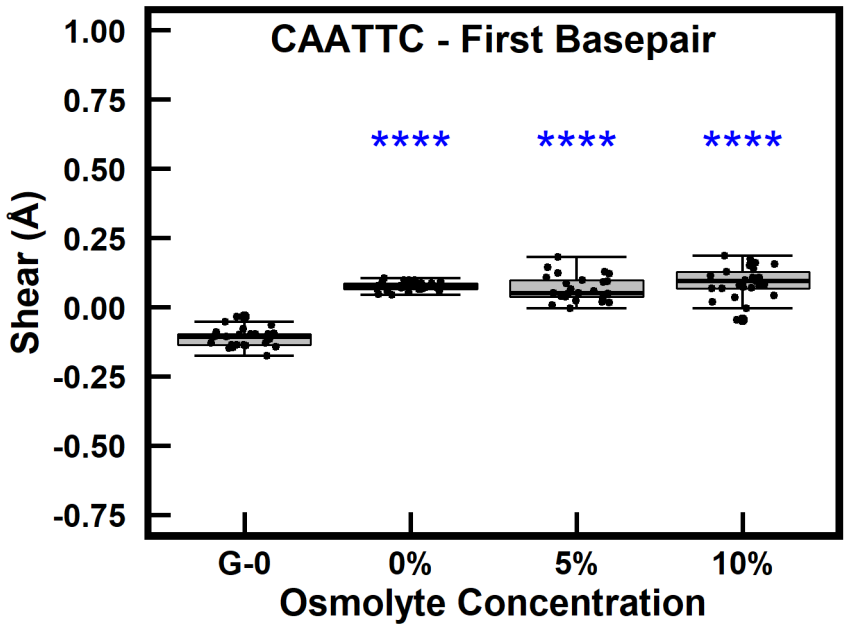
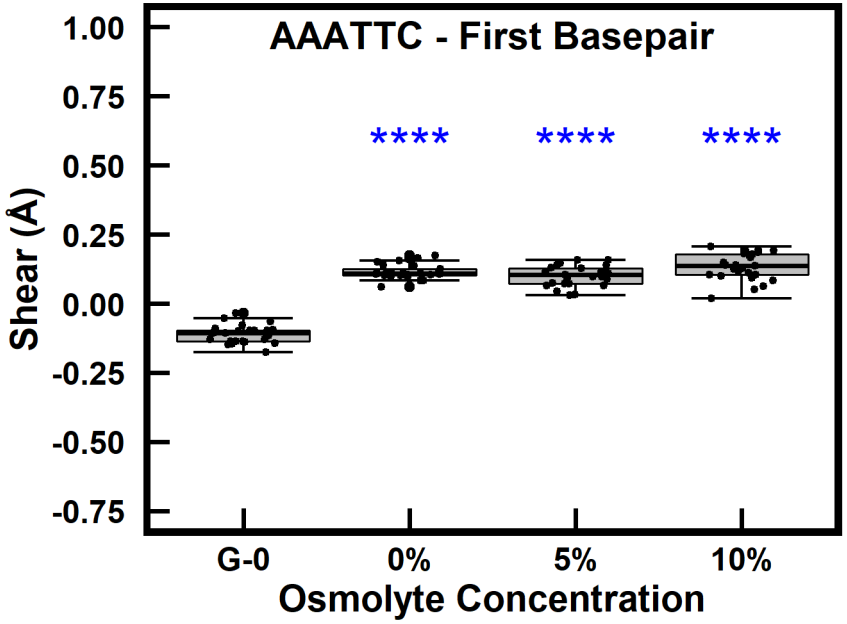
Significance plot of the DNA conformational parameters obtained from unpaired t-test with respect to GAATTC

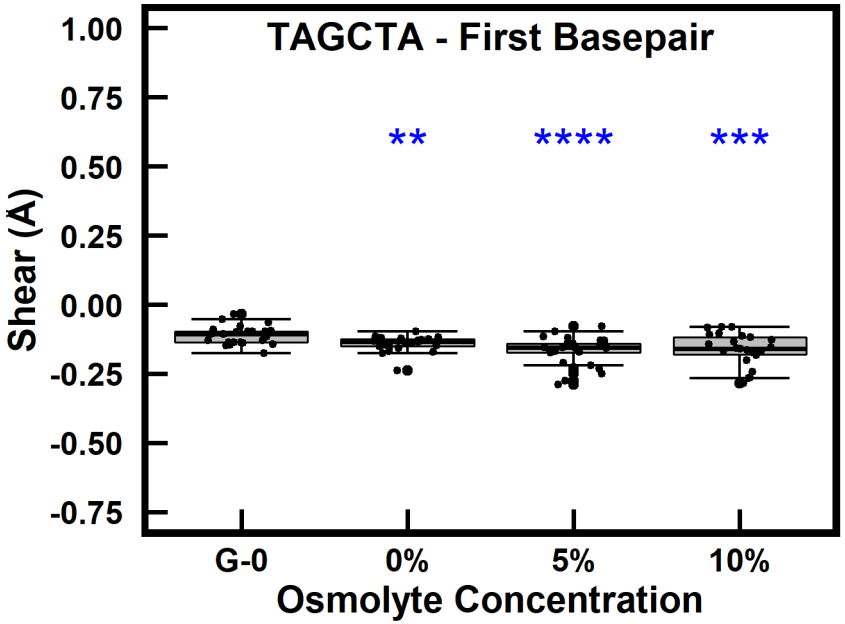
The values were deemed to be significantly different at a confidence interval of 95% and p-value < 0.01

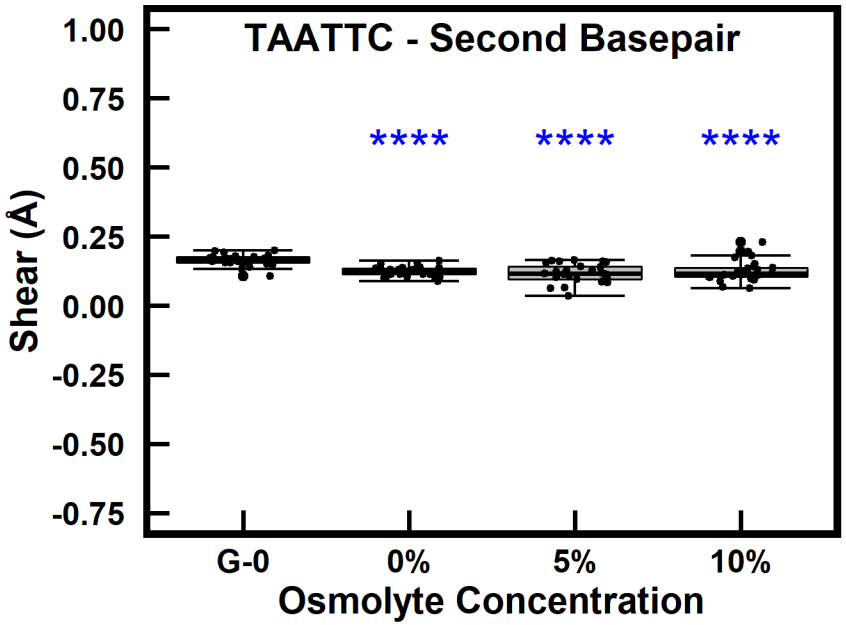
Shear

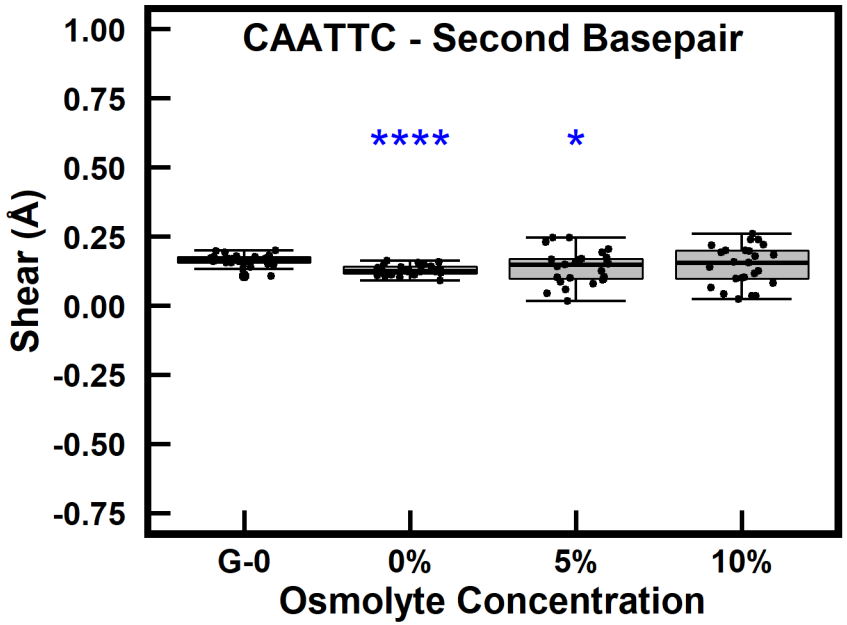

TAATTC - First Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
***
***
****
G-0
0%
5%
10%
Osmolyte Concentration

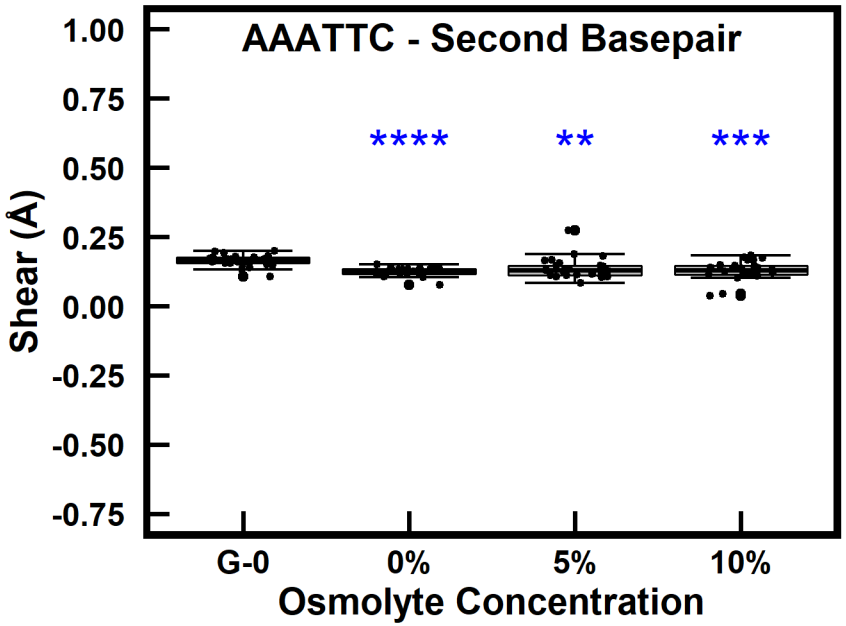

CAATTC - First Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

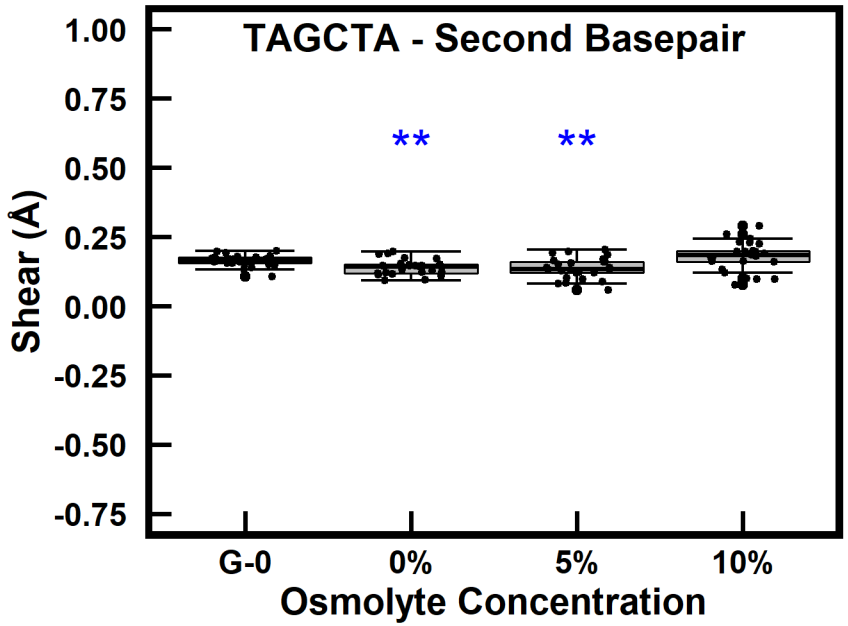

AAATTC - First Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

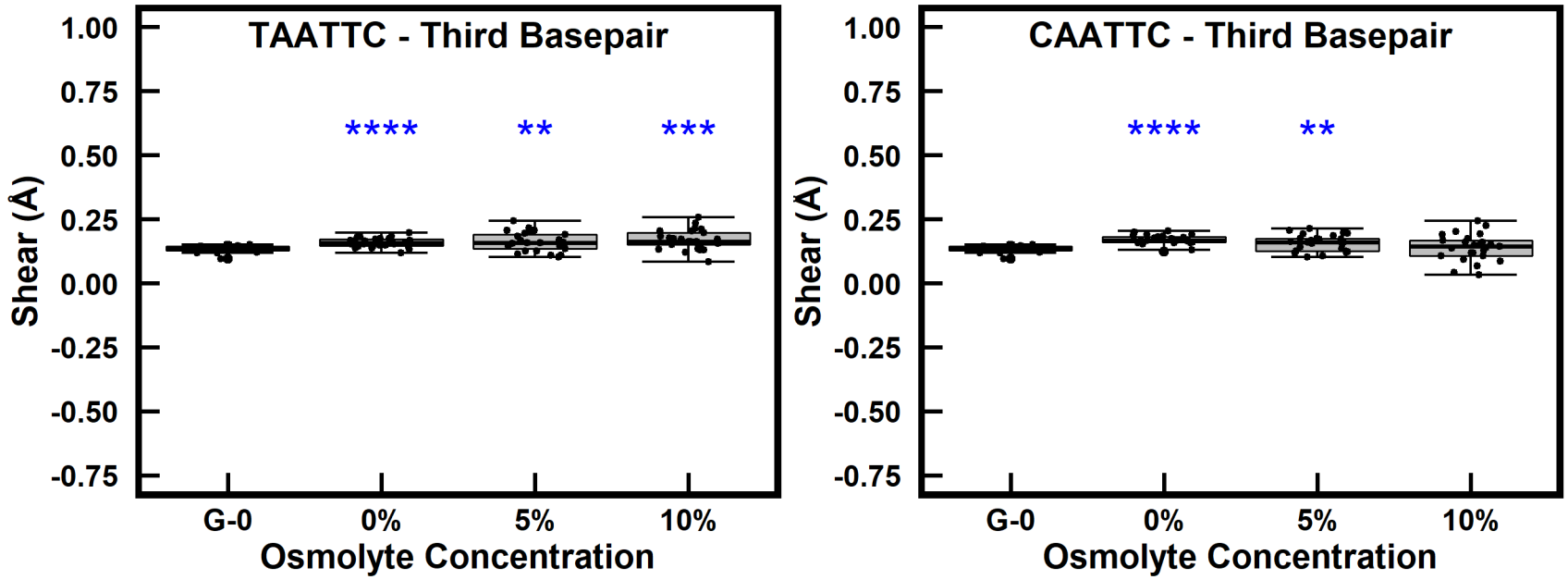

TAGCTA - First Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
**
****
***
G-0
0%
5%
10%
Osmolyte Concentration


TAATTC - Second Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

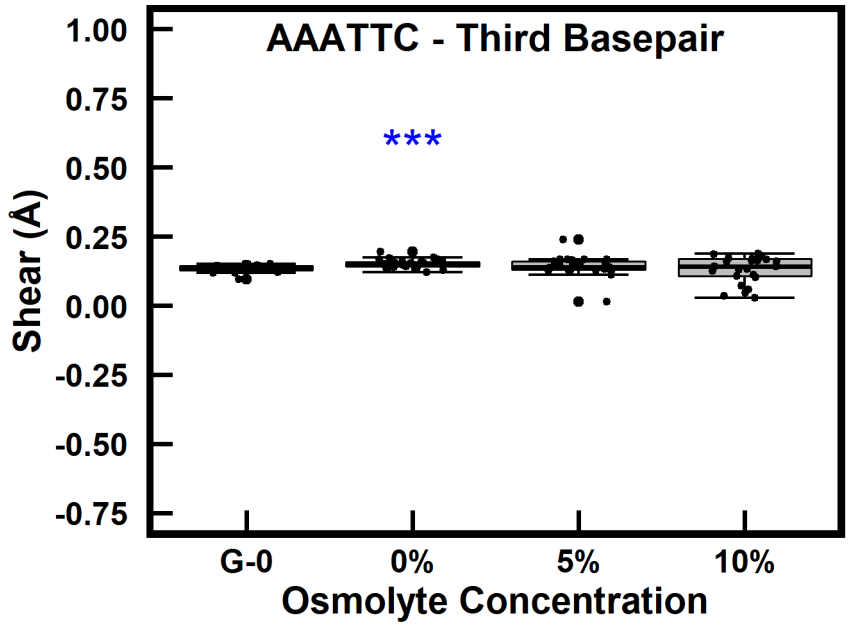

CAATTC - Second Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
*
G-0
0%
5%
10%
Osmolyte Concentration

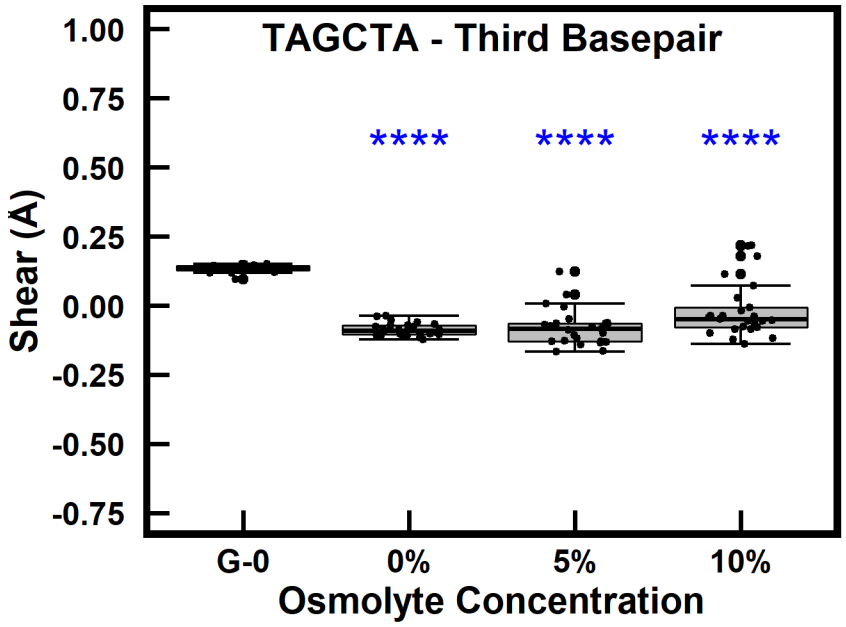

AAATTC - Second Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
**
***
G-0
0%
5%
10%
Osmolyte Concentration

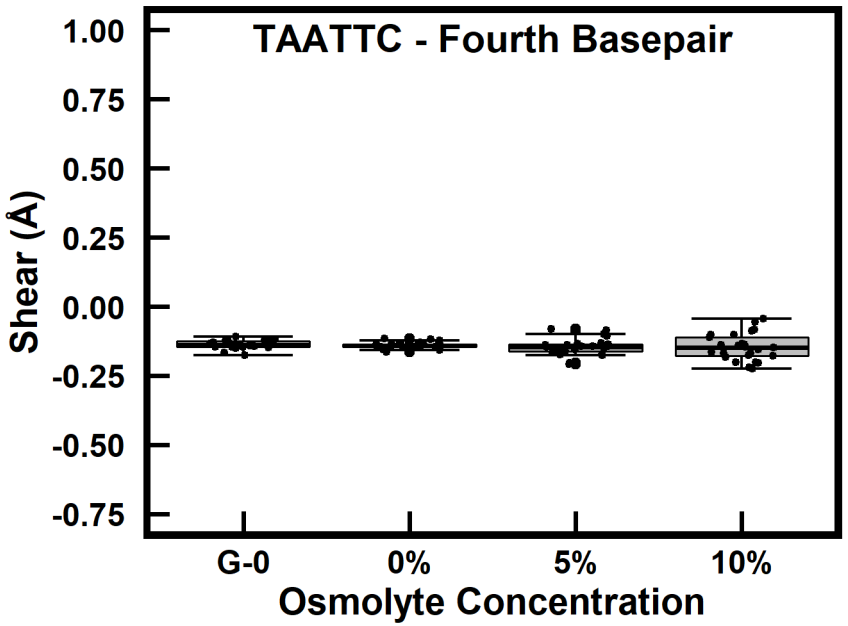

TAGCTA - Second Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
**
**
G-0
0%
5%
10%
Osmolyte Concentration

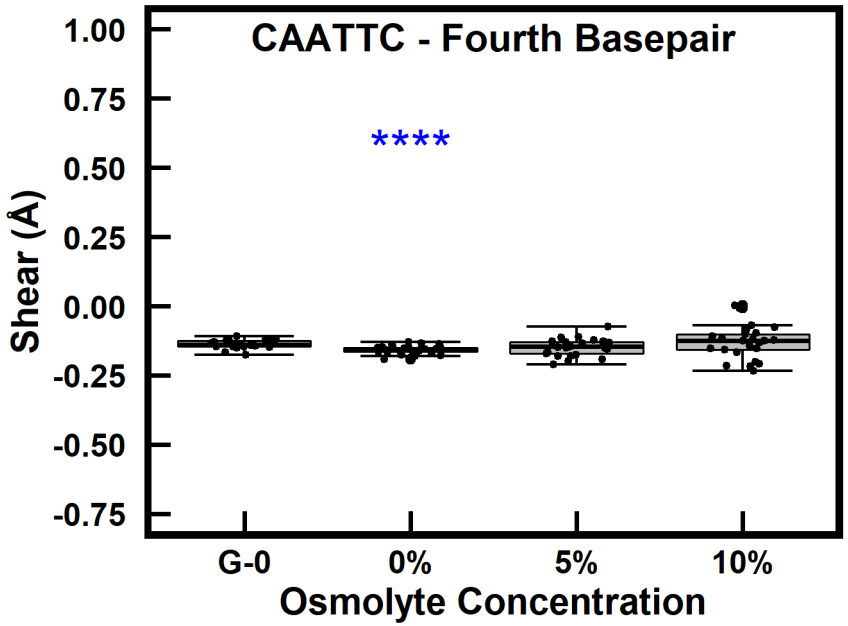

TAATTC - Third Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
**
***
G-0
0%
5%
10%
Osmolyte Concentration

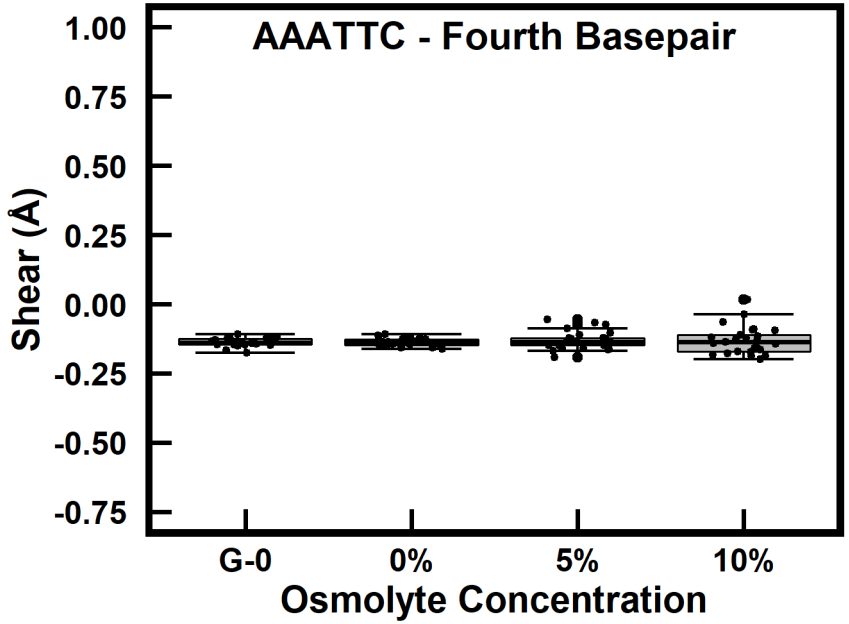
CAATTC - Third Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
**
G-0
0%
5%
10%
Osmolyte Concentration

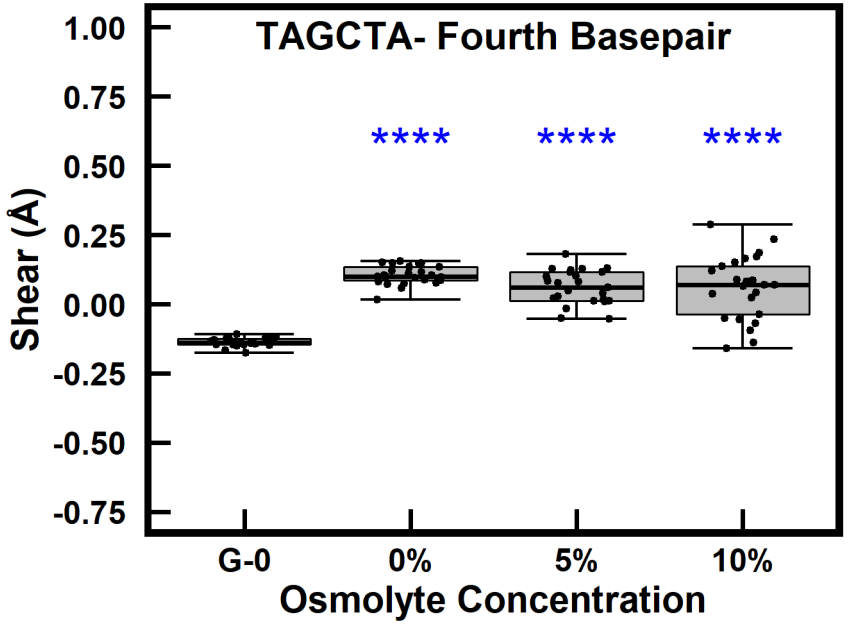

AAATTC - Third Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
***
G-0
0%
5%
10%
Osmolyte Concentration

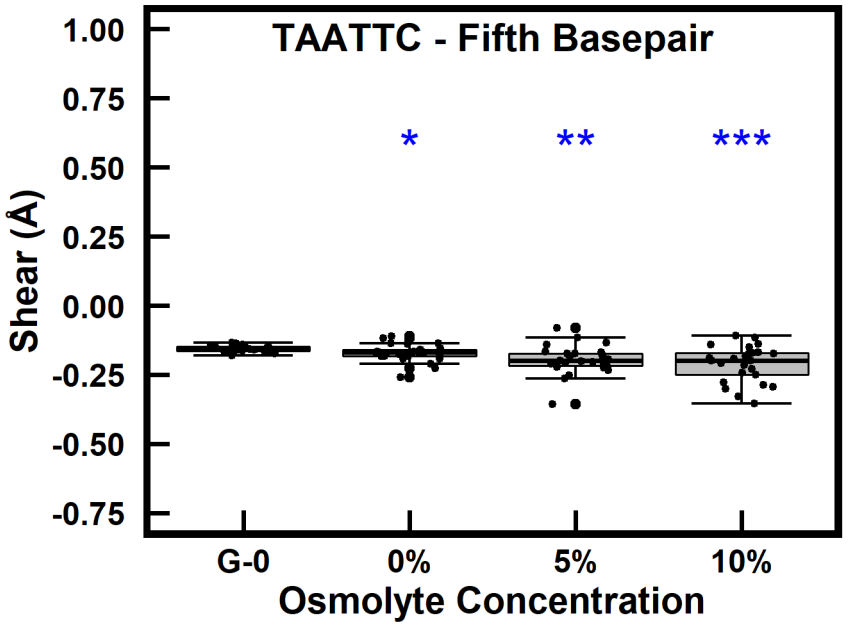

TAGCTA - Third Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

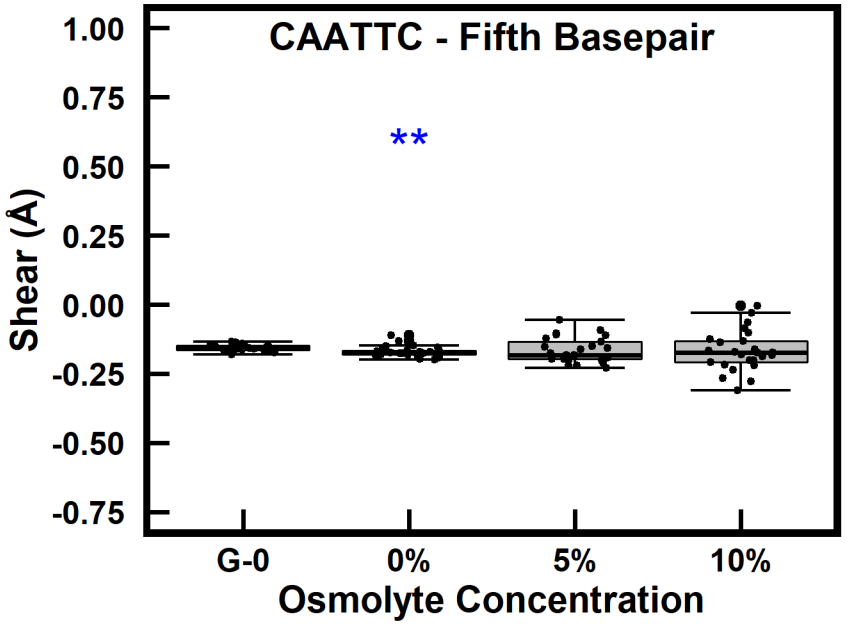

TAATTC - Fourth Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

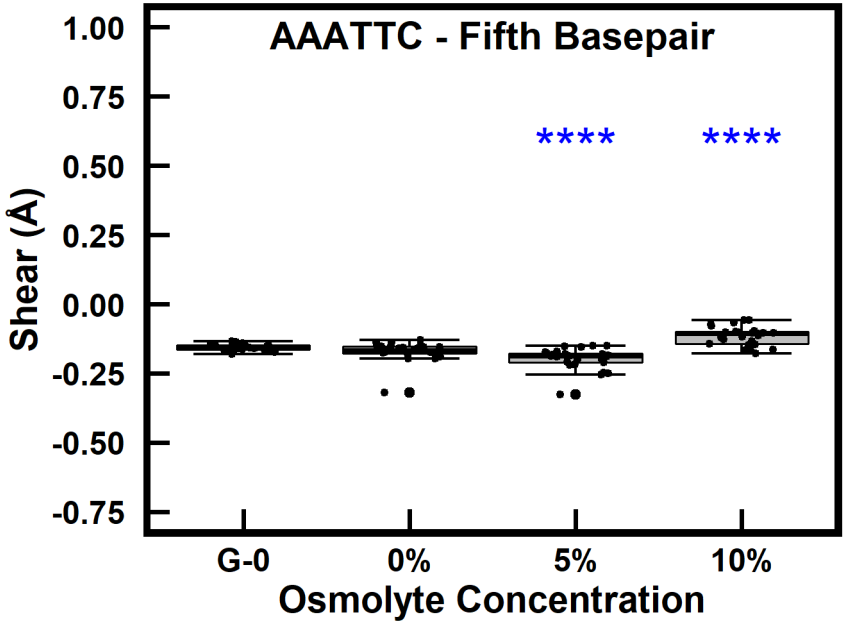

CAATTC - Fourth Basepair
****
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

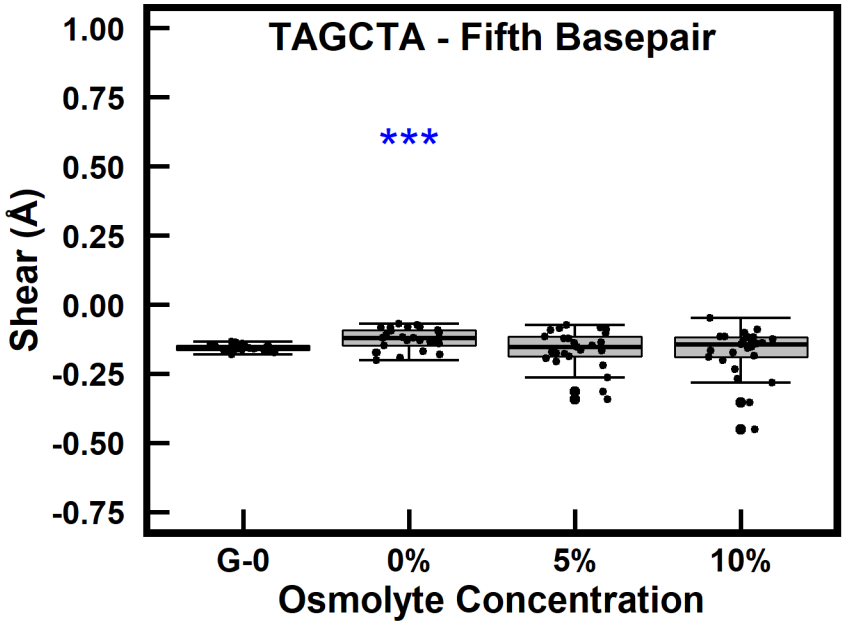

AAATTC - Fourth Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

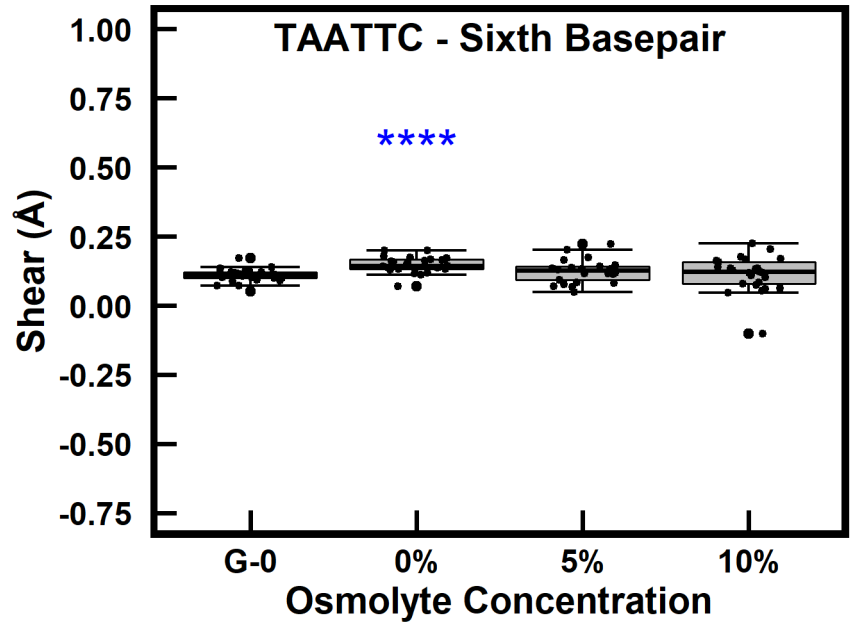

TAGCTA- Fourth Basepair
****
****
****
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

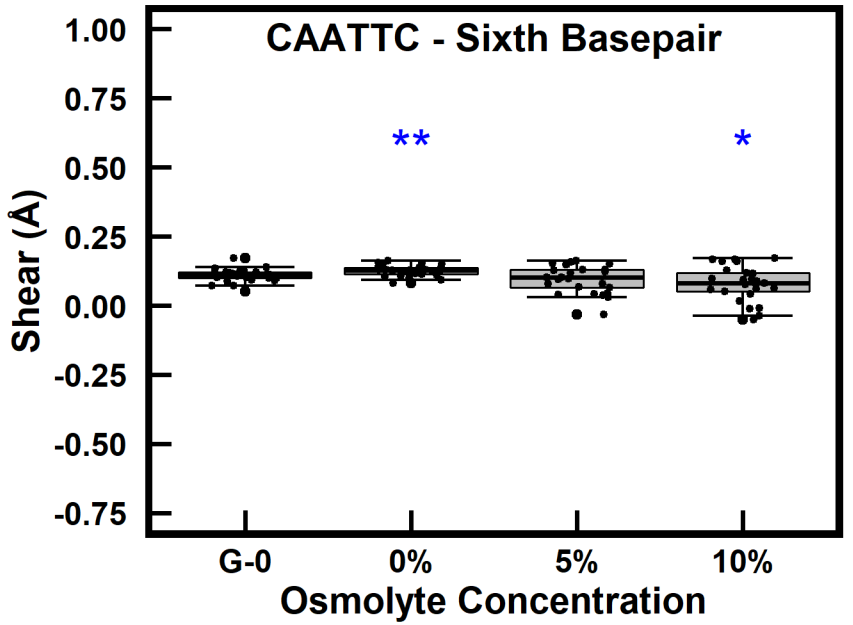

TAATTC - Fifth Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
*
**
***
G-0
0%
5%
10%
Osmolyte Concentration

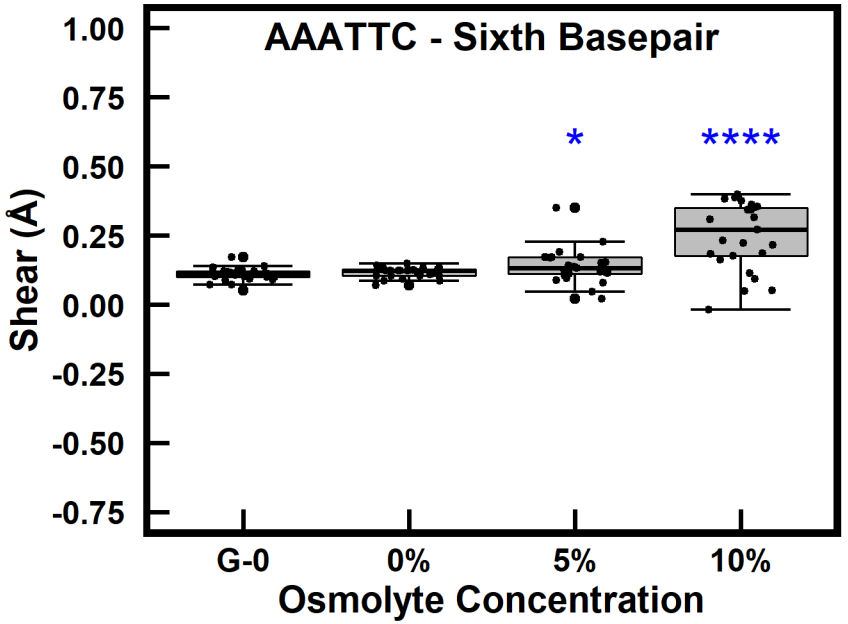

CAATTC - Fifth Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
**
G-0
0%
5%
10%
Osmolyte Concentration

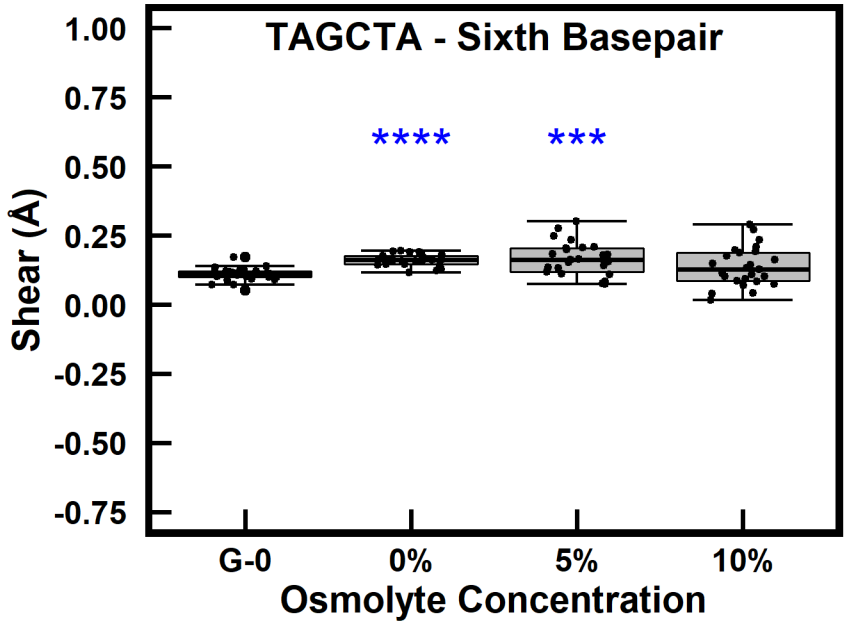

AAATTC - Fifth Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
****
****
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
Shear (Å)
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
***
G-0
0%
5%
10%
Osmolyte Concentration

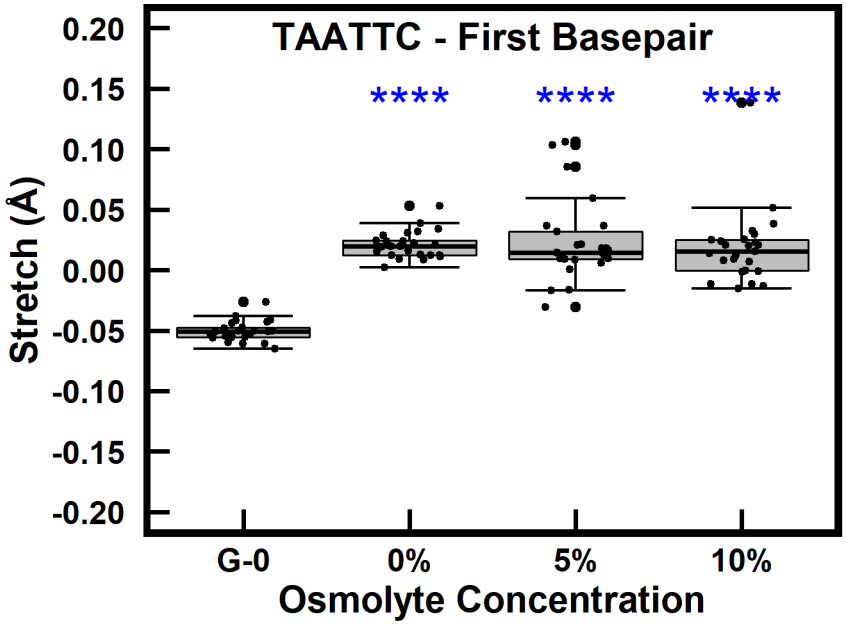

TAATTC - Sixth Basepair
****
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Shear (Å)
G-0
0%
5%
10%
Osmolyte Concentration

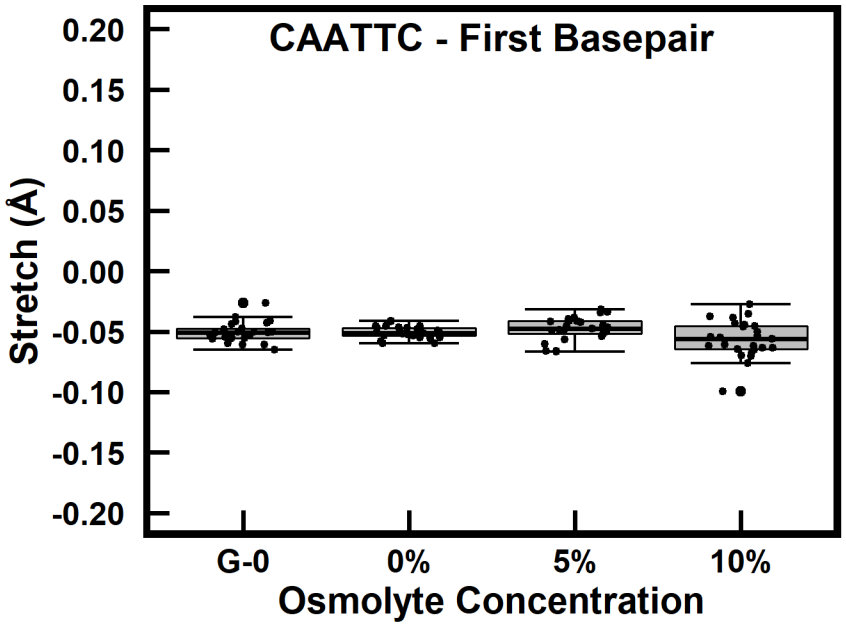

CAATTC - Sixth Basepair
**
*
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Shear (Å)
G-0
0%
5%
10%
Osmolyte Concentration

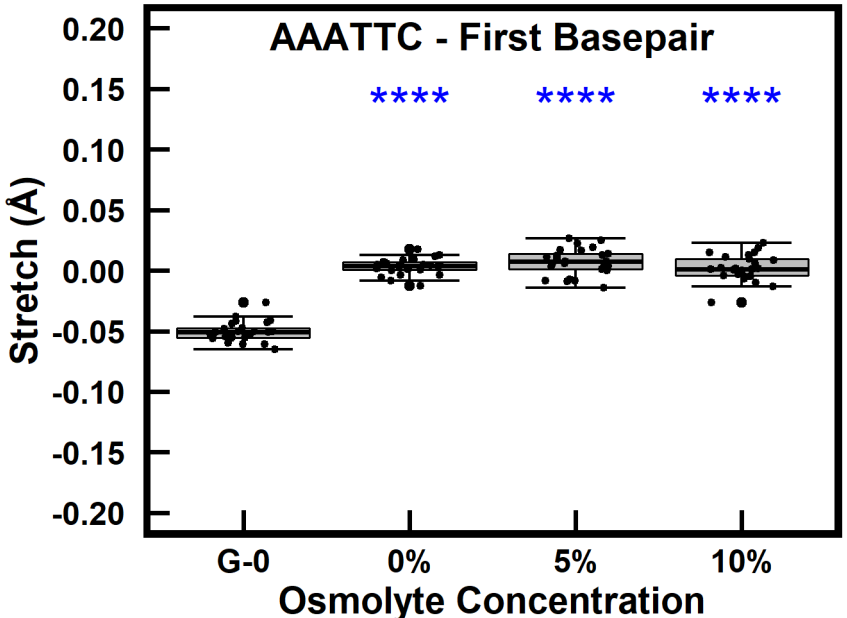

AAATTC - Sixth Basepair
*
****
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Shear (Å)
G-0
0%
5%
10%
Osmolyte Concentration

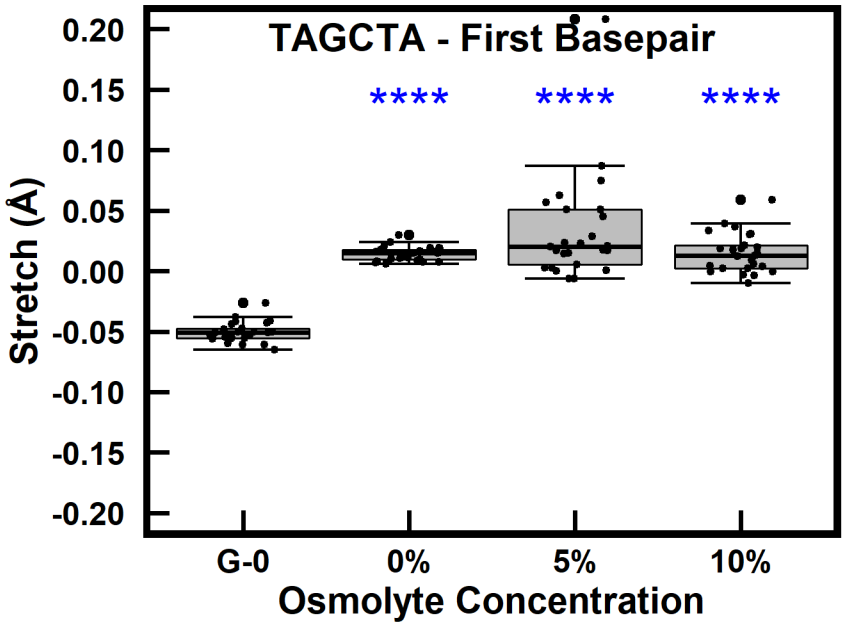

TAGCTA - Sixth Basepair
****
***
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Shear (Å)
G-0
0%
5%
10%
Osmolyte Concentration

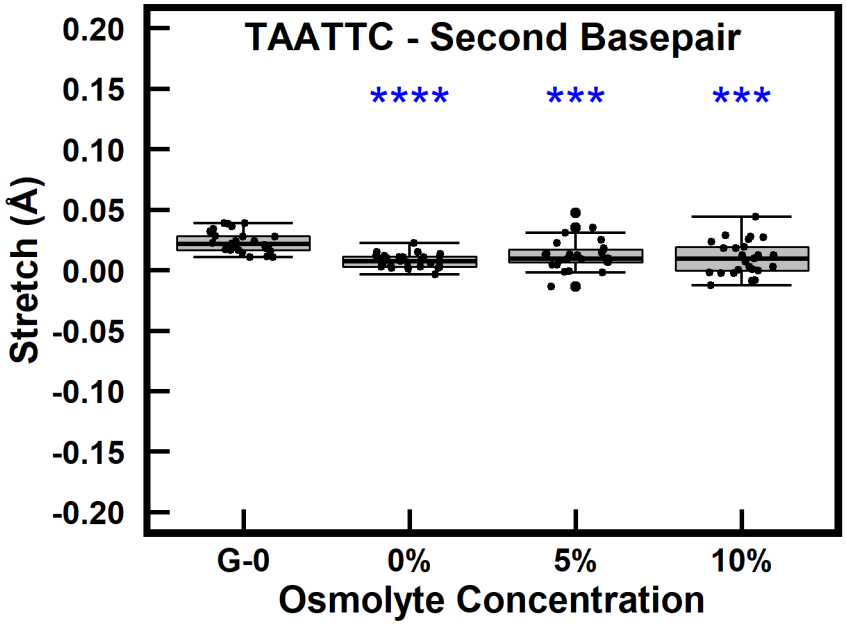
Stretch

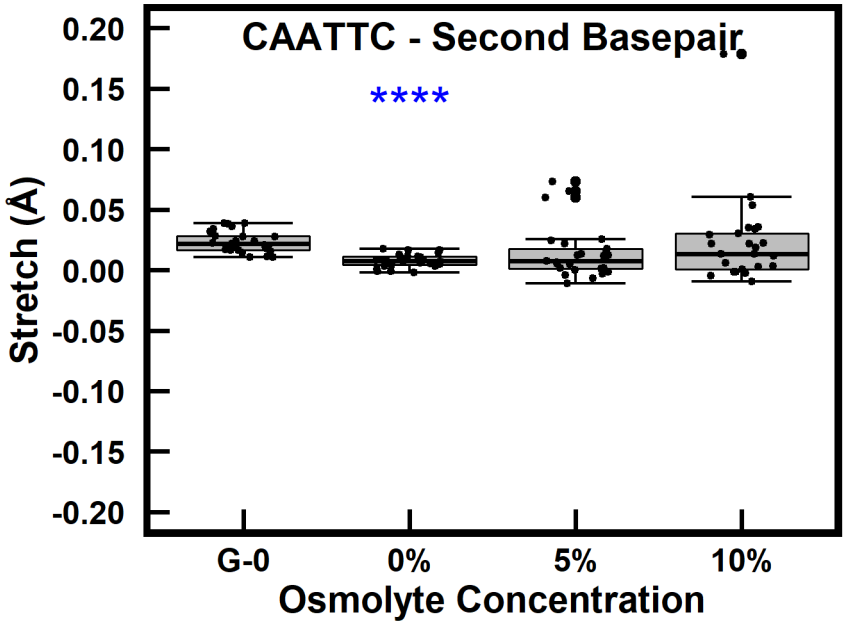

TAATTC - First Basepair
****
****
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

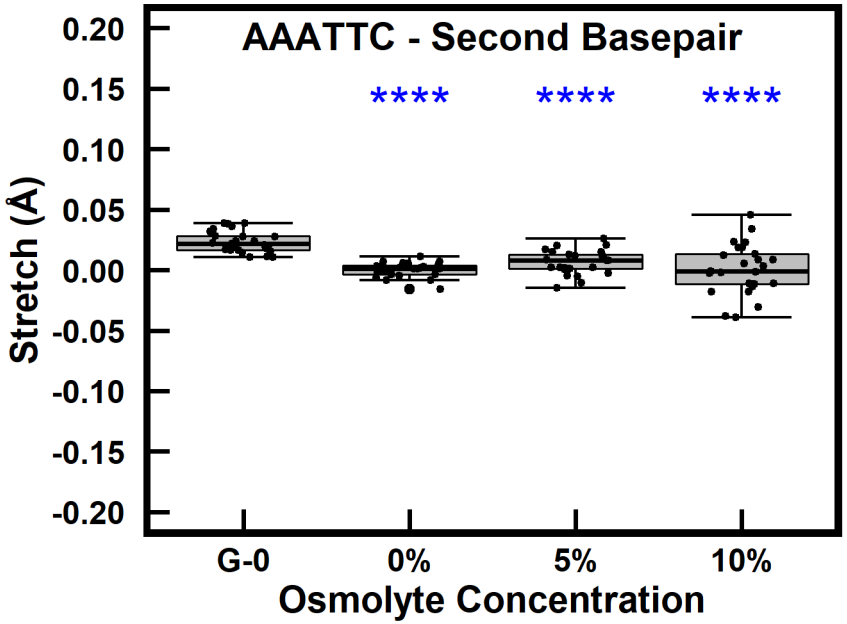

CAATTC - First Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

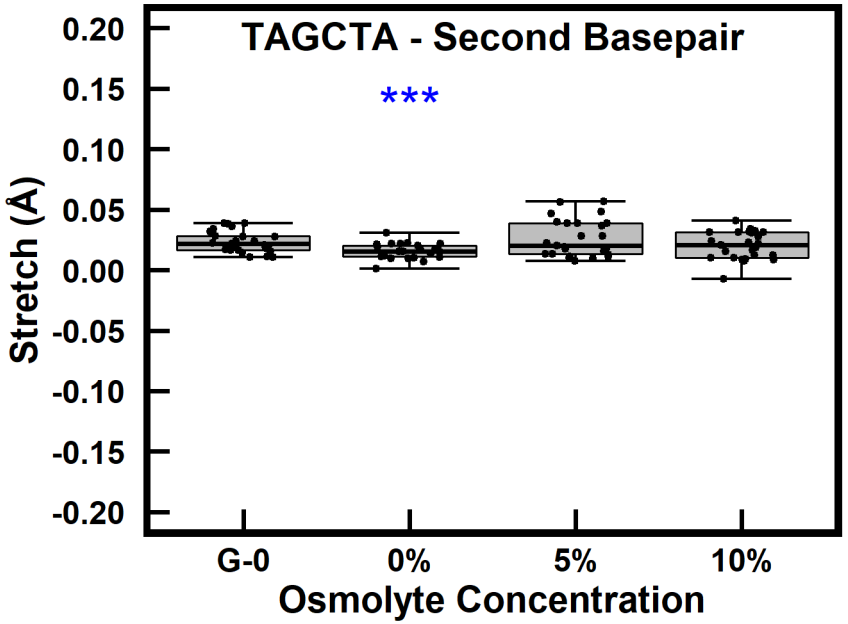

AAATTC - First Basepair
****
****
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

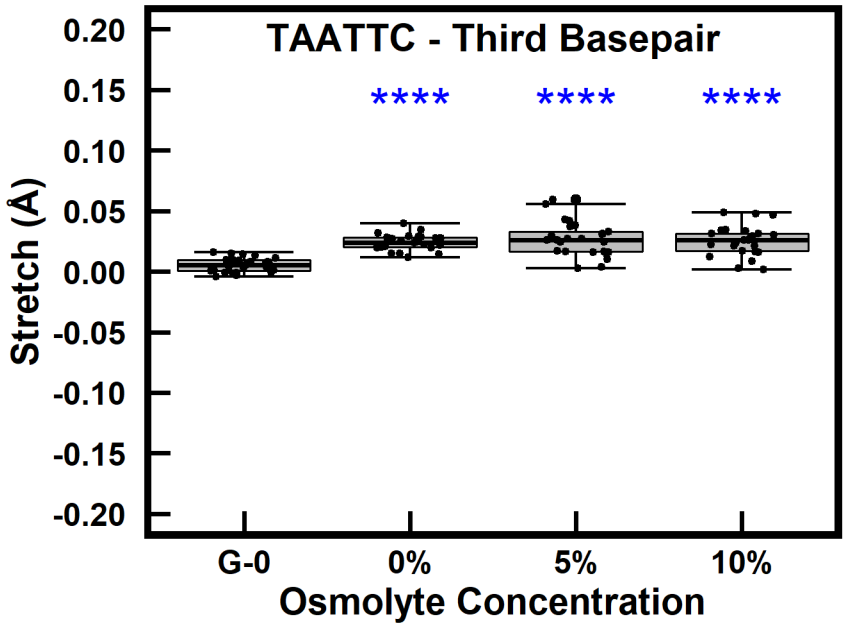

TAGCTA - First Basepair
****
****
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

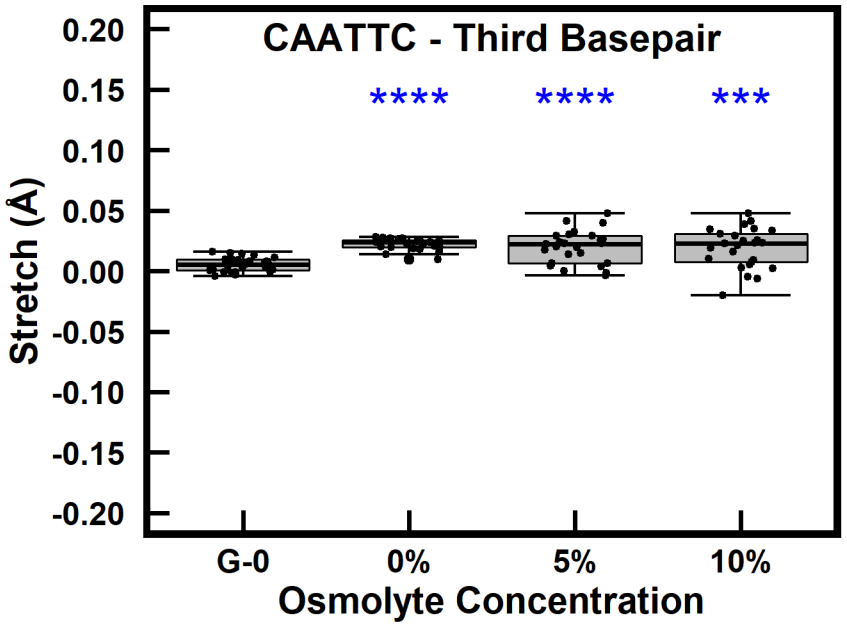

TAATTC - Second Basepair
****
***
***
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
Stretch (Å)
G-0
0%
5%
10%
Osmolyte Concentration

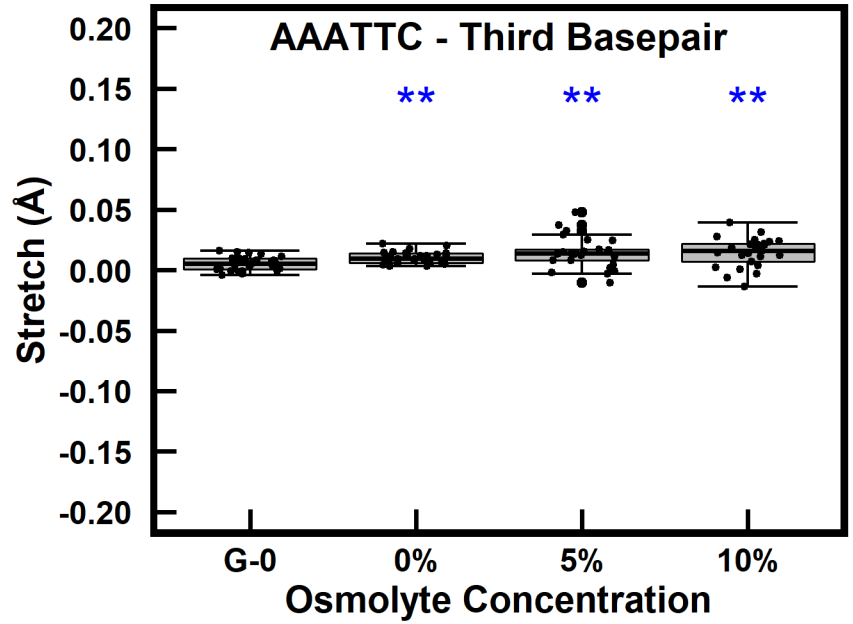

CAATTC - Second Basepair
****
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
Stretch (Å)
G-0
0%
5%
10%
Osmolyte Concentration

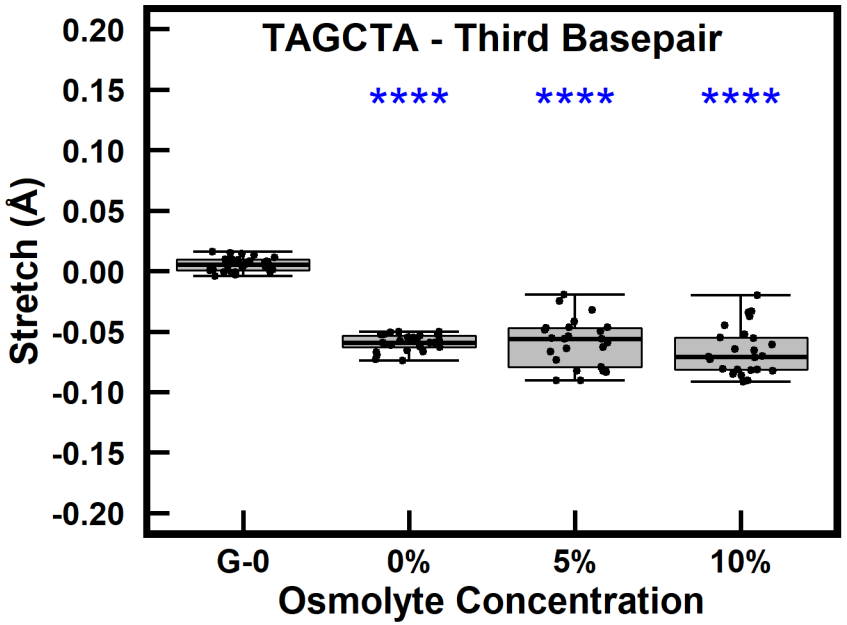

AAATTC - Second Basepair
****
****
****
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
Stretch (Å)
G-0
0%
5%
10%
Osmolyte Concentration

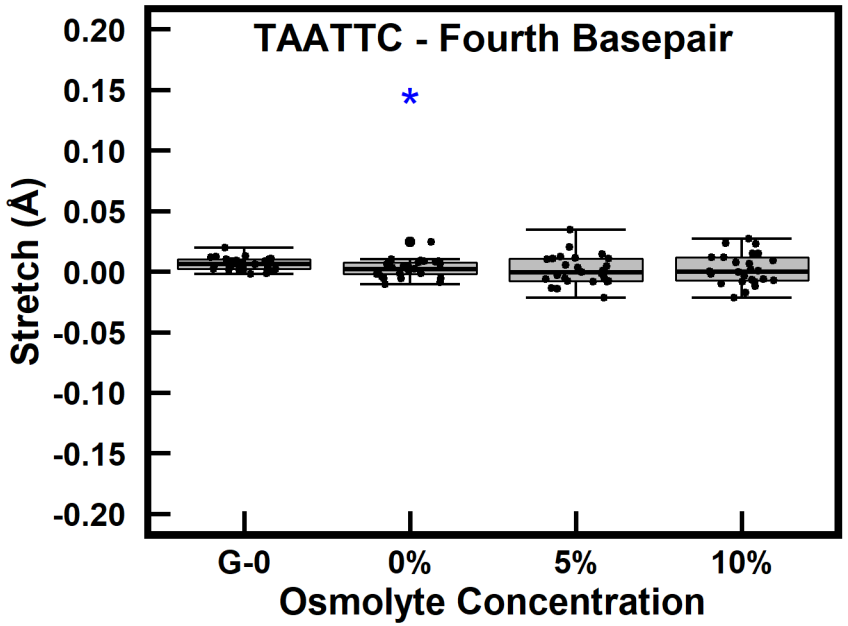

TAGCTA - Second Basepair
***
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
Stretch (Å)
G-0
0%
5%
10%
Osmolyte Concentration

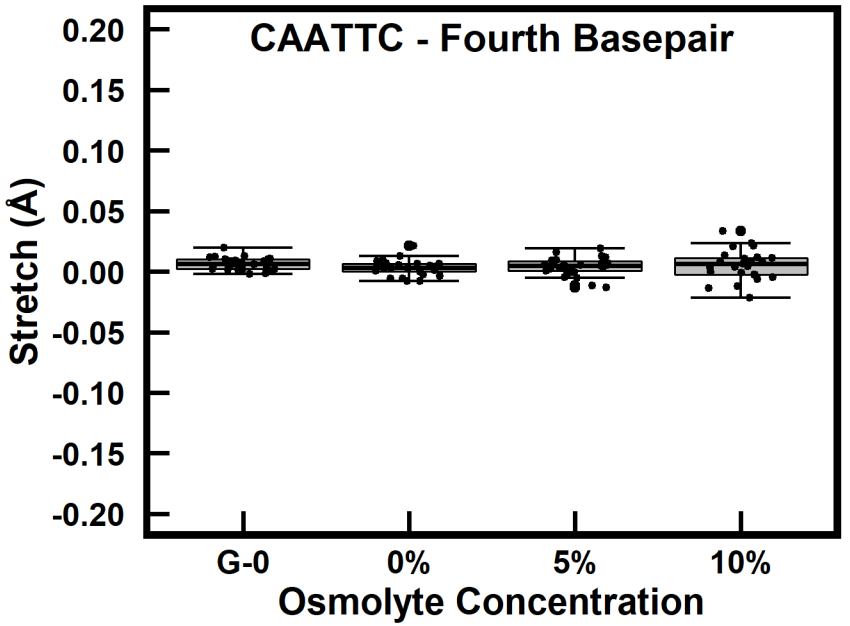

TAATTC - Third Basepair
****
****
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

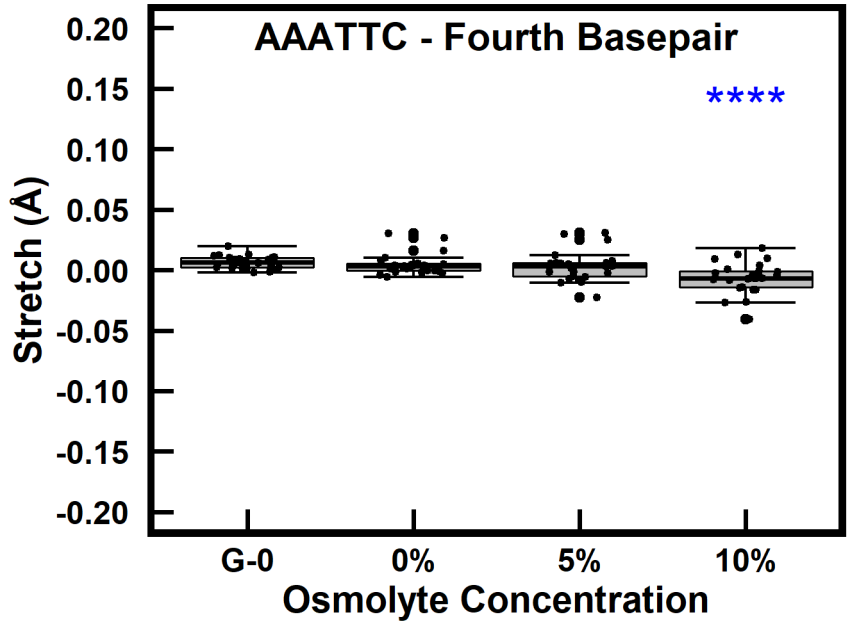

CAATTC - Third Basepair
****
****
***
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

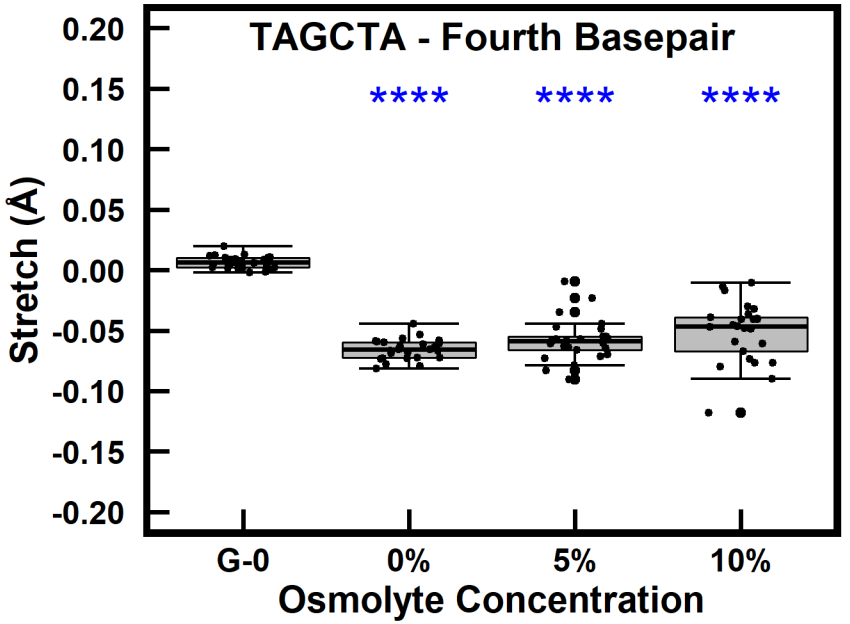

AAATTC - Third Basepair
**
**
**
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

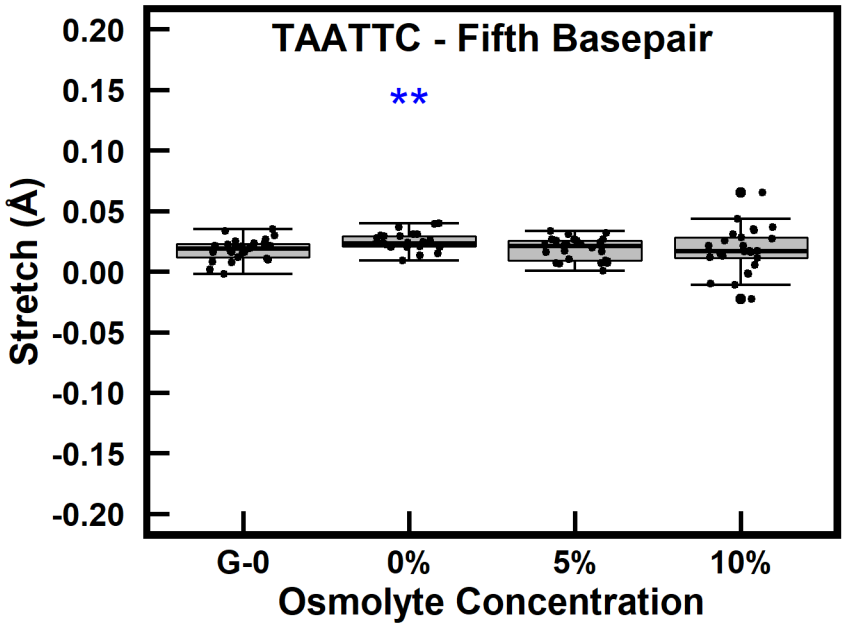

TAGCTA - Third Basepair
****
****
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

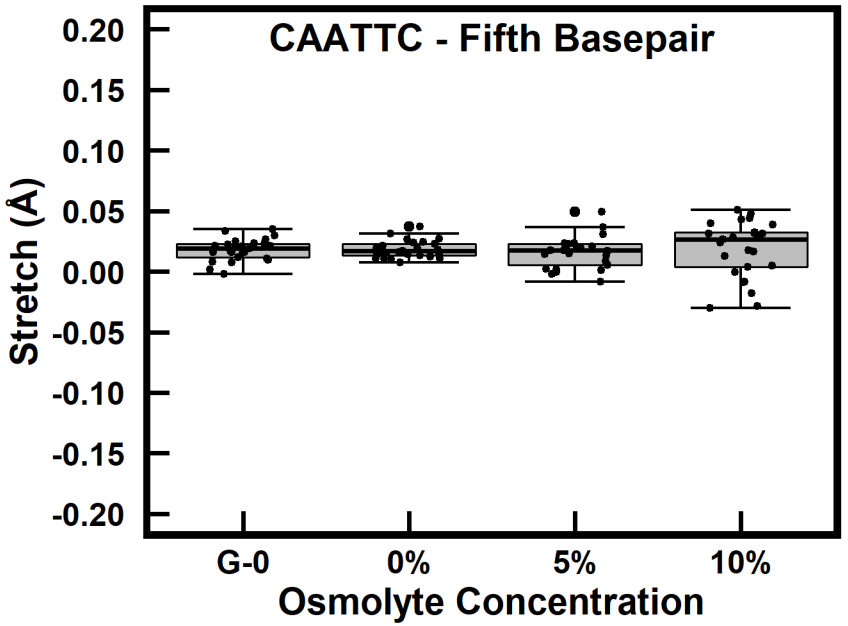

TAATTC - Fourth Basepair
*
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

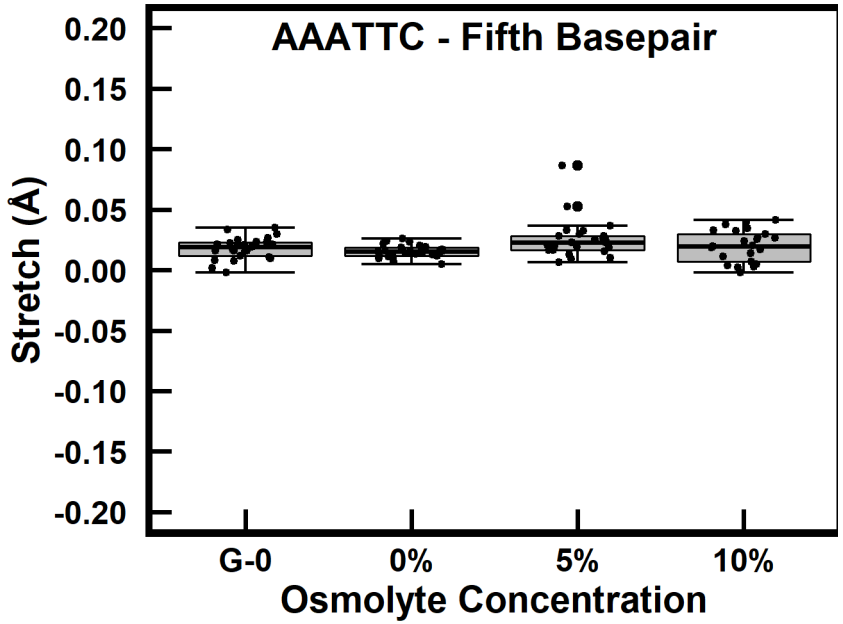

CAATTC - Fourth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

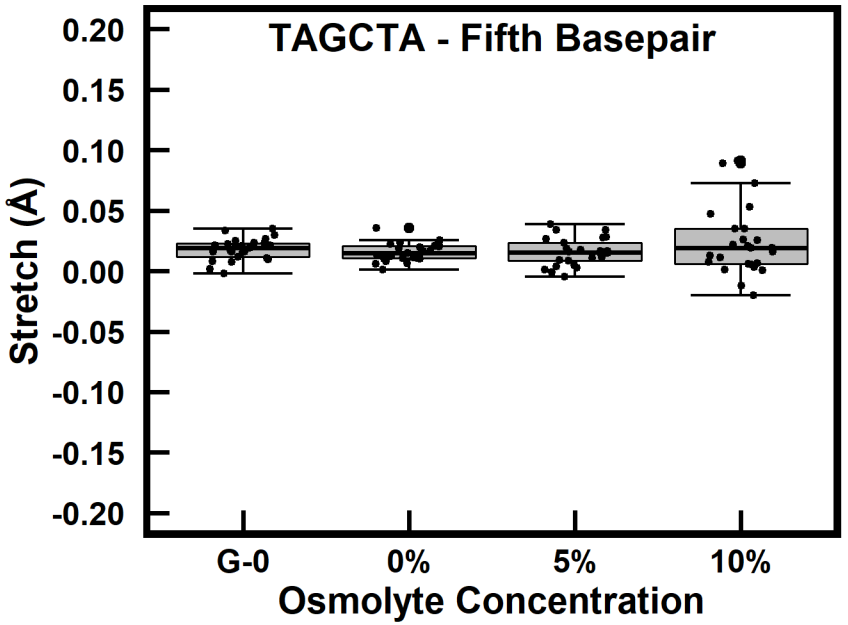

AAATTC - Fourth Basepair
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

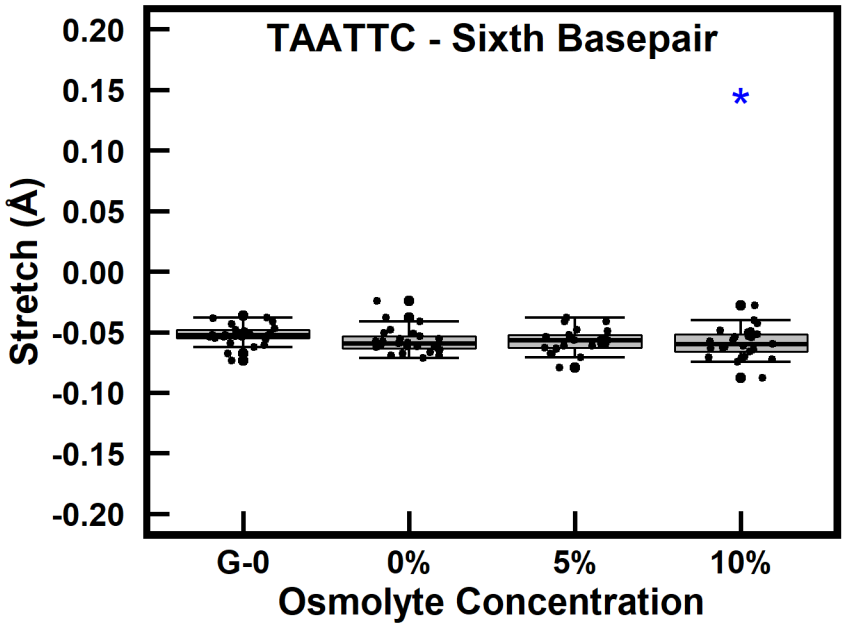

TAGCTA - Fourth Basepair
****
****
****
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

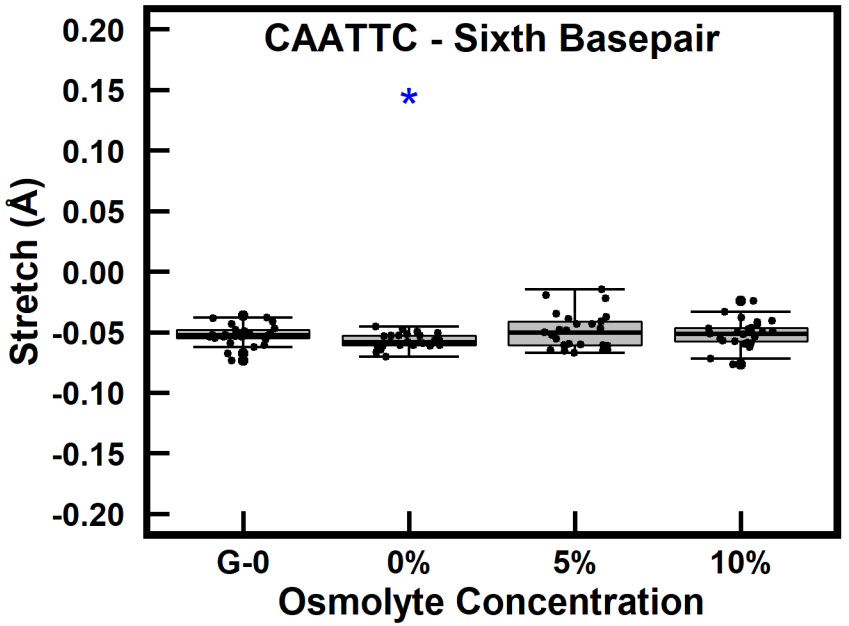

TAATTC - Fifth Basepair
**
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

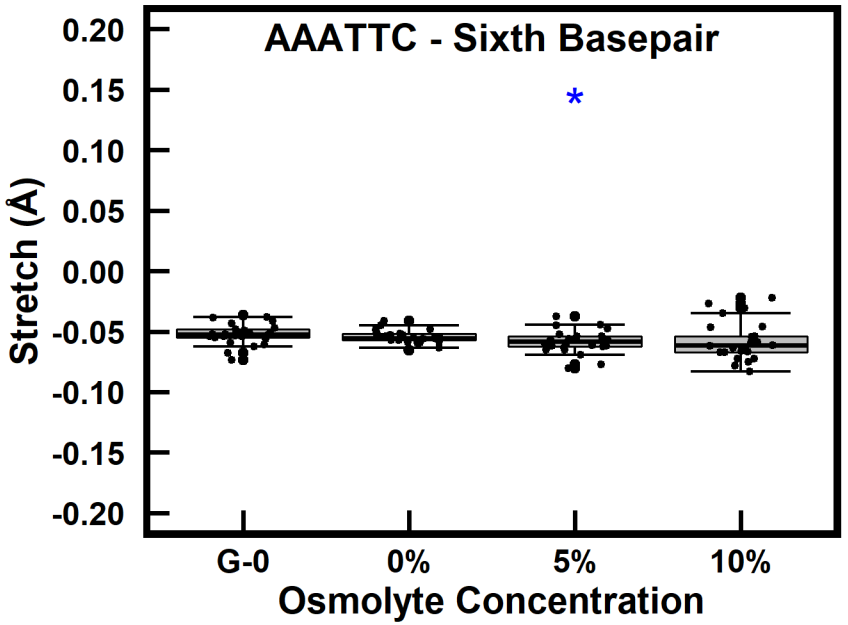

CAATTC - Fifth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

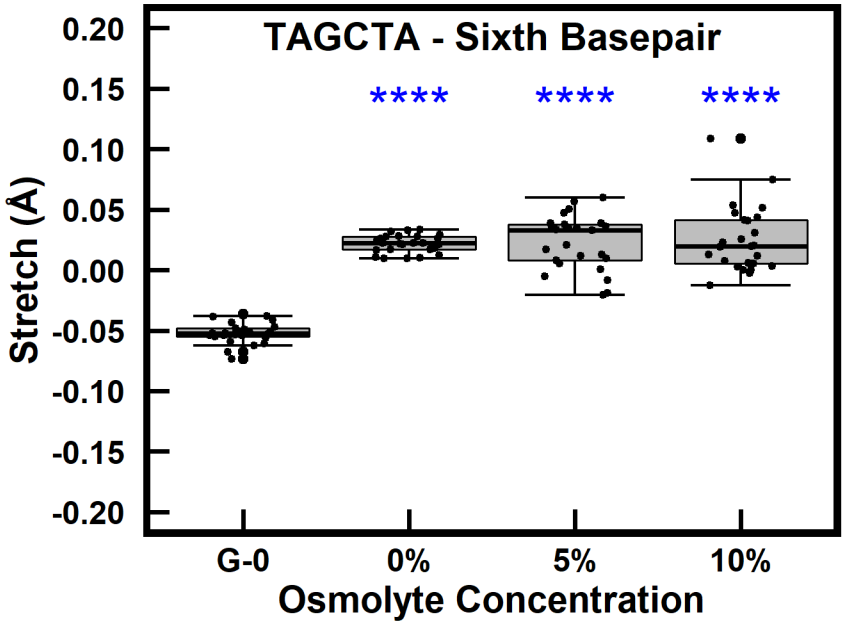

AAATTC - Fifth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
G-0
0%
5%
10%
Osmolyte Concentration

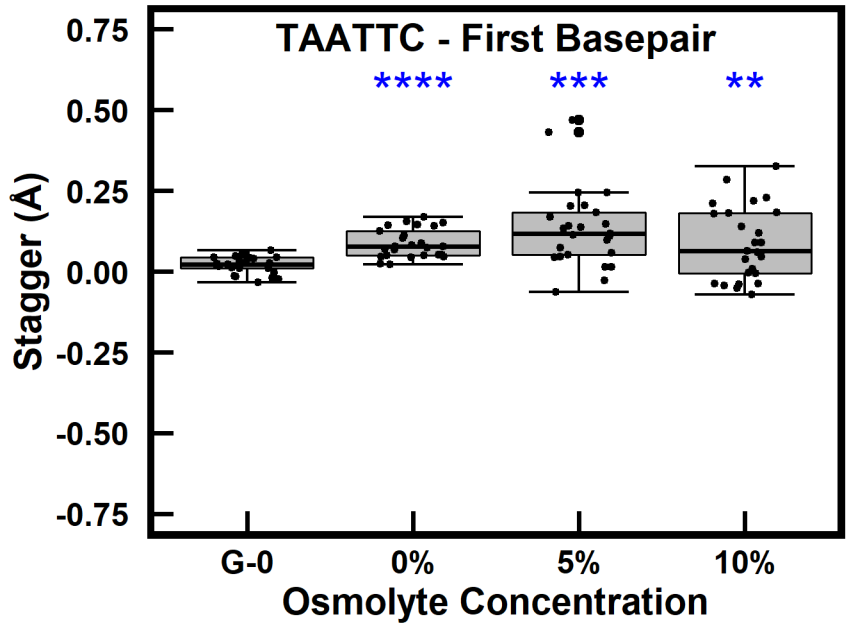

TAATTC - Sixth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
*
G-0
0%
5%
10%
Osmolyte Concentration

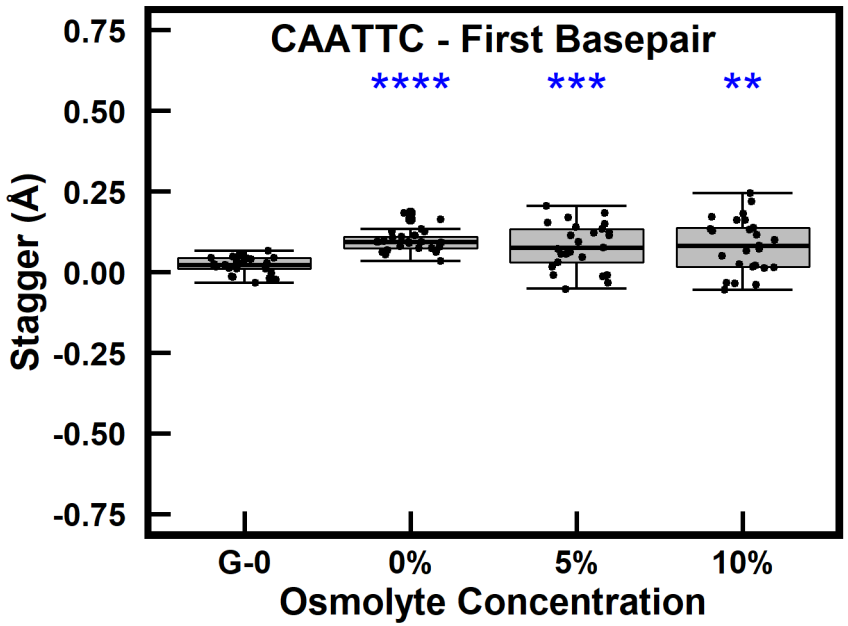

CAATTC - Sixth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
*
G-0
0%
5%
10%
Osmolyte Concentration

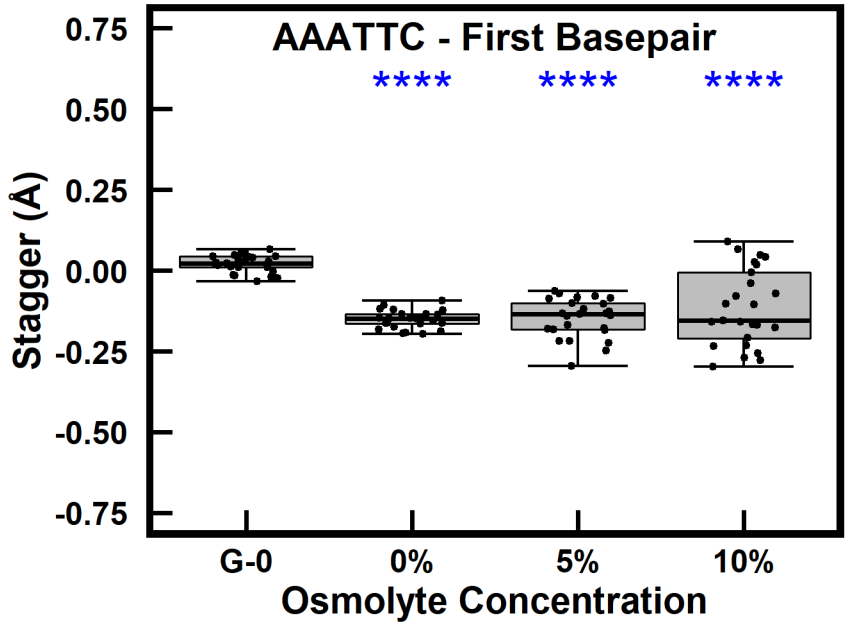

AAATTC - Sixth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
*
G-0
0%
5%
10%
Osmolyte Concentration

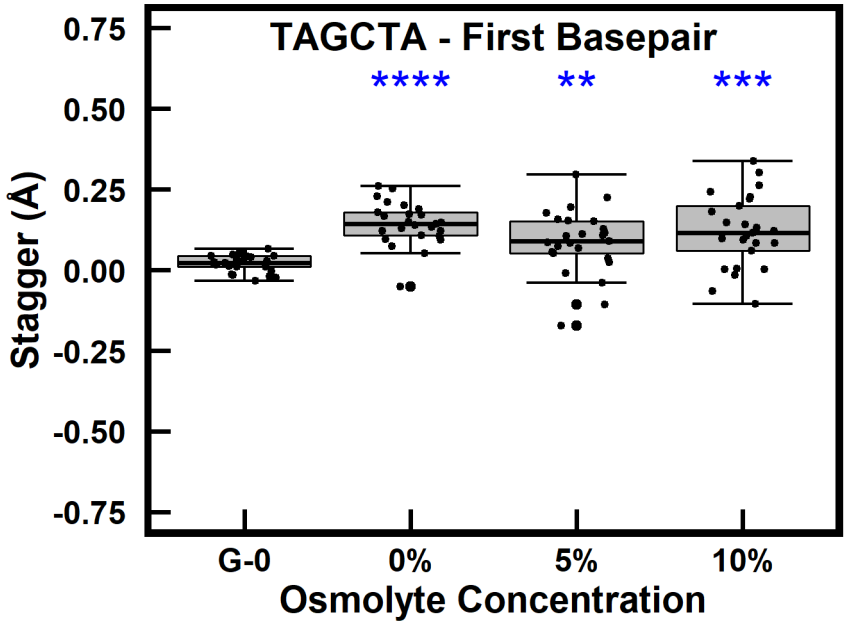

TAGCTA - Sixth Basepair
Stretch (Å)
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

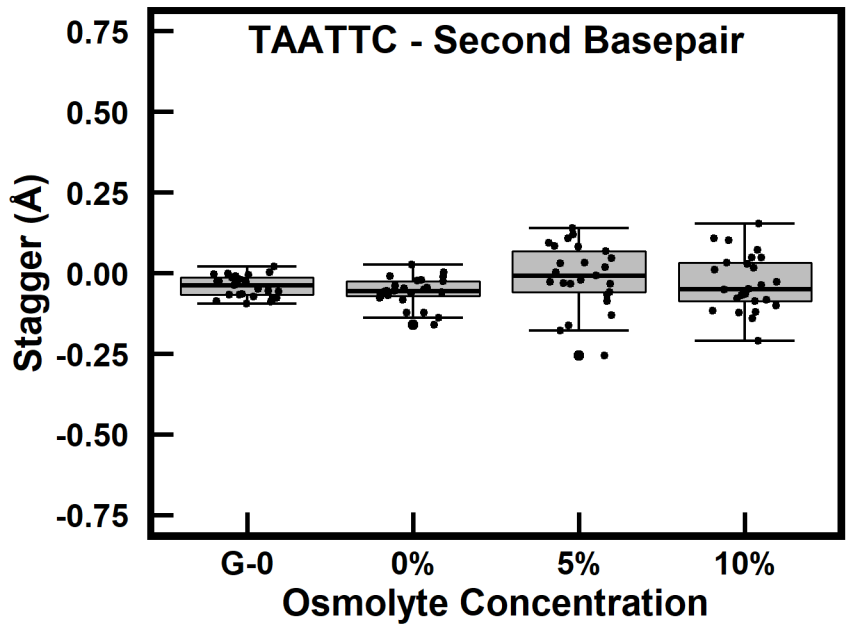
Stagger

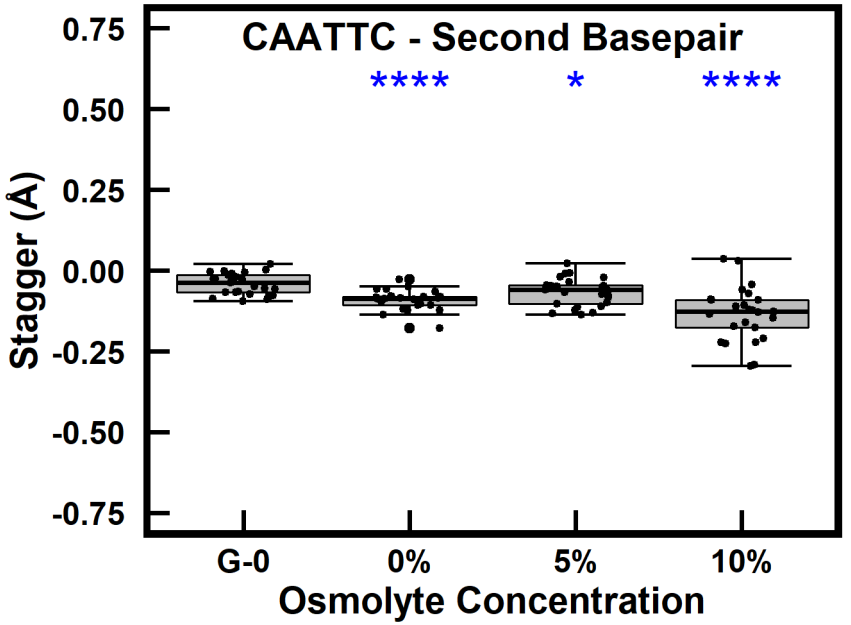

TAATTC - First Basepair
****
***
**
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

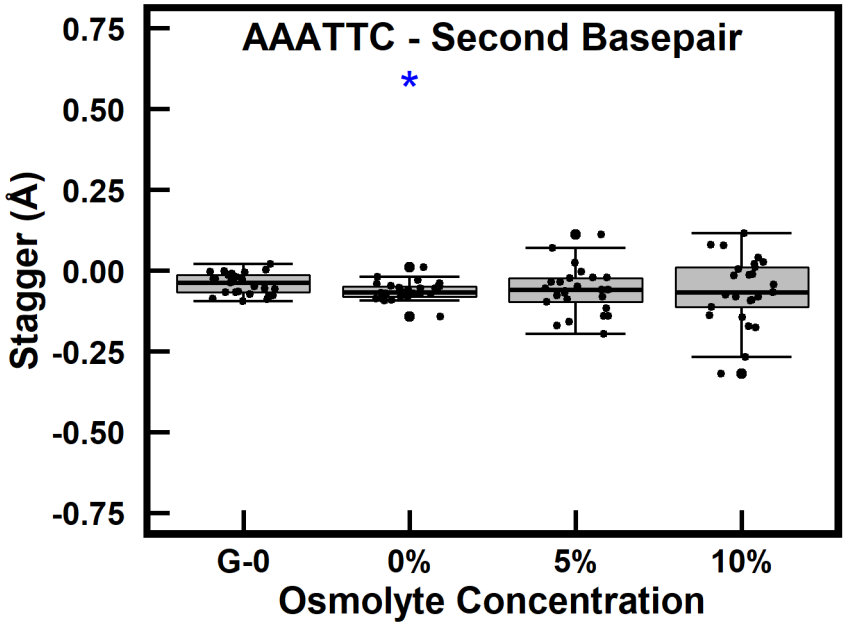

CAATTC - First Basepair
****
***
**
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

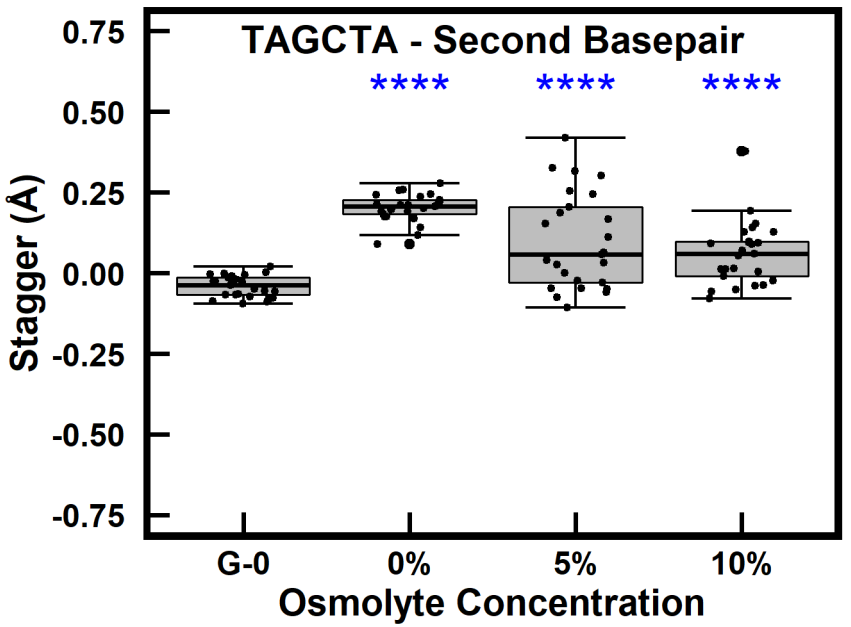

AAATTC - First Basepair
****
****
****
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

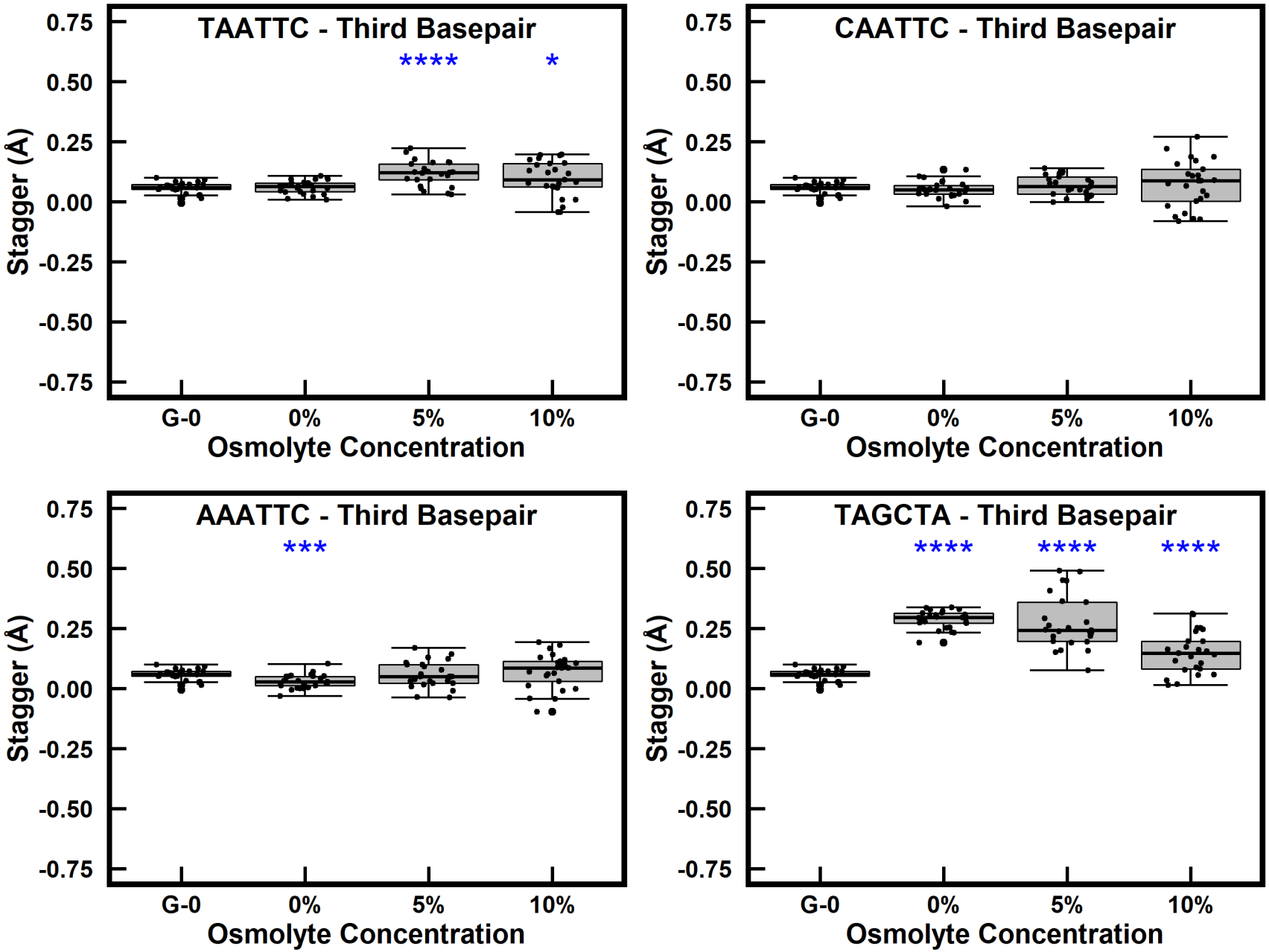

TAGCTA - First Basepair
****
**
***
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

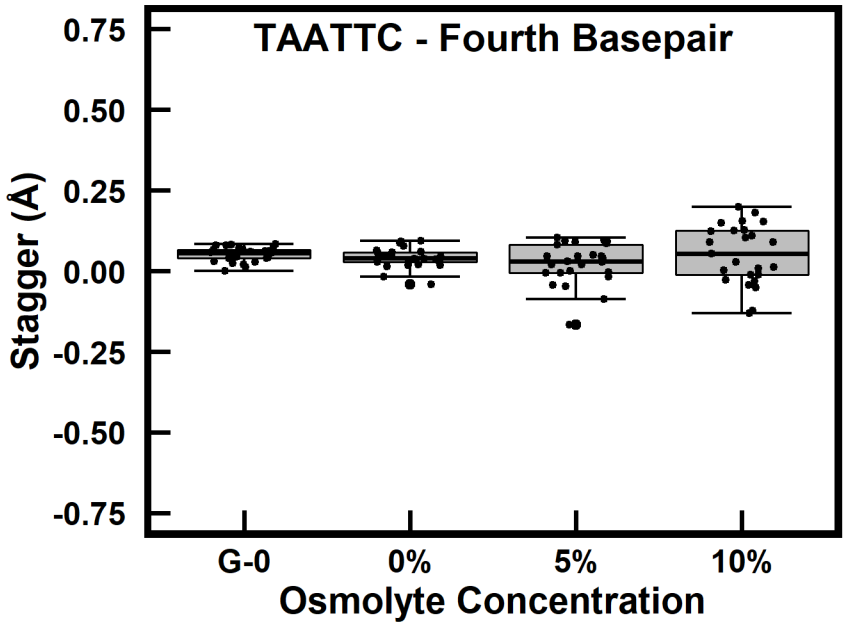

TAATTC - Second Basepair
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

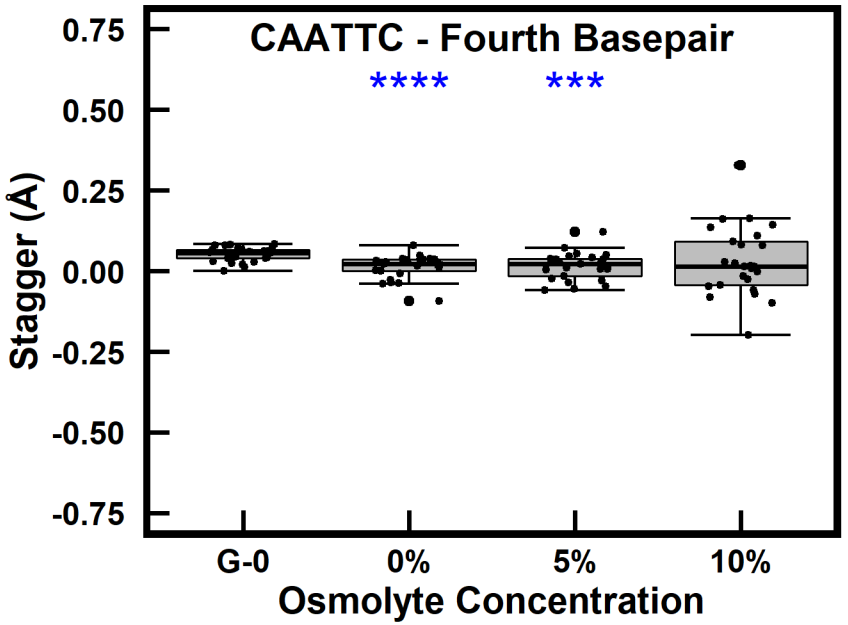

CAATTC - Second Basepair
****
*
****
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

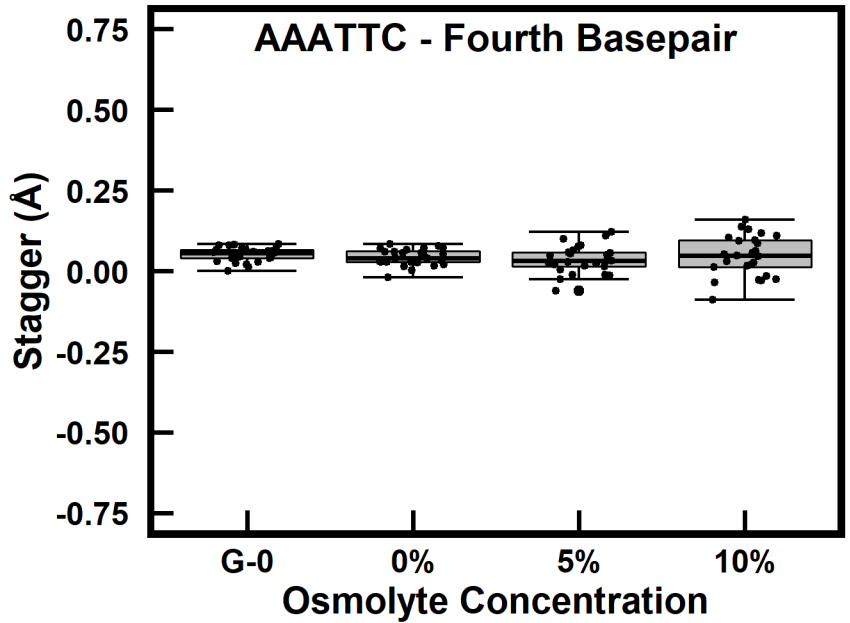

AAATTC - Second Basepair
*
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

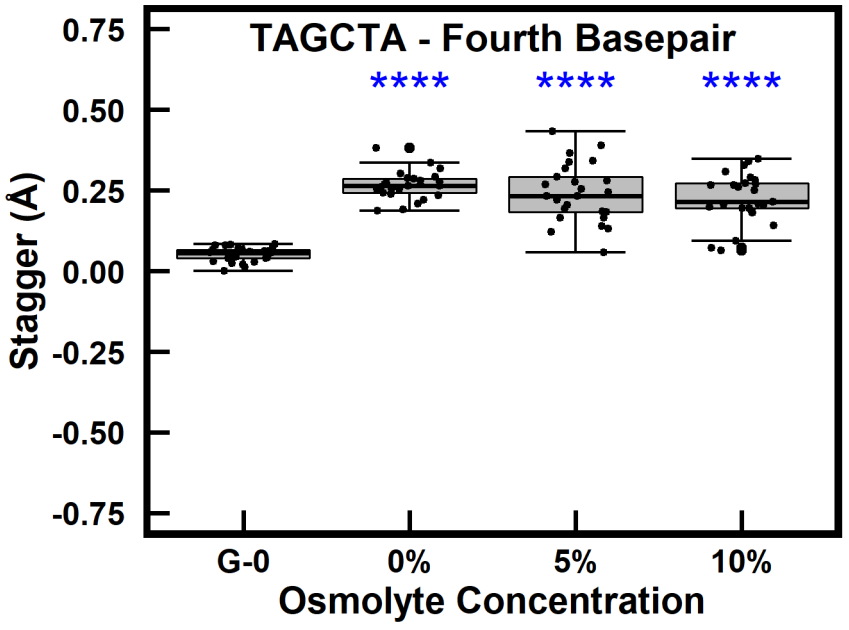

TAGCTA - Second Basepair
****
****
****
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

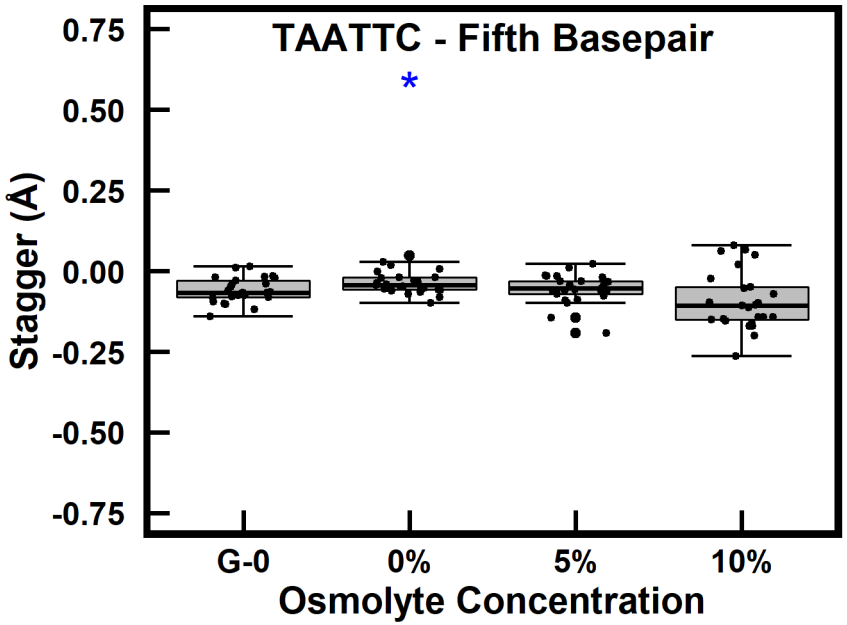

TAATTC - Third Basepair
****
*
CAATTC - Third Basepair
AAATTC - Third Basepair
***
TAGCTA - Third Basepair
****
****
****
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

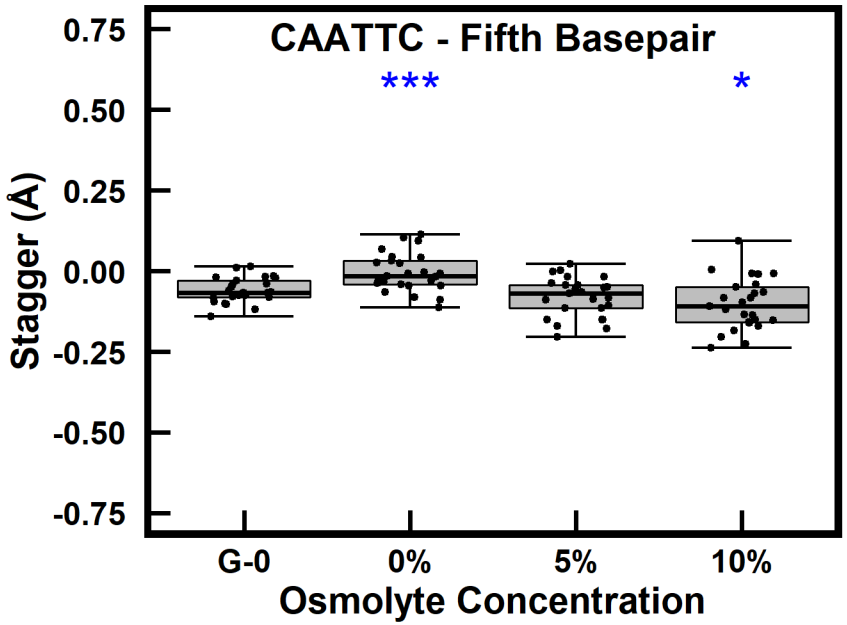

TAATTC - Fourth Basepair
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

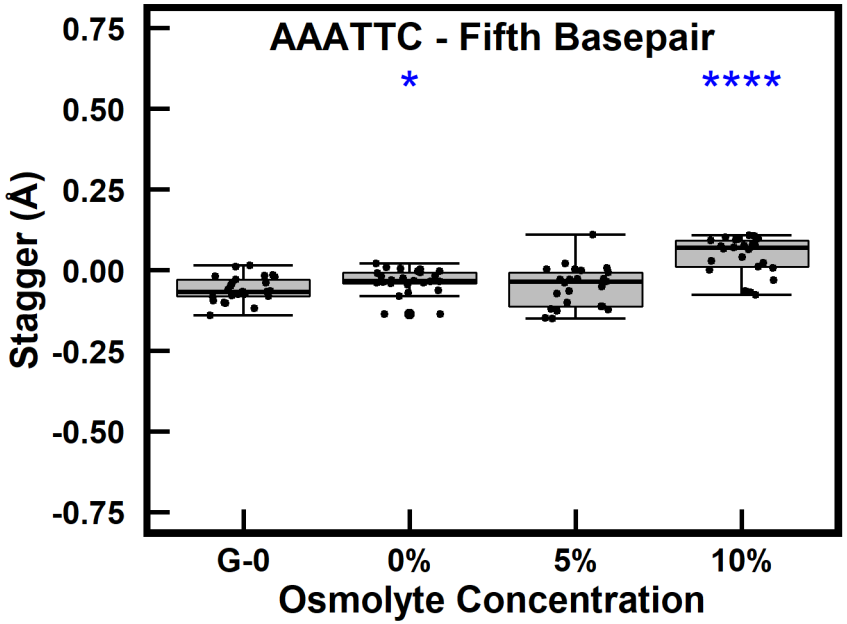

CAATTC - Fourth Basepair
****
***
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

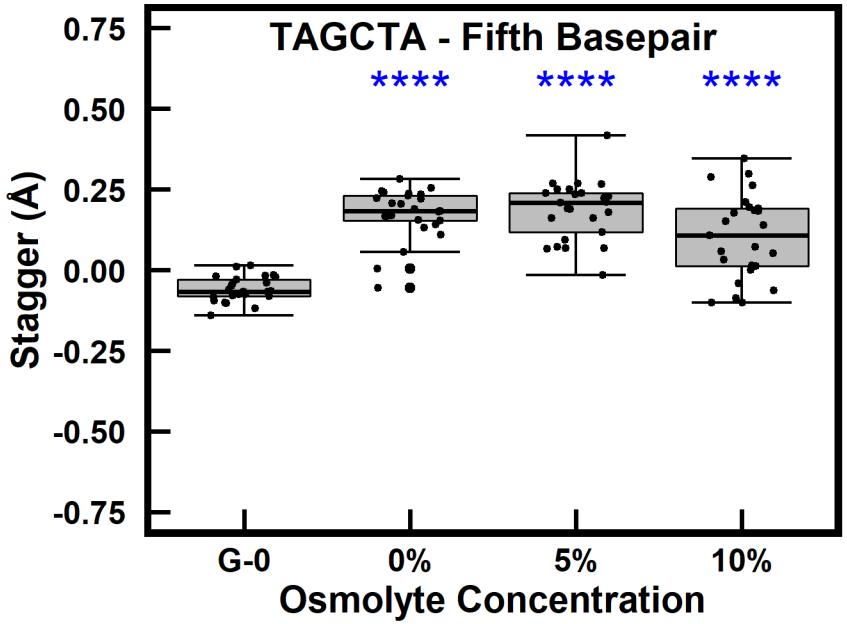

AAATTC - Fourth Basepair
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

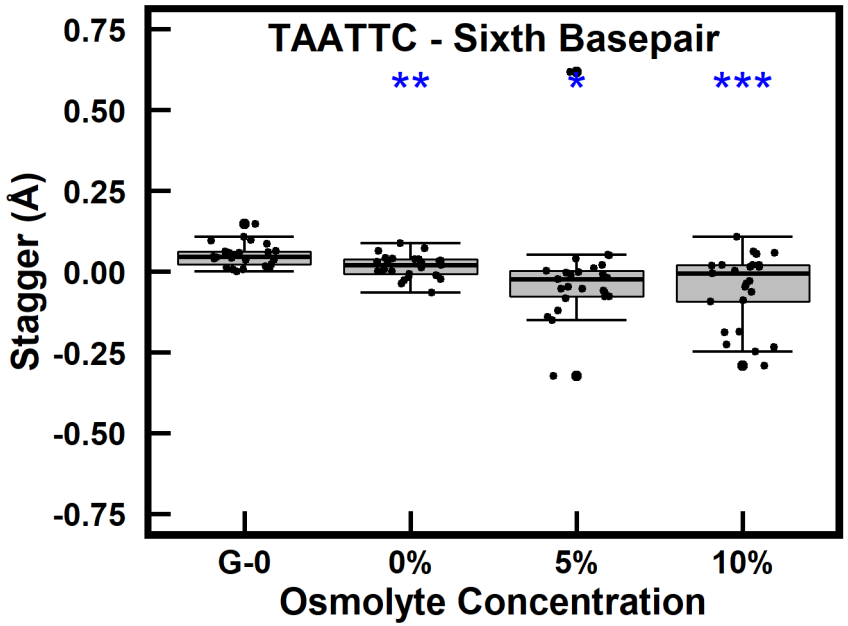

TAGCTA - Fourth Basepair
****
****
****
Stagger (Å)
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
G-0
0%
5%
10%
Osmolyte Concentration

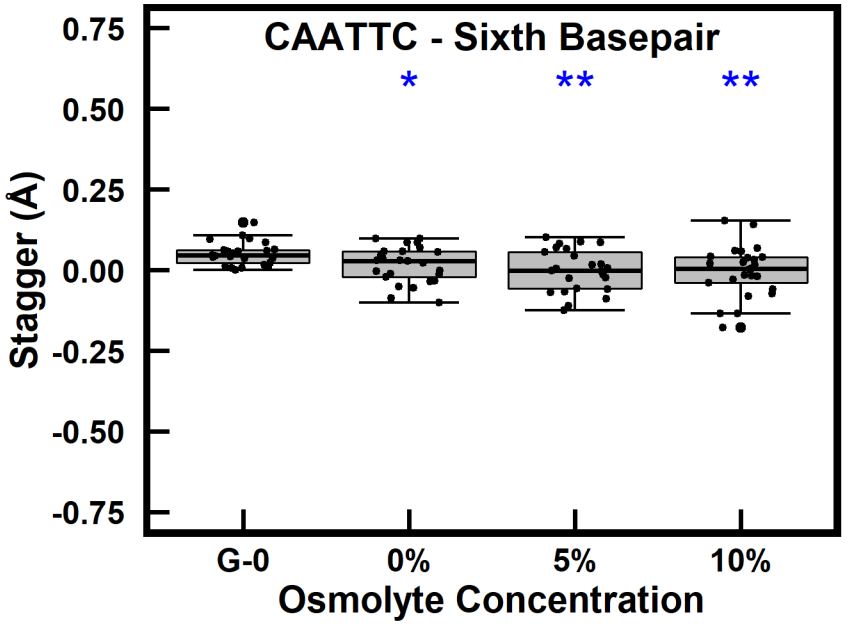

TAATTC - Fifth Basepair
*
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

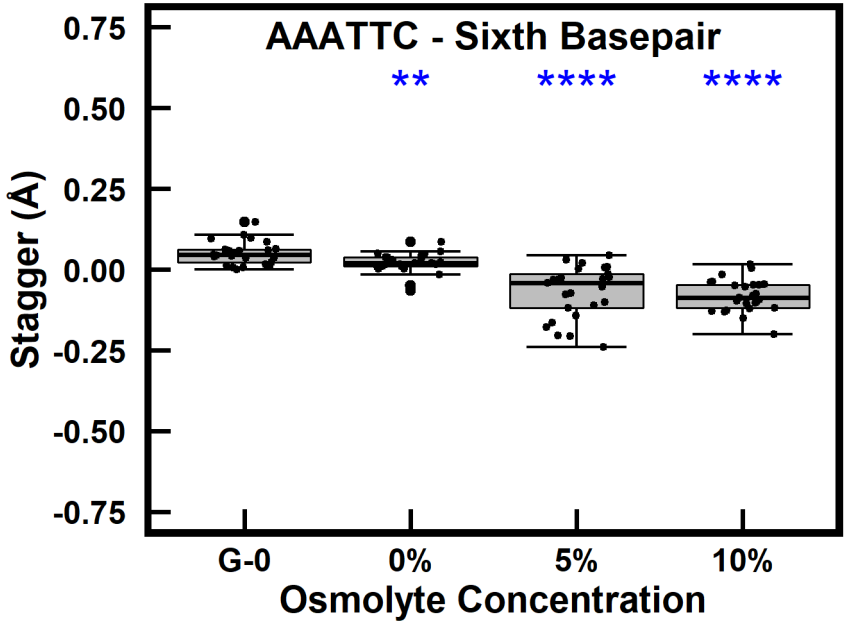

CAATTC - Fifth Basepair
***
*
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

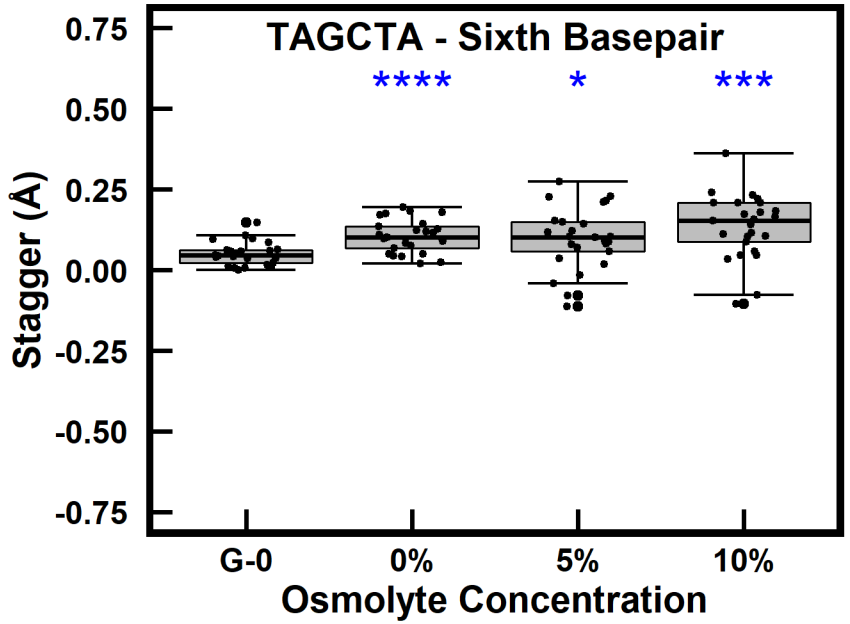

AAATTC - Fifth Basepair
*
****
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
****
****
****
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

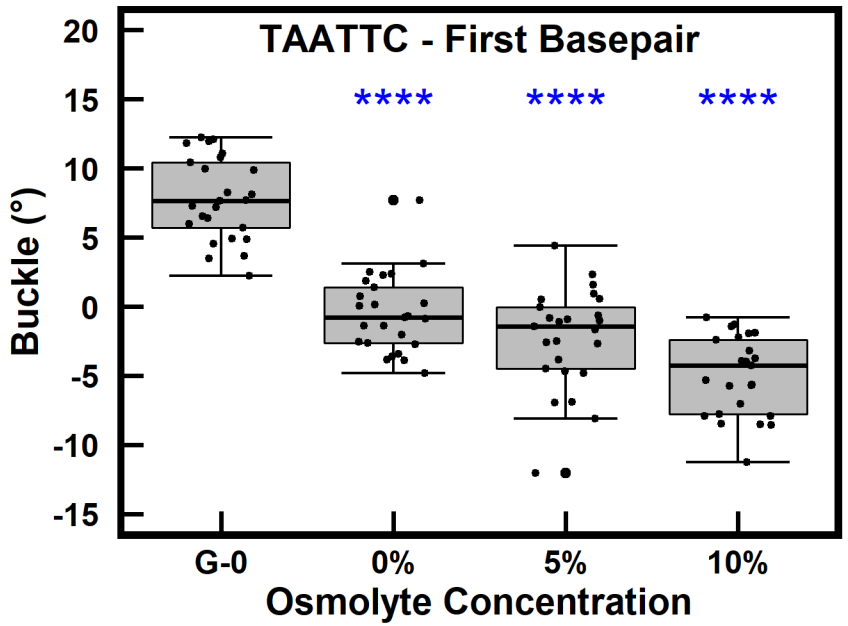

TAATTC - Sixth Basepair
**
*
***
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

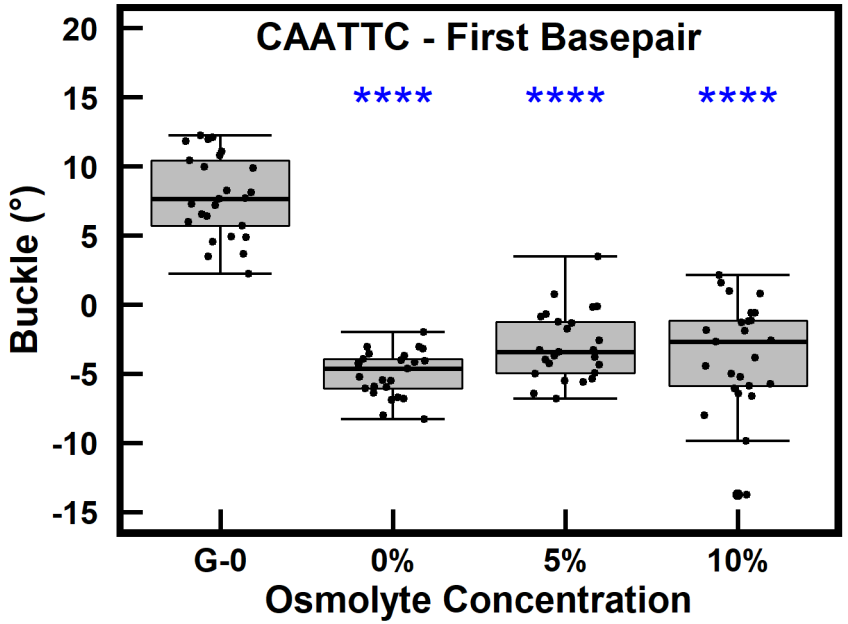

CAATTC - Sixth Basepair
*
**
**
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

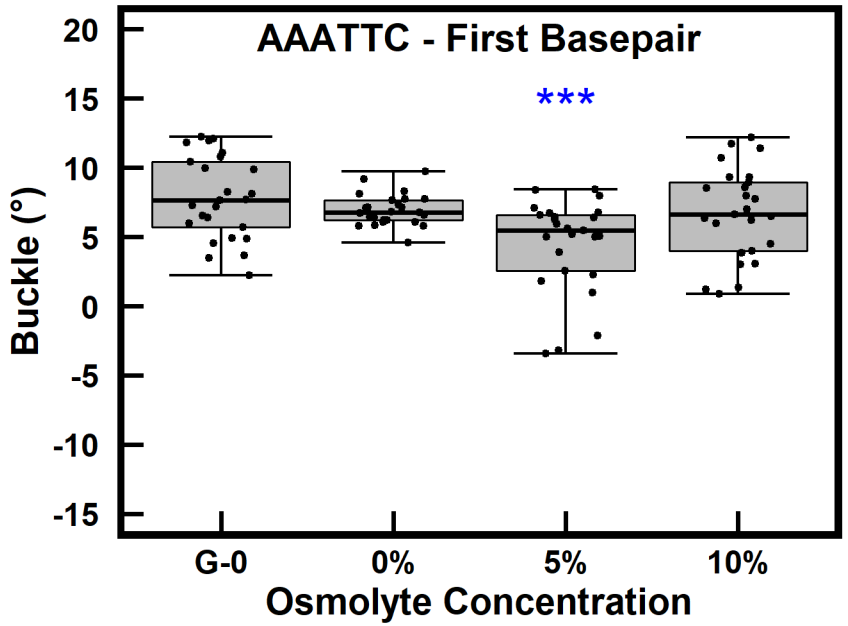

AAATTC - Sixth Basepair
**
****
****
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

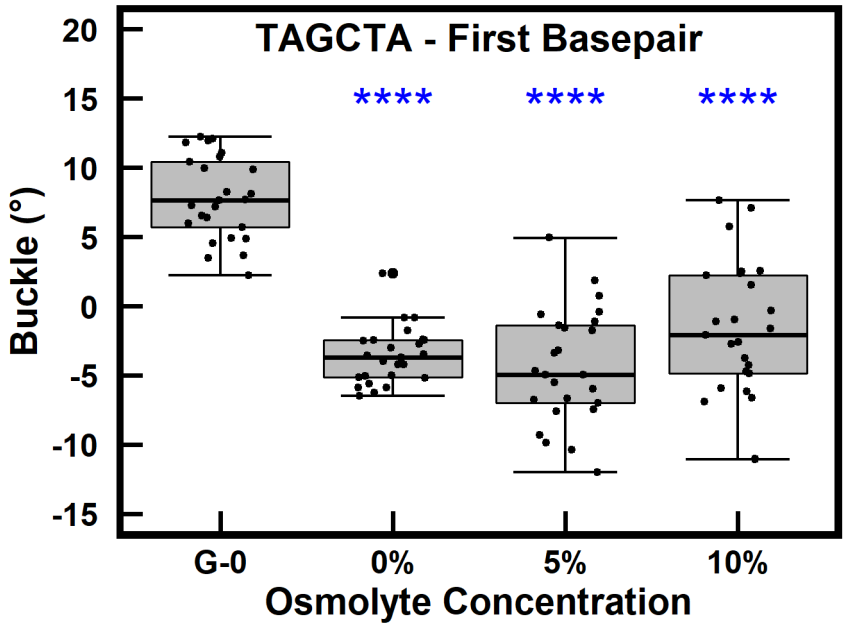

TAGCTA - Sixth Basepair
****
*
***
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
Stagger (Å)
G-0
0%
5%
10%
Osmolyte Concentration

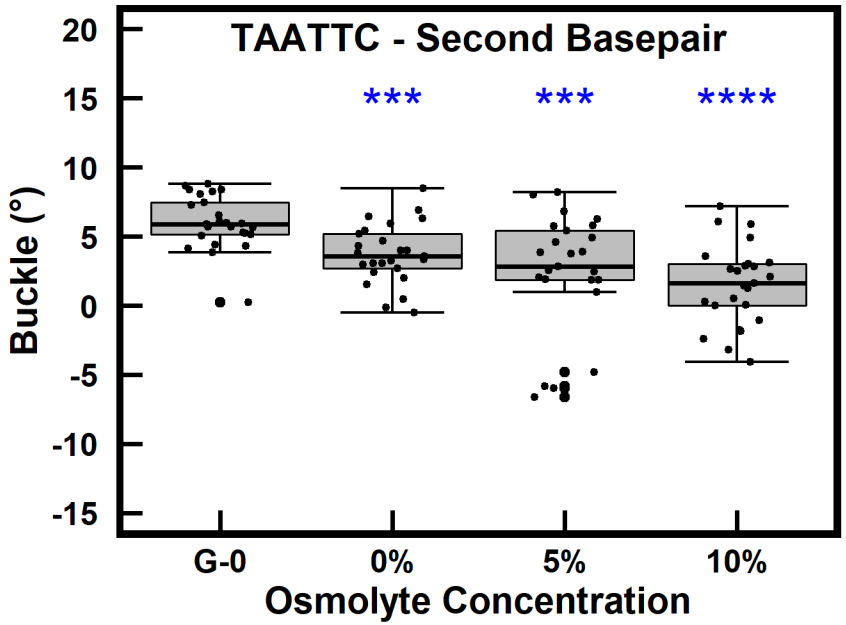
Buckle

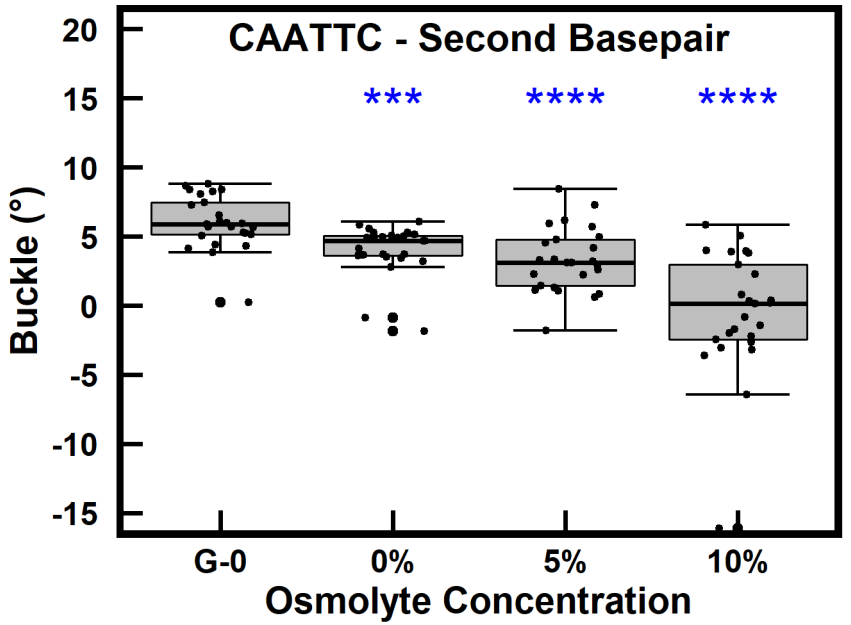

TAATTC - First Basepair
****
****
****
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

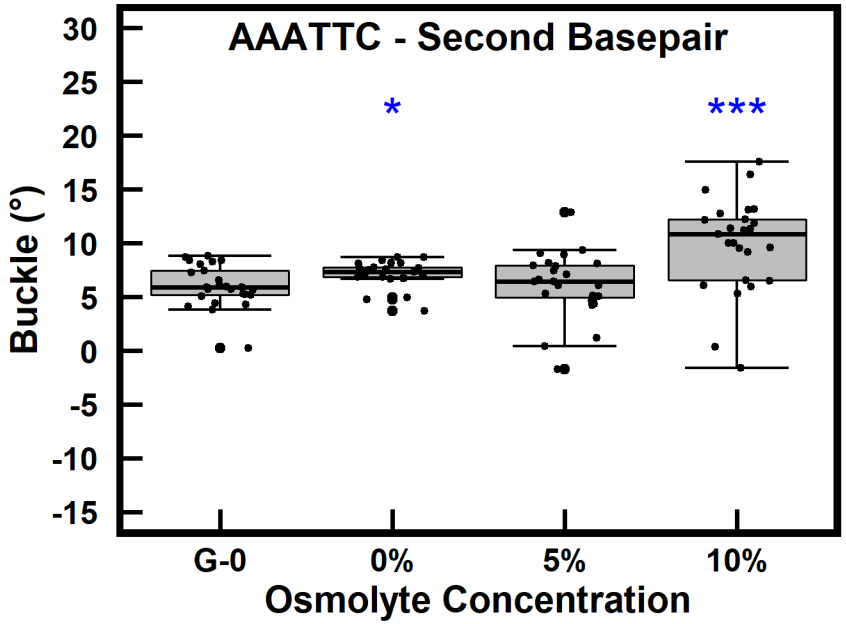

CAATTC - First Basepair
****
****
****
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

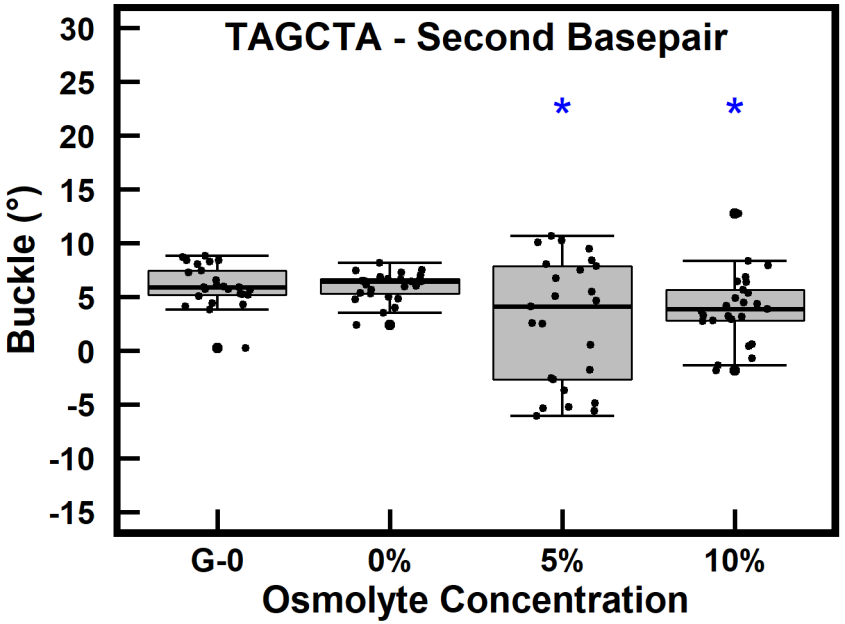

AAATTC - First Basepair
***
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

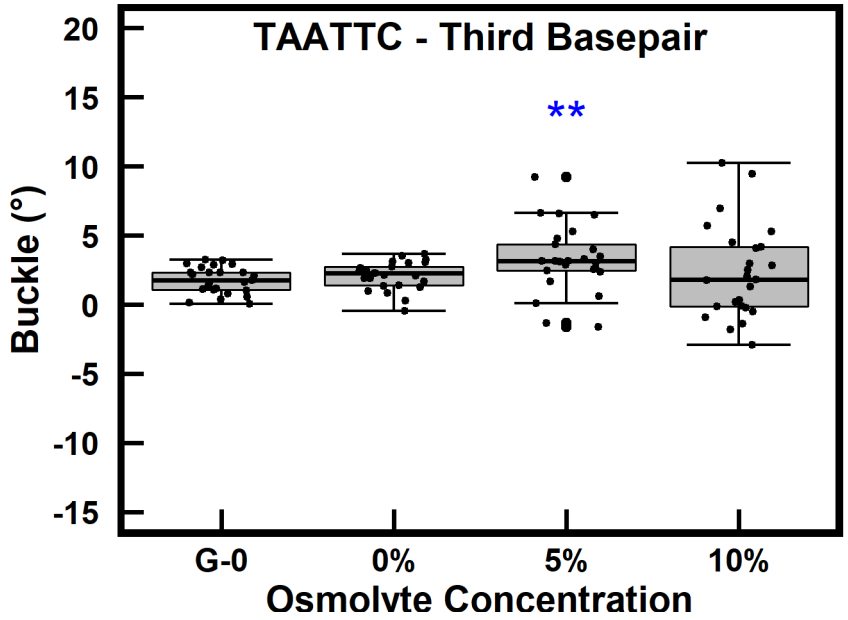

TAGCTA - First Basepair
****
****
****
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

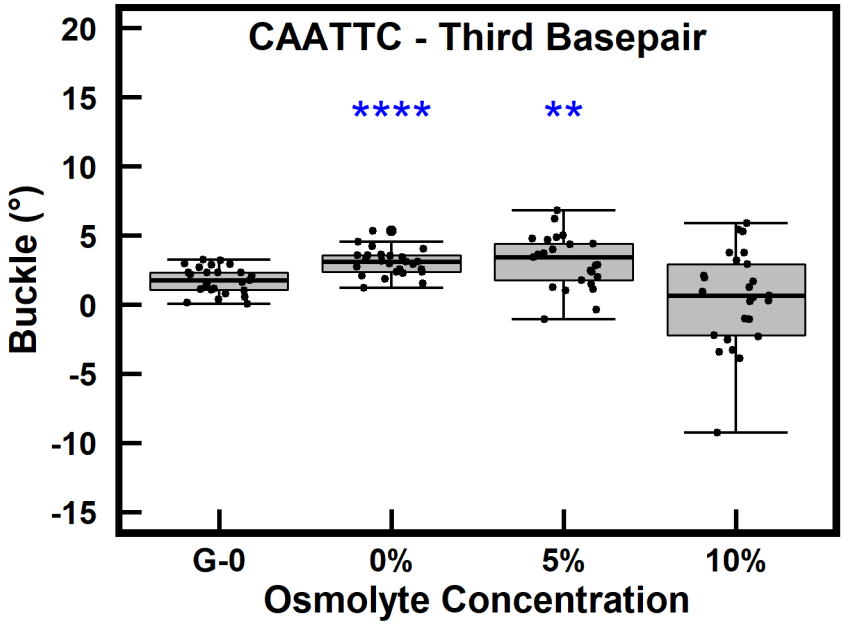

TAATTC - Second Basepair
***
***
****
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

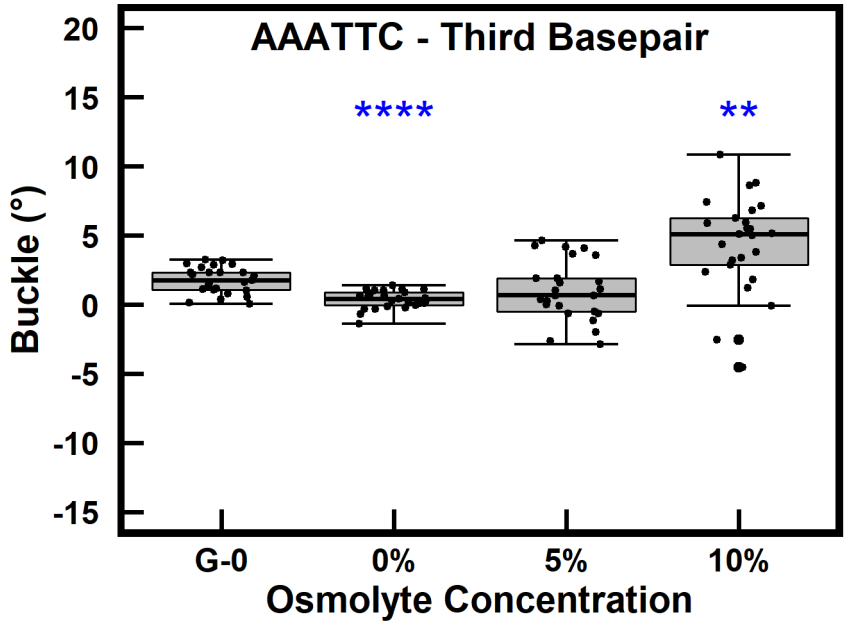

CAATTC - Second Basepair
***
****
****
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

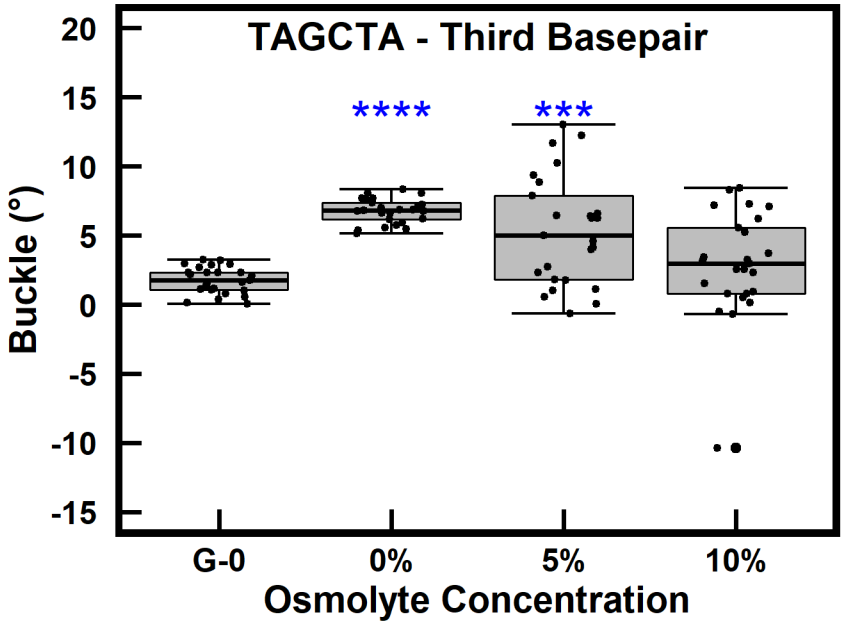

AAATTC - Second Basepair
*
***
Buckle (°)
30
25
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

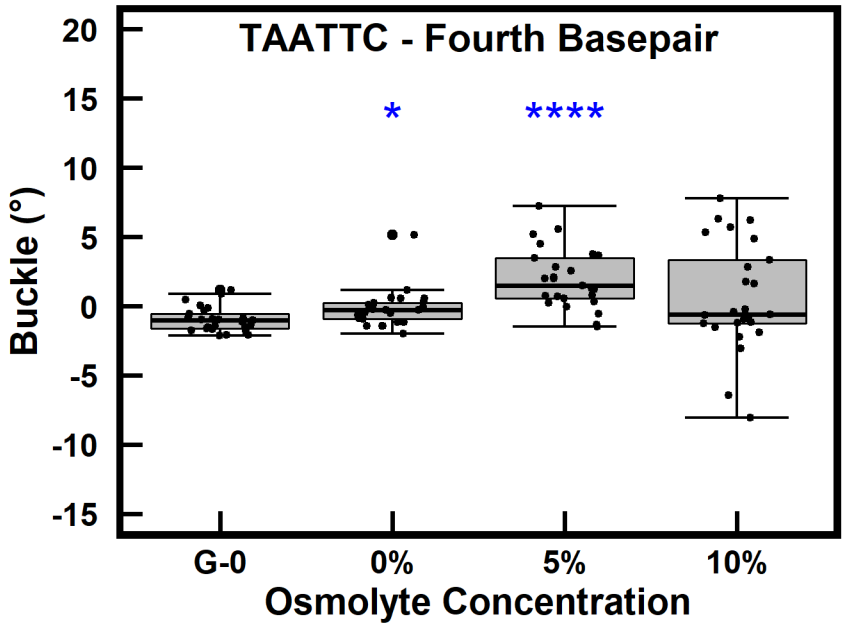

TAGCTA - Second Basepair
*
*
Buckle (°)
30
25
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

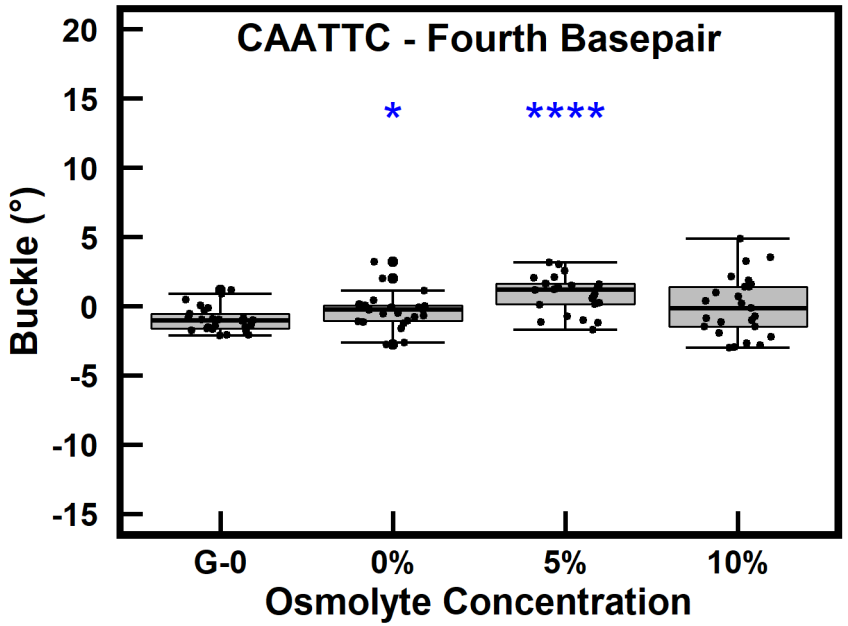

TAATTC - Third Basepair
**
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolvte Concentration

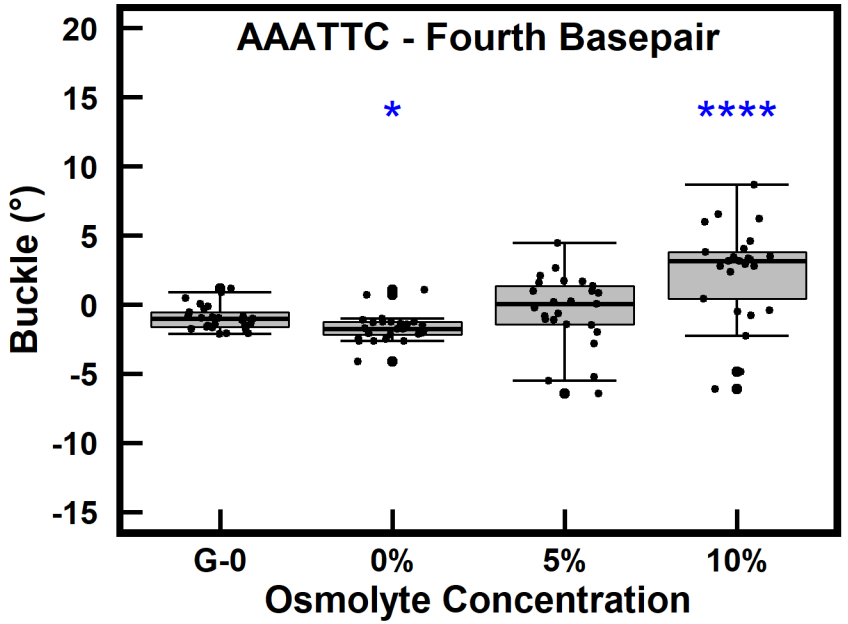

CAATTC - Third Basepair
****
**
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

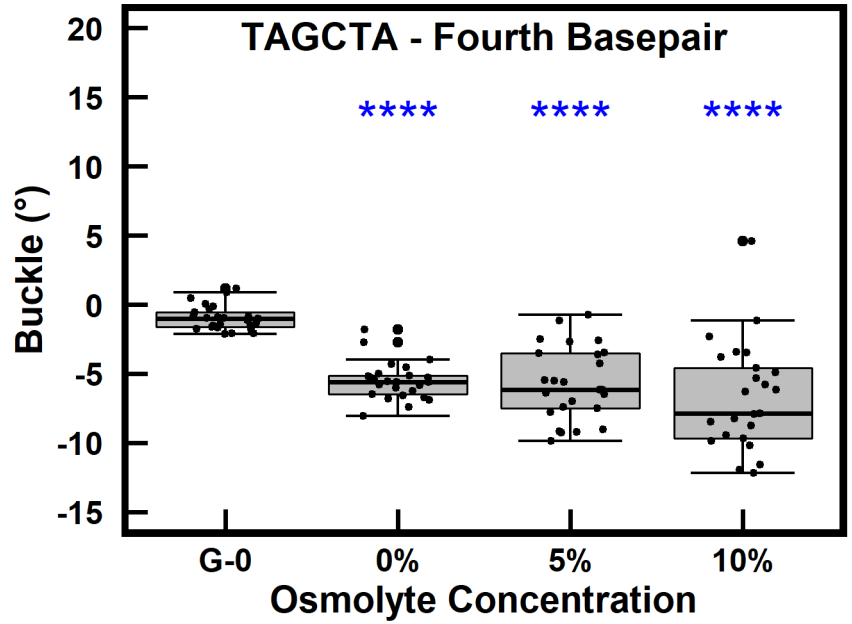

AAATTC - Third Basepair
****
**
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

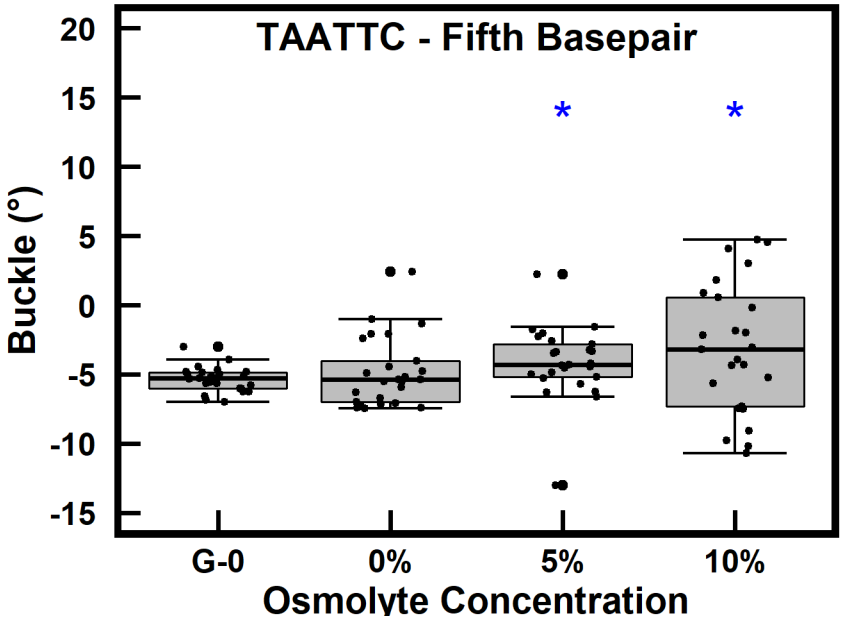

TAGCTA - Third Basepair
****
***
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

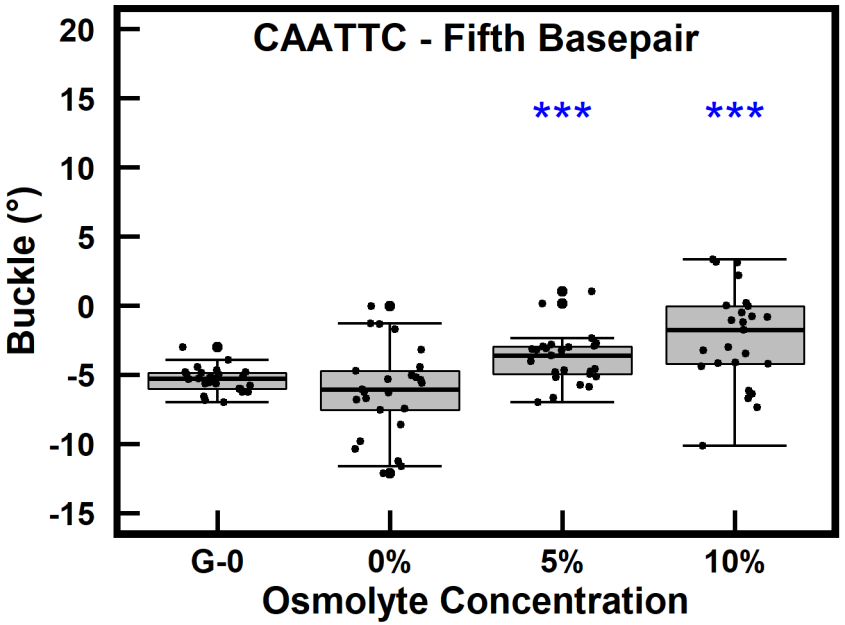

TAATTC - Fourth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
*
****
G-0
0%
5%
10%
Osmolyte Concentration

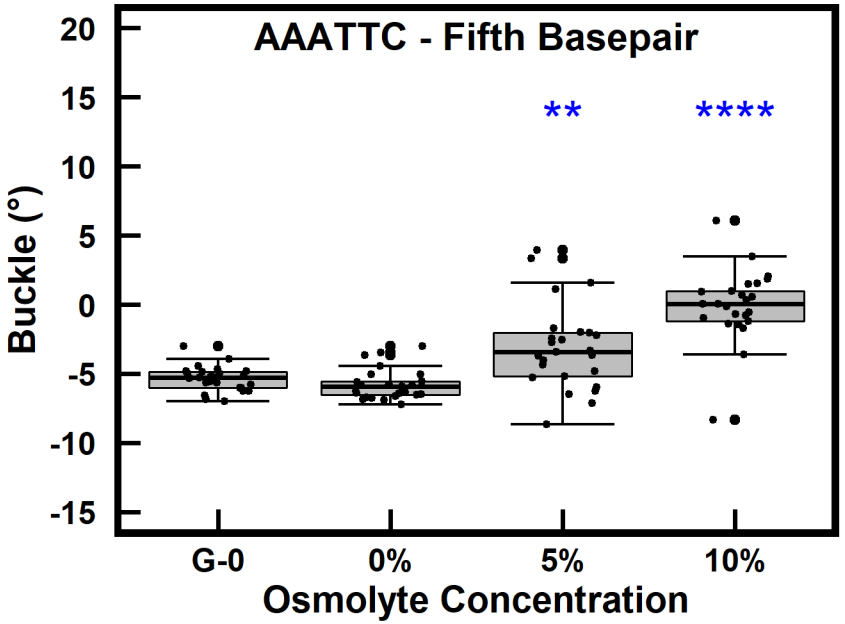

CAATTC - Fourth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
*
****
G-0
0%
5%
10%
Osmolyte Concentration

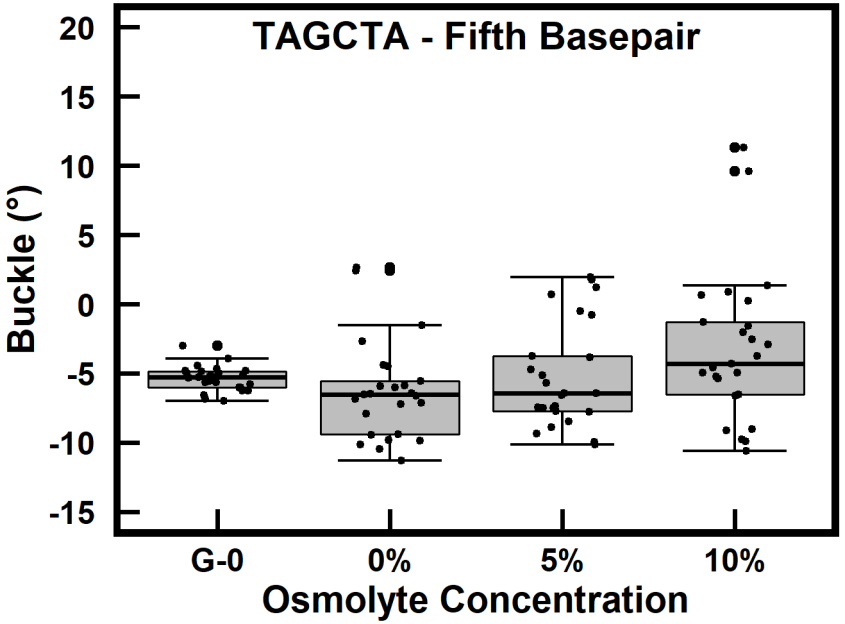

AAATTC - Fourth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
*
****
G-0
0%
5%
10%
Osmolyte Concentration

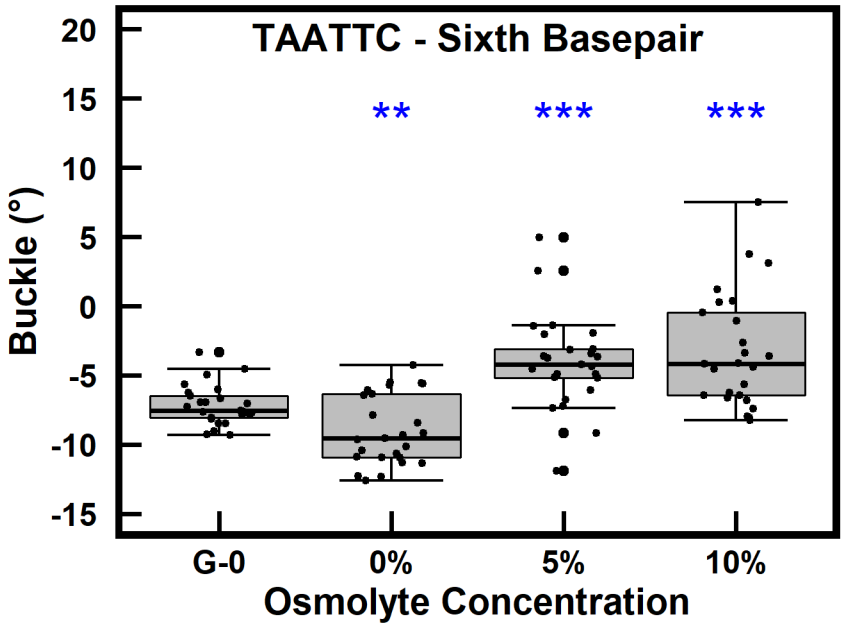

TAGCTA - Fourth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

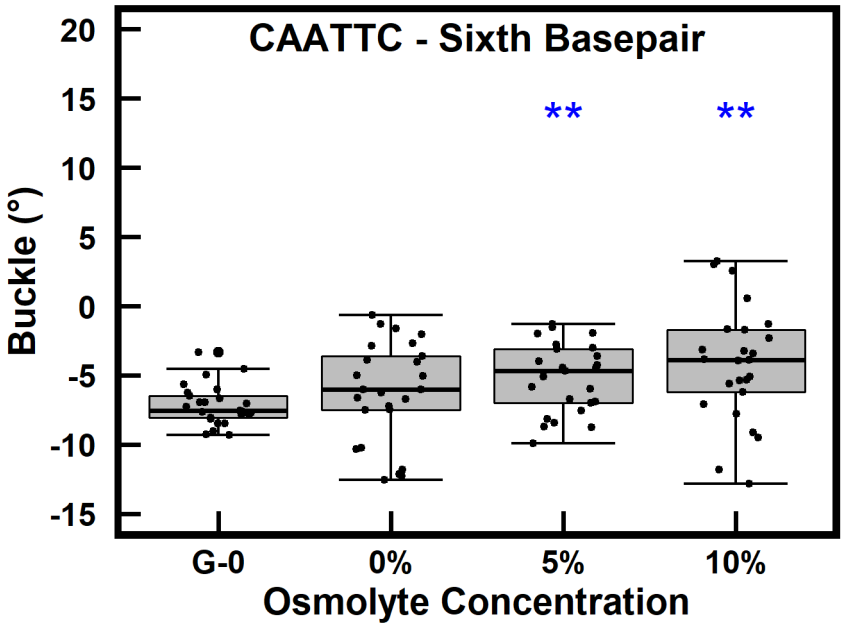

TAATTC - Fifth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
*
*
G-0
0%
5%
10%
Osmolyte Concentration

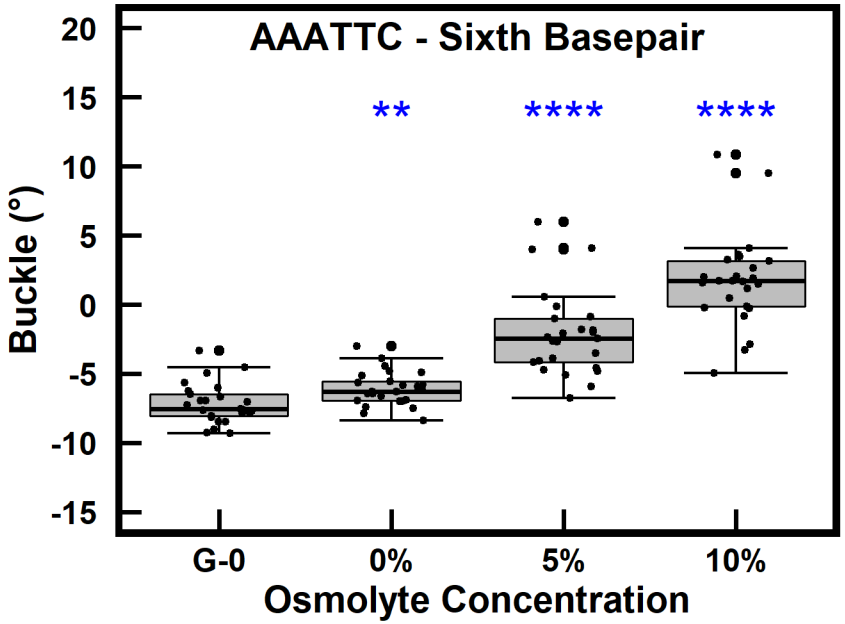

CAATTC - Fifth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
***
***
G-0
0%
5%
10%
Osmolyte Concentration

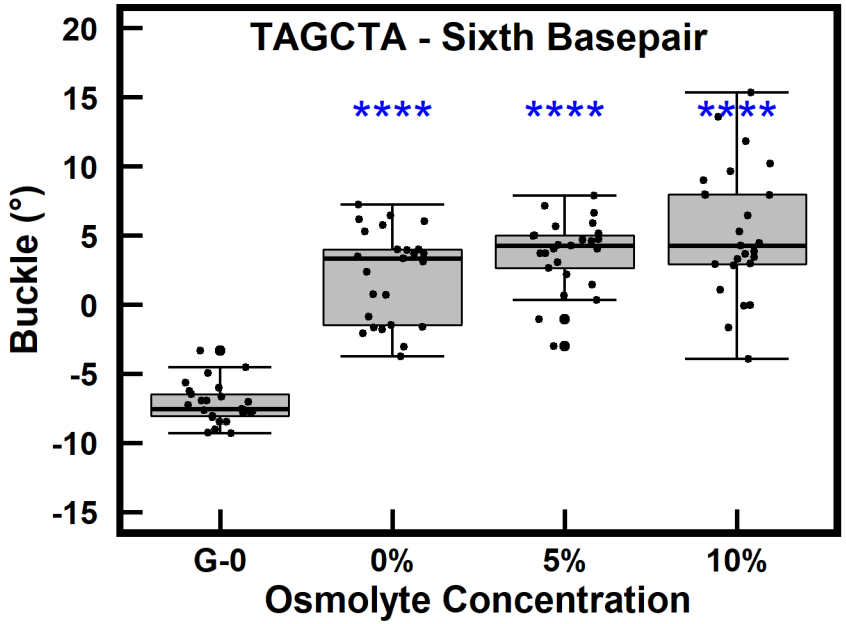

AAATTC - Fifth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
**
****
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
G-0
0%
5%
10%
Osmolyte Concentration

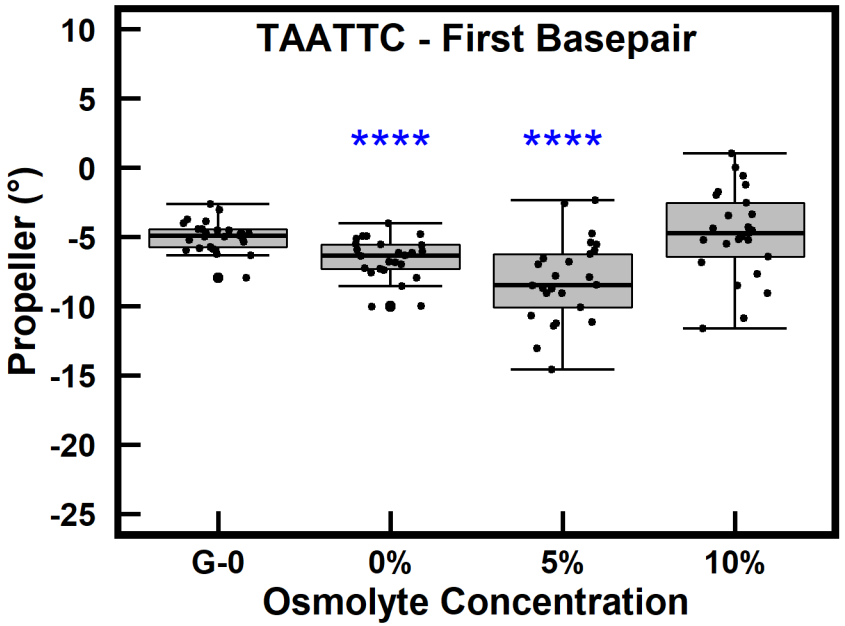

TAATTC - Sixth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
**
***
***
G-0
0%
5%
10%
Osmolyte Concentration

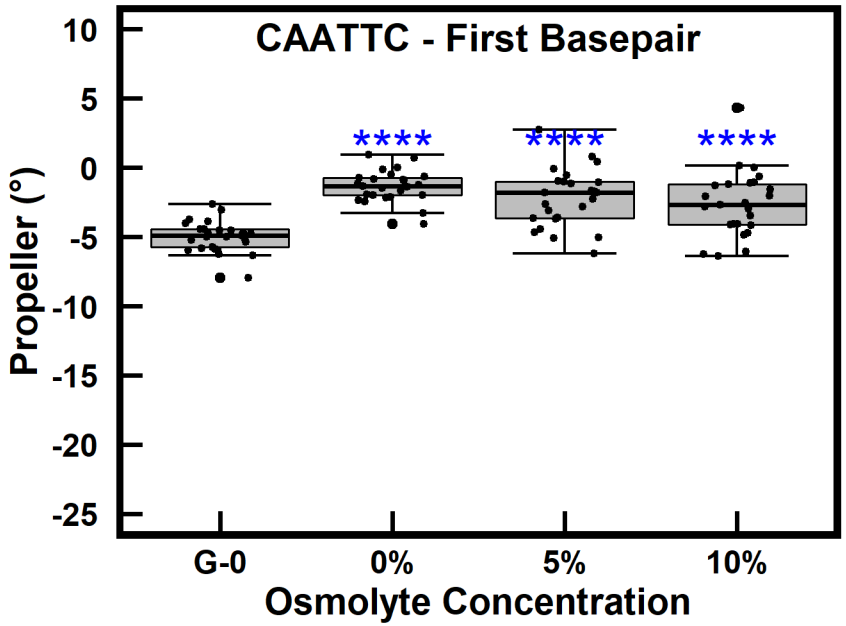

CAATTC - Sixth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
**
**
G-0
0%
5%
10%
Osmolyte Concentration

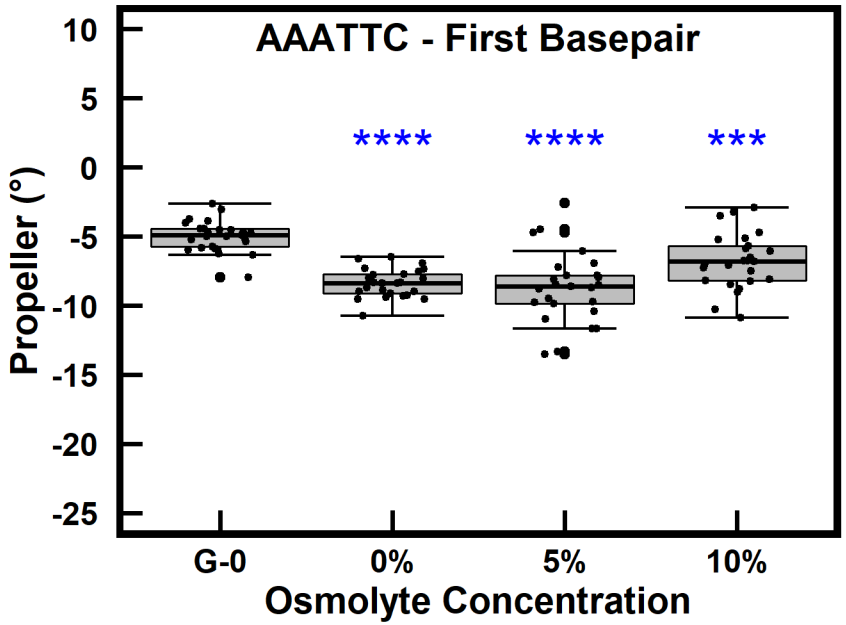

AAATTC - Sixth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
**
****
****
G-0
0%
5%
10%
Osmolyte Concentration

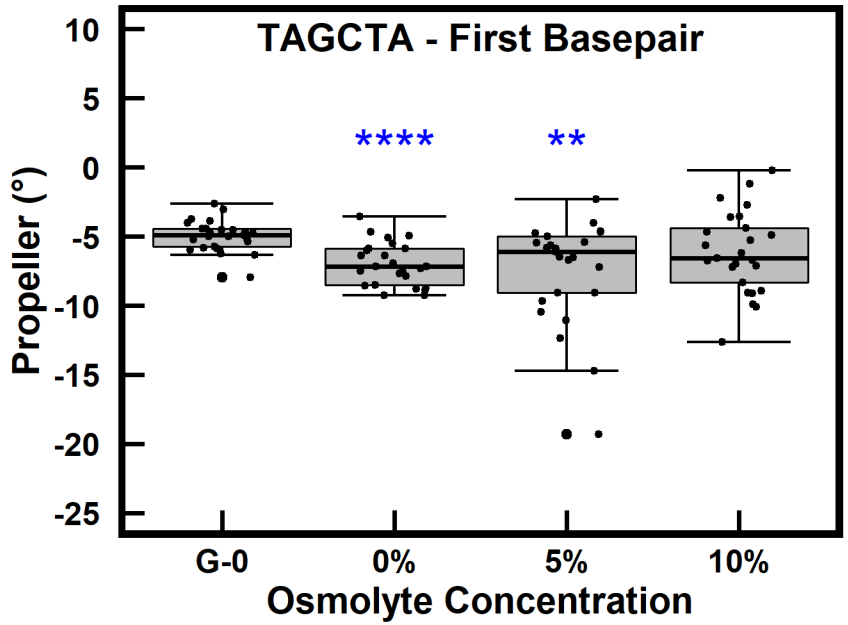

TAGCTA - Sixth Basepair
Buckle (°)
20
15
10
5
0
-5
-10
-15
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

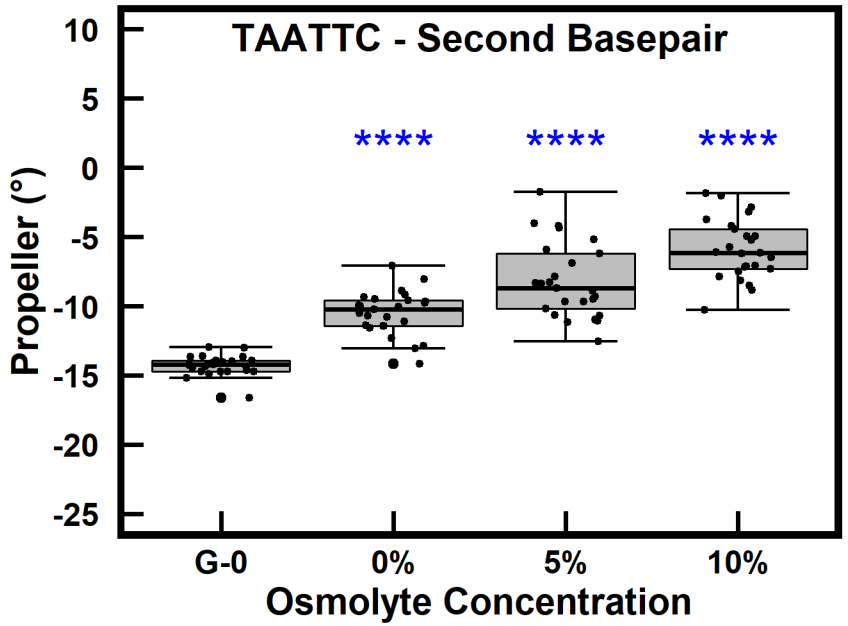
Propeller

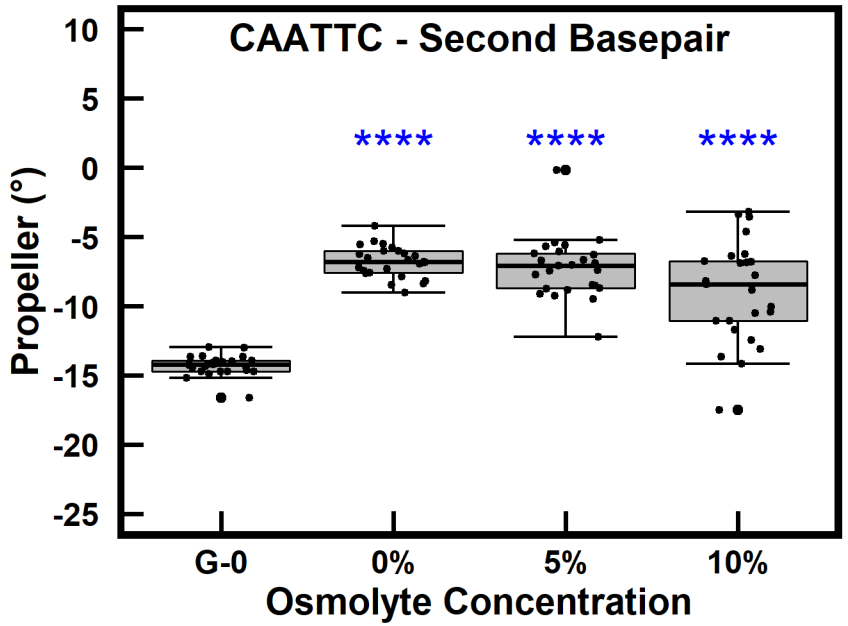

TAATTC - First Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
G-0
0%
5%
10%
Osmolyte Concentration

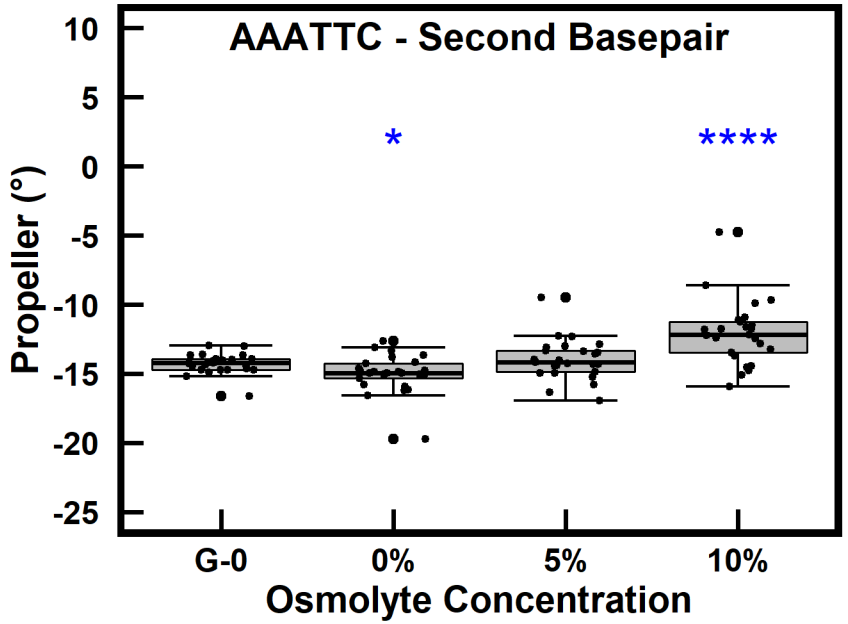

CAATTC - First Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

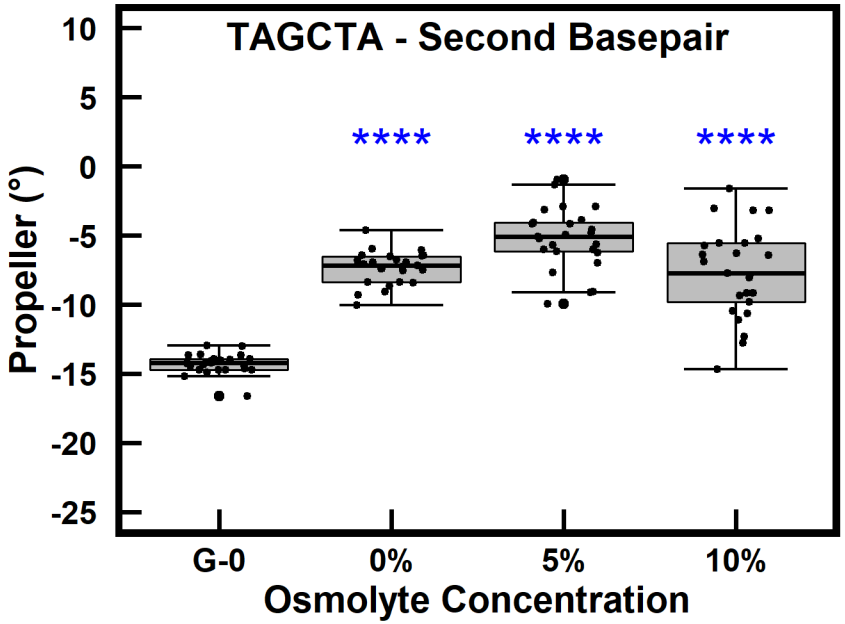

AAATTC - First Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
***
G-0
0%
5%
10%
Osmolyte Concentration

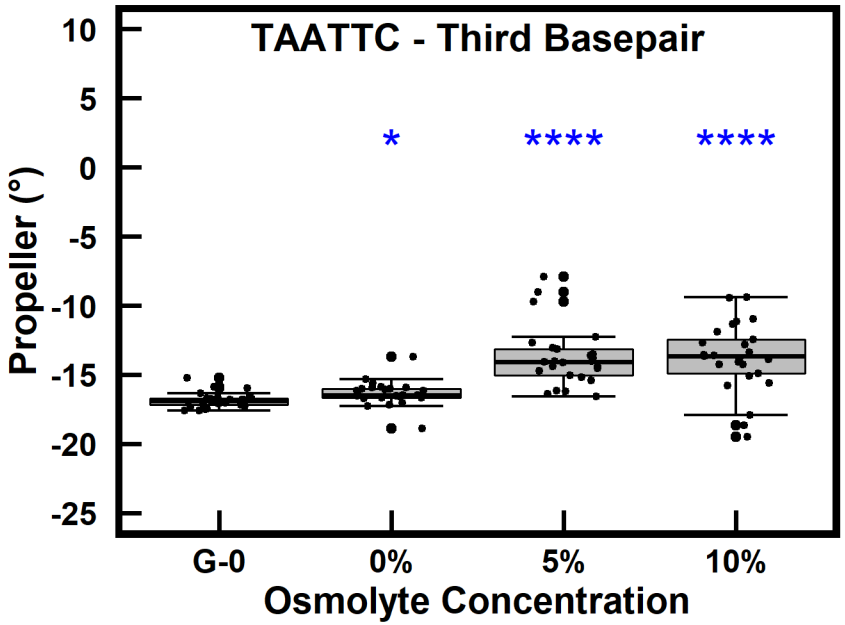

TAGCTA - First Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
**
G-0
0%
5%
10%
Osmolyte Concentration

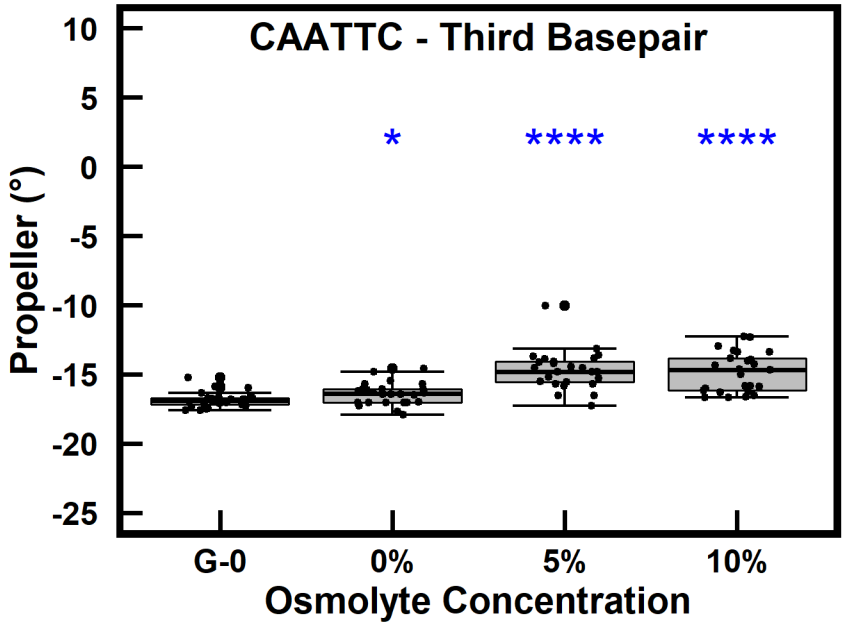

TAATTC - Second Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

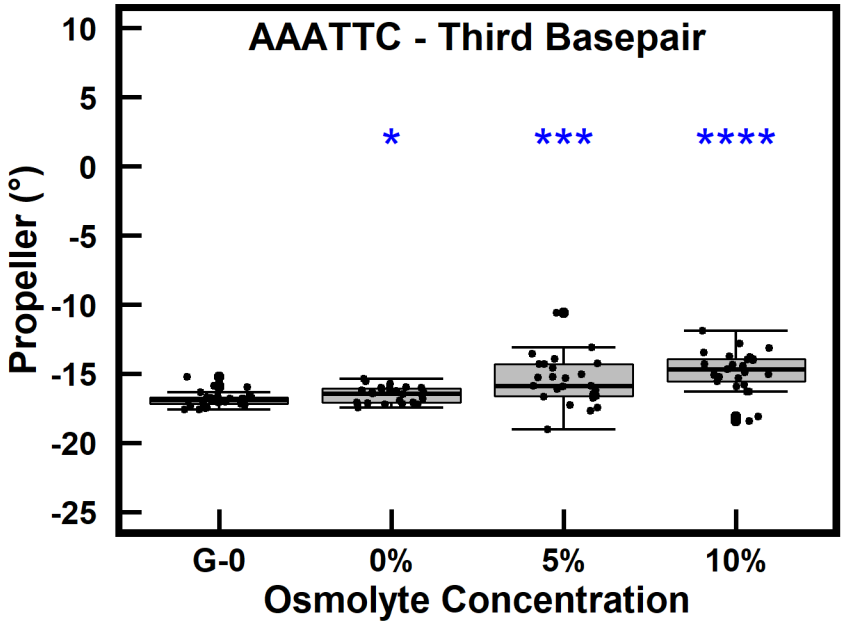

CAATTC - Second Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

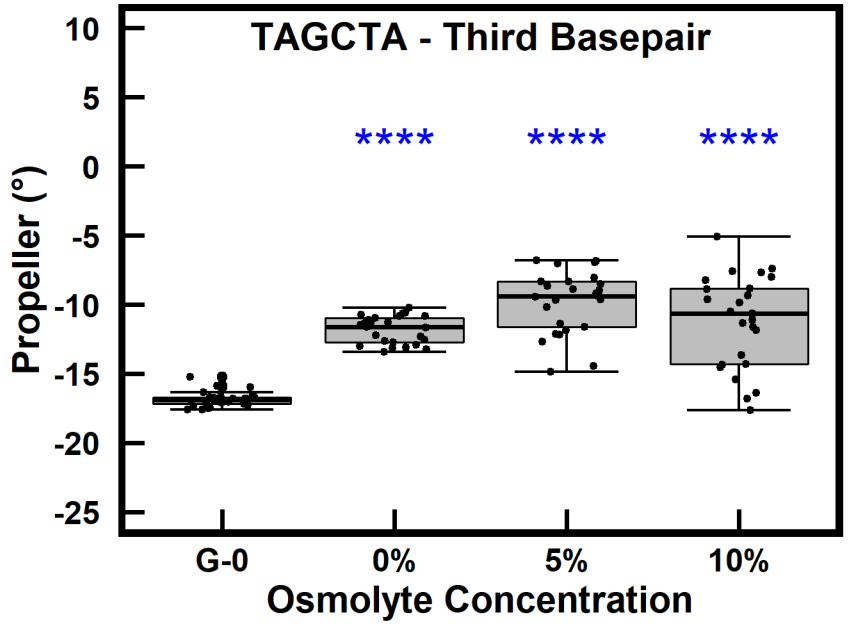

AAATTC - Second Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
*
****
G-0
0%
5%
10%
Osmolyte Concentration

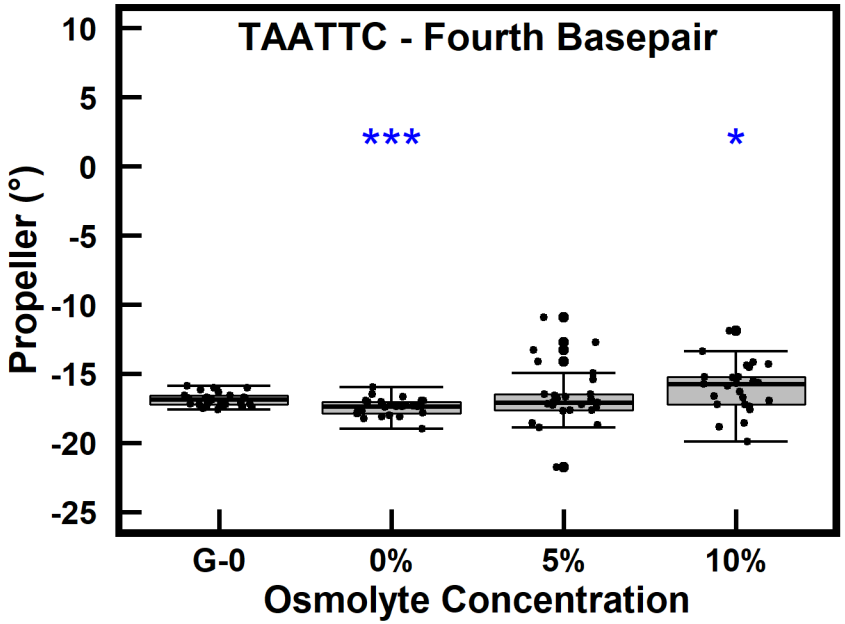

TAGCTA - Second Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

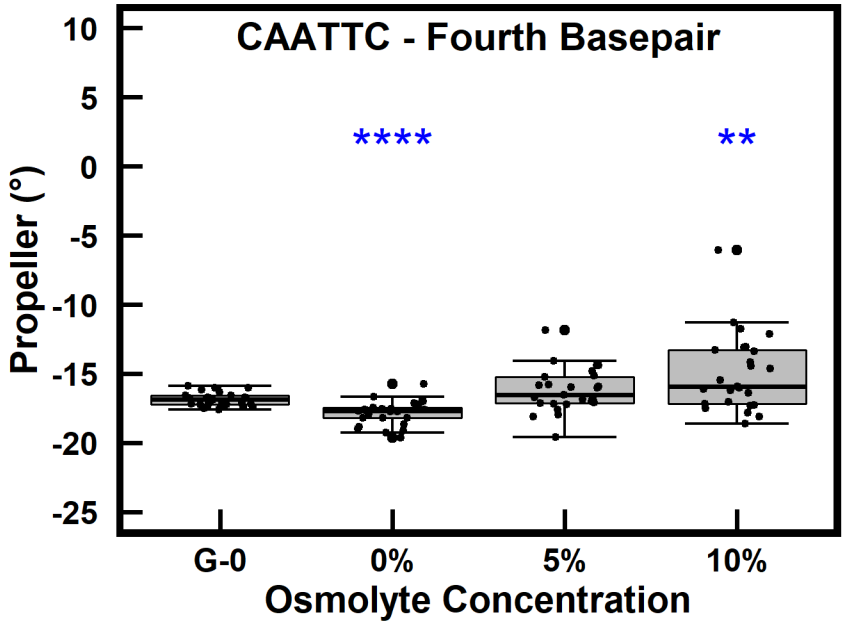

TAATTC - Third Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
*
****
****
G-0
0%
5%
10%
Osmolyte Concentration

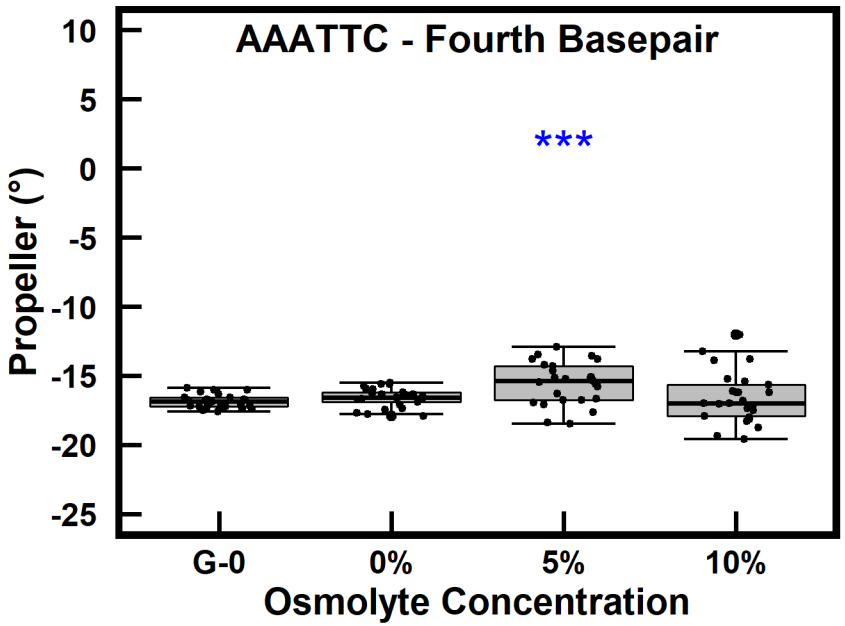

CAATTC - Third Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
*
****
****
G-0
0%
5%
10%
Osmolyte Concentration

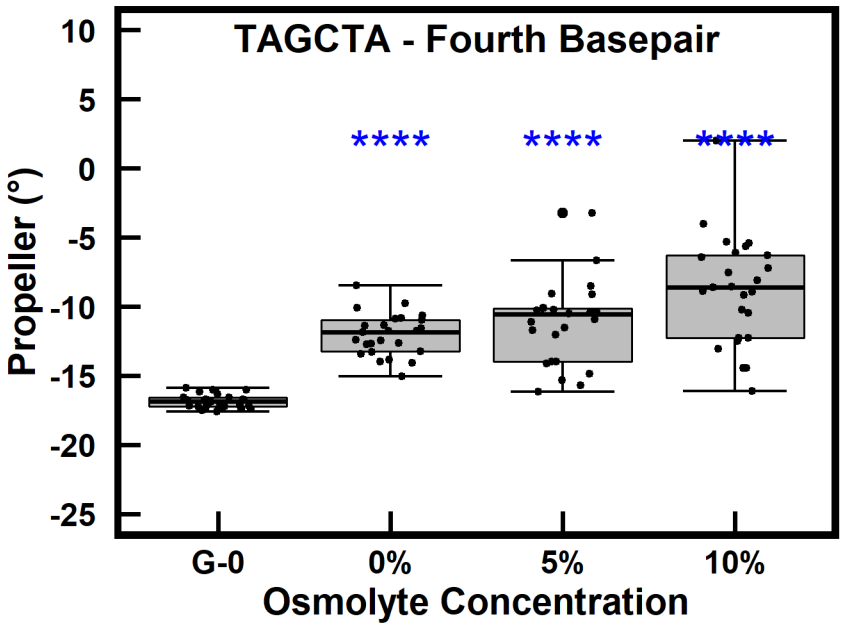

AAATTC - Third Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
*
***
****
G-0
0%
5%
10%
Osmolyte Concentration

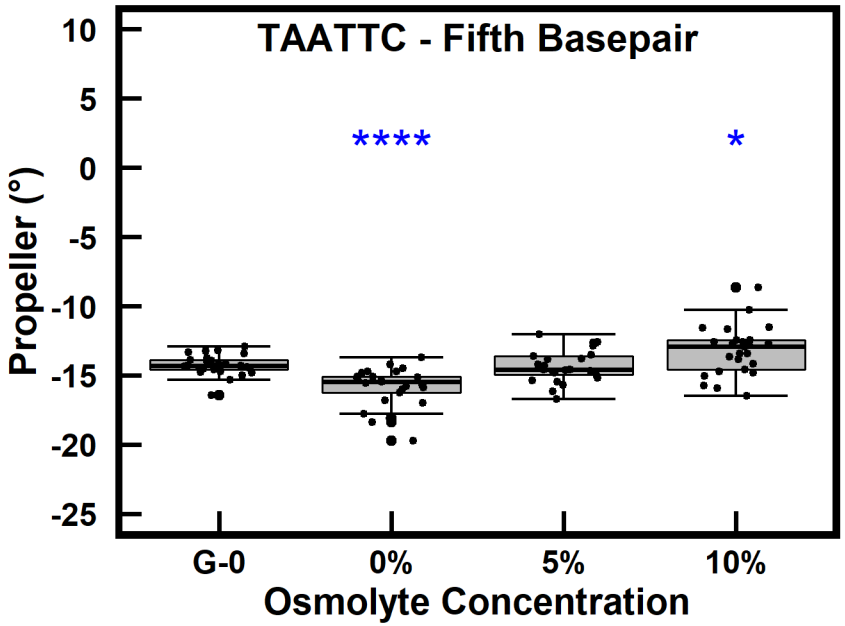

TAGCTA - Third Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

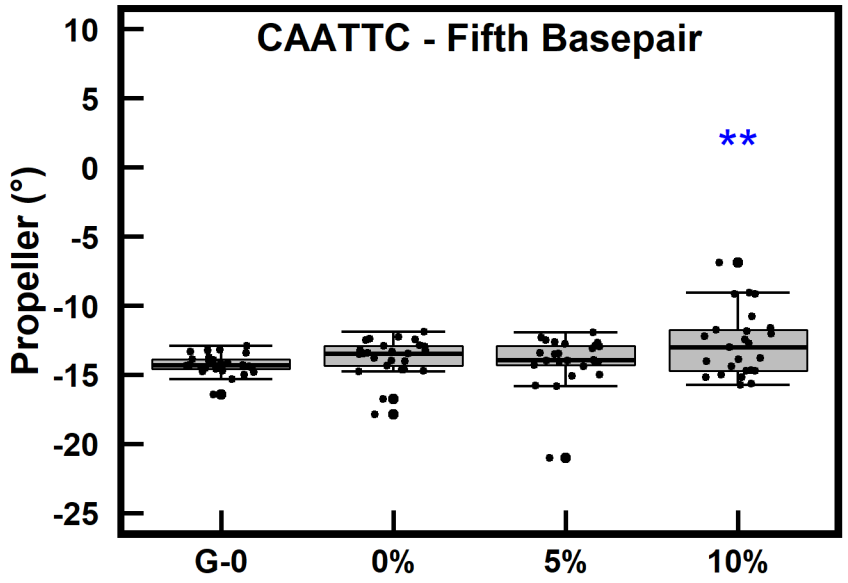

TAATTC - Fourth Basepair
***
*
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
G-0
0%
5%
10%
Osmolyte Concentration

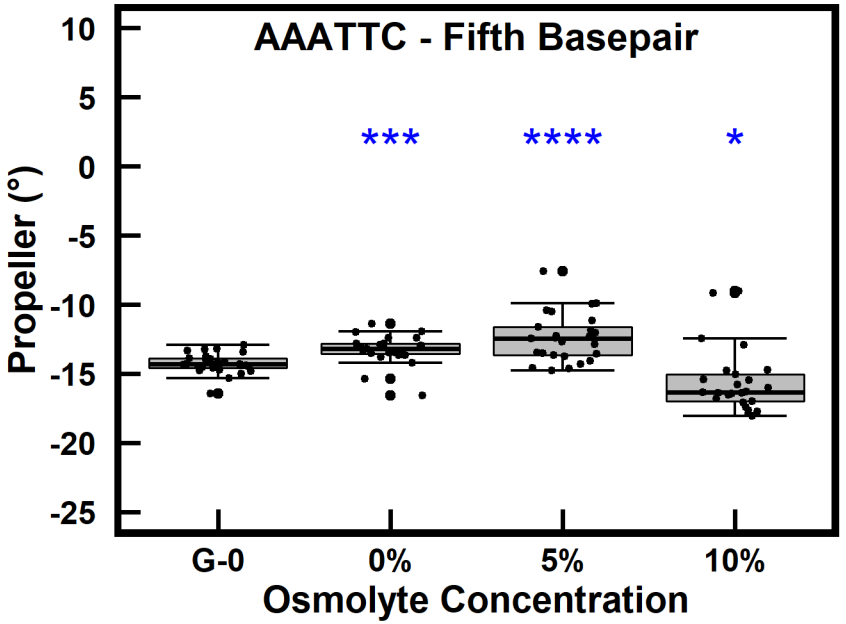

CAATTC - Fourth Basepair
****
**
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
G-0
0%
5%
10%
Osmolyte Concentration

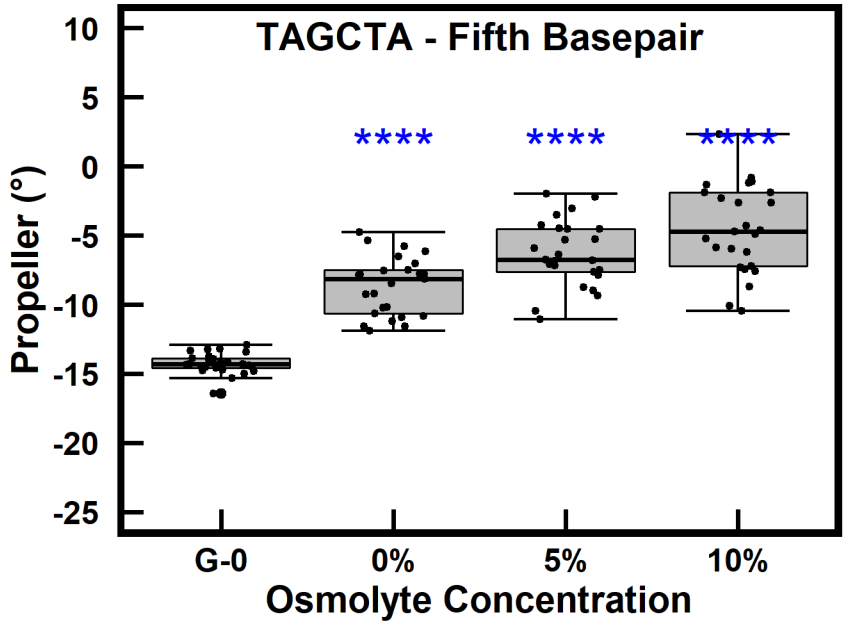

AAATTC - Fourth Basepair
***
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
G-0
0%
5%
10%
Osmolyte Concentration

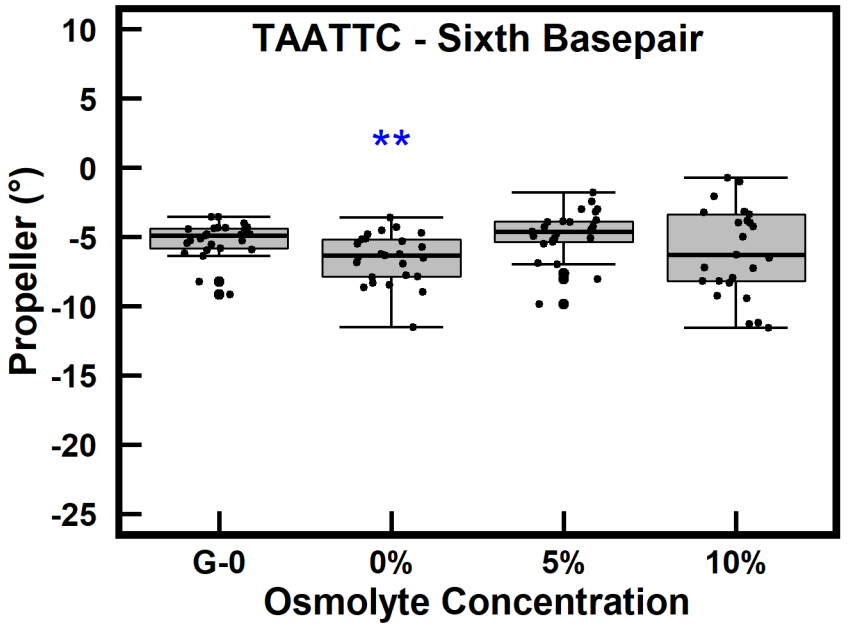

TAGCTA - Fourth Basepair
****
****
****
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
G-0
0%
5%
10%
Osmolyte Concentration

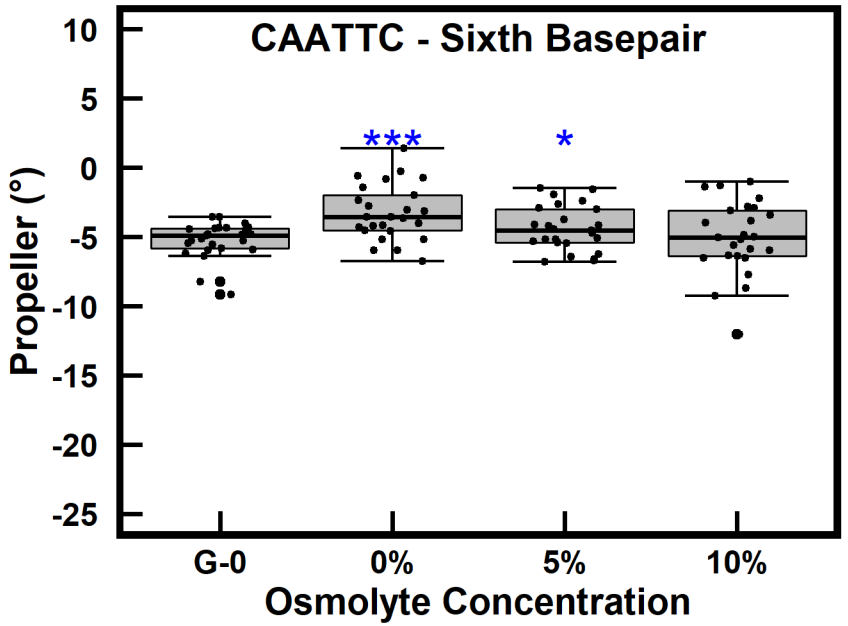

TAATTC - Fifth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
*
G-0
0%
5%
10%
Osmolyte Concentration

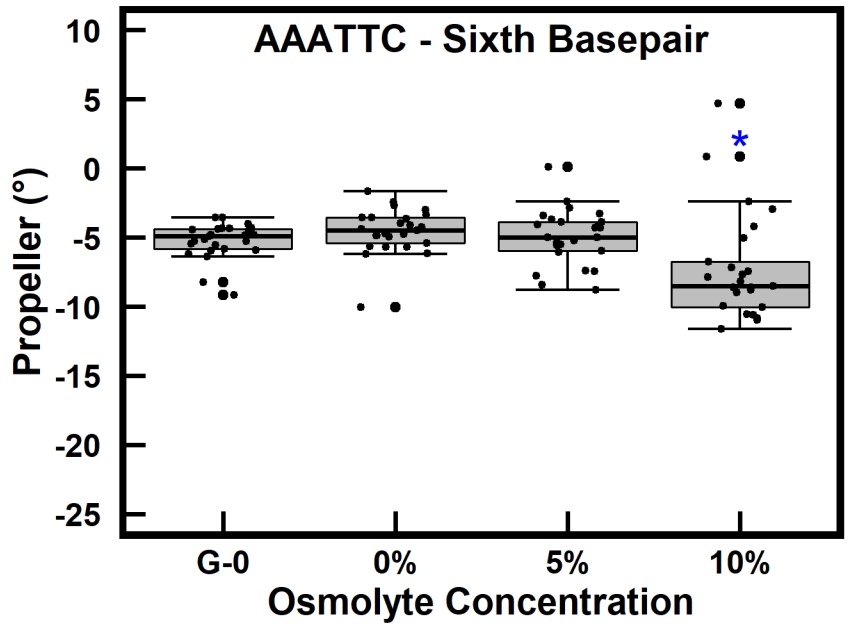

CAATTC - Fifth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
**
G-0
0%
5%
10%

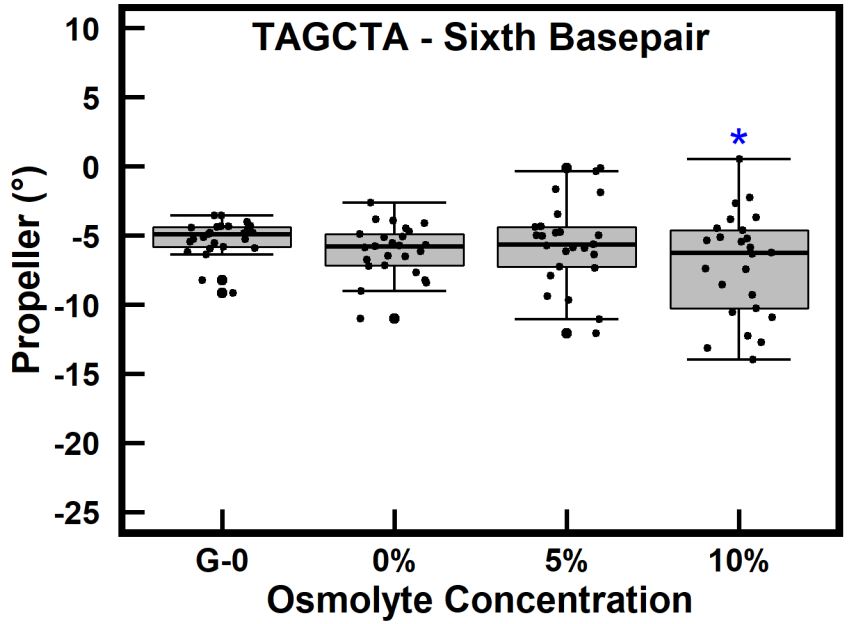

AAATTC - Fifth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
***
****
*
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

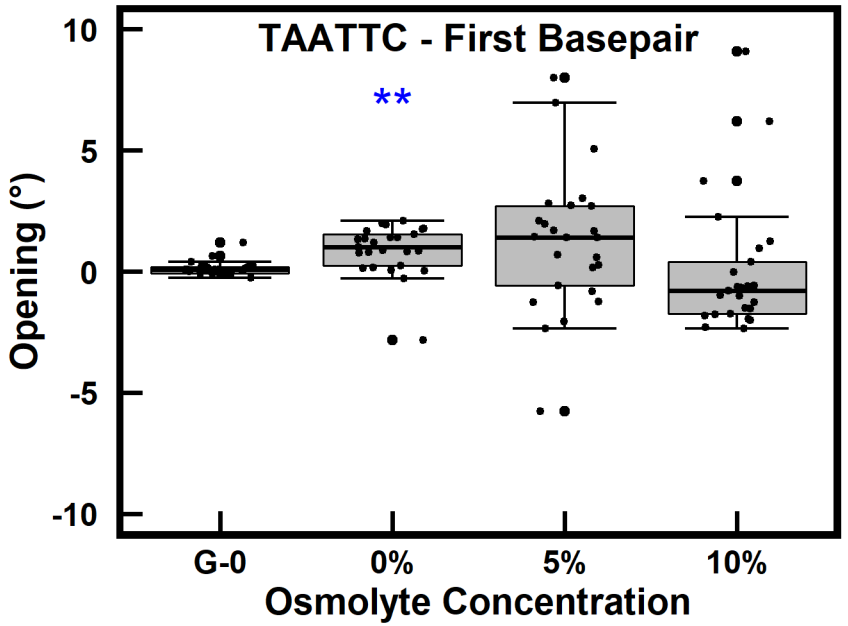

TAATTC - Sixth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
**
G-0
0%
5%
10%
Osmolyte Concentration

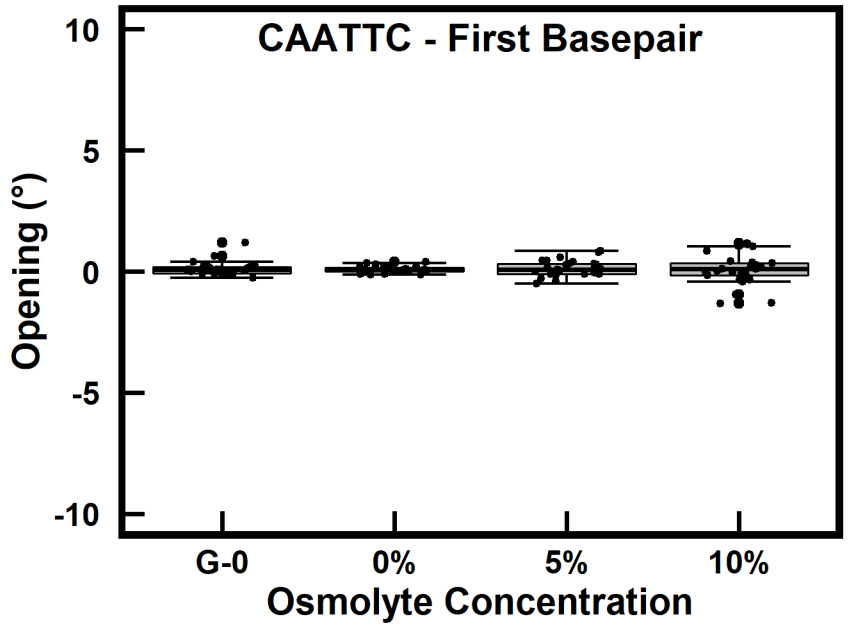

CAATTC - Sixth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
***
*
G-0
0%
5%
10%
Osmolyte Concentration

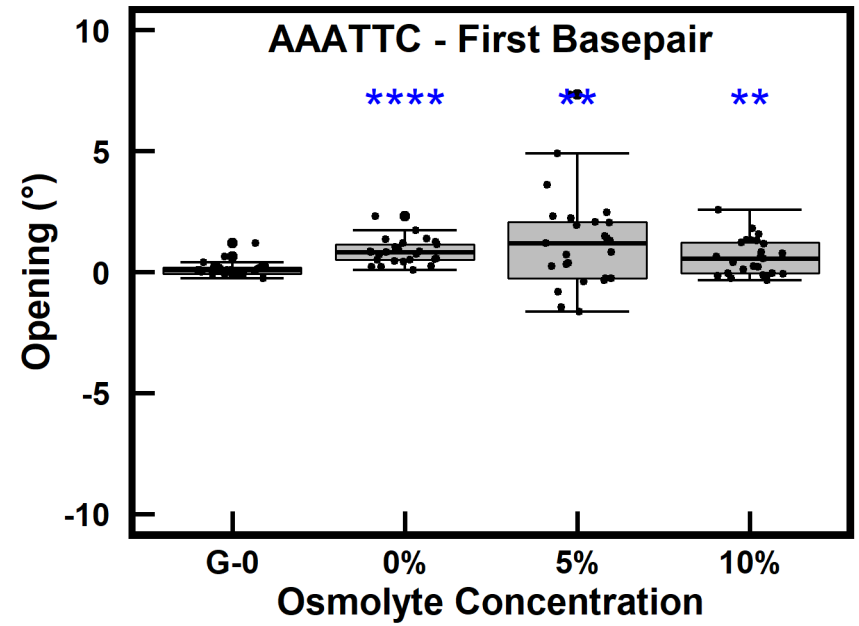

AAATTC - Sixth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
*
G-0
0%
5%
10%
Osmolyte Concentration

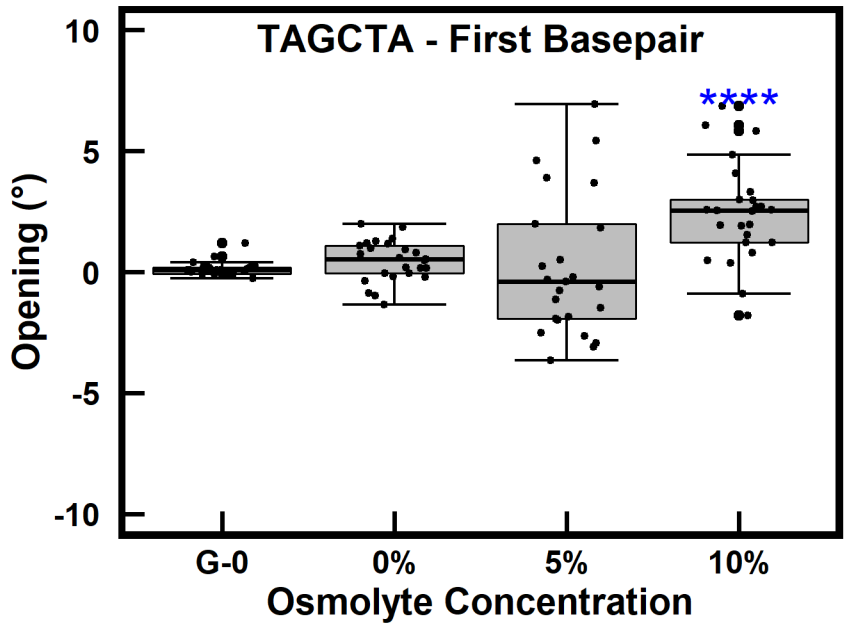

TAGCTA - Sixth Basepair
Propeller (°)
10
5
0
-5
-10
-15
-20
-25
*
G-0
0%
5%
10%
Osmolyte Concentration

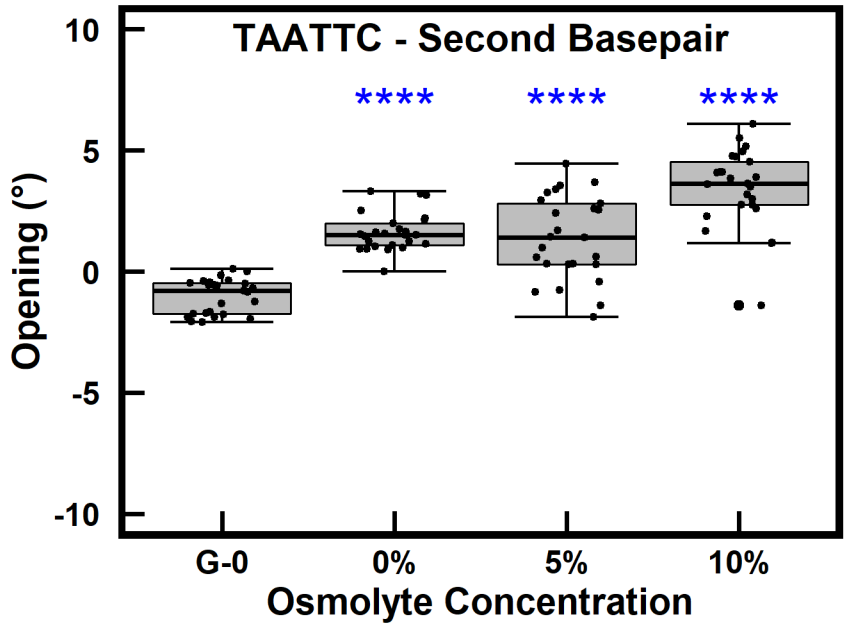
Opening

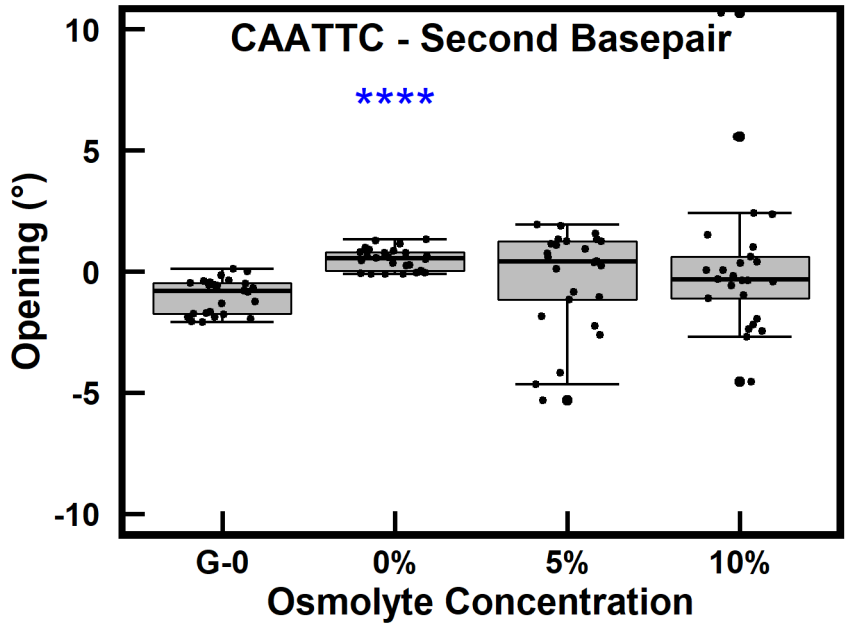

TAATTC - First Basepair
**
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

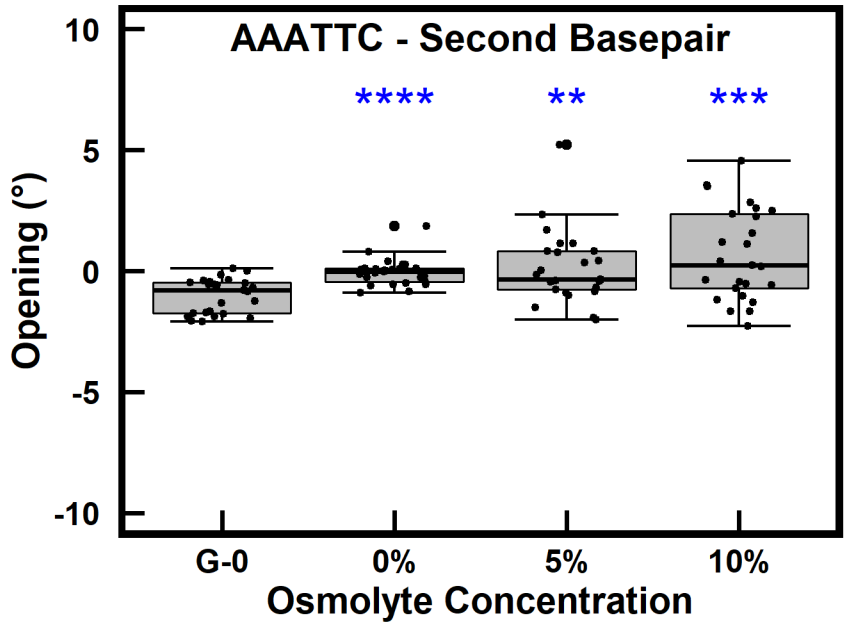

CAATTC - First Basepair
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

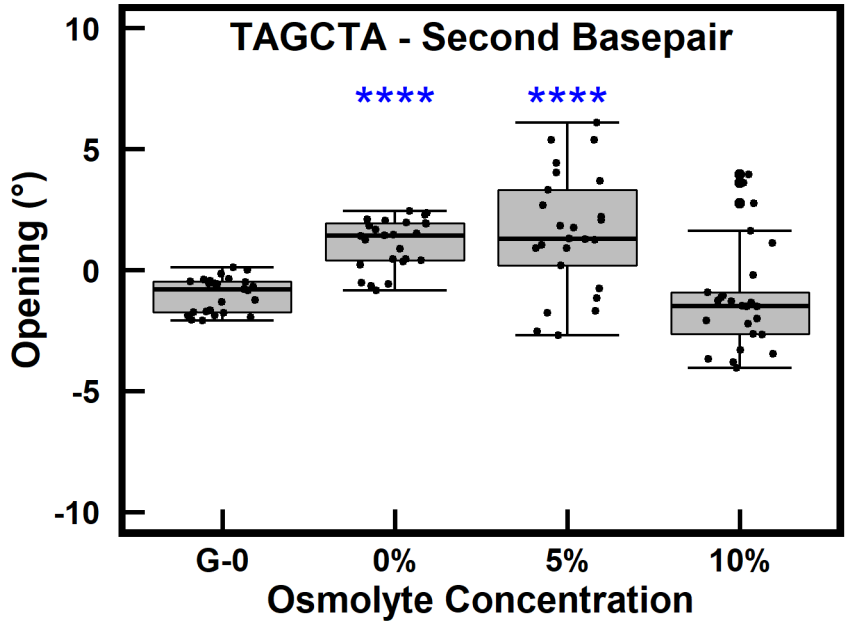

AAATTC - First Basepair
****
**
**
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

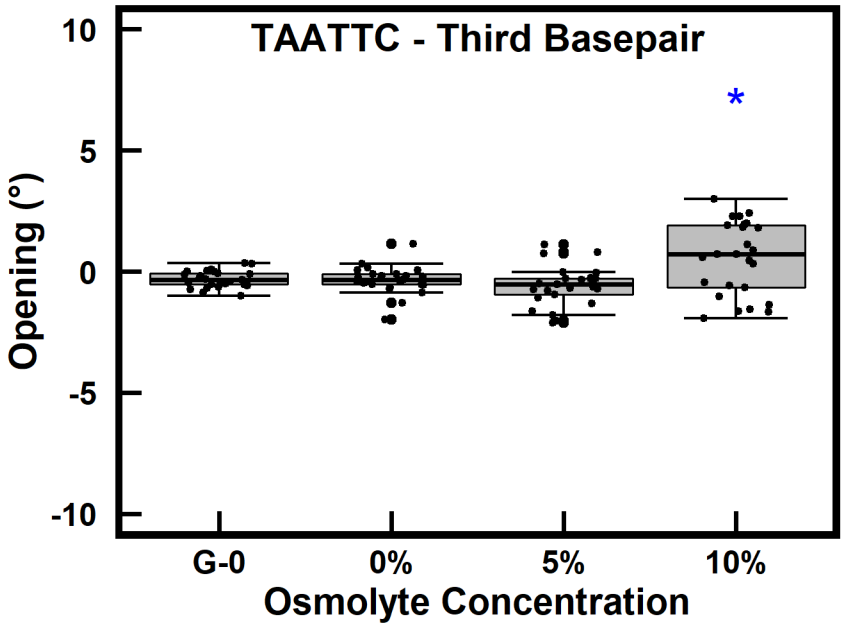

TAGCTA - First Basepair
****
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

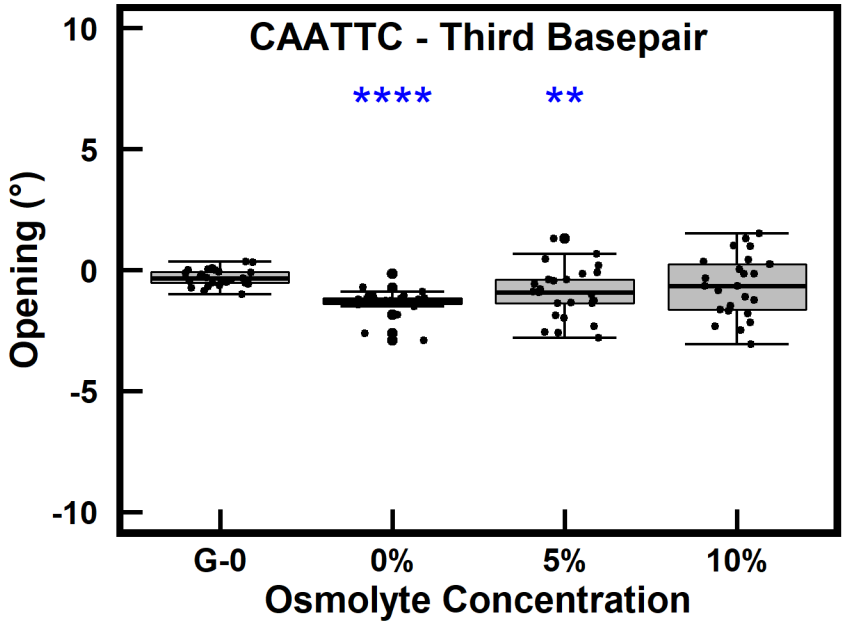

TAATTC - Second Basepair
****
****
****
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

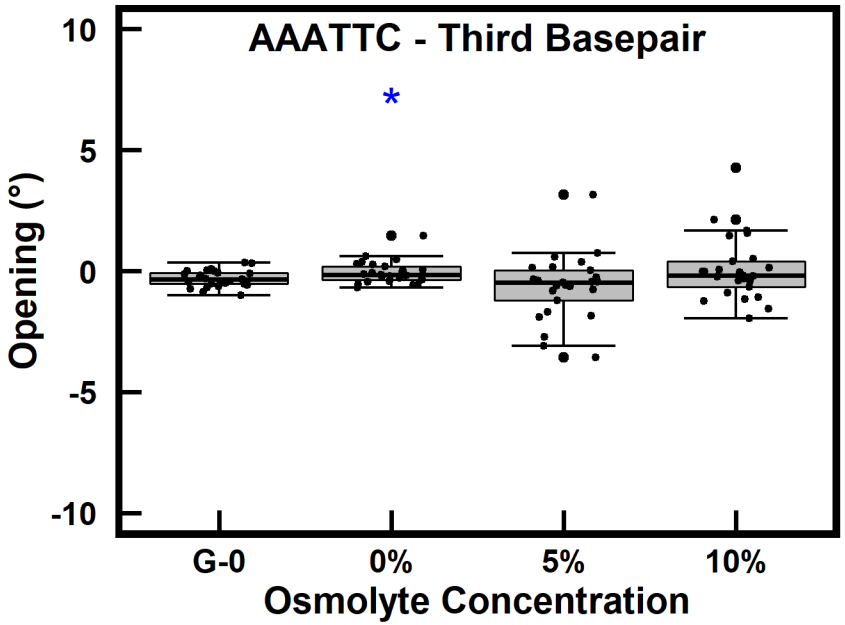

CAATTC - Second Basepair
****
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

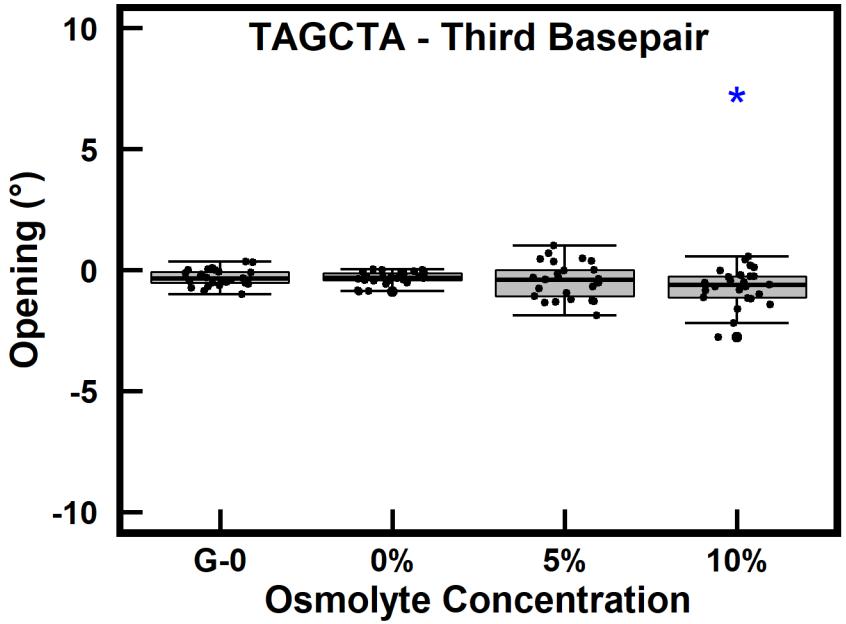

AAATTC - Second Basepair
****
**
***
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

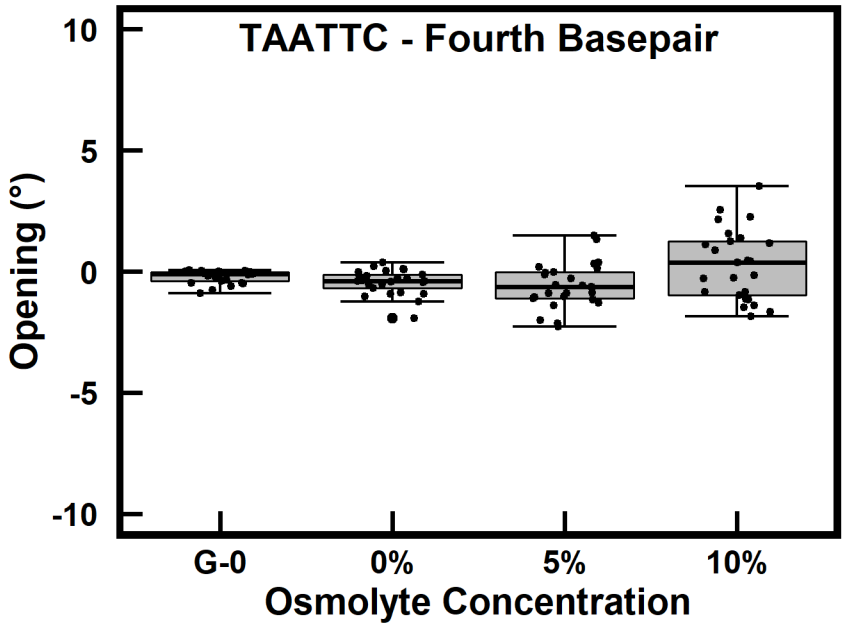

TAGCTA - Second Basepair
****
****
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

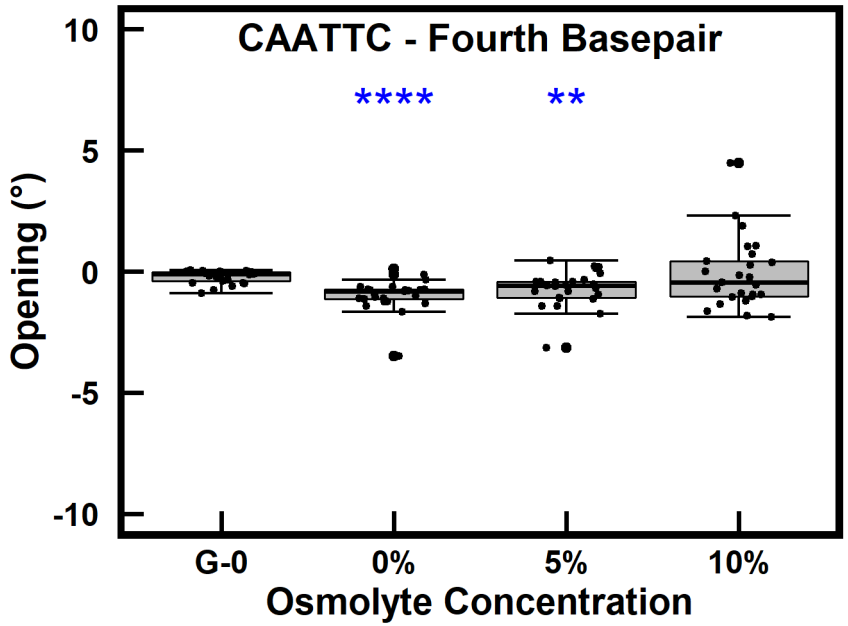

TAATTC - Third Basepair
*
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

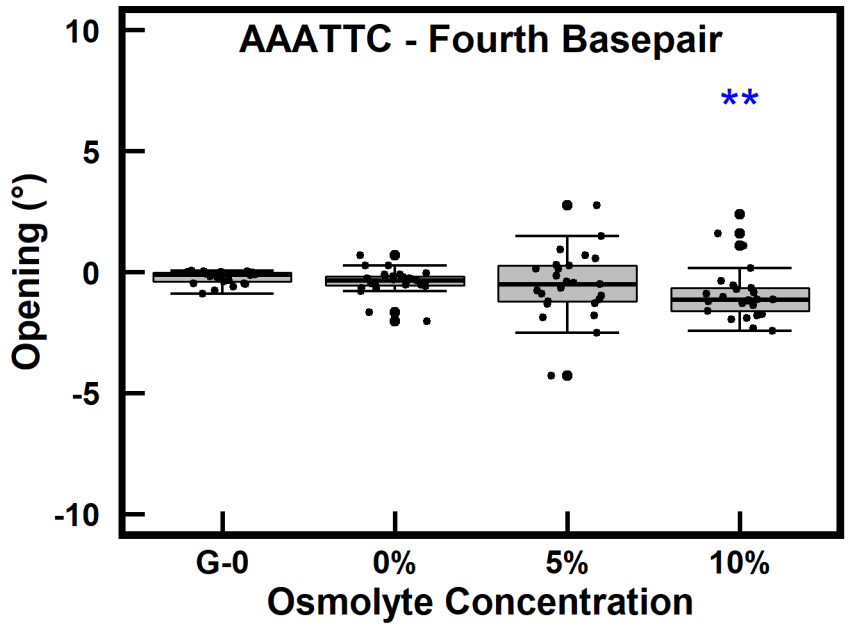

CAATTC - Third Basepair
****
**
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

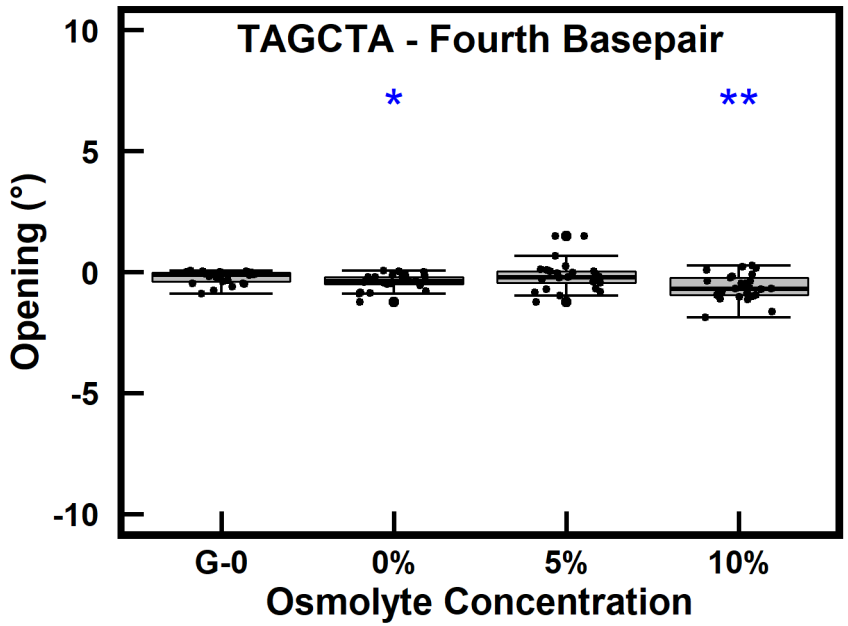

AAATTC - Third Basepair
*
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

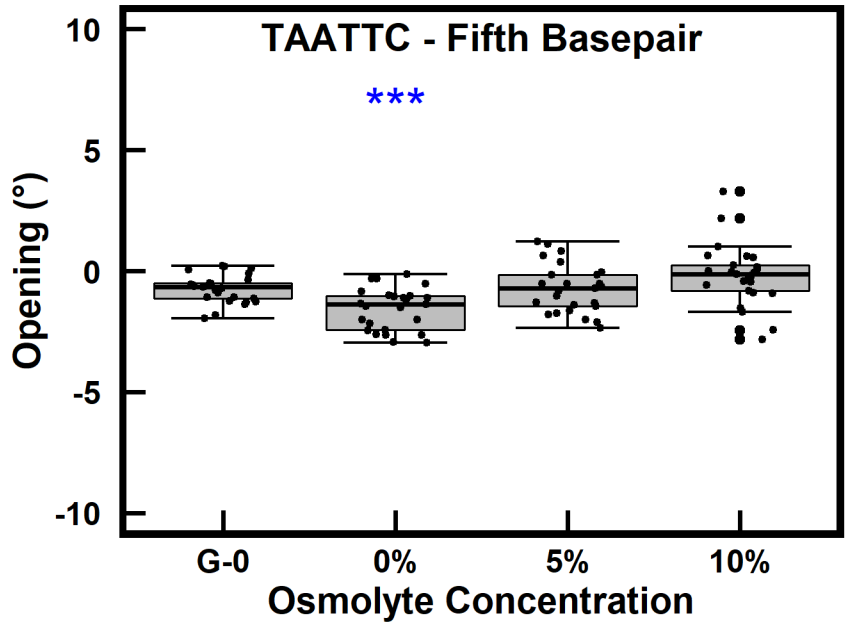

TAGCTA - Third Basepair
*
10
5
0
-5
-10
Opening (°)
G-0
0%
5%
10%
Osmolyte Concentration

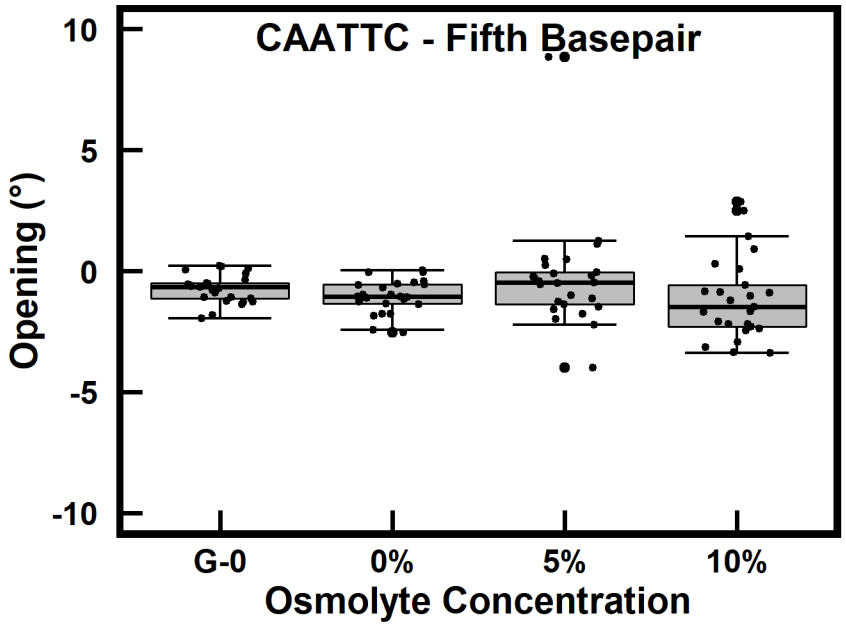

TAATTC - Fourth Basepair
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

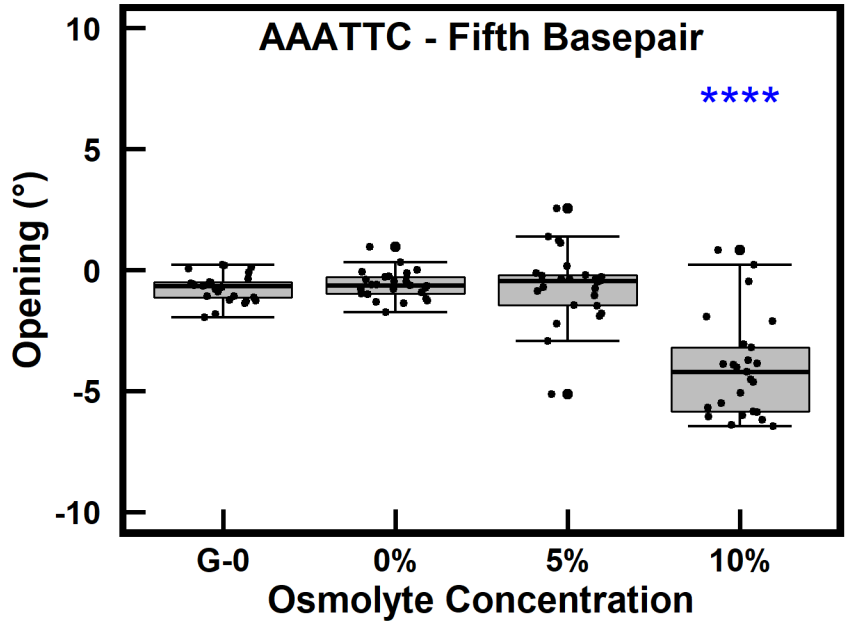

CAATTC - Fourth Basepair
****
**
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

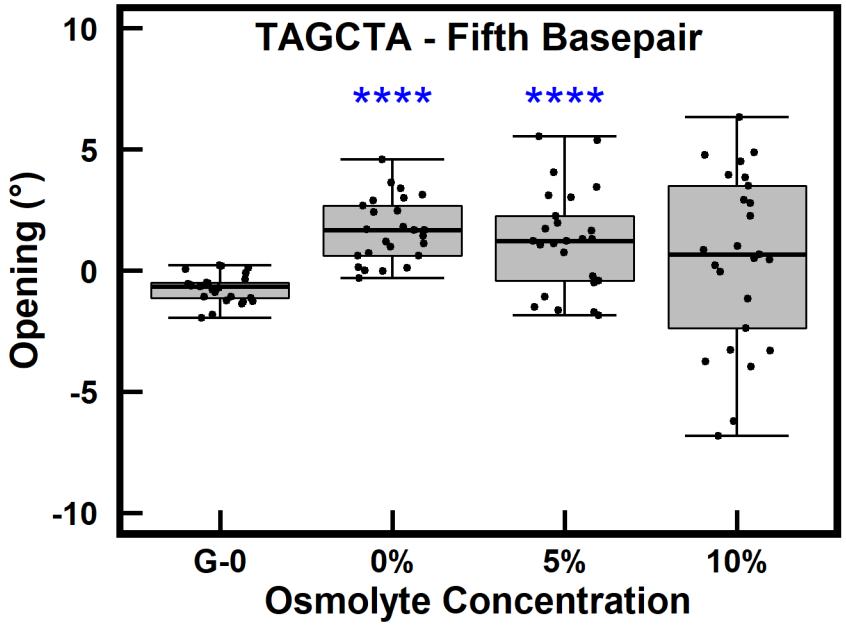

AAATTC - Fourth Basepair
**
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

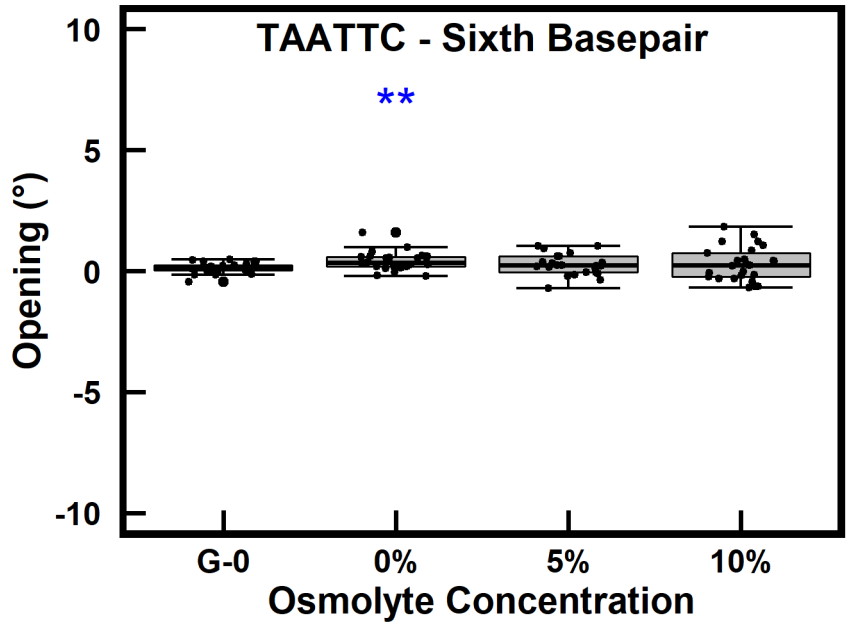

TAGCTA - Fourth Basepair
*
**
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

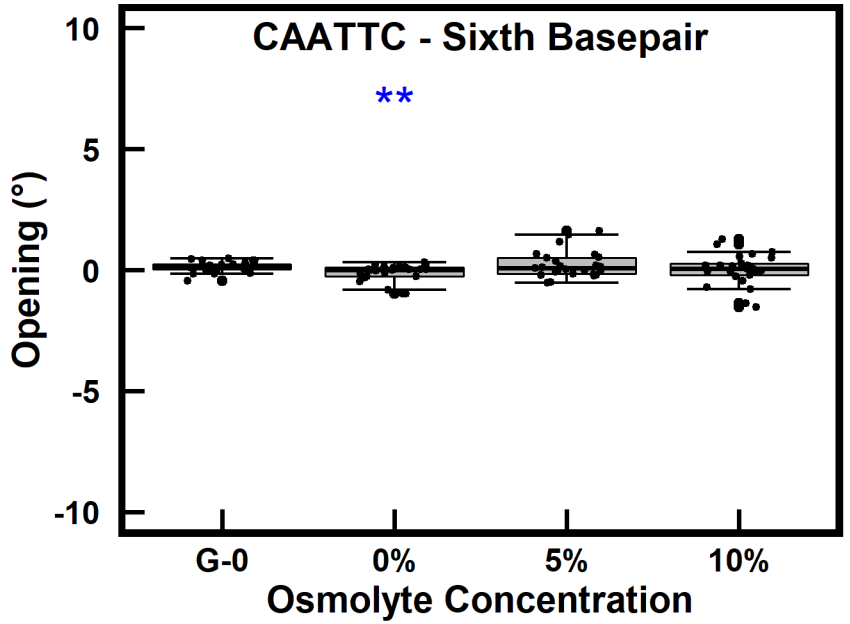

TAATTC - Fifth Basepair
***
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

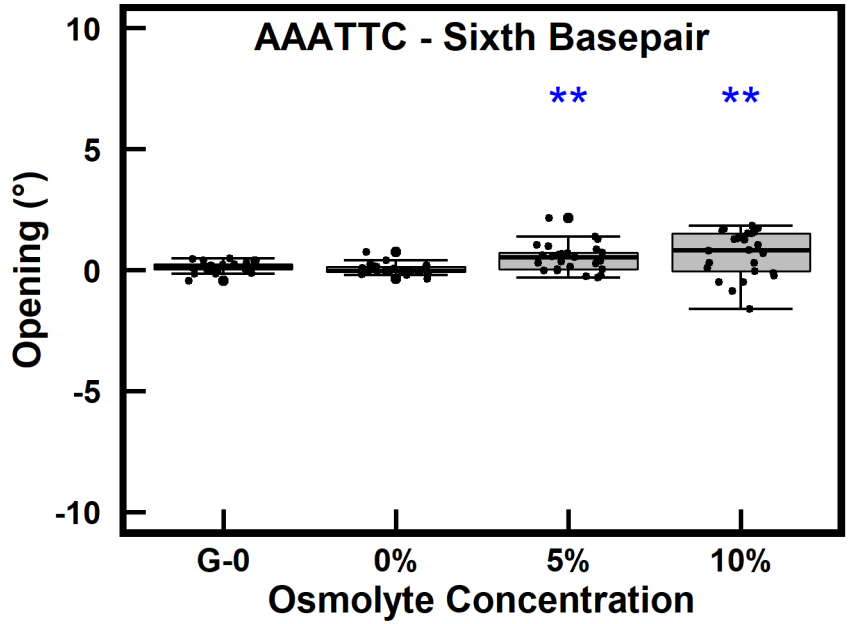

CAATTC - Fifth Basepair
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

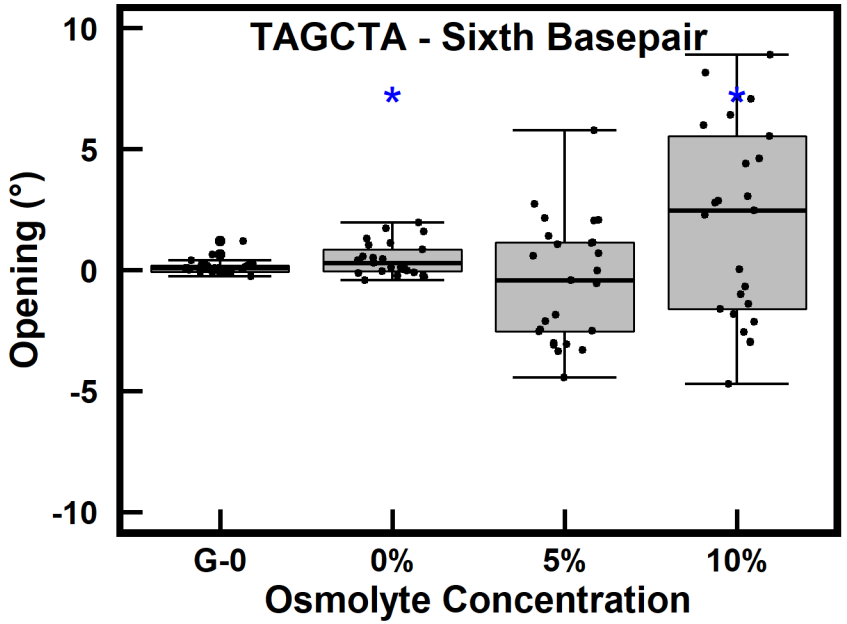

AAATTC - Fifth Basepair
****
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
****
****
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

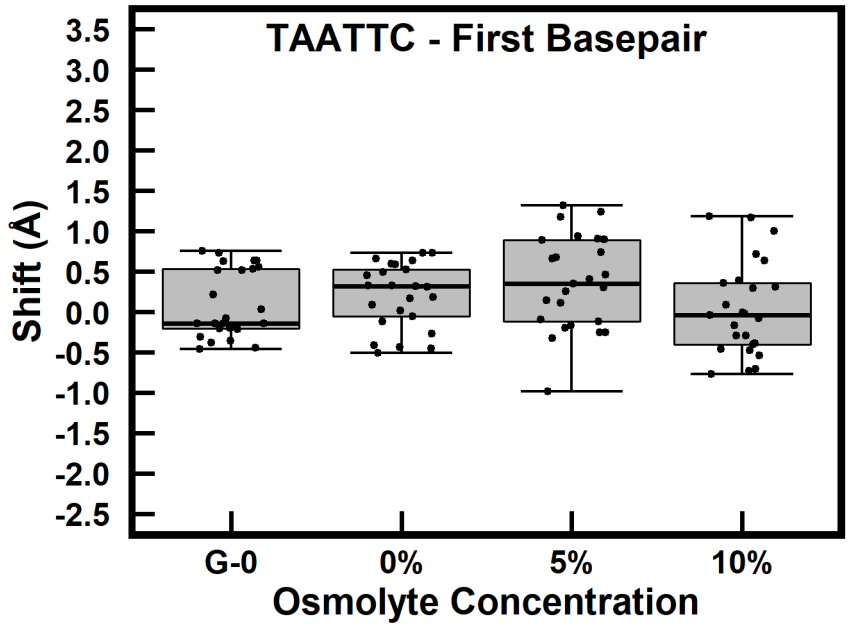

TAATTC - Sixth Basepair
**
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

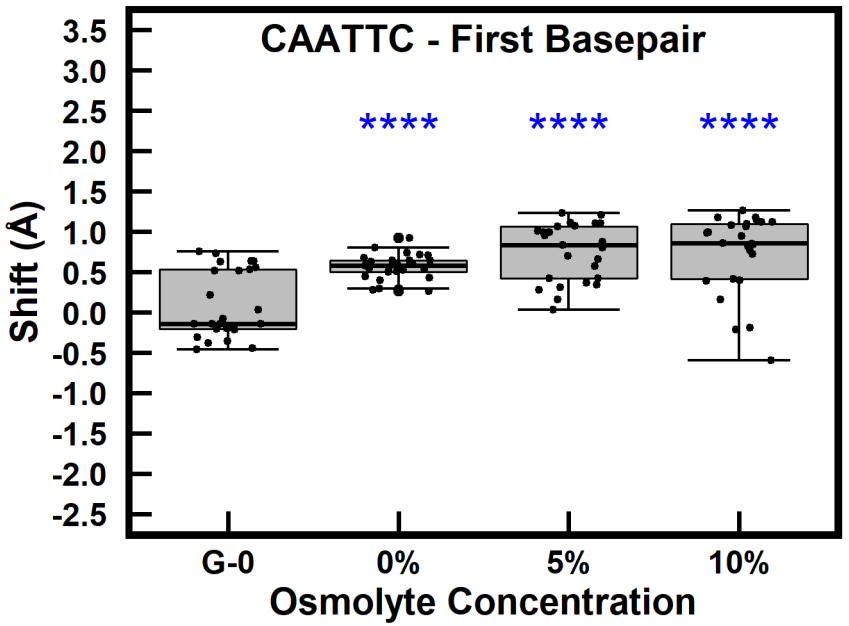

CAATTC - Sixth Basepair
**
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

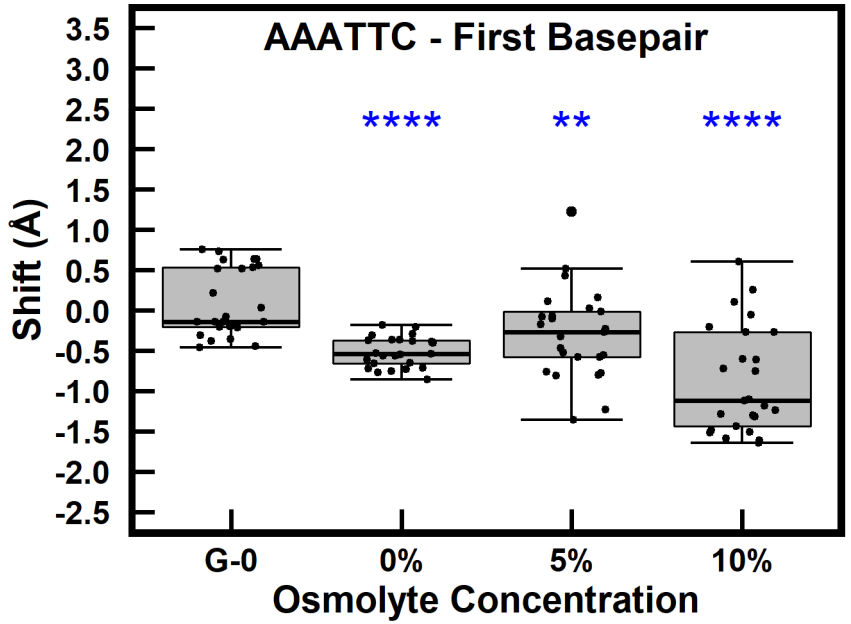

AAATTC - Sixth Basepair
**
**
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

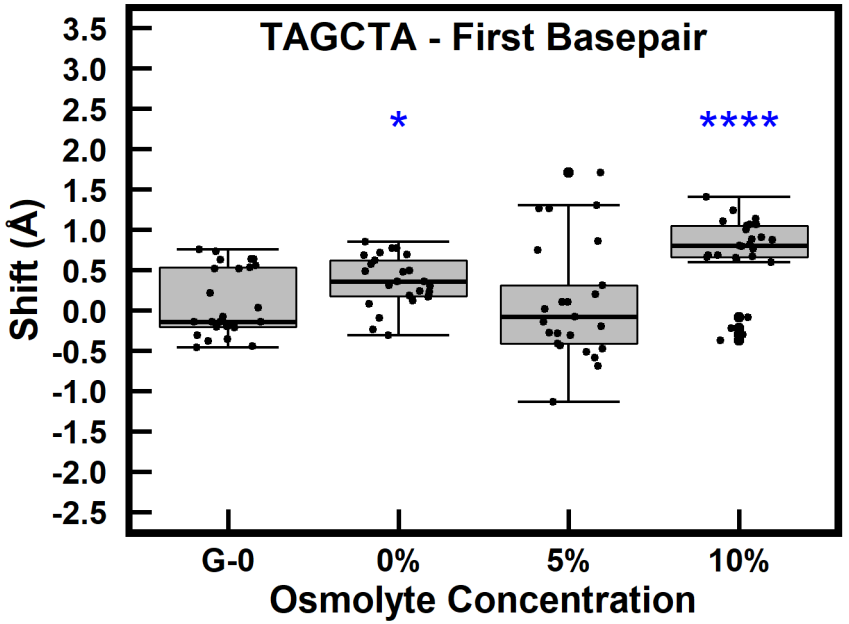

TAGCTA - Sixth Basepair
*
*
Opening (°)
10
5
0
-5
-10
G-0
0%
5%
10%
Osmolyte Concentration

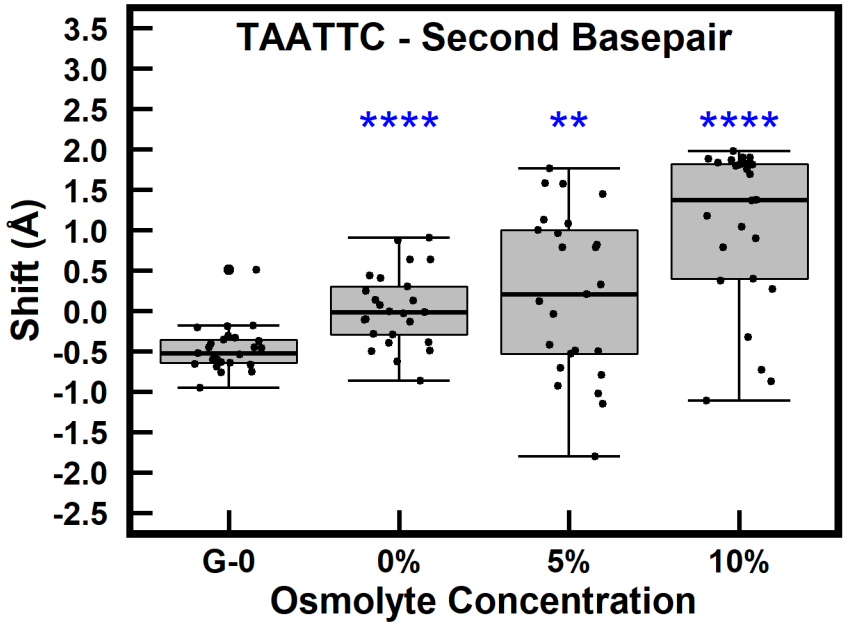
Shift

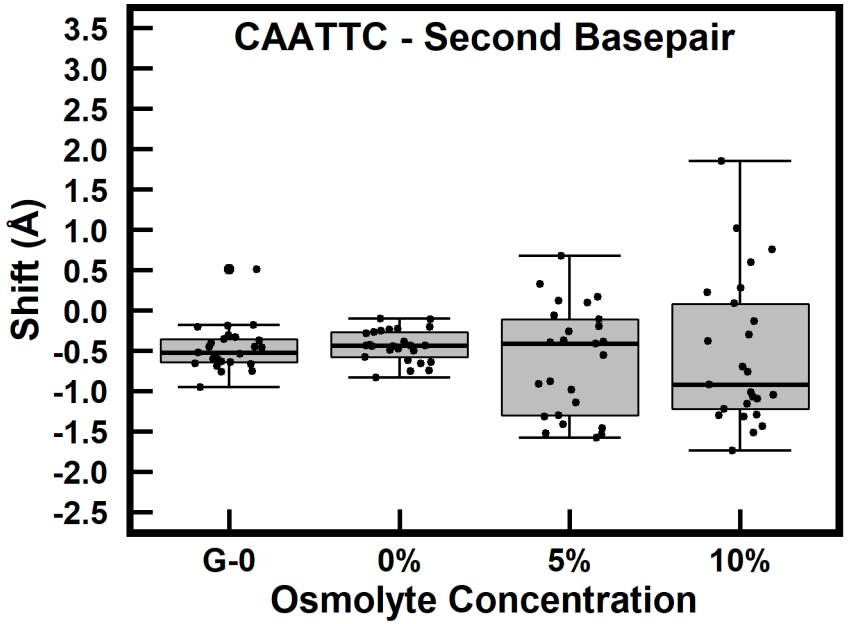

TAATTC - First Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

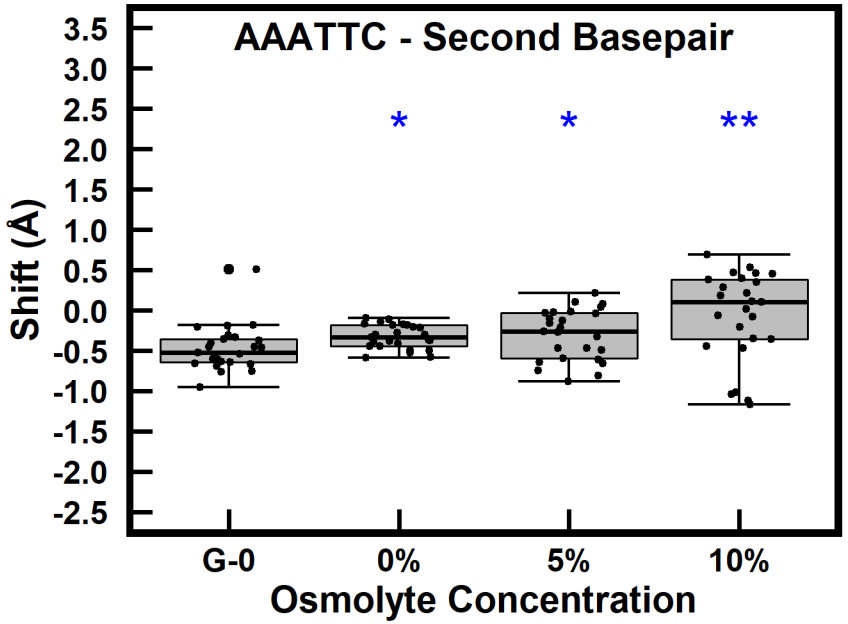

CAATTC - First Basepair
****
****
****
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

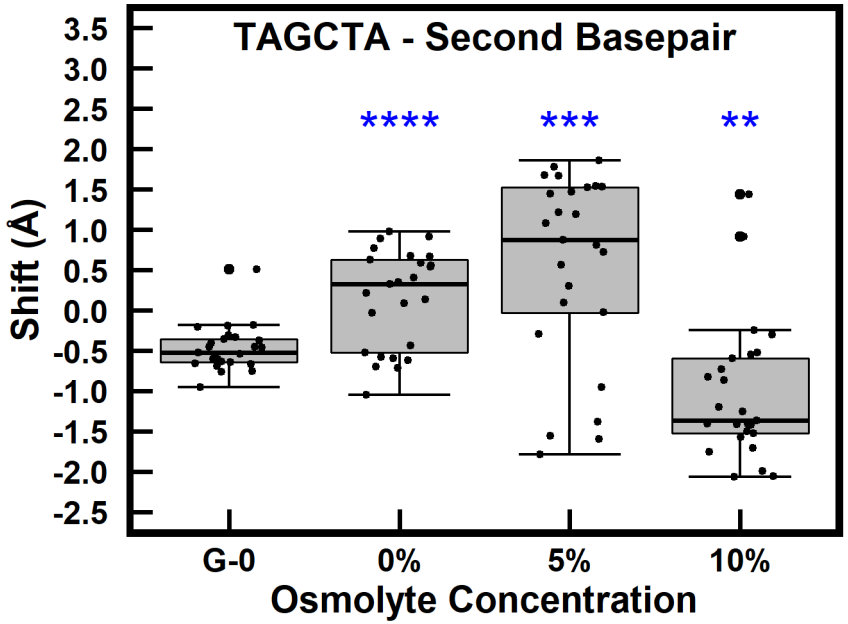

AAATTC - First Basepair
****
**
****
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

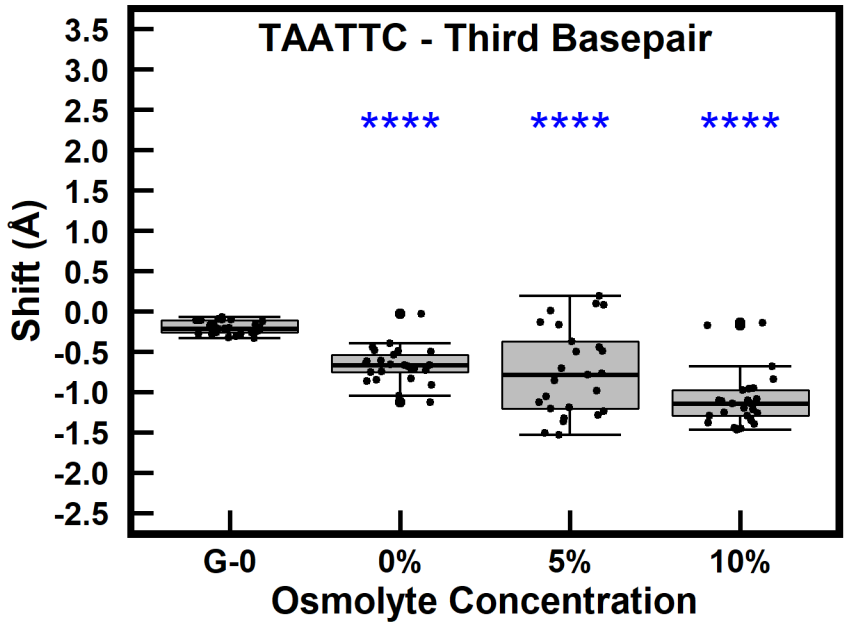

TAGCTA - First Basepair
*
****
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

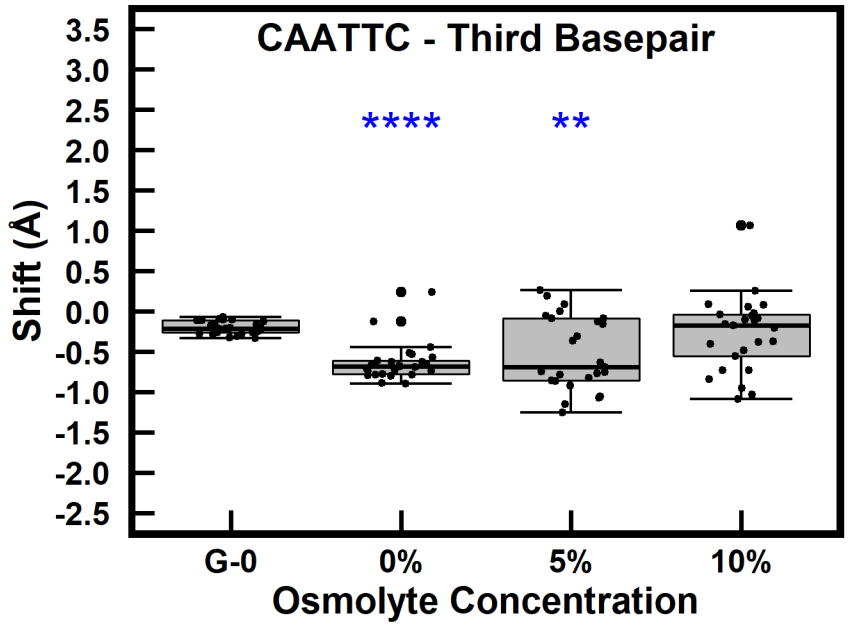

TAATTC - Second Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
****
**
****
G-0
0%
5%
10%
Osmolyte Concentration

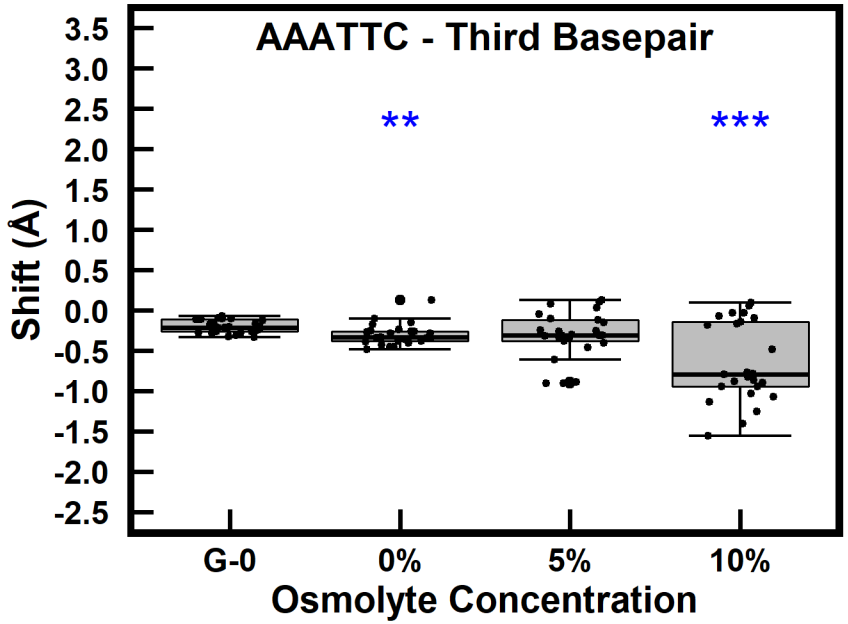

CAATTC - Second Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

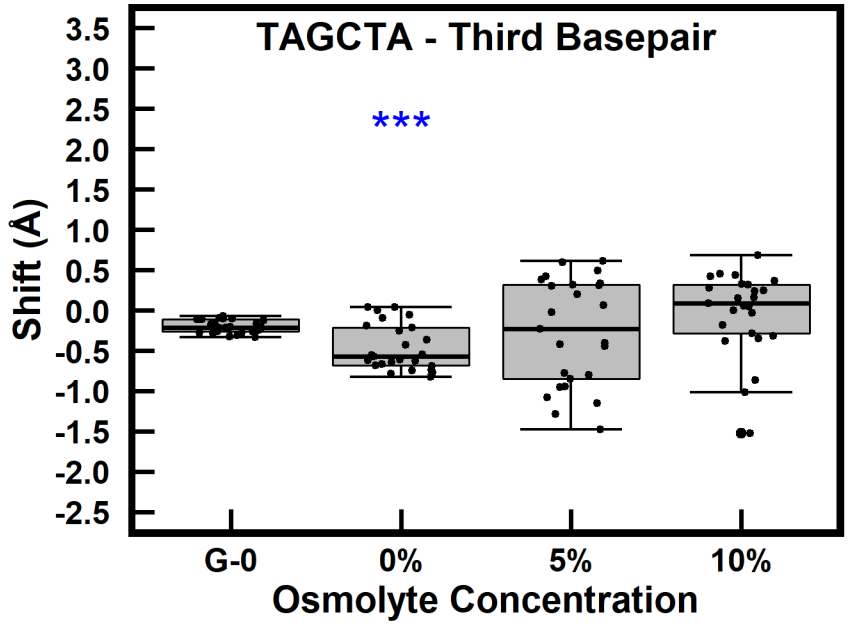

AAATTC - Second Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
*
*
**
G-0
0%
5%
10%
Osmolyte Concentration

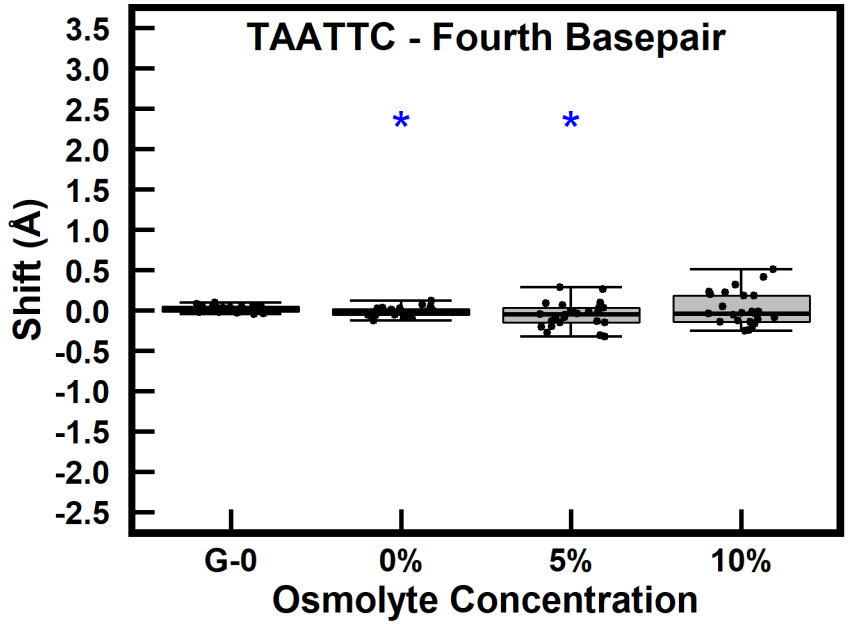

TAGCTA - Second Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
****
***
**
G-0
0%
5%
10%
Osmolyte Concentration

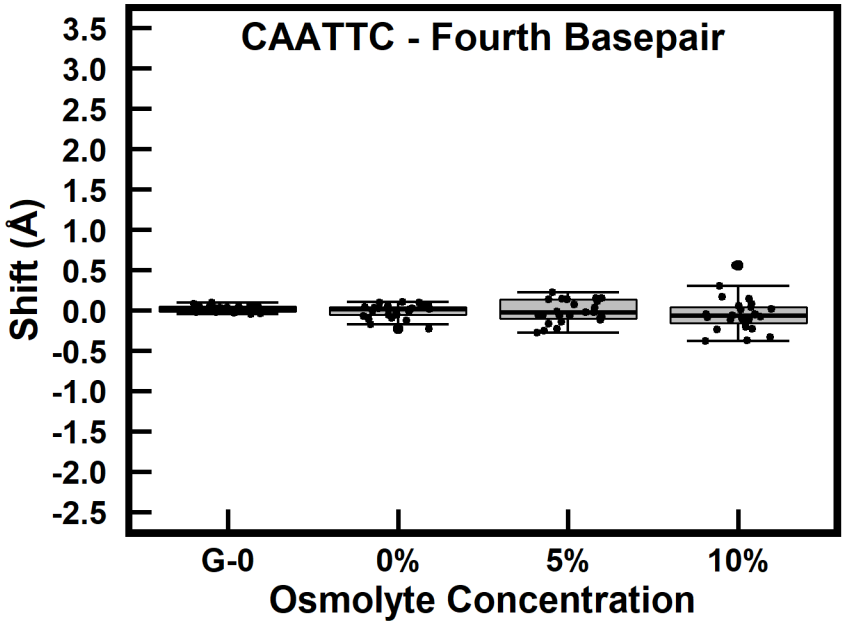

TAATTC - Third Basepair
****
****
****
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

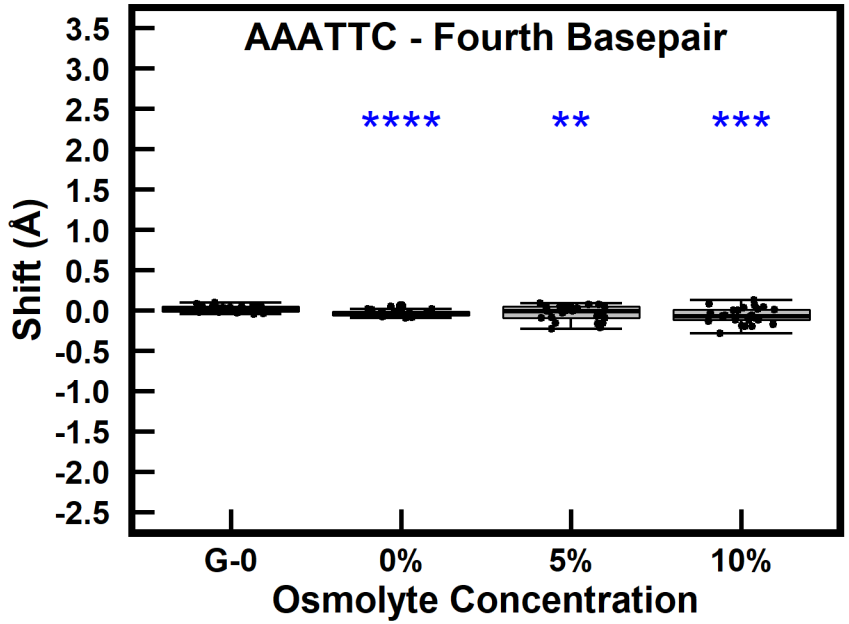

CAATTC - Third Basepair
****
**
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

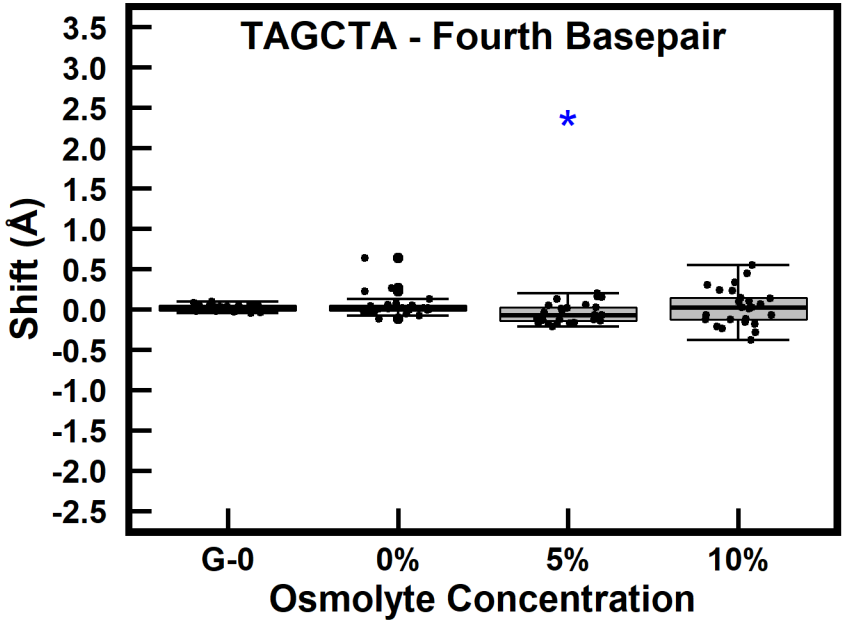

AAATTC - Third Basepair
**
***
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

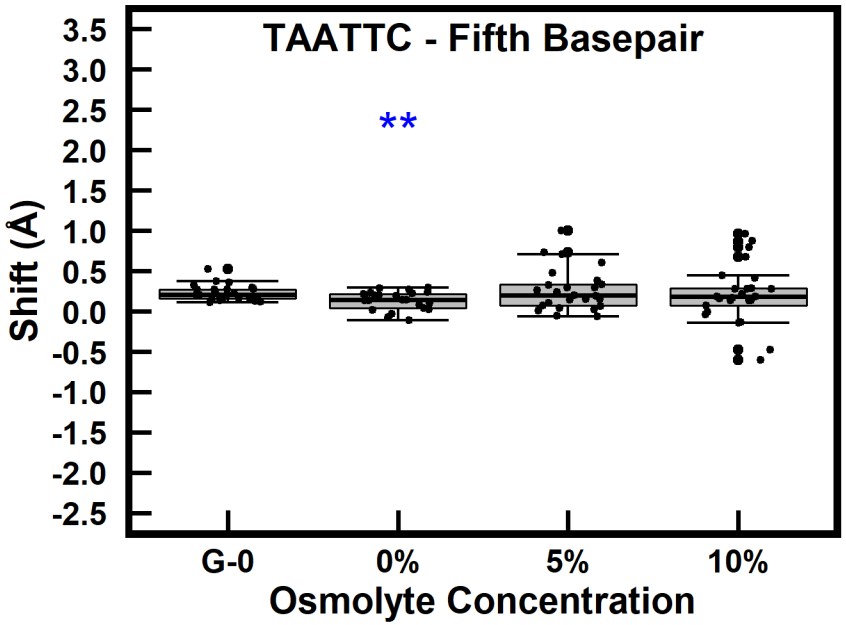

TAGCTA - Third Basepair
***
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

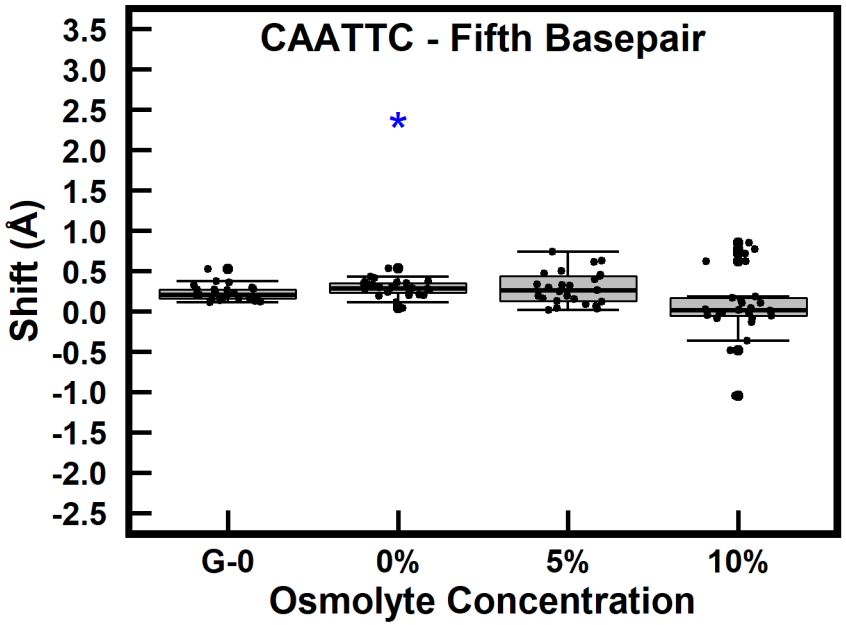

TAATTC - Fourth Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
*
*
G-0
0%
5%
10%
Osmolyte Concentration

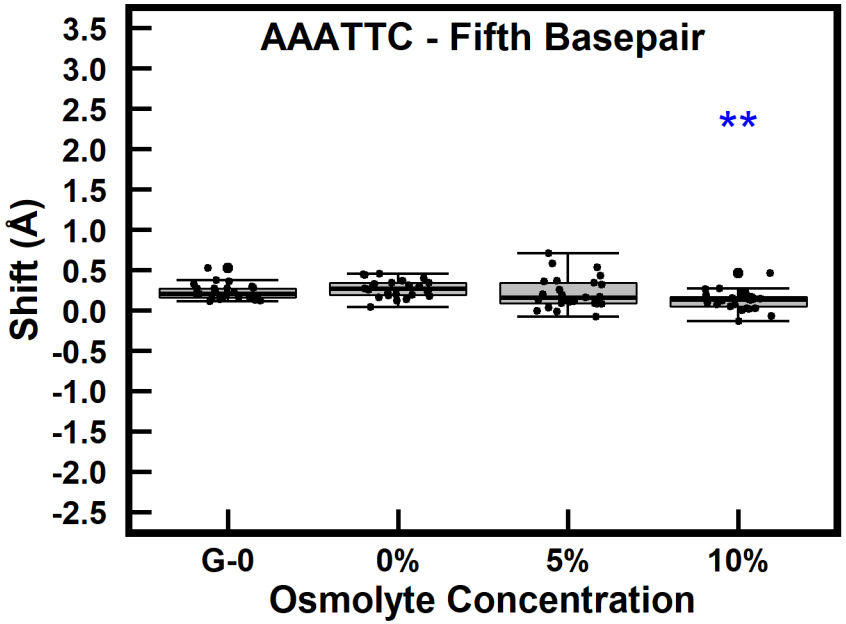

CAATTC - Fourth Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

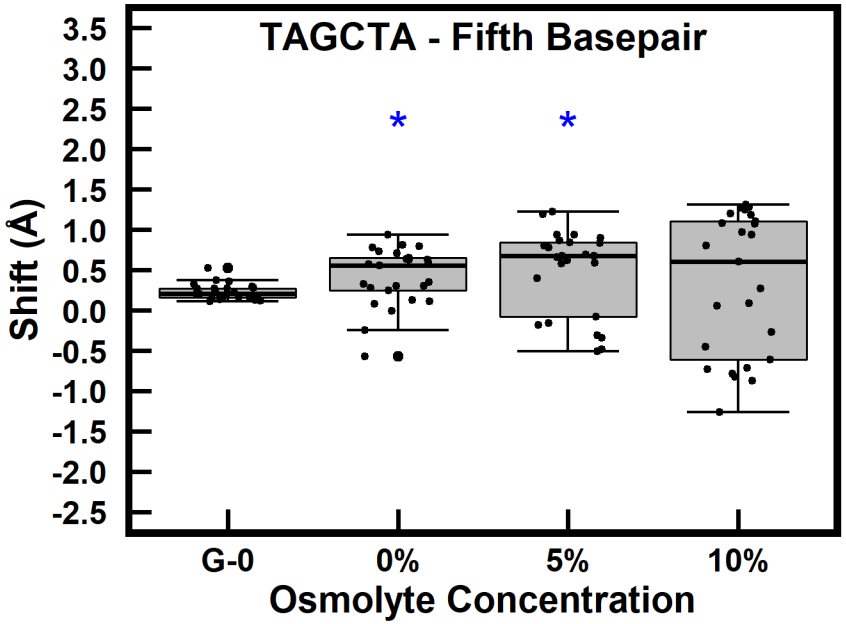

AAATTC - Fourth Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
****
**
***
G-0
0%
5%
10%
Osmolyte Concentration

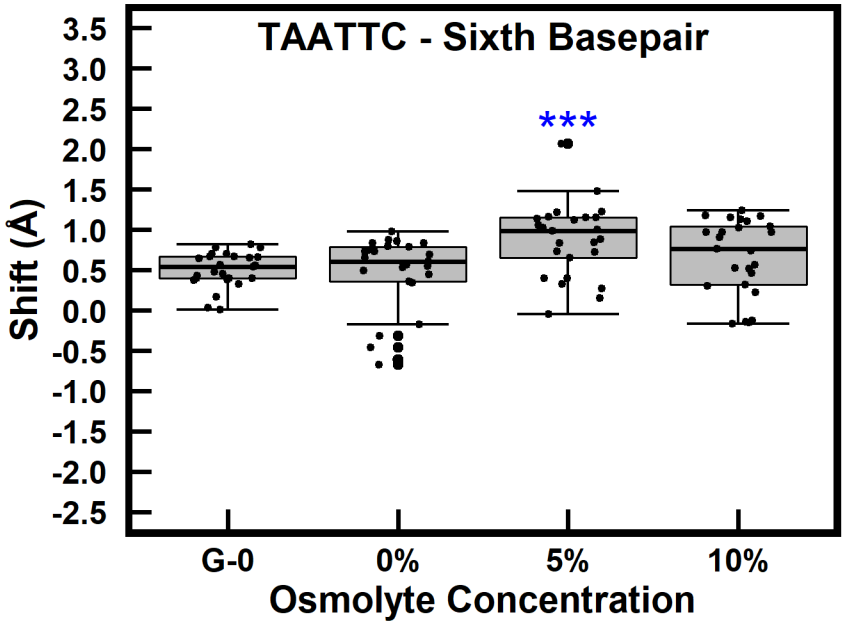

TAGCTA - Fourth Basepair
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
*
G-0
0%
5%
10%
Osmolyte Concentration

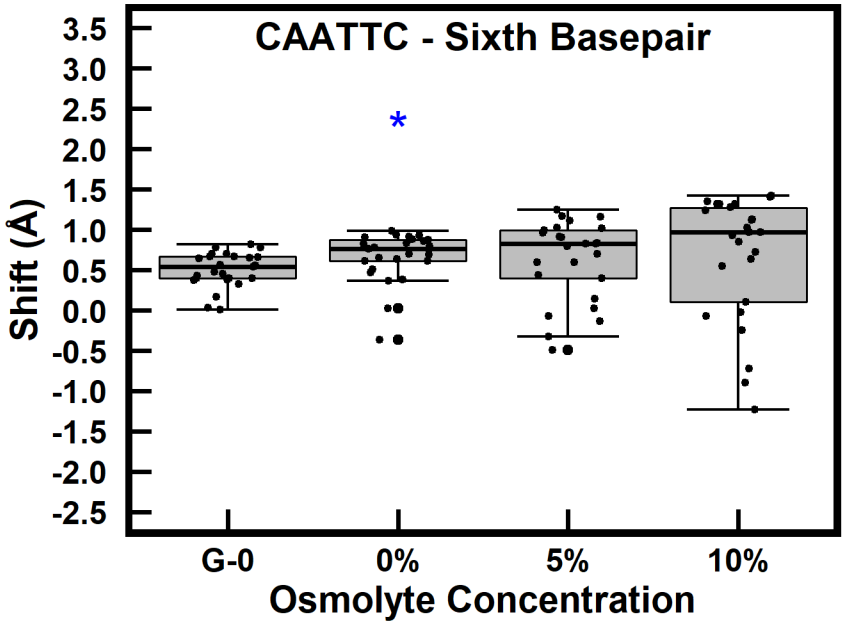

TAATTC - Fifth Basepair
**
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

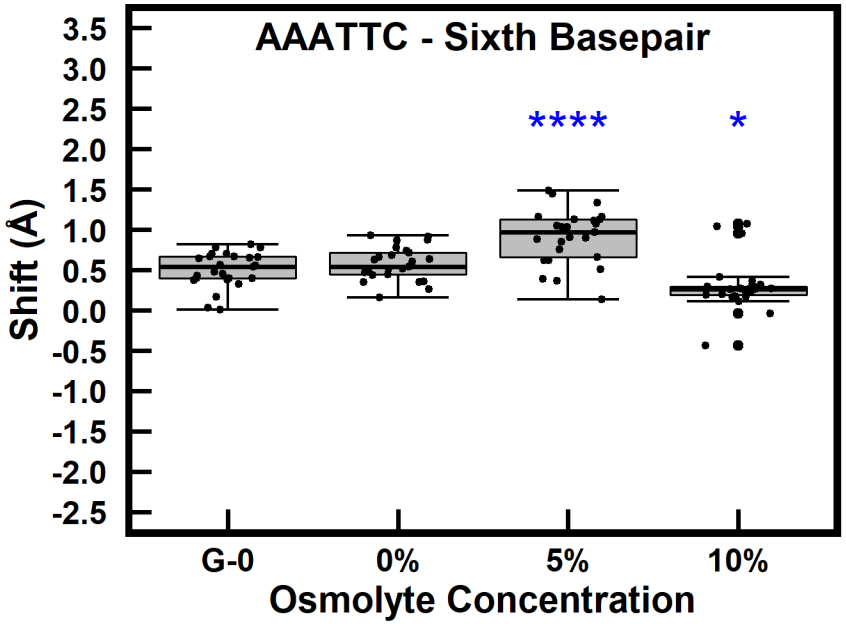

CAATTC - Fifth Basepair
*
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

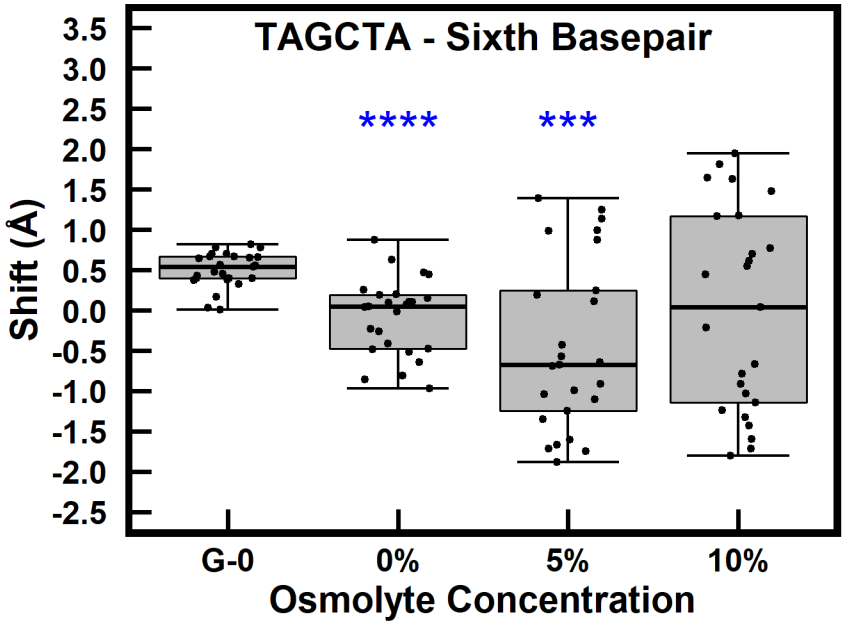

AAATTC - Fifth Basepair
**
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
*
*
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

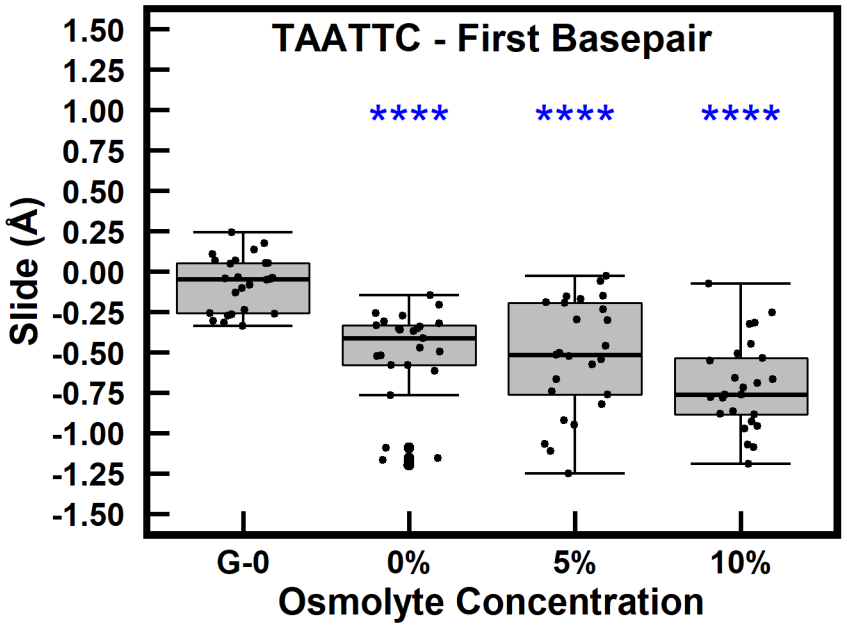

TAATTC - Sixth Basepair
***
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

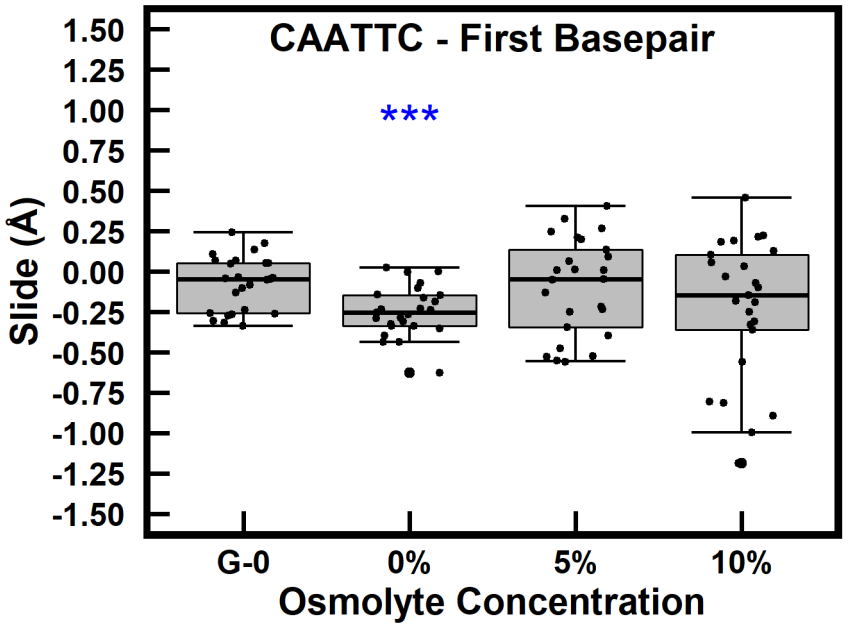

CAATTC - Sixth Basepair
*
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

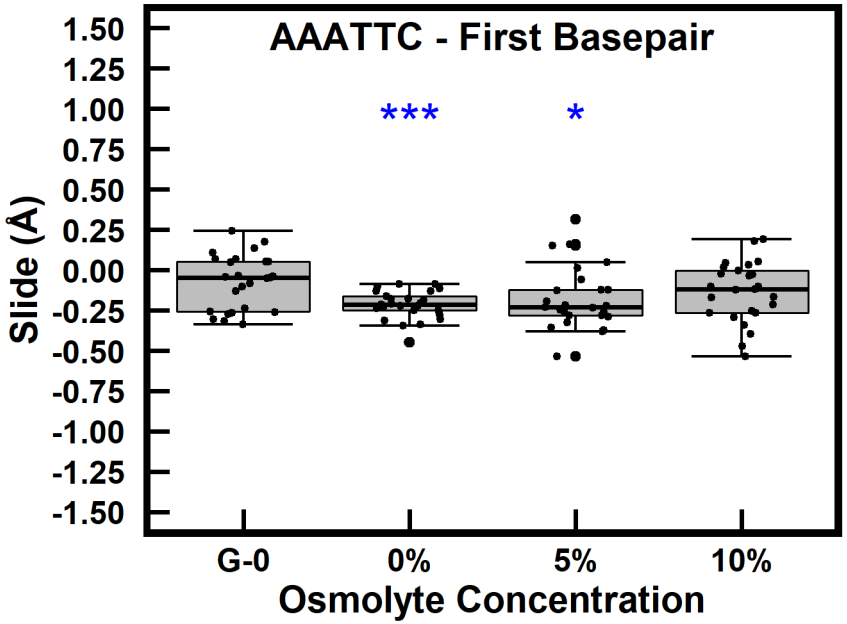

AAATTC - Sixth Basepair
****
*
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

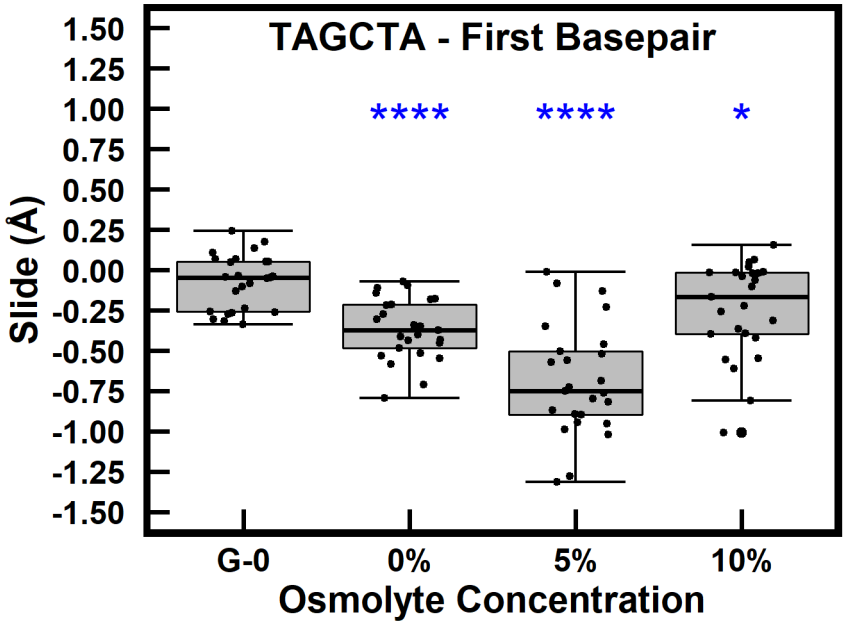

TAGCTA - Sixth Basepair
****
***
Shift (Å)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
G-0
0%
5%
10%
Osmolyte Concentration

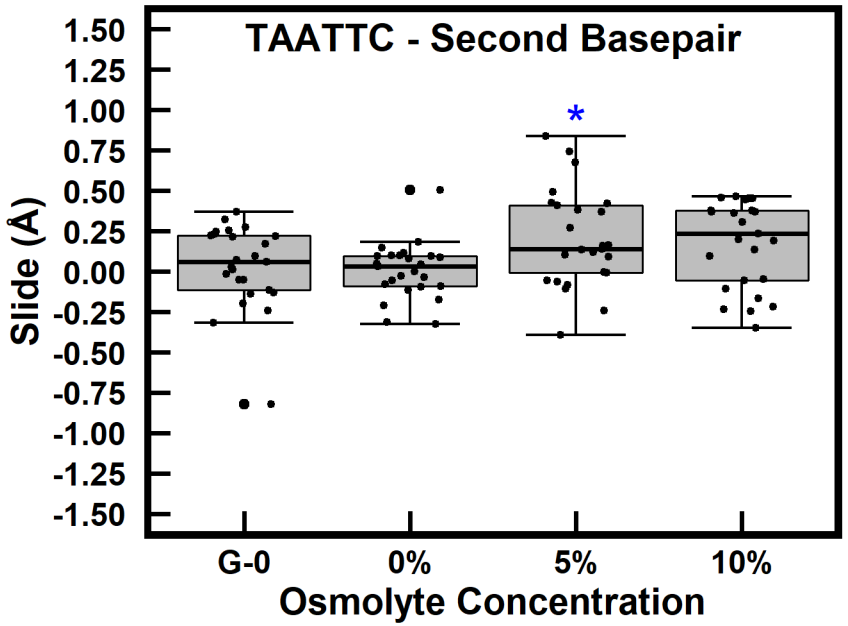
Slide

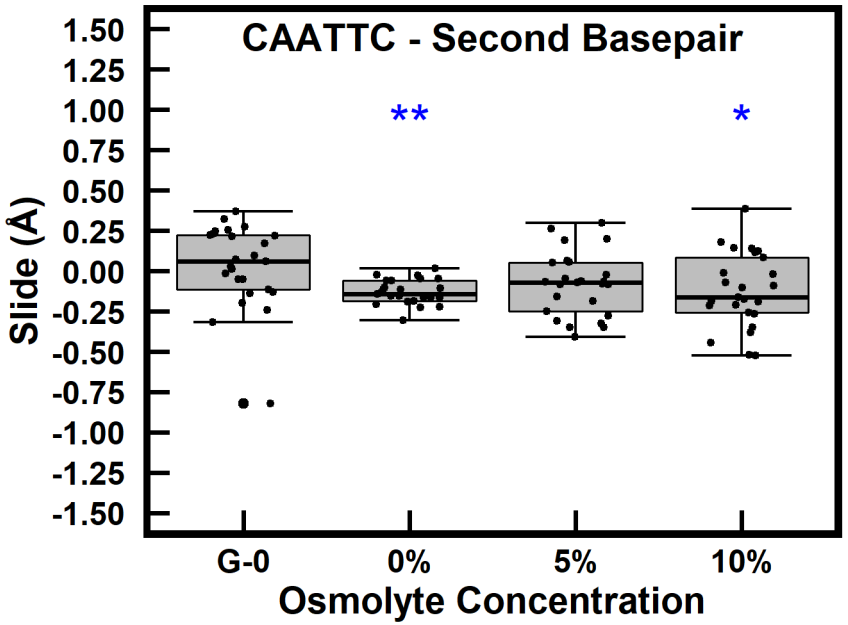

TAATTC - First Basepair
****
****
****
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

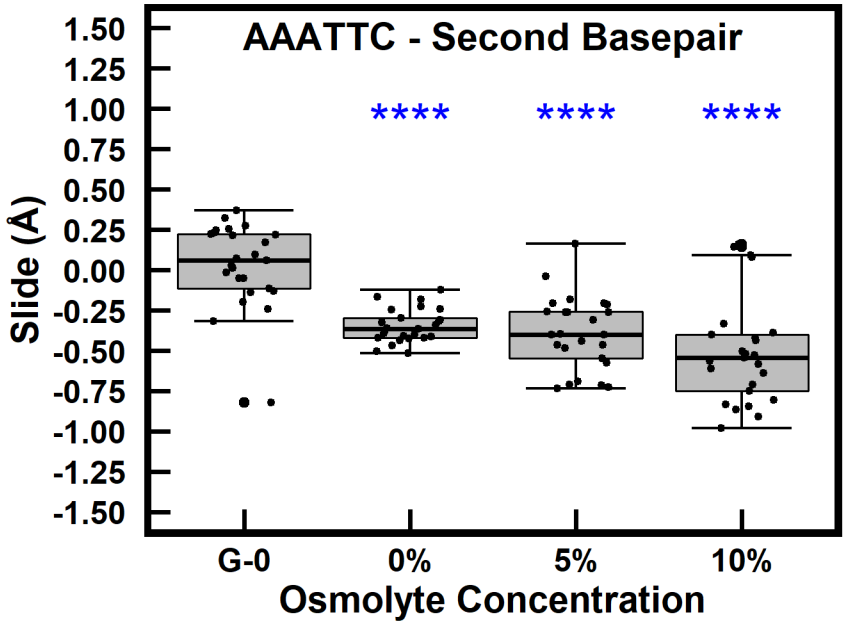

CAATTC - First Basepair
***
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

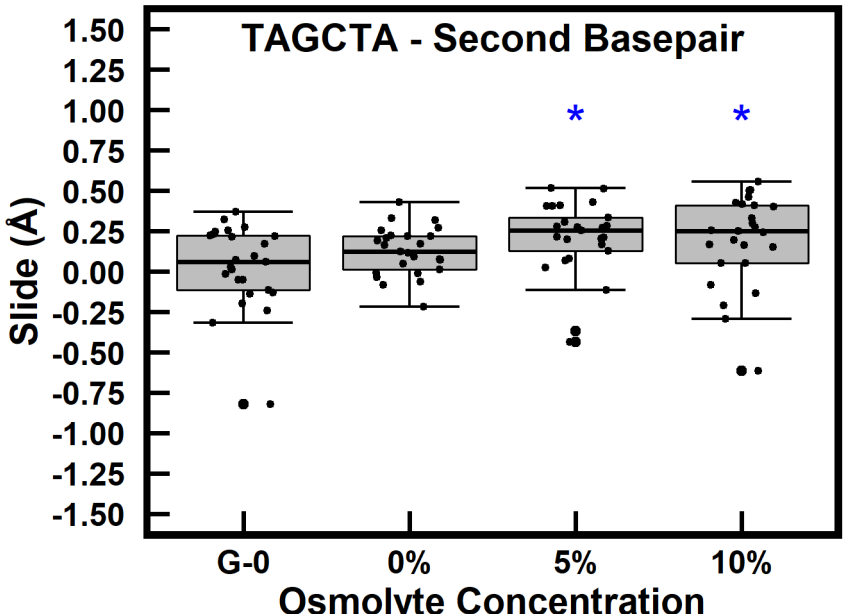

AAATTC - First Basepair
***
*
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

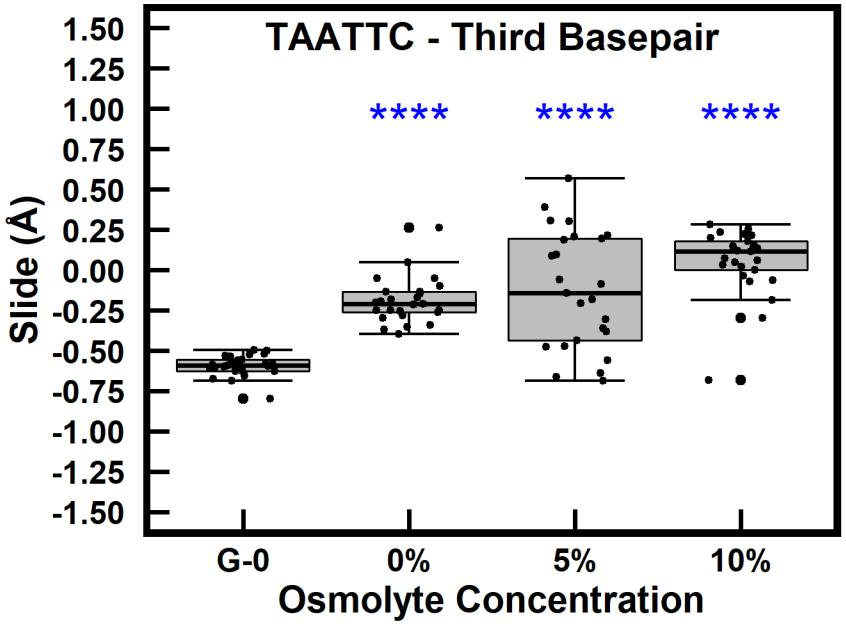

TAGCTA - First Basepair
****
****
*
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

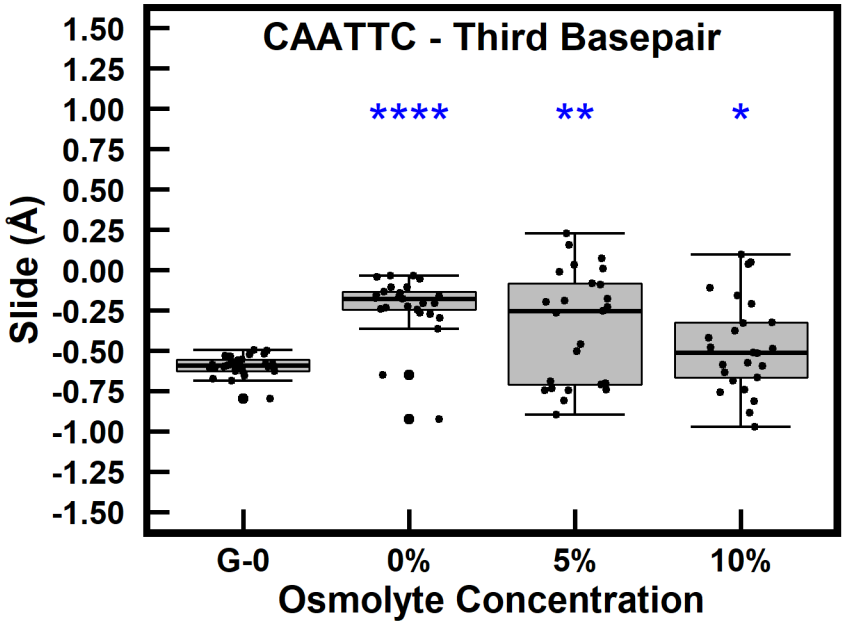

TAATTC - Second Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
*
G-0
0%
5%
10%
Osmolyte Concentration

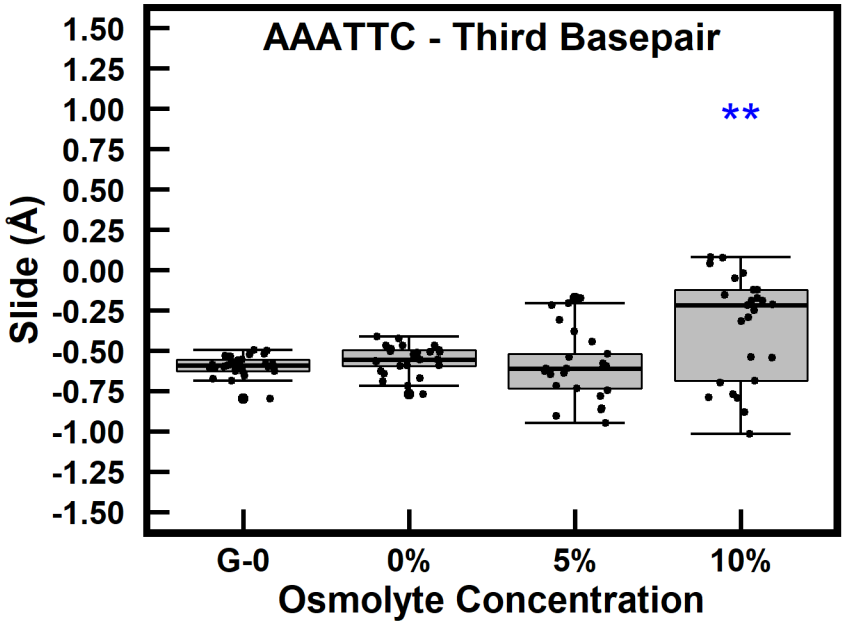

CAATTC - Second Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
**
*
G-0
0%
5%
10%
Osmolyte Concentration

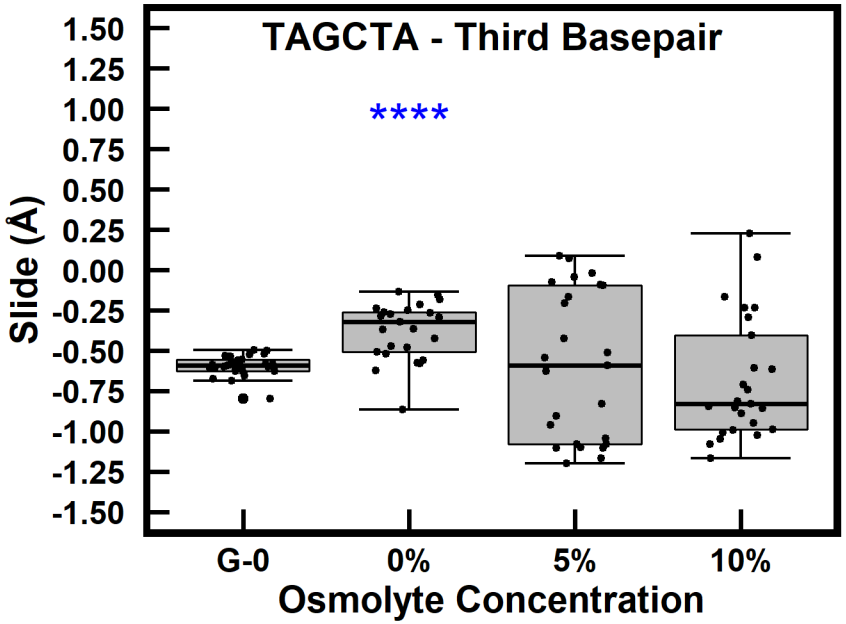

AAATTC - Second Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

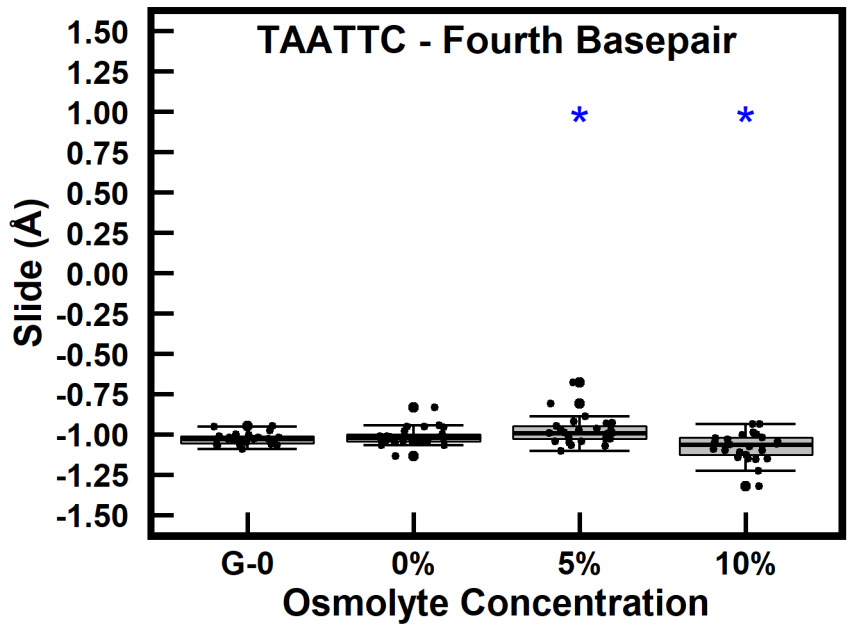

TAGCTA - Second Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
*
*
G-0
0%
5%
10%
Osmolyte Concentration

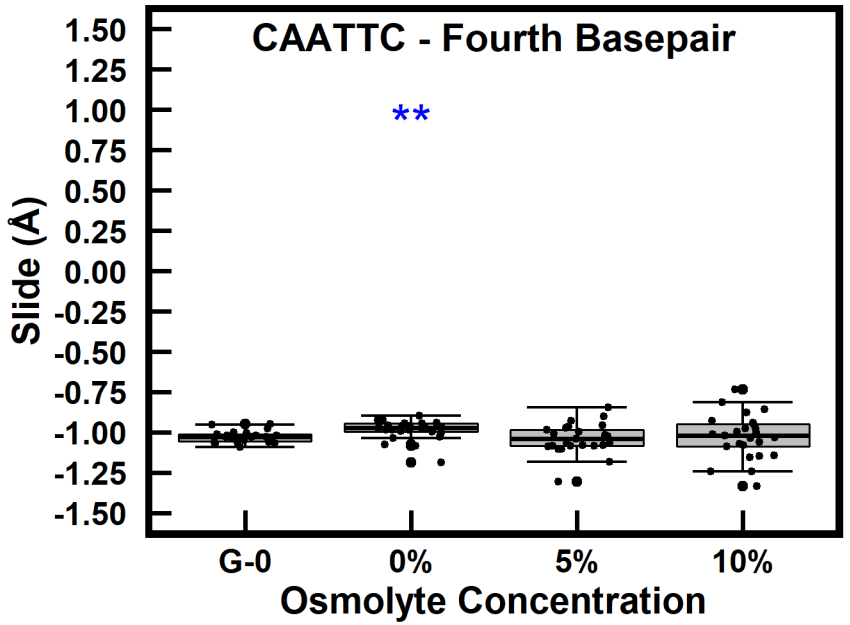

TAATTC - Third Basepair
****
****
****
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

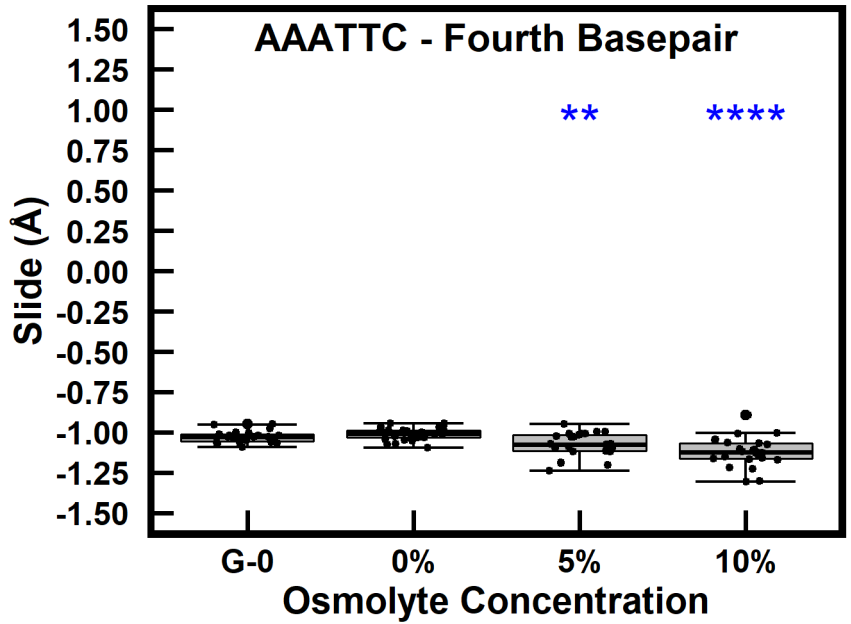

CAATTC - Third Basepair
****
**
*
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

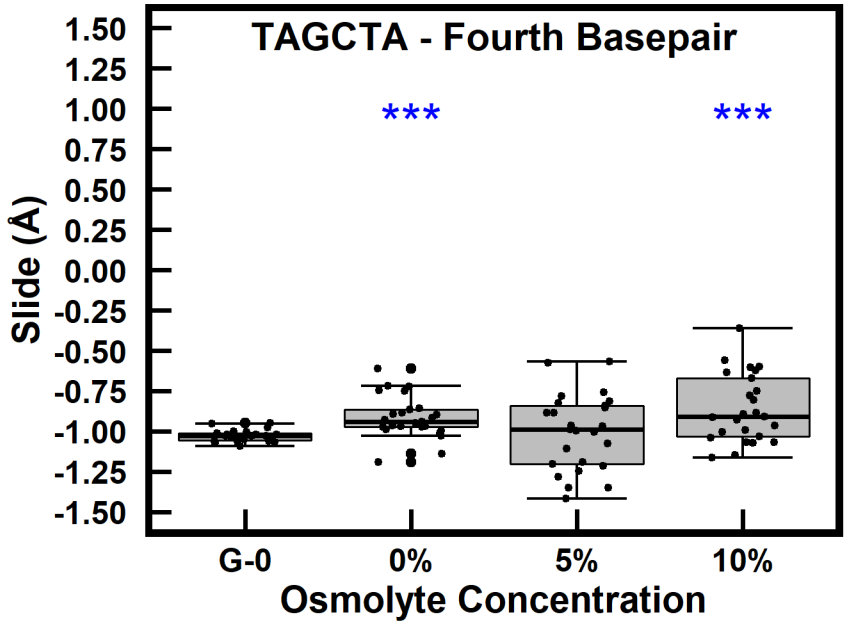

AAATTC - Third Basepair
**
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

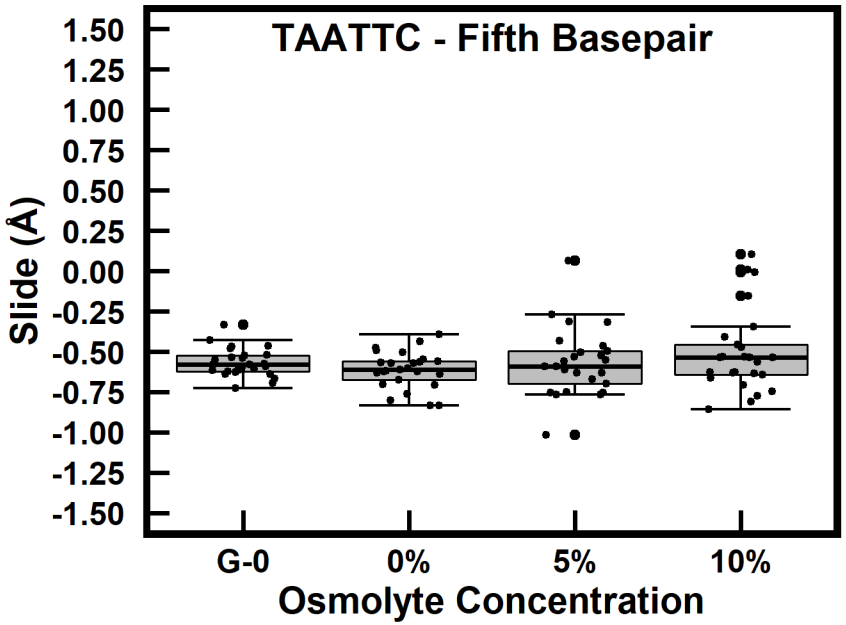

TAGCTA - Third Basepair
****
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

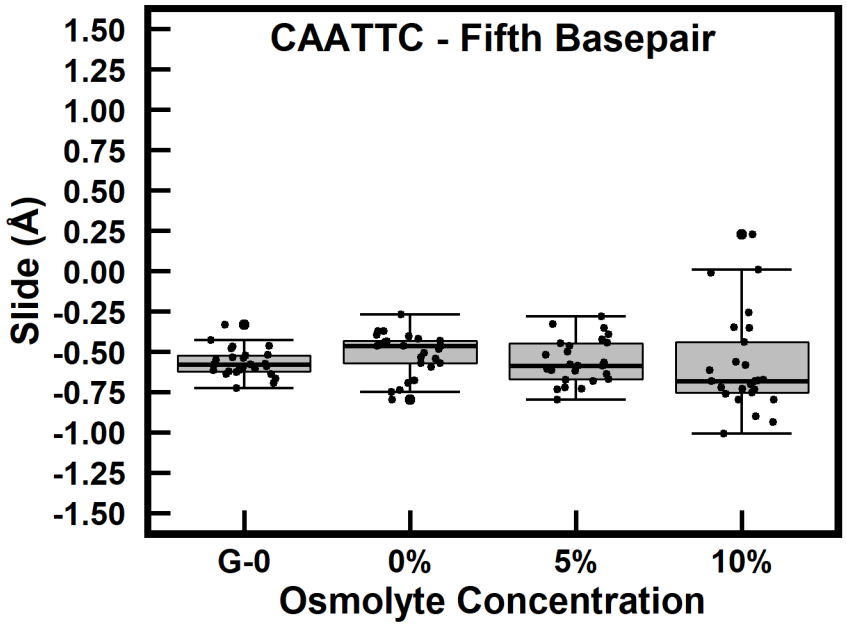

TAATTC - Fourth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
*
*
G-0
0%
5%
10%
Osmolyte Concentration

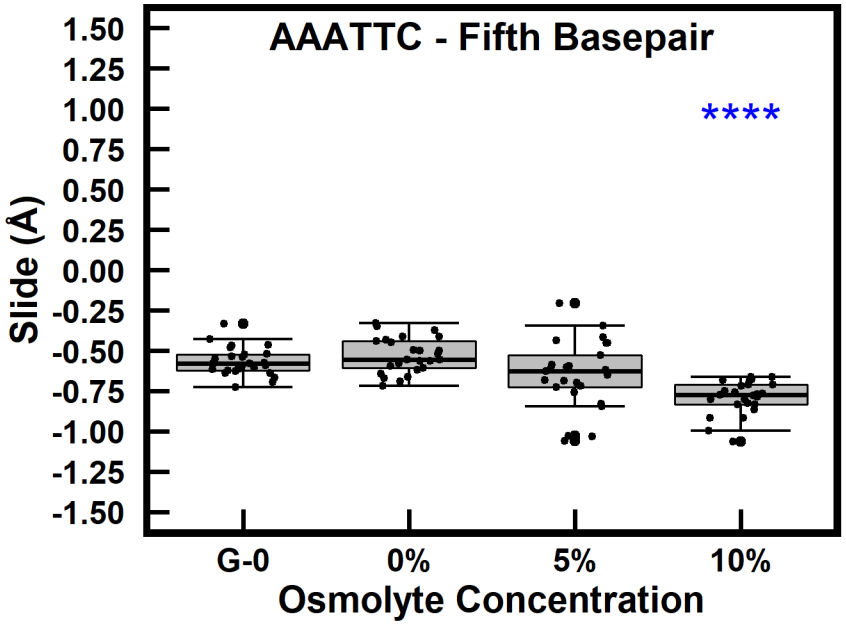

CAATTC - Fourth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
**
G-0
0%
5%
10%
Osmolyte Concentration

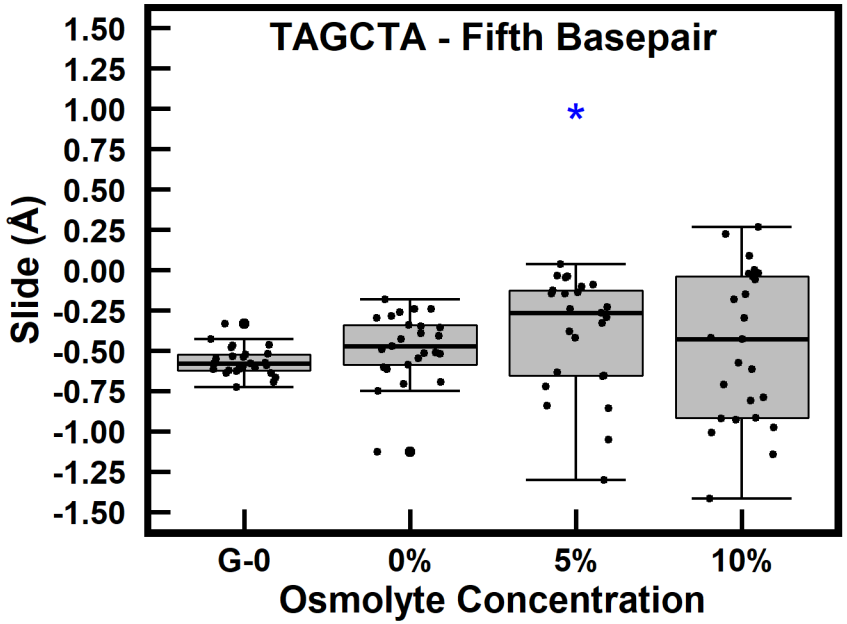

AAATTC - Fourth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
**
****
G-0
0%
5%
10%
Osmolyte Concentration

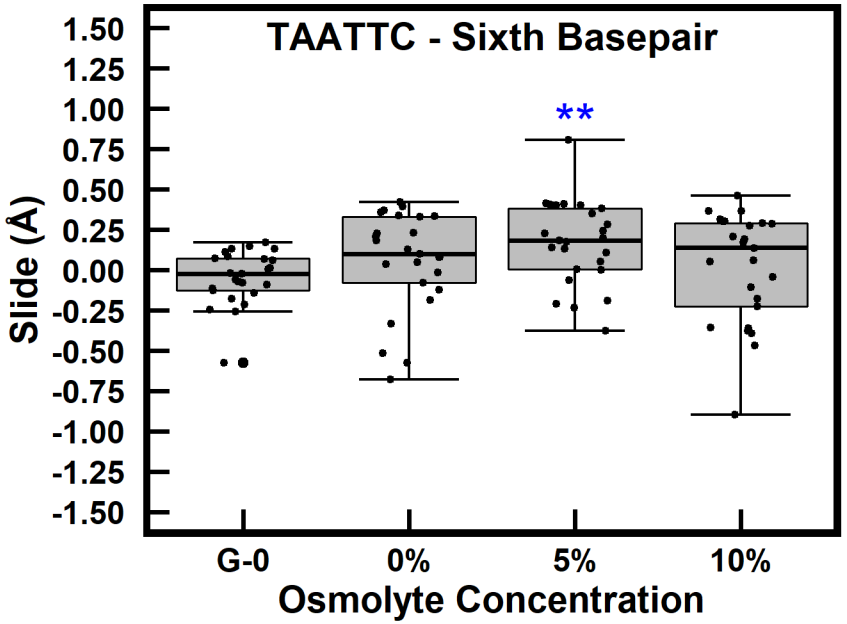

TAGCTA - Fourth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
***
***
G-0
0%
5%
10%
Osmolyte Concentration

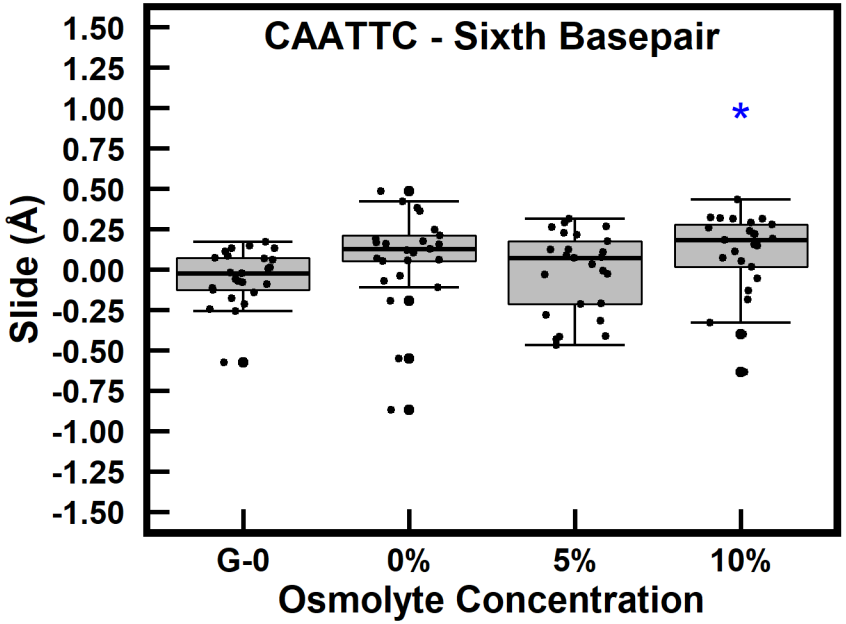

TAATTC - Fifth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

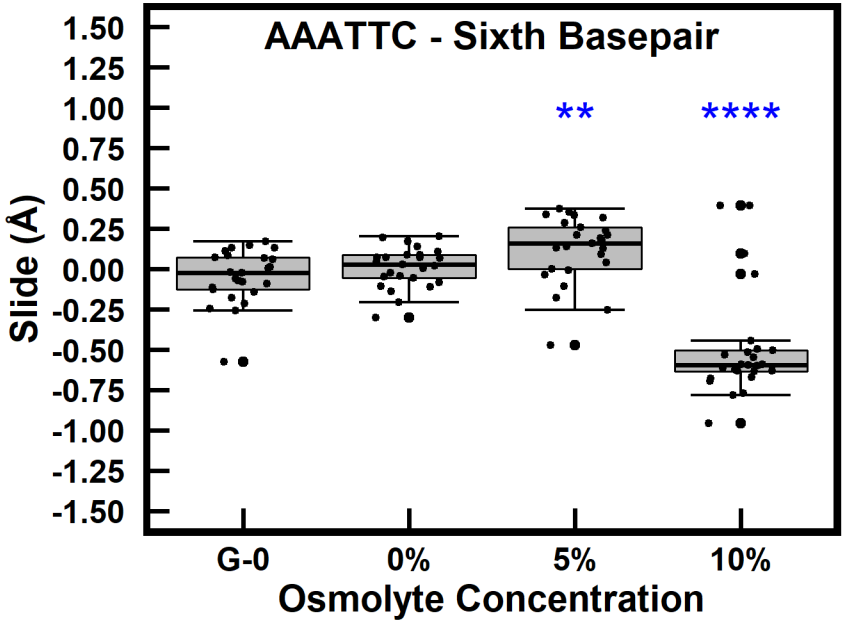

CAATTC - Fifth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

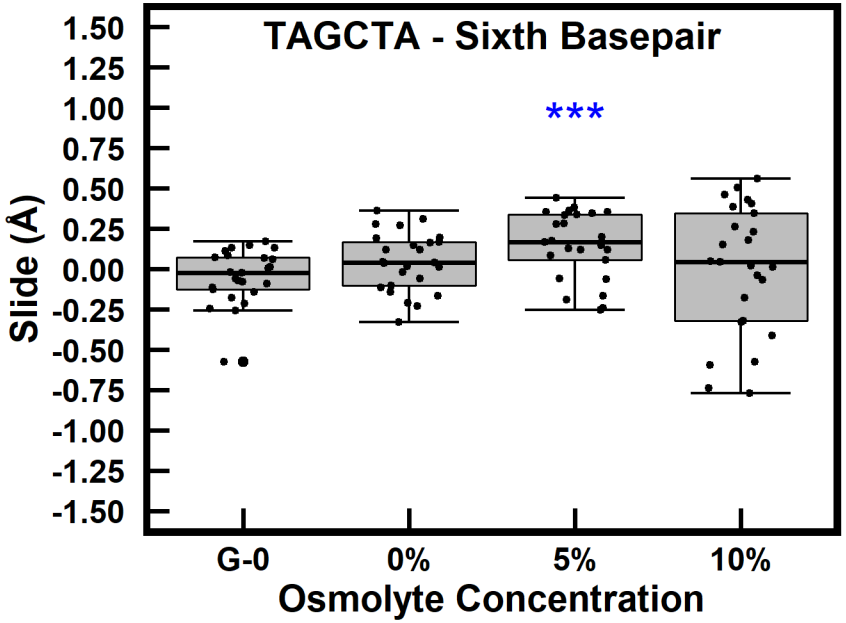

AAATTC - Fifth Basepair
****
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
*
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
G-0
0%
5%
10%
Osmolyte Concentration

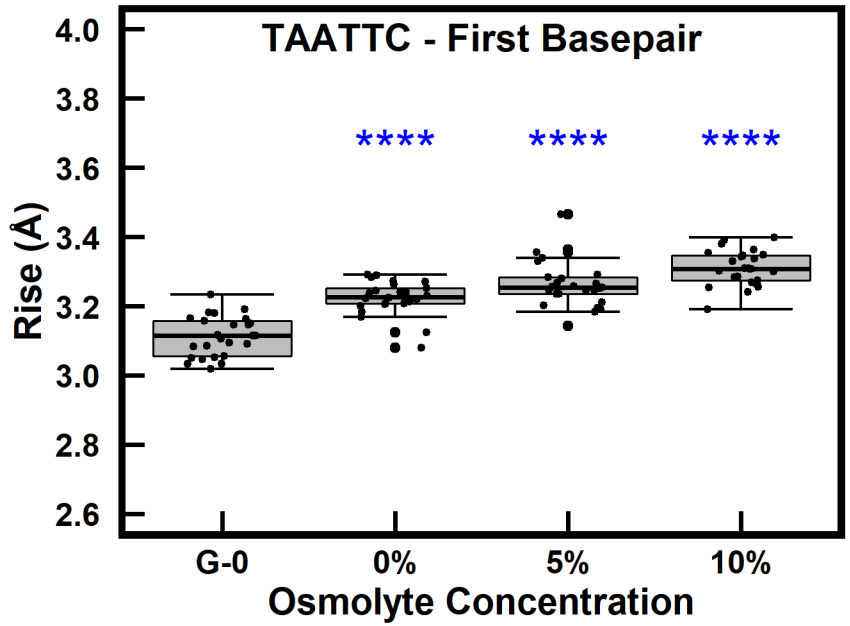

TAATTC - Sixth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
**
G-0
0%
5%
10%
Osmolyte Concentration

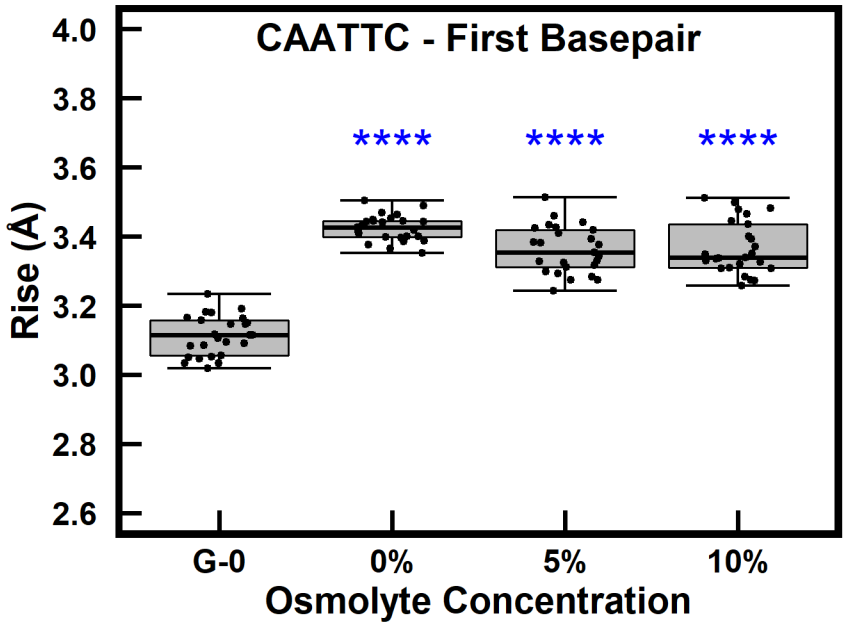

CAATTC - Sixth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
*
G-0
0%
5%
10%
Osmolyte Concentration

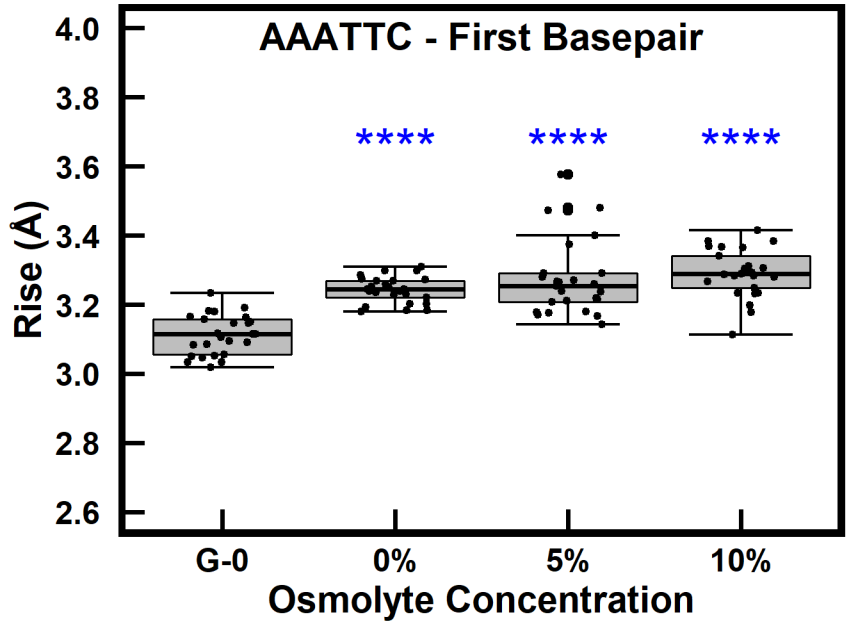

AAATTC - Sixth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
**
****
G-0
0%
5%
10%
Osmolyte Concentration

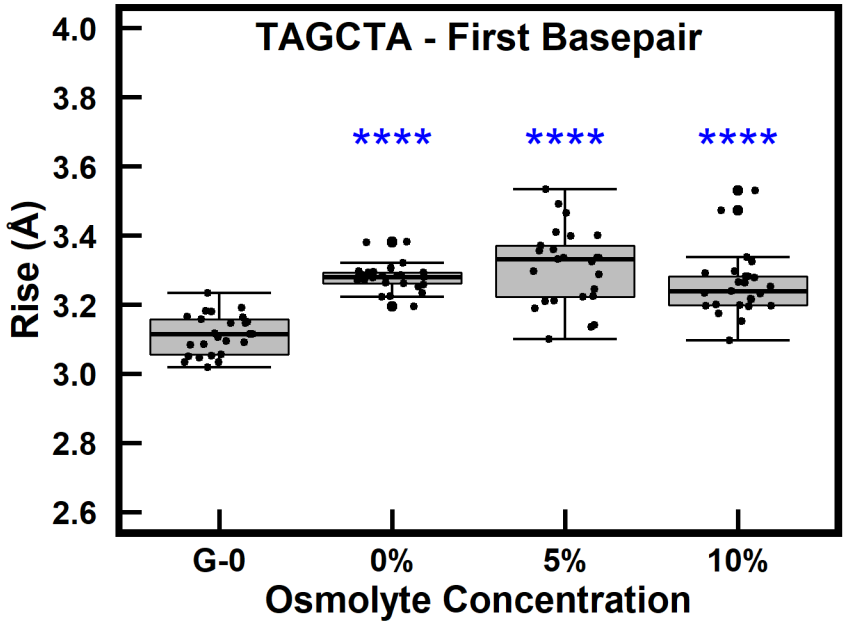

TAGCTA - Sixth Basepair
Slide (Å)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
-0.25
-0.50
-0.75
-1.00
-1.25
-1.50
***
G-0
0%
5%
10%
Osmolyte Concentration

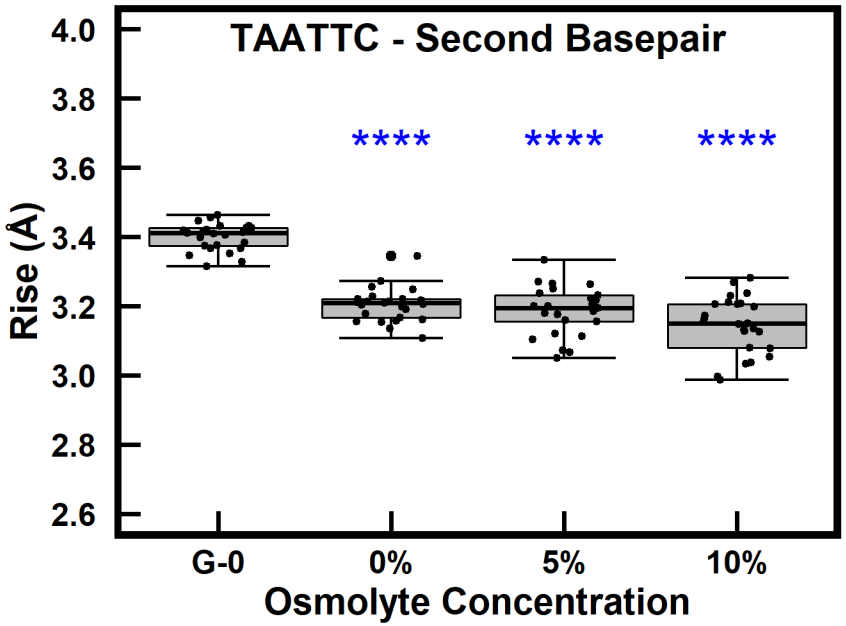
Rise

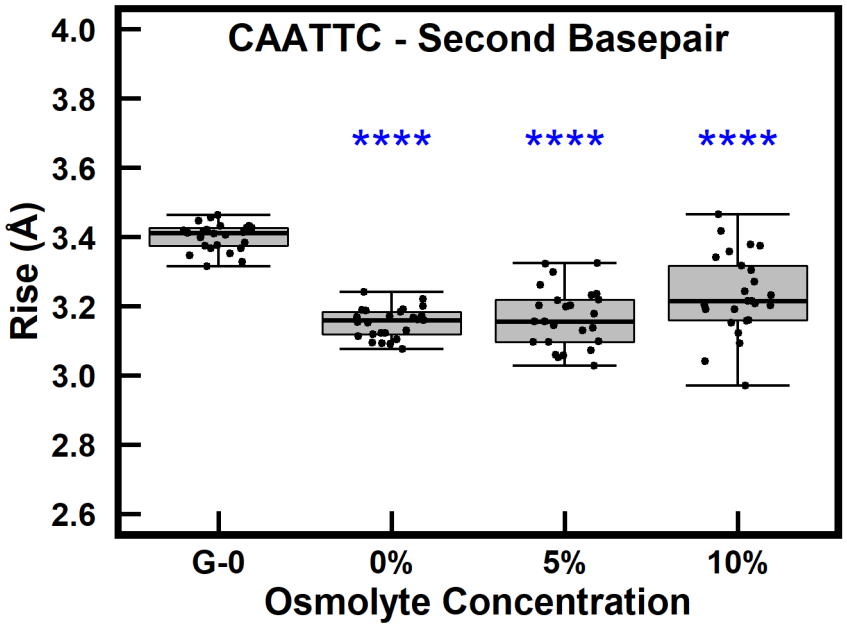

TAATTC - First Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

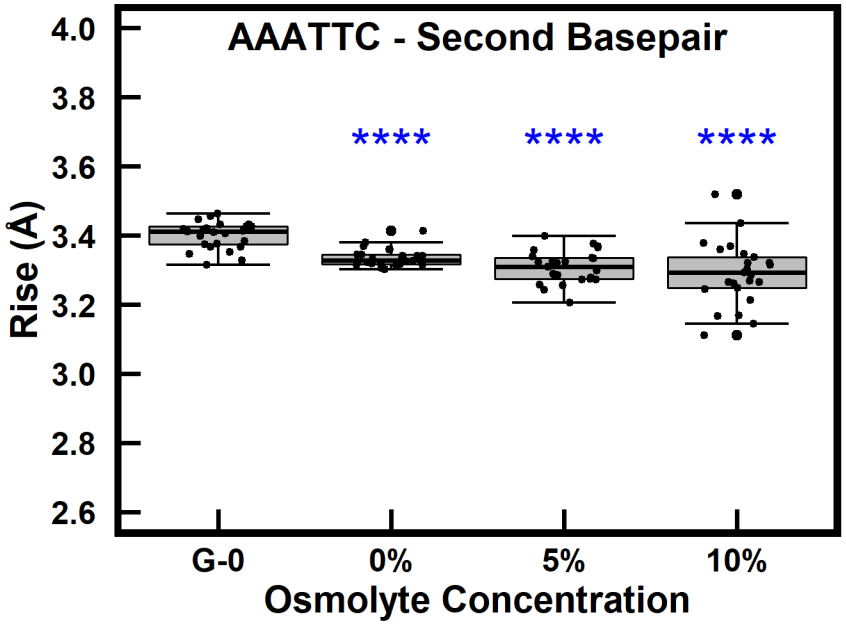

CAATTC - First Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

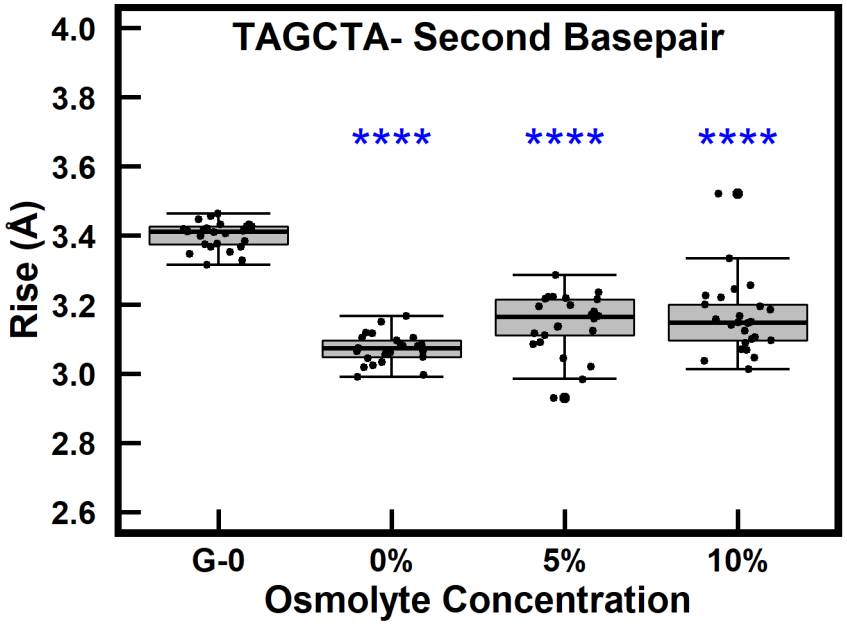

AAATTC - First Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

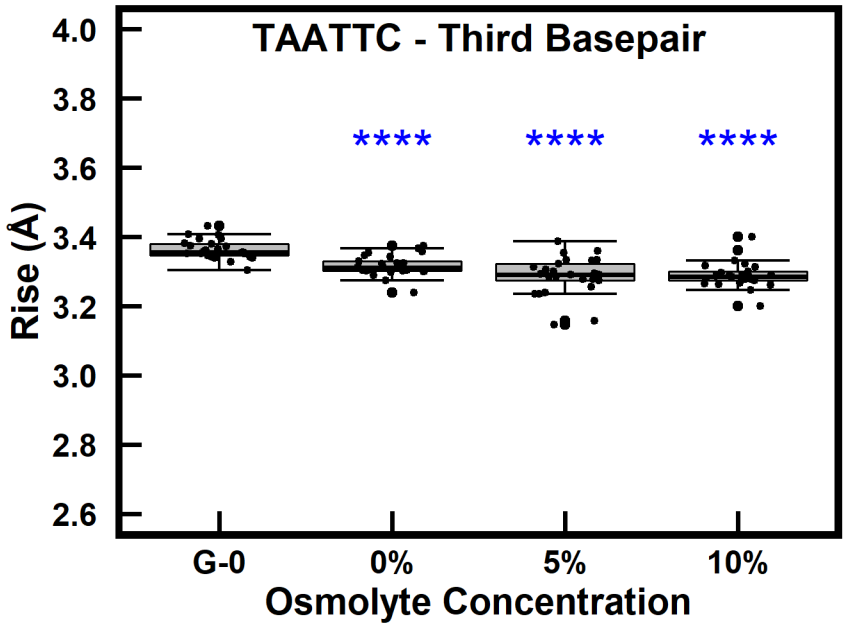

TAGCTA - First Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

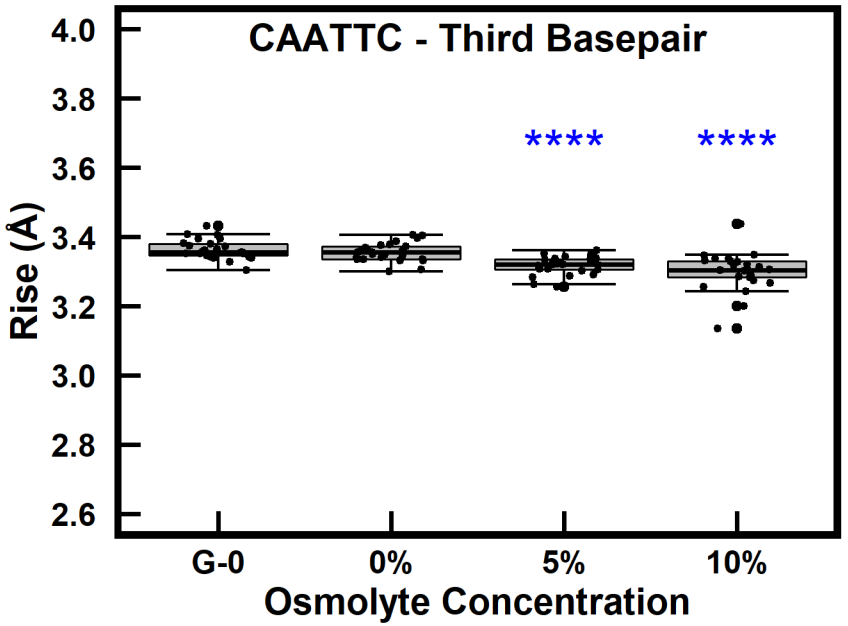

TAATTC - Second Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

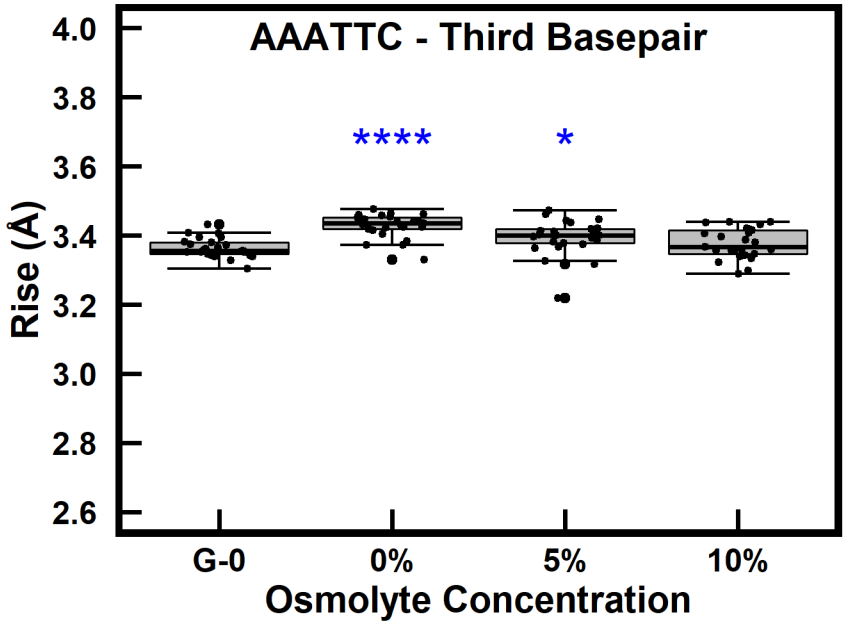

CAATTC - Second Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

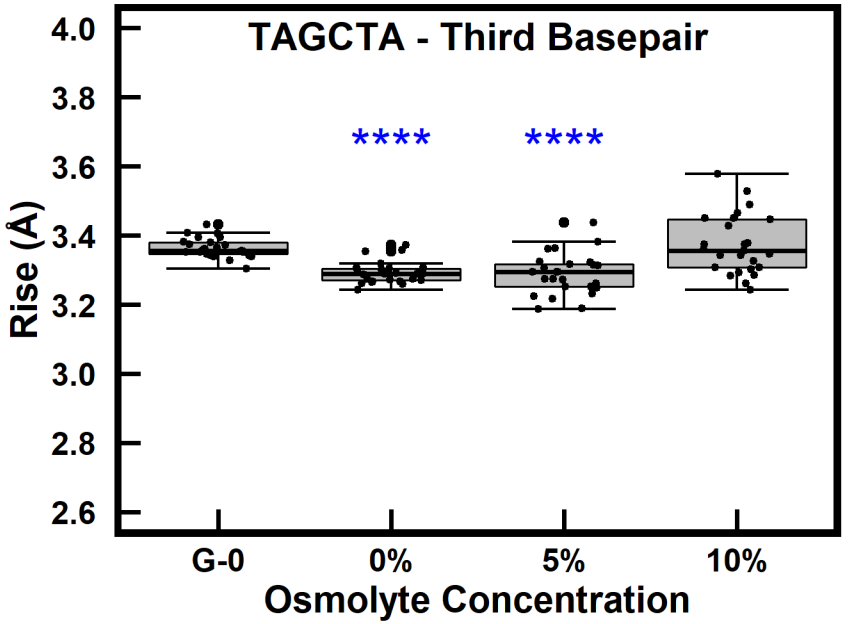

AAATTC - Second Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

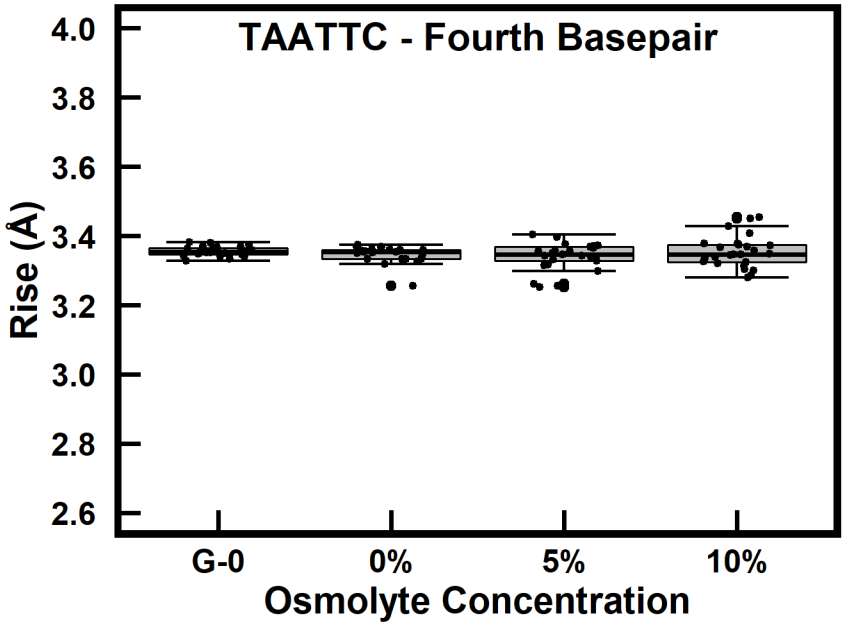

TAGCTA- Second Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

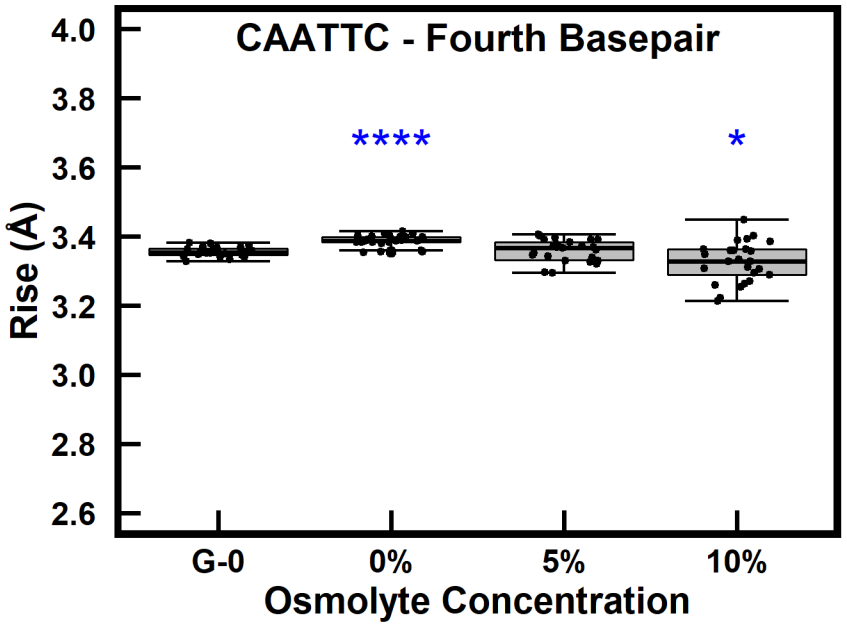

TAATTC - Third Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

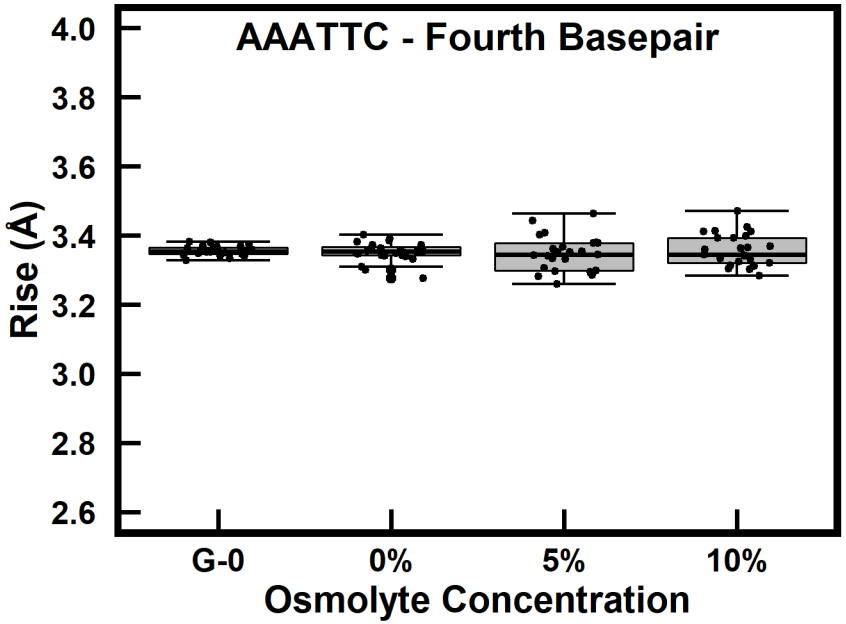

CAATTC - Third Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
G-0
0%
5%
10%
Osmolyte Concentration

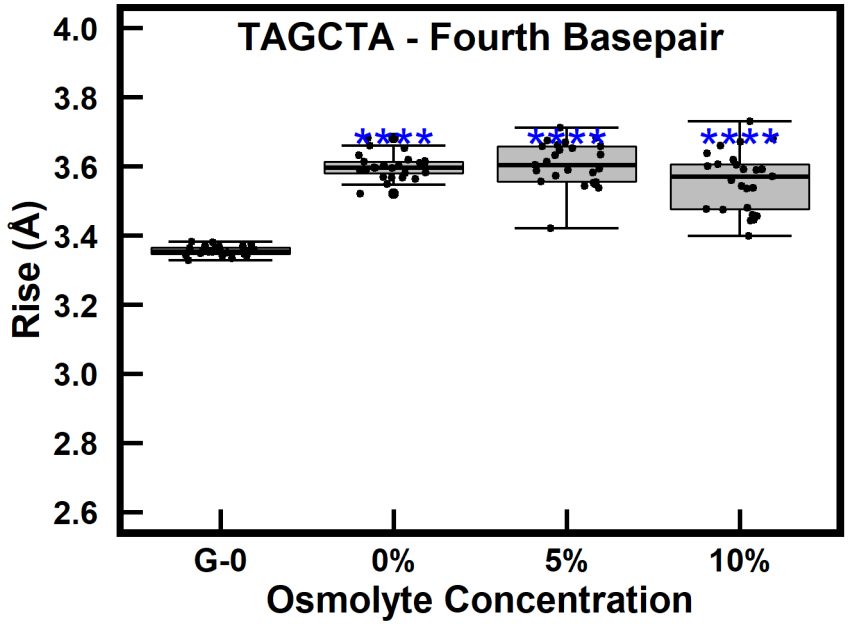

AAATTC - Third Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
*
G-0
0%
5%
10%
Osmolyte Concentration

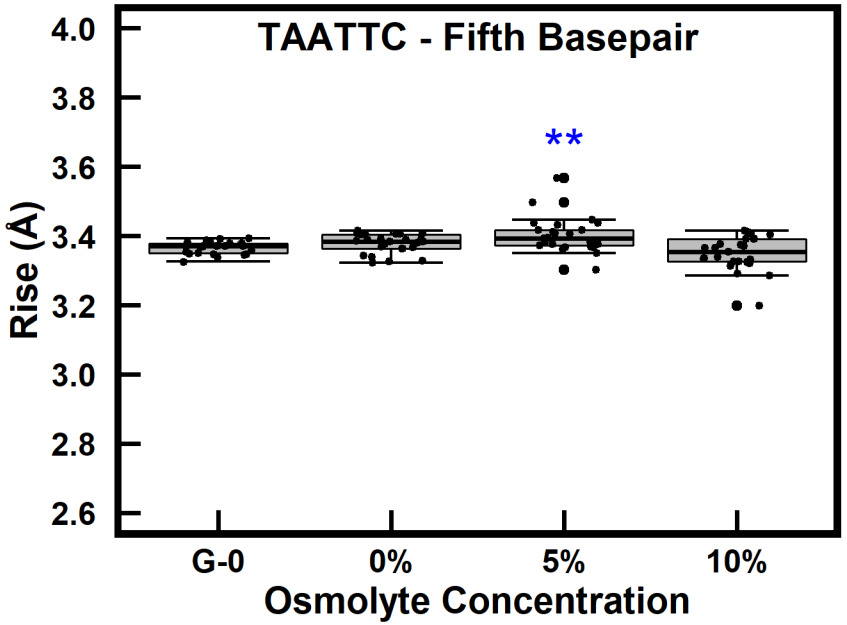

TAGCTA - Third Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
G-0
0%
5%
10%
Osmolyte Concentration

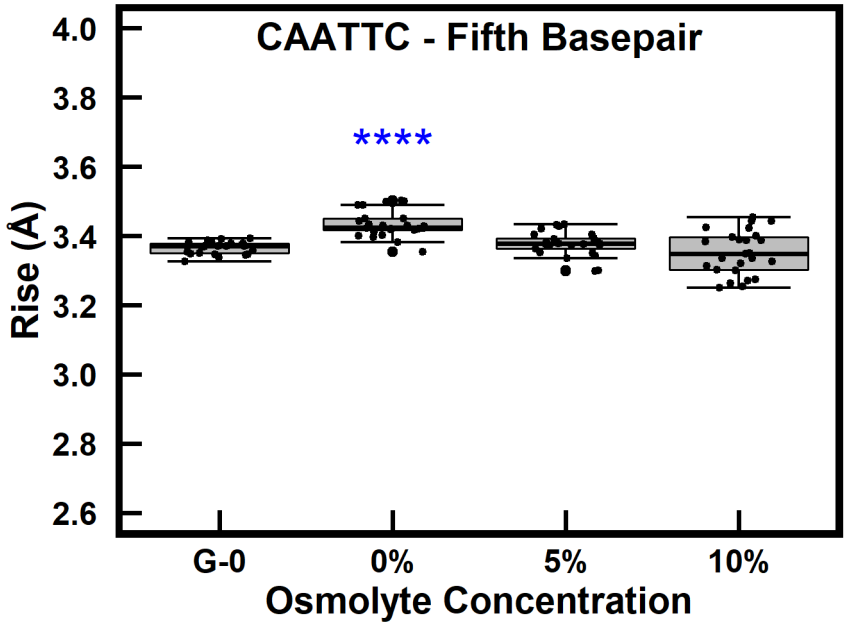

TAATTC - Fourth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
G-0
0%
5%
10%
Osmolyte Concentration

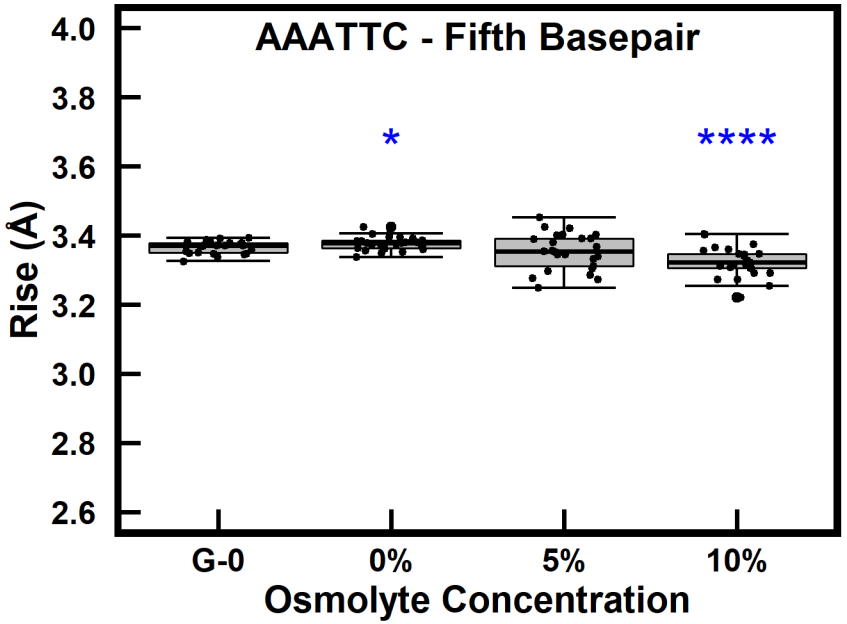

CAATTC - Fourth Basepair
****
*
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
G-0
0%
5%
10%
Osmolyte Concentration

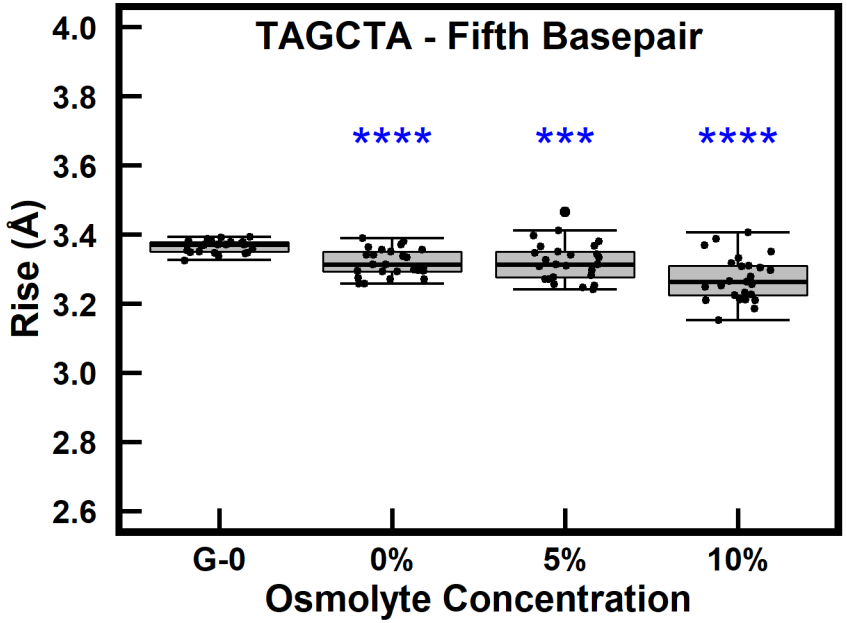

AAATTC - Fourth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
G-0
0%
5%
10%
Osmolyte Concentration

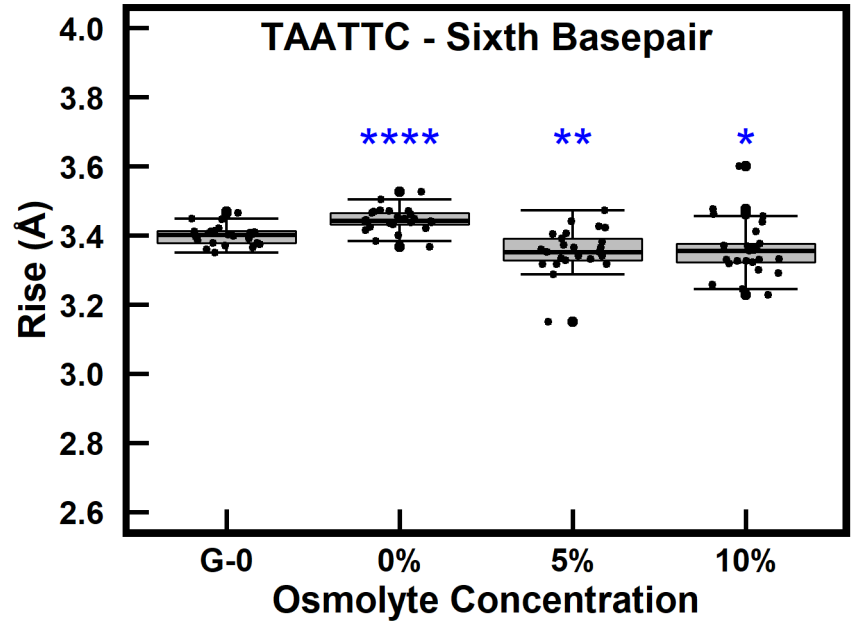

TAGCTA - Fourth Basepair
****
****
****
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
G-0
0%
5%
10%
Osmolyte Concentration

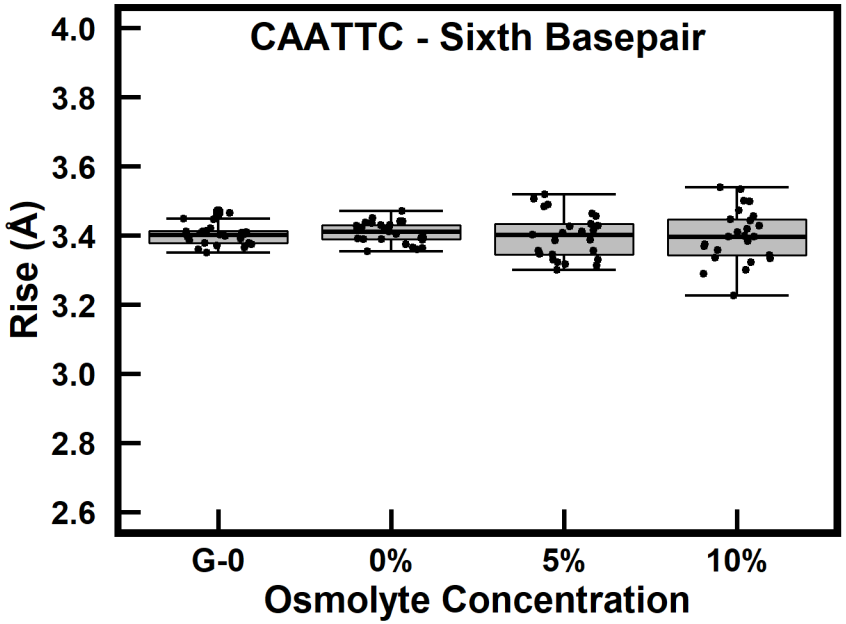

TAATTC - Fifth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
**
G-0
0%
5%
10%
Osmolyte Concentration

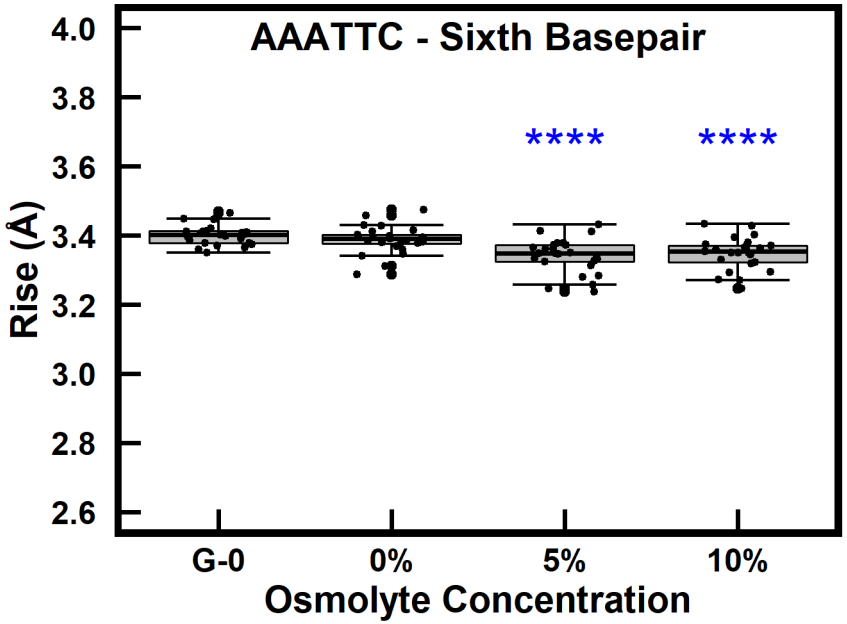

CAATTC - Fifth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
G-0
0%
5%
10%
Osmolyte Concentration

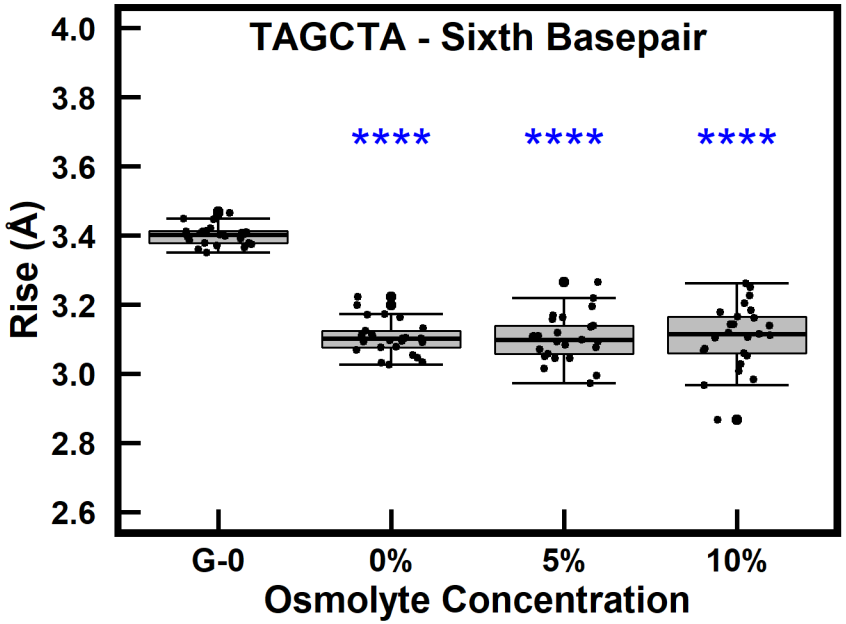

AAATTC - Fifth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
*
****
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
***
****
G-0
0%
5%
10%
Osmolyte Concentration

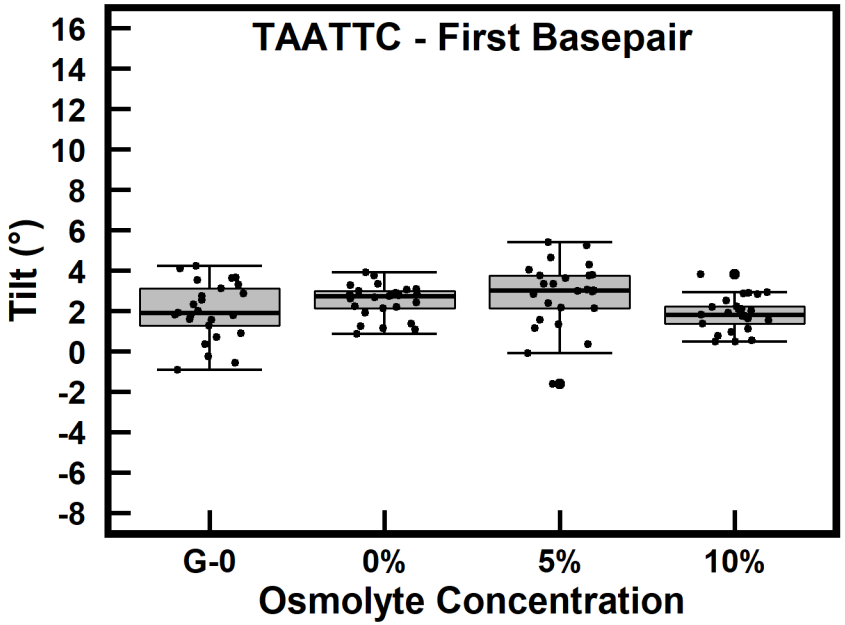

TAATTC - Sixth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
**
*
G-0
0%
5%
10%
Osmolyte Concentration

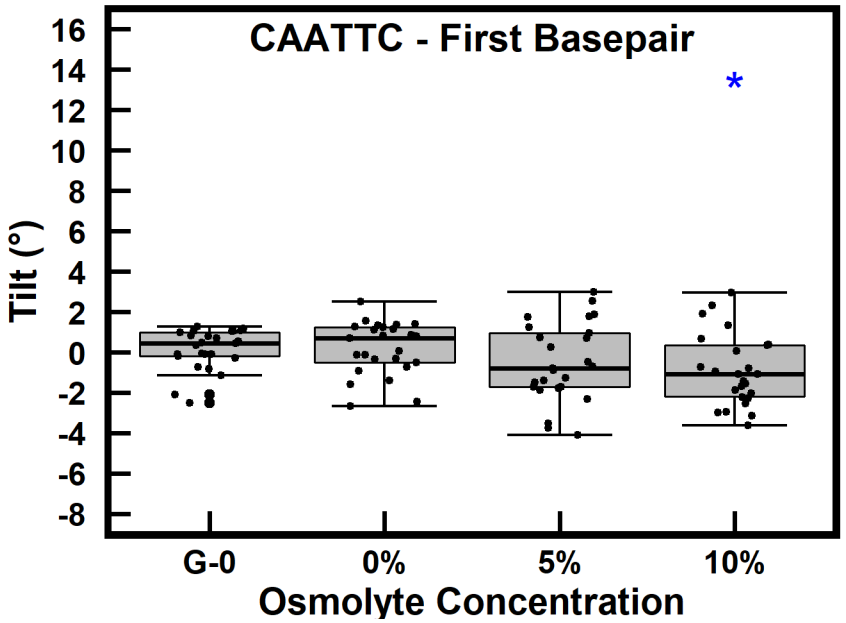

CAATTC - Sixth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
G-0
0%
5%
10%
Osmolyte Concentration

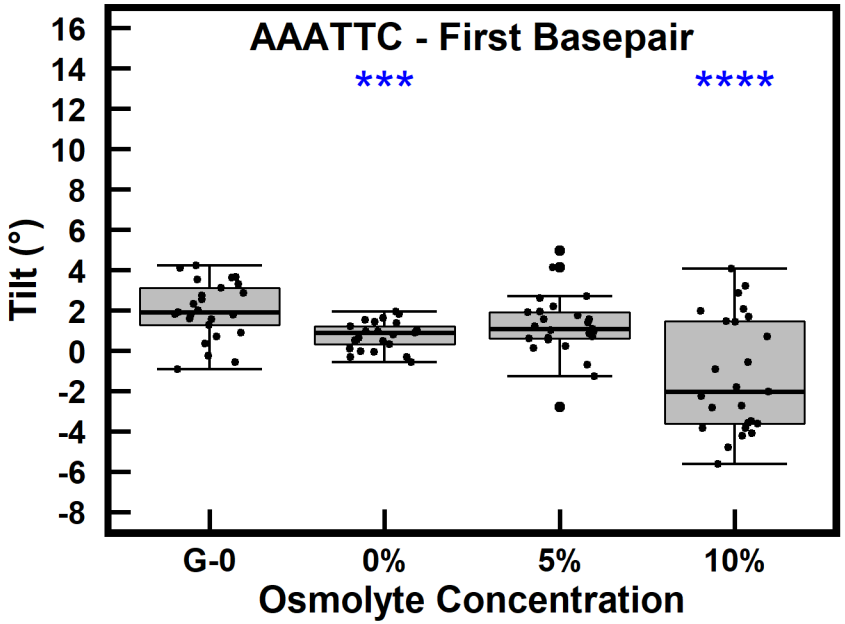

AAATTC - Sixth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
G-0
0%
5%
10%
Osmolyte Concentration

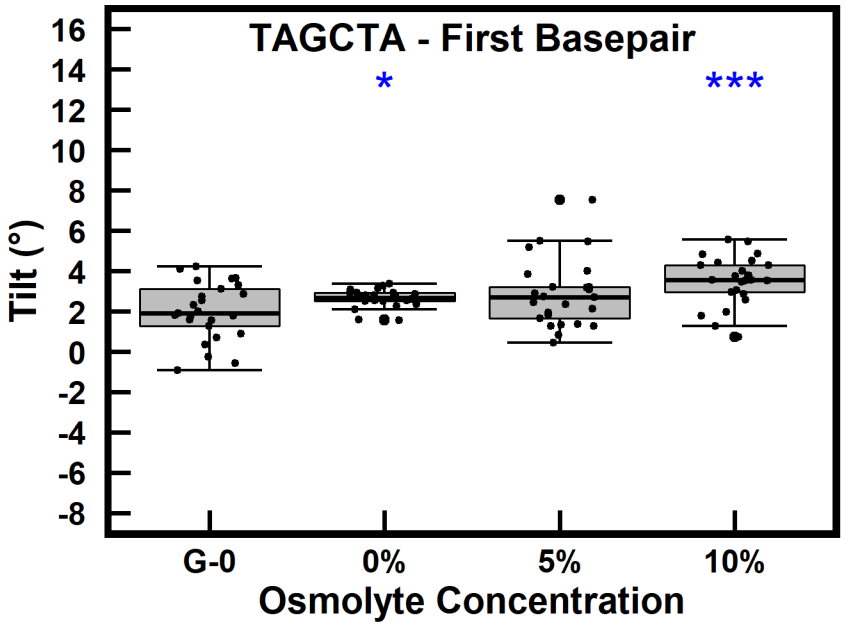

TAGCTA - Sixth Basepair
Rise (Å)
4.0
3.8
3.6
3.4
3.2
3.0
2.8
2.6
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

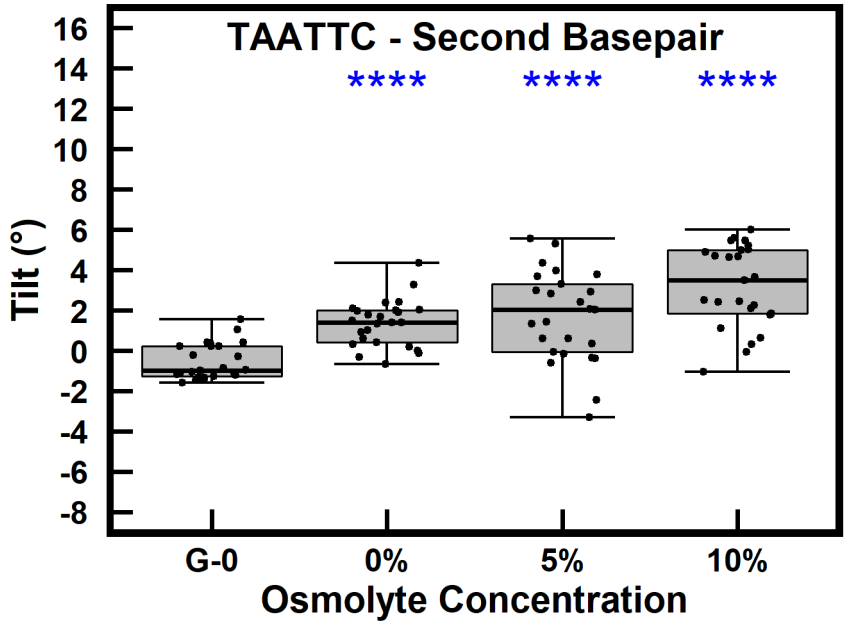
Tilt

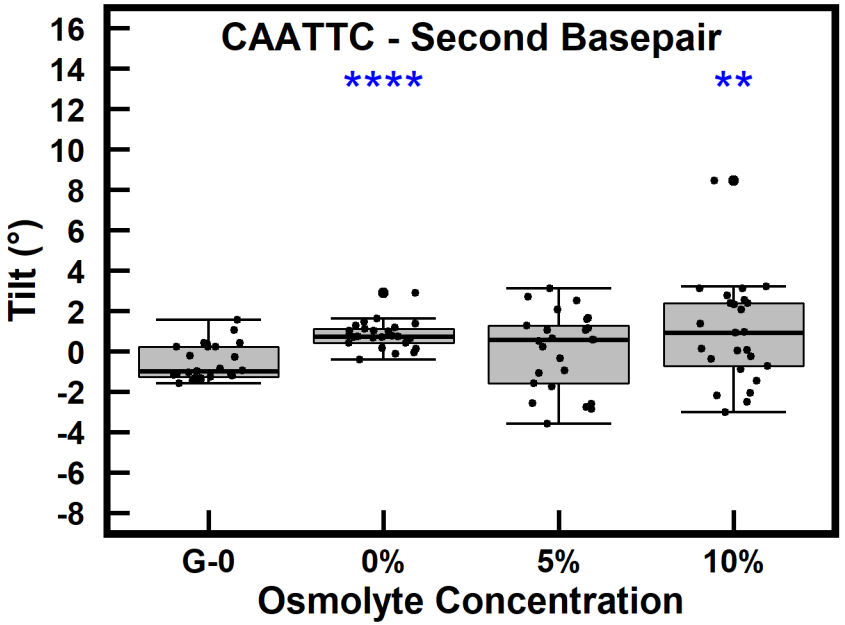

TAATTC - First Basepair
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

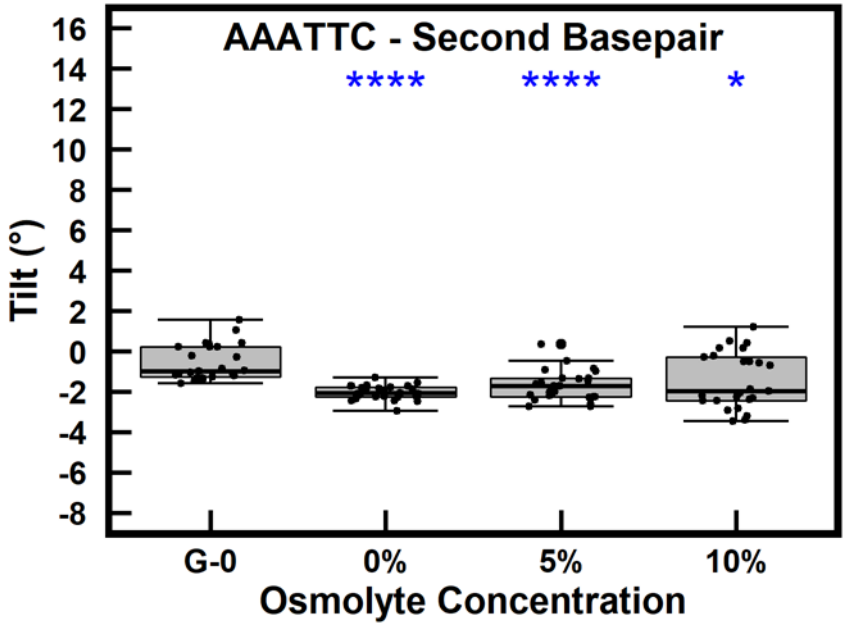

CAATTC - First Basepair
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

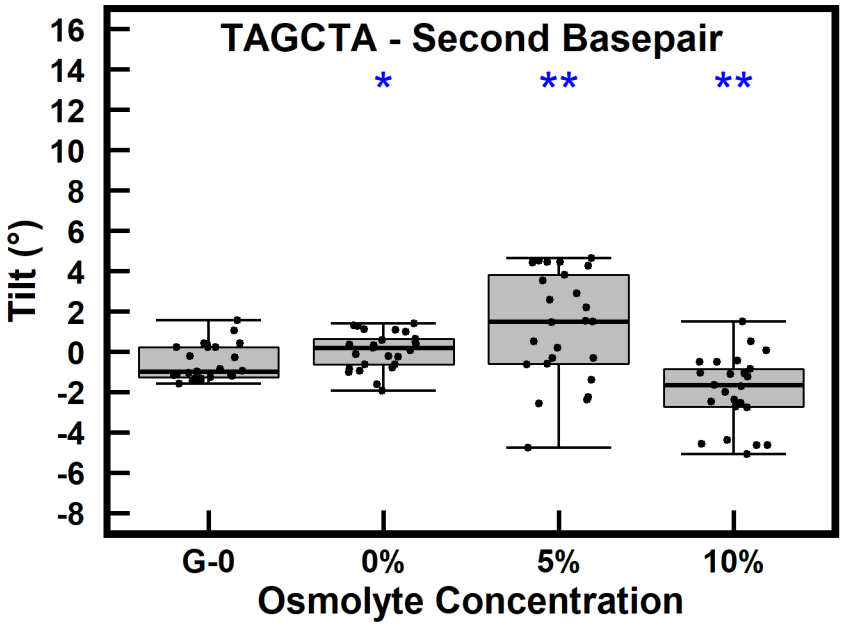

AAATTC - First Basepair
***
****
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

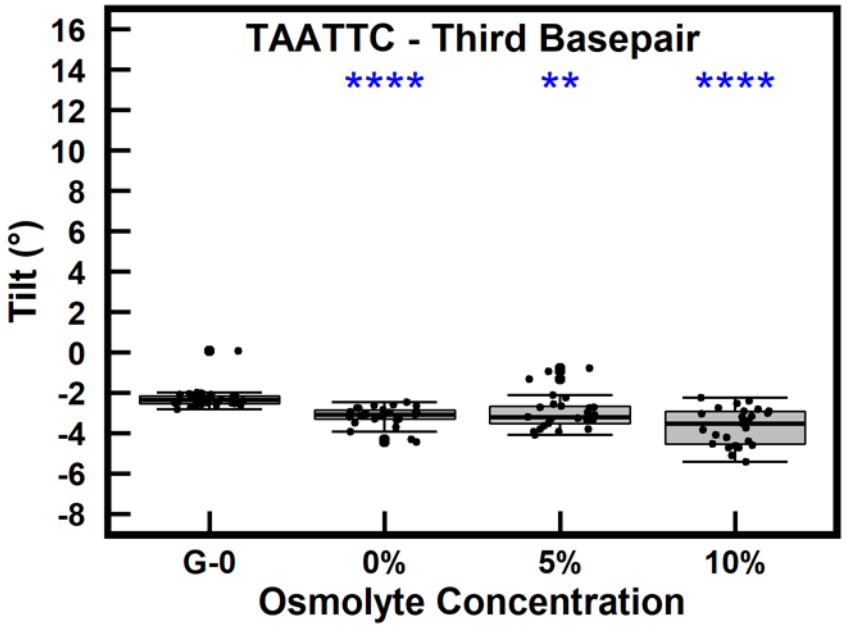

TAGCTA - First Basepair
*
***
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

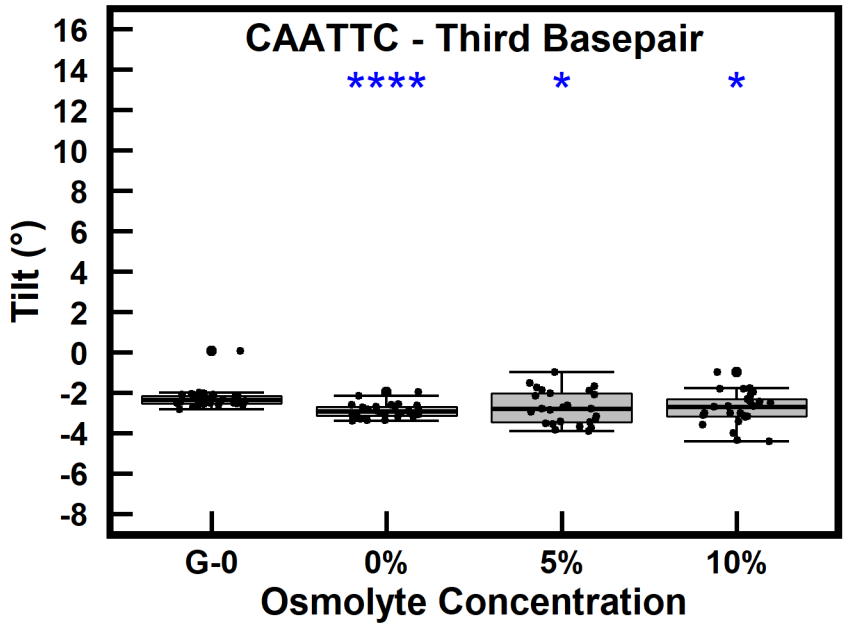

TAATTC - Second Basepair
****
****
****
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

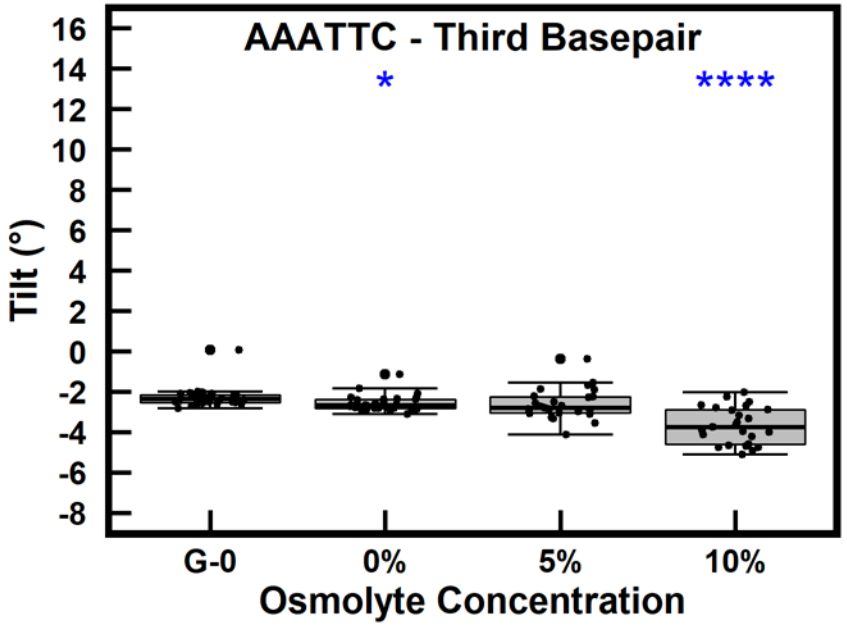

CAATTC - Second Basepair
****
**
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

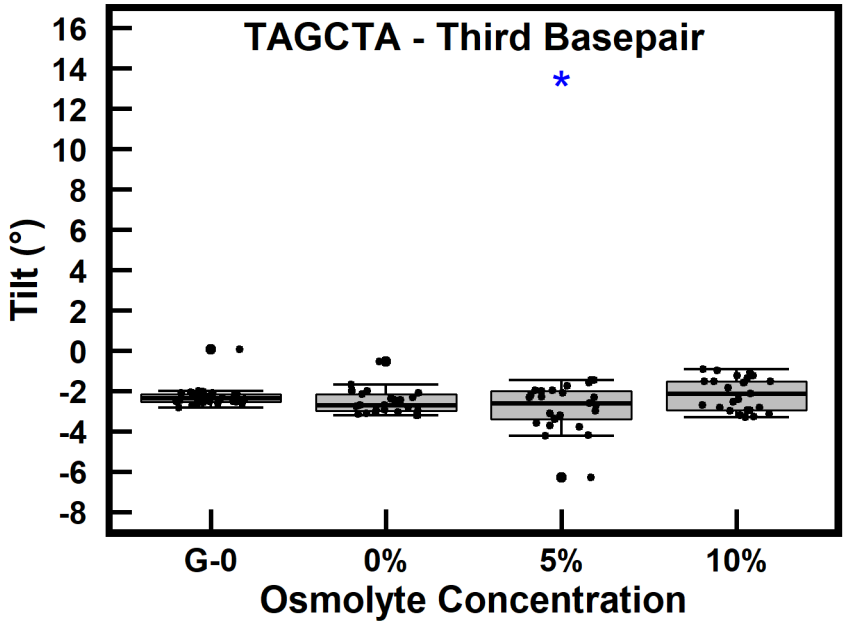

AAATTC - Second Basepair
****
****
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

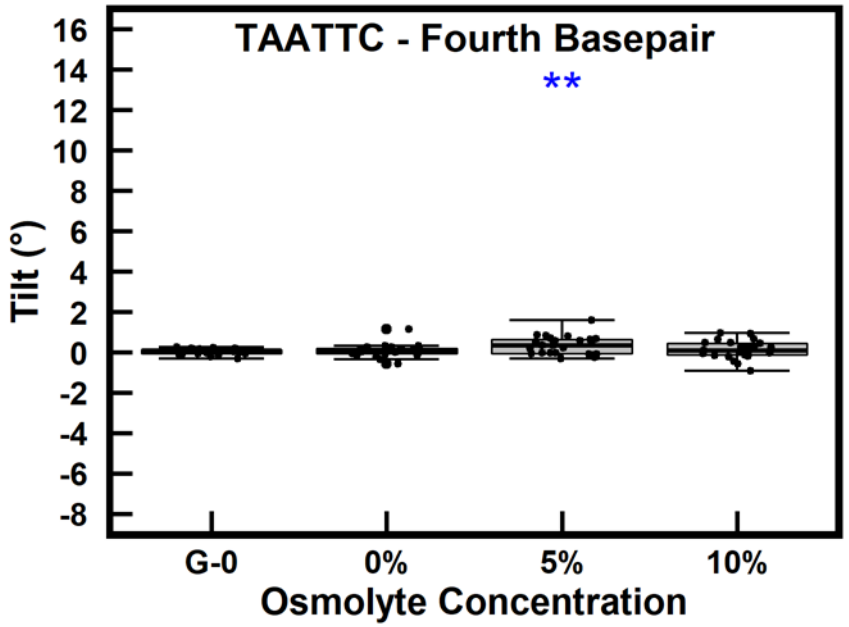

TAGCTA - Second Basepair
*
**
**
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

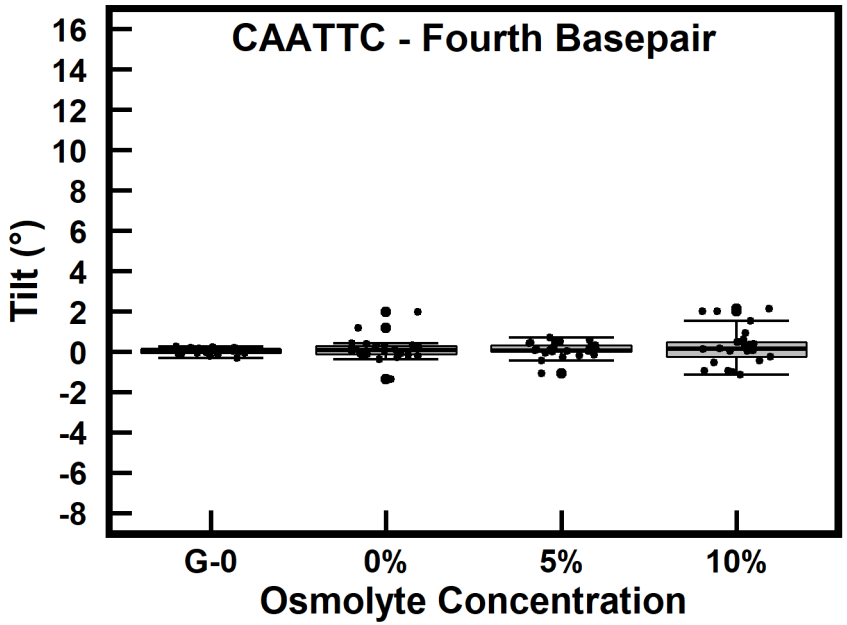

TAATTC - Third Basepair
****
**
****
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

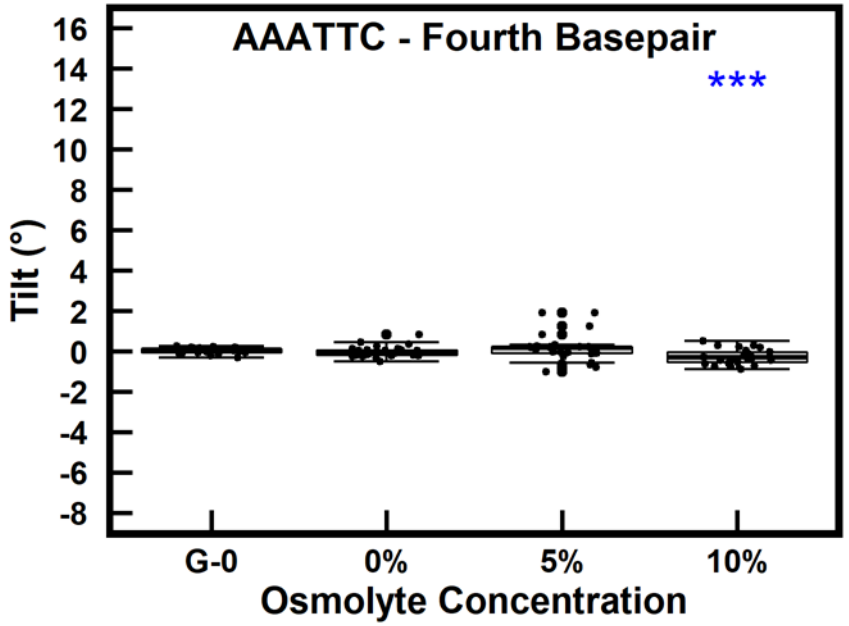

CAATTC - Third Basepair
****
*
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

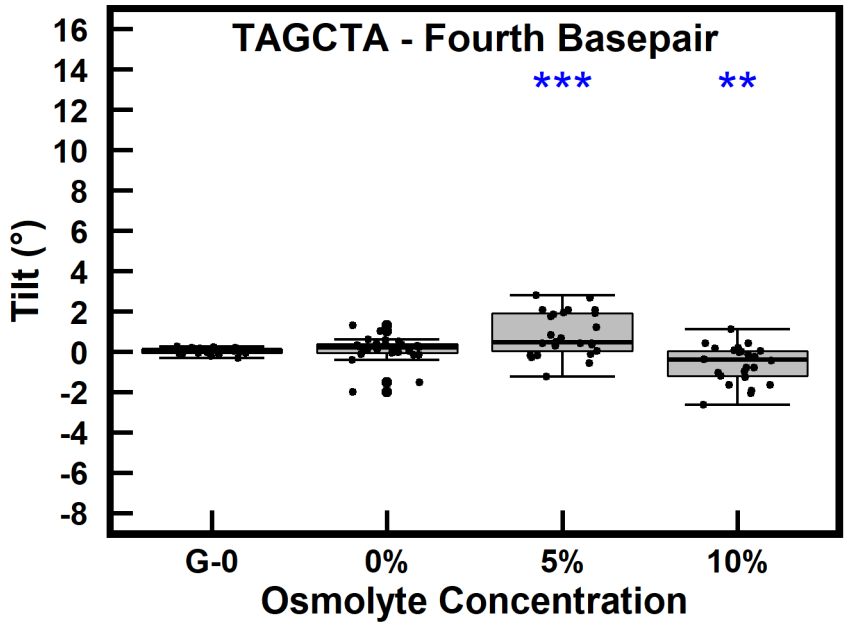

AAATTC - Third Basepair
*
****
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

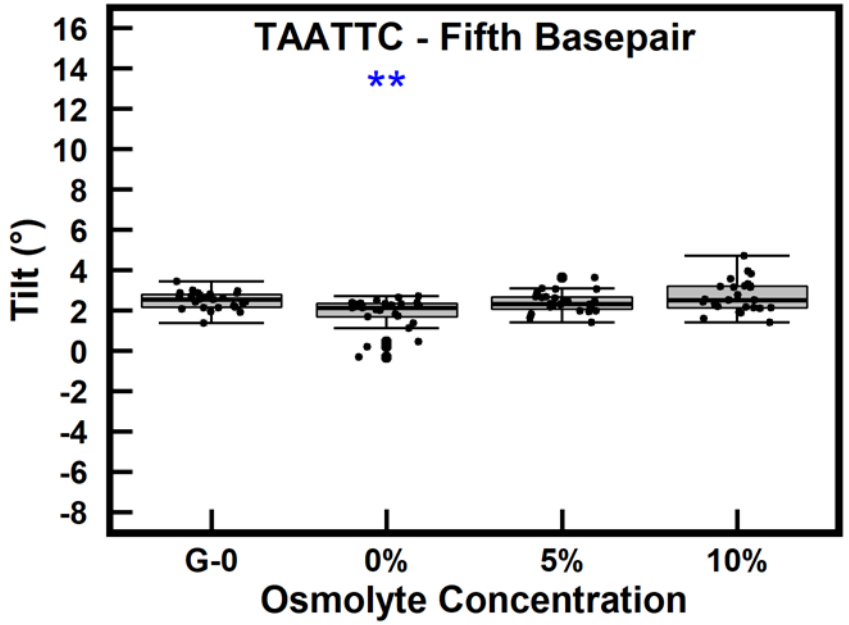

TAGCTA - Third Basepair
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

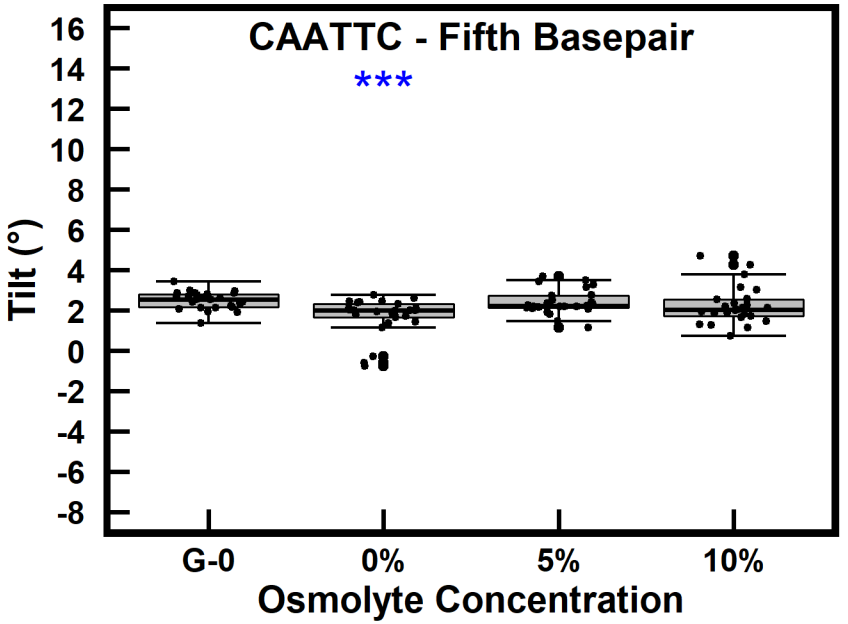

TAATTC - Fourth Basepair
**
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

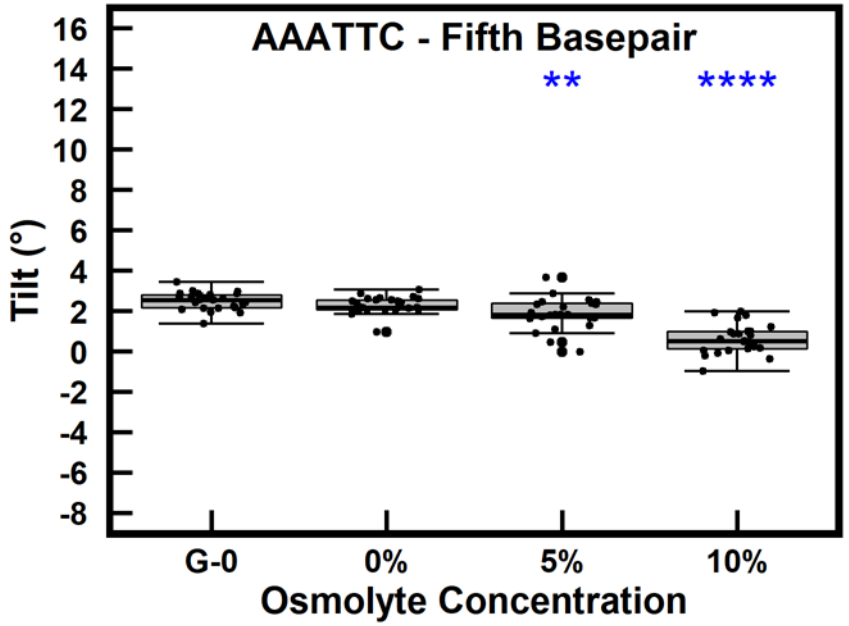

CAATTC - Fourth Basepair
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

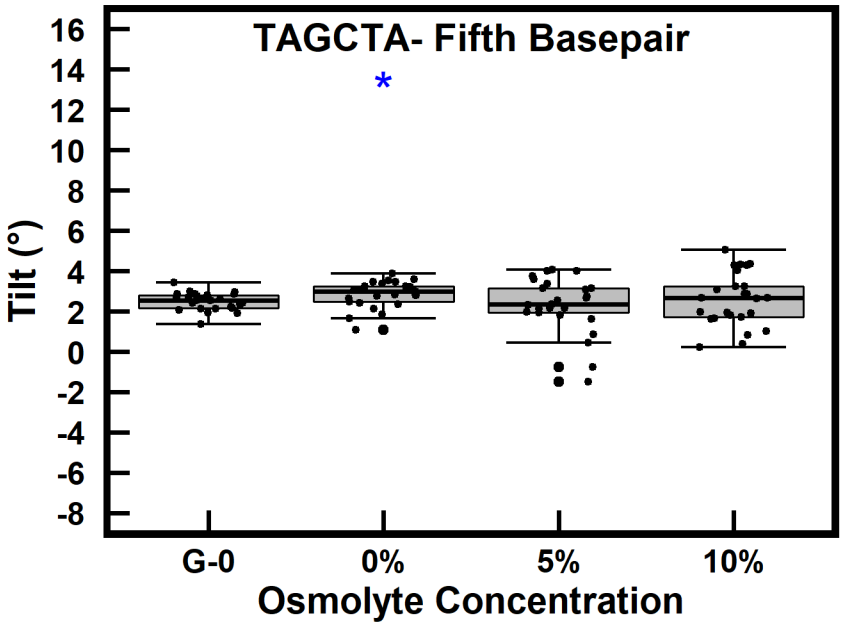

AAATTC - Fourth Basepair
***
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

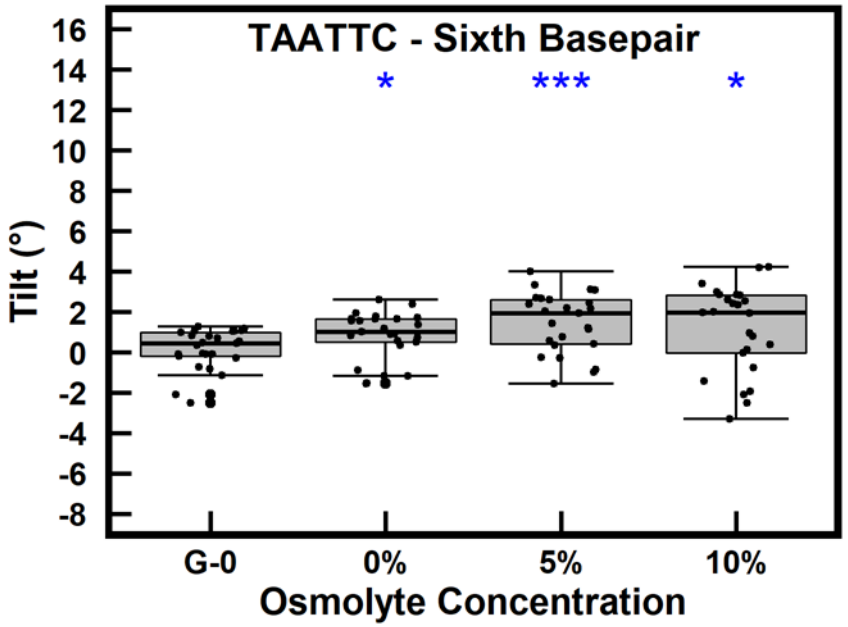

TAGCTA - Fourth Basepair
***
**
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

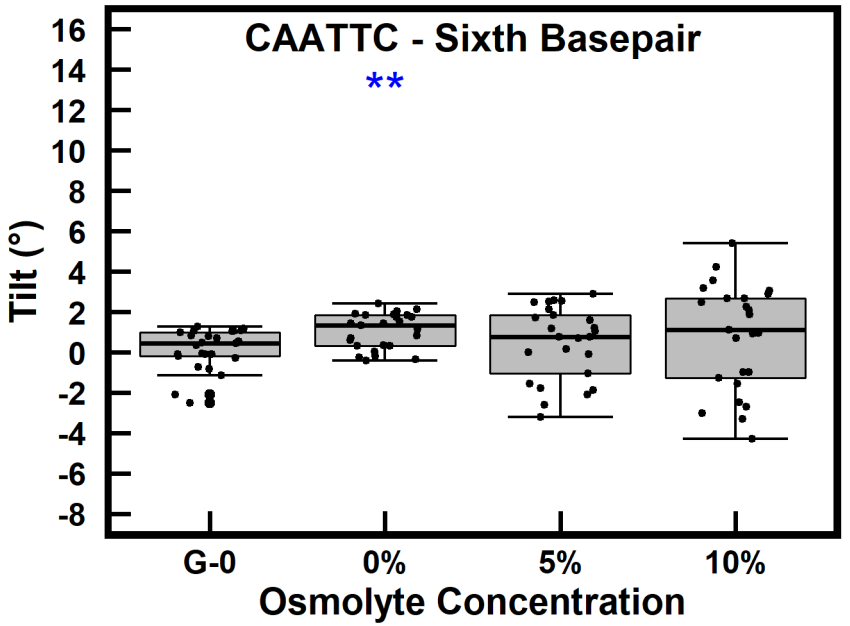

TAATTC - Fifth Basepair
**
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

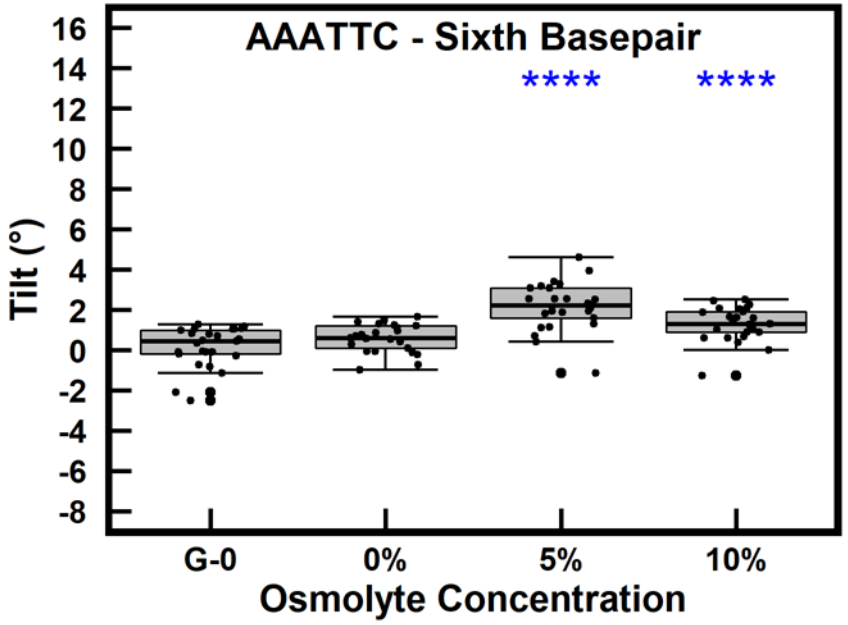

CAATTC - Fifth Basepair
***
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

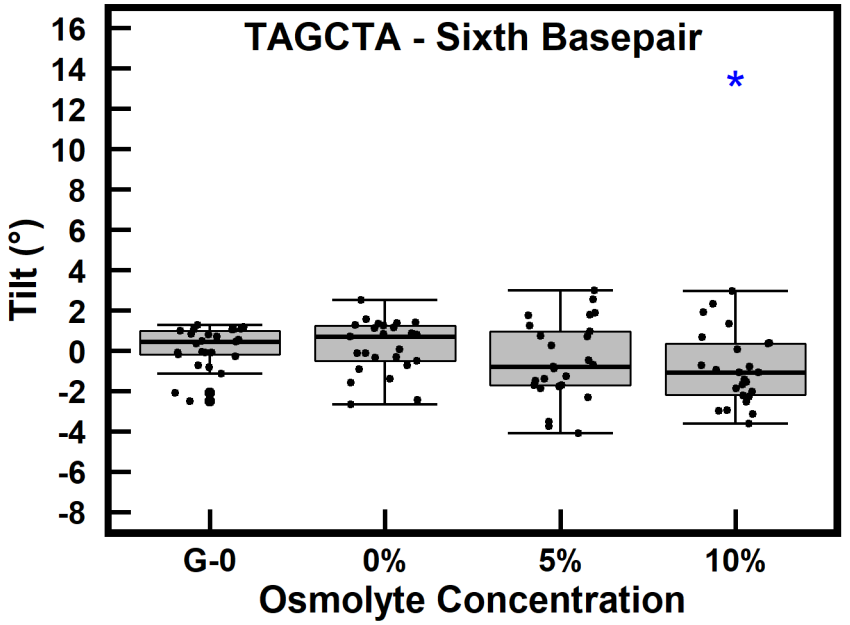

AAATTC - Fifth Basepair
**
****
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA- Fifth Basepair
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

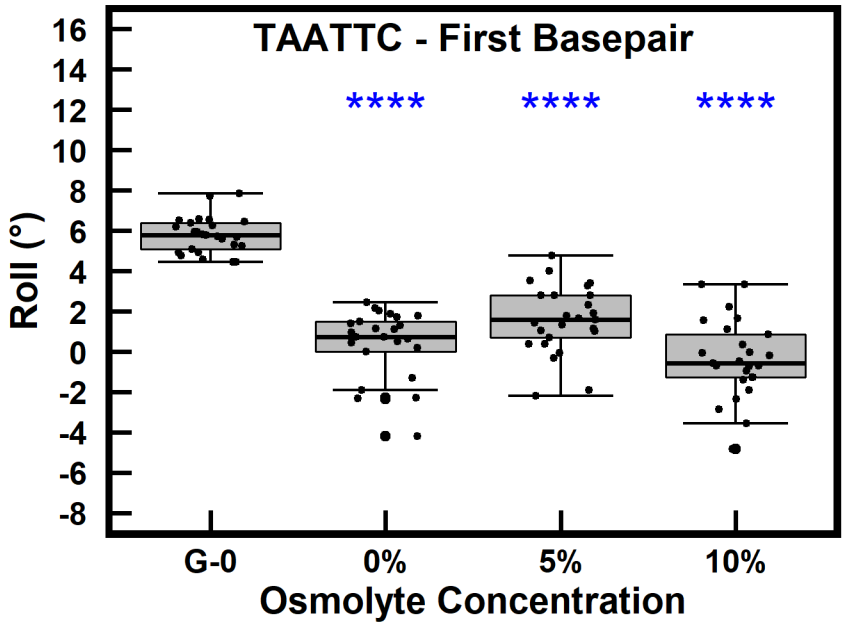

TAATTC - Sixth Basepair
*
***
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

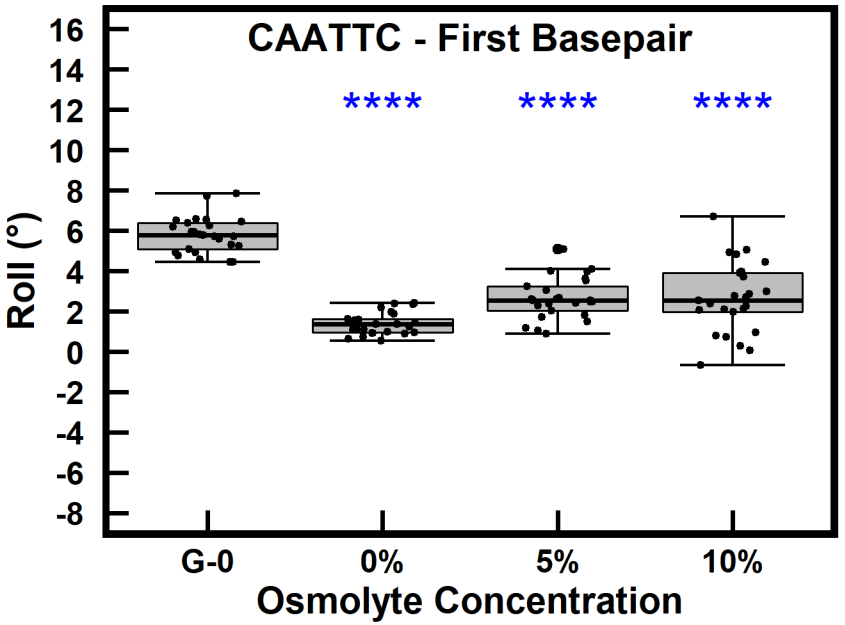

CAATTC - Sixth Basepair
**
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

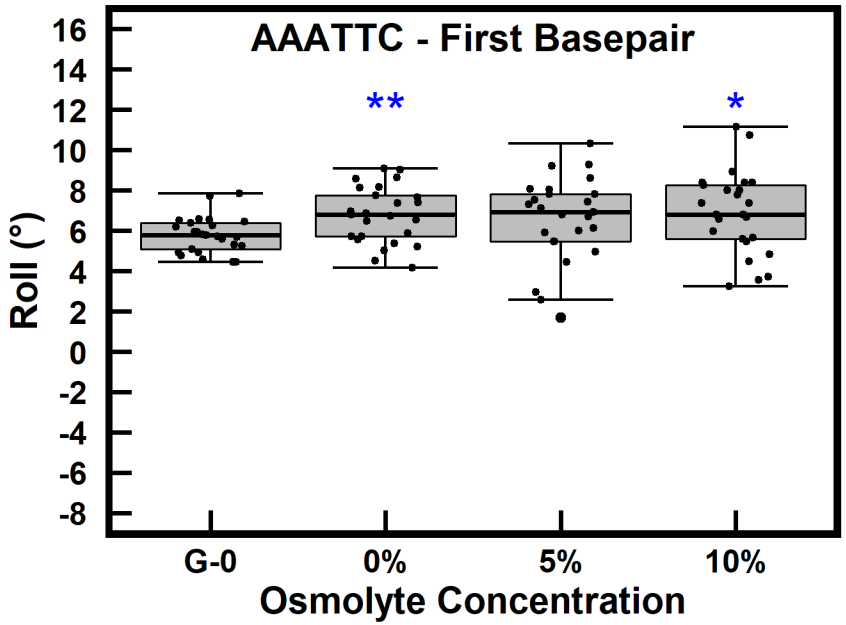

AAATTC - Sixth Basepair
****
****
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

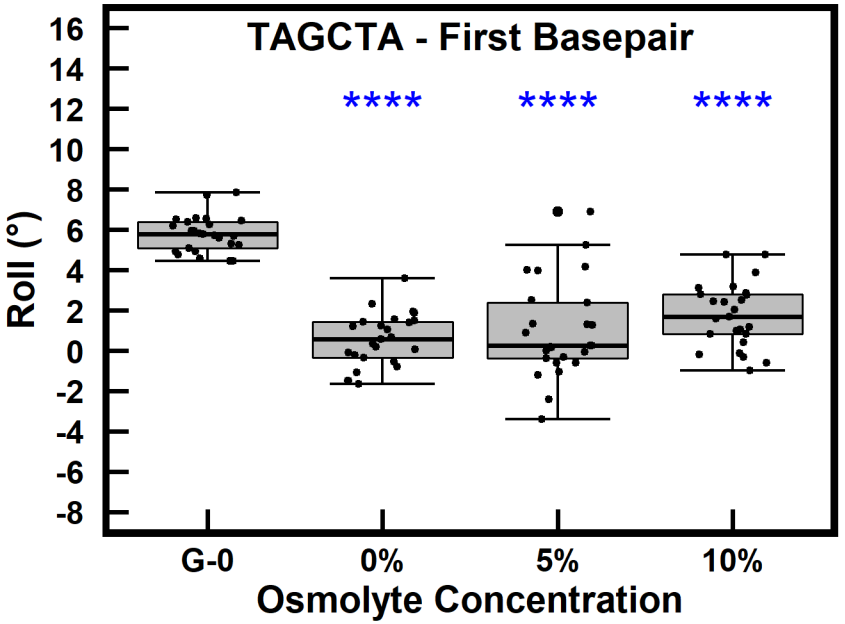

TAGCTA - Sixth Basepair
*
Tilt (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

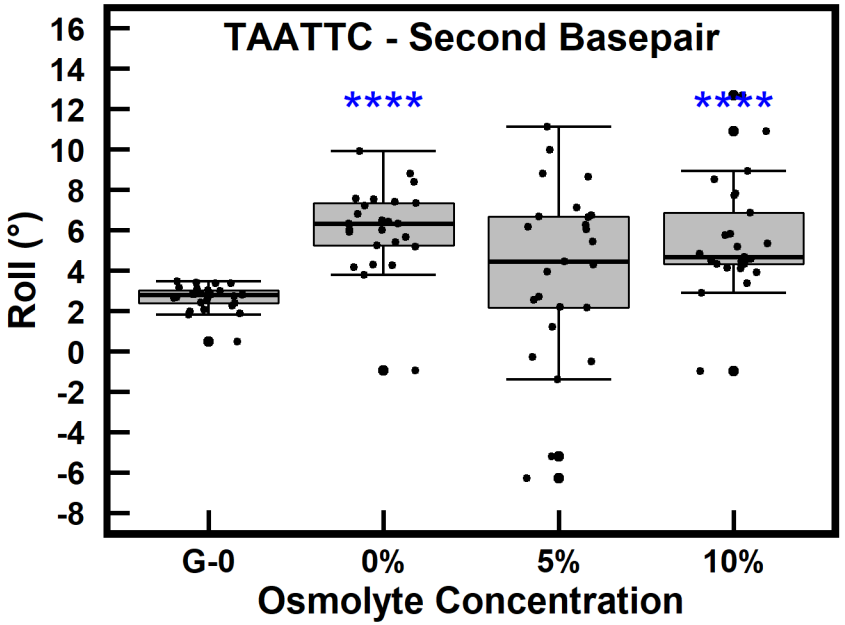
Roll

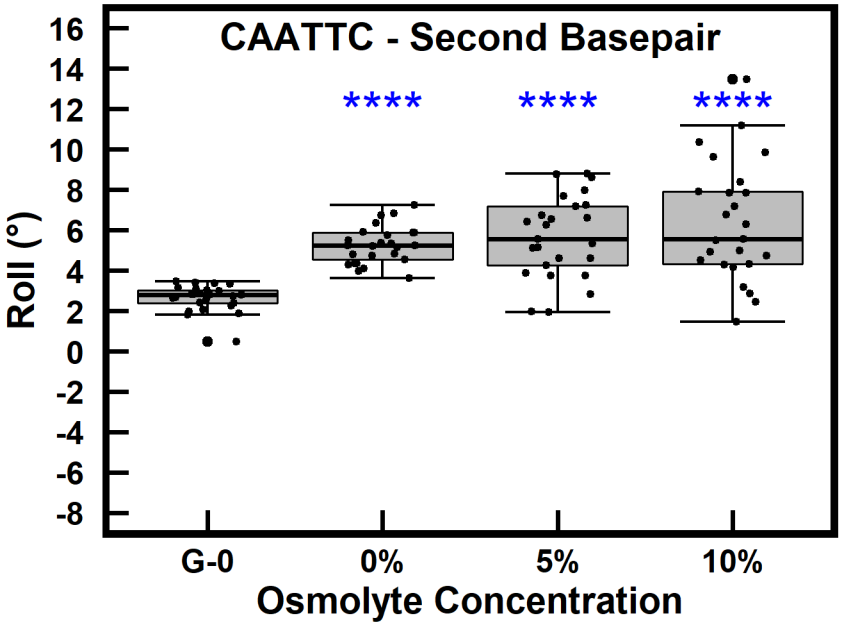

TAATTC - First Basepair
****
****
****
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

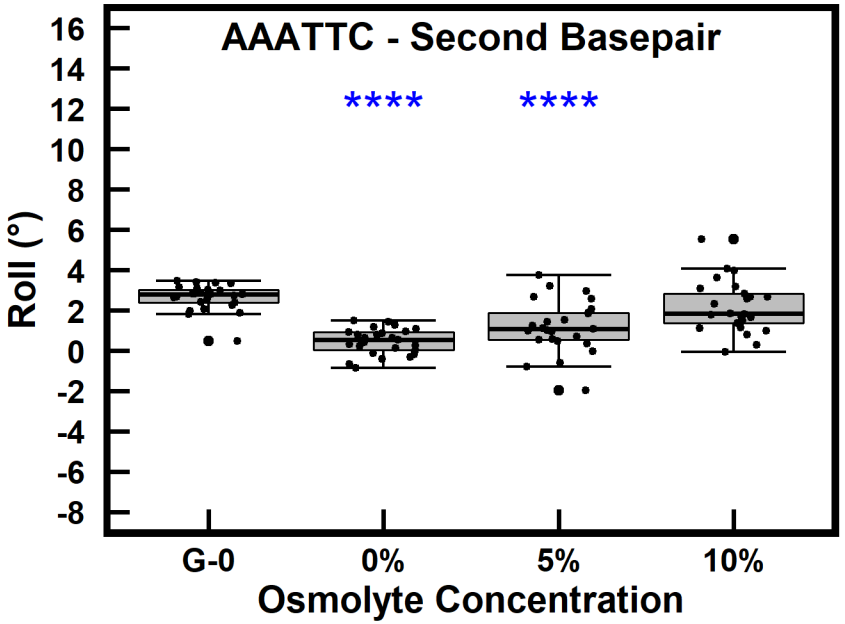

CAATTC - First Basepair
****
****
****
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

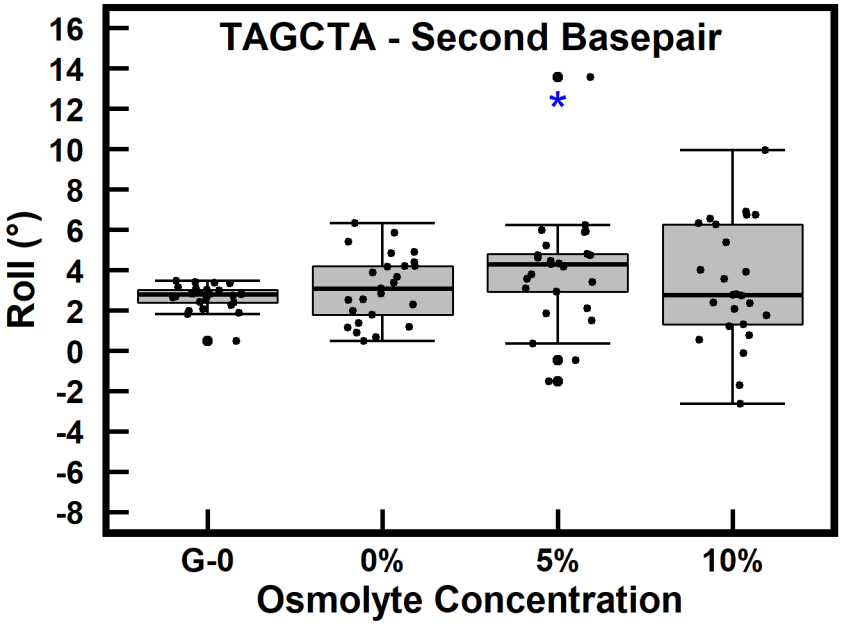

AAATTC - First Basepair
**
*
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

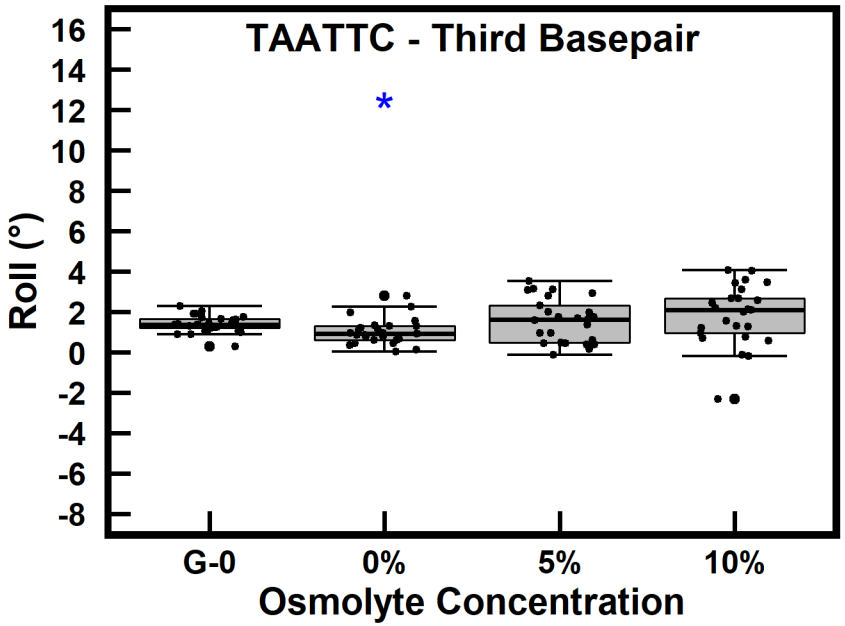

TAGCTA - First Basepair
****
****
****
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

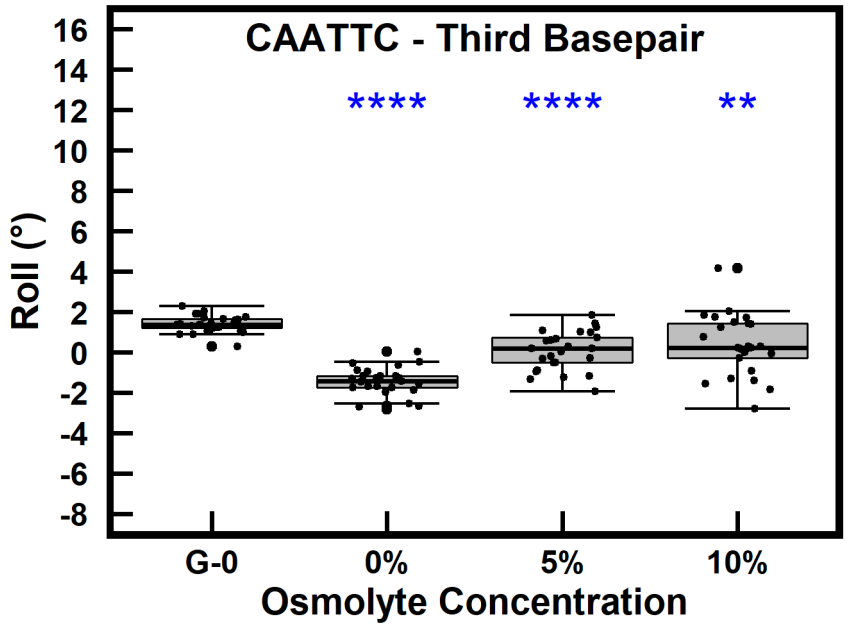

TAATTC - Second Basepair
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
****
****
G-0
0%
5%
10%
Osmolyte Concentration

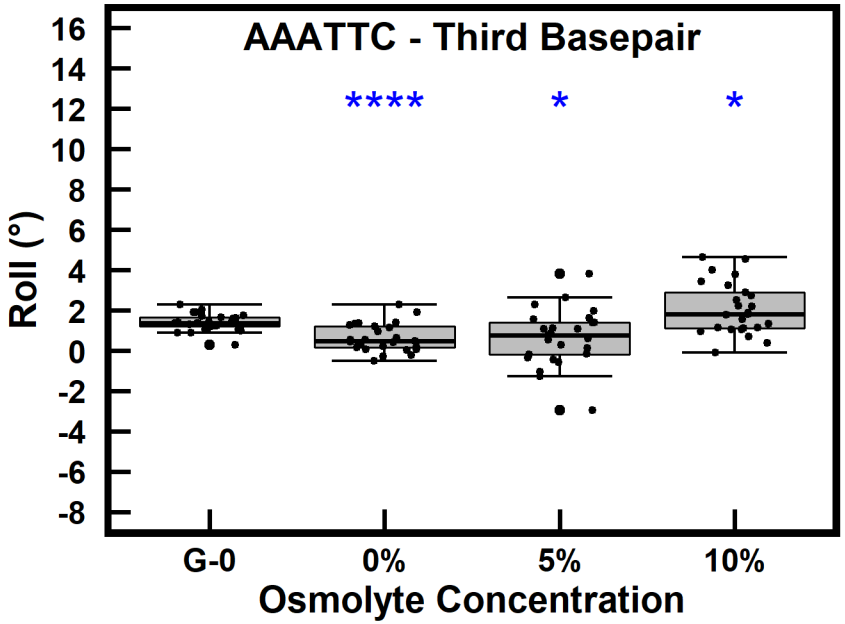

CAATTC - Second Basepair
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

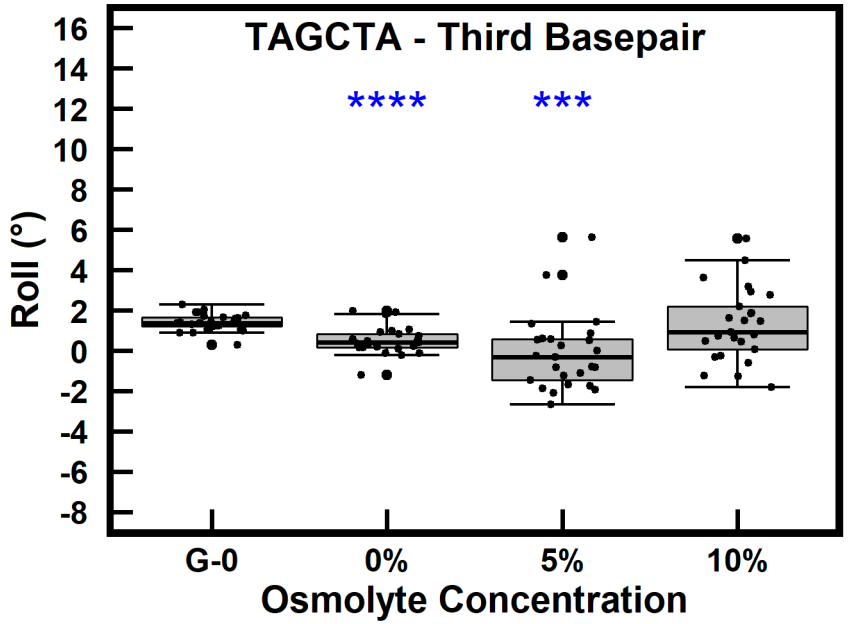

AAATTC - Second Basepair
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
****
****
G-0
0%
5%
10%
Osmolyte Concentration

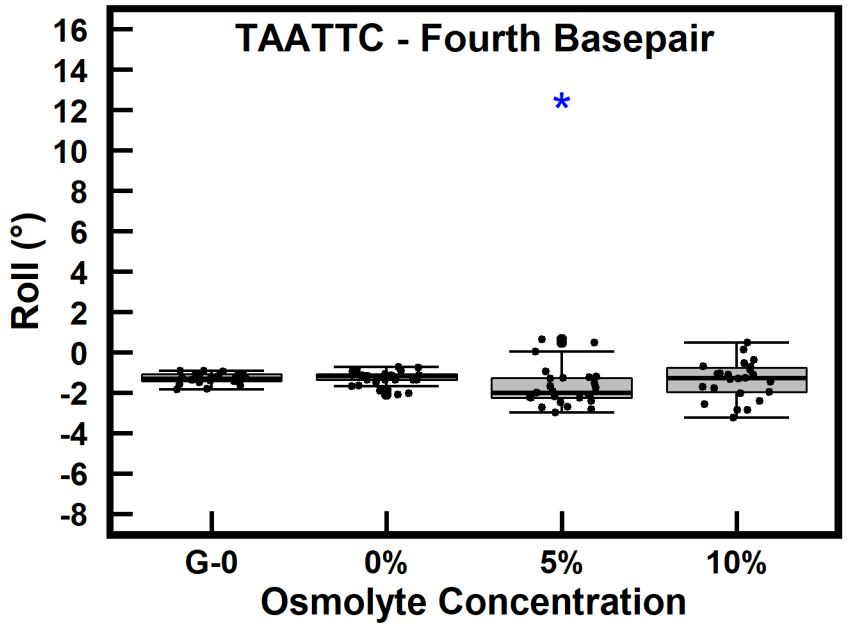

TAGCTA - Second Basepair
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
*
G-0
0%
5%
10%
Osmolyte Concentration

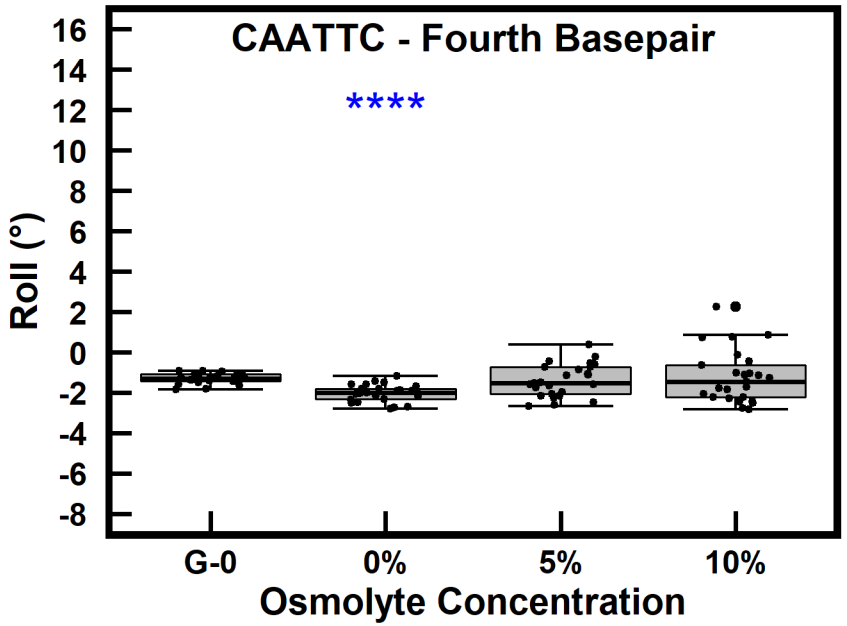

TAATTC - Third Basepair
*
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

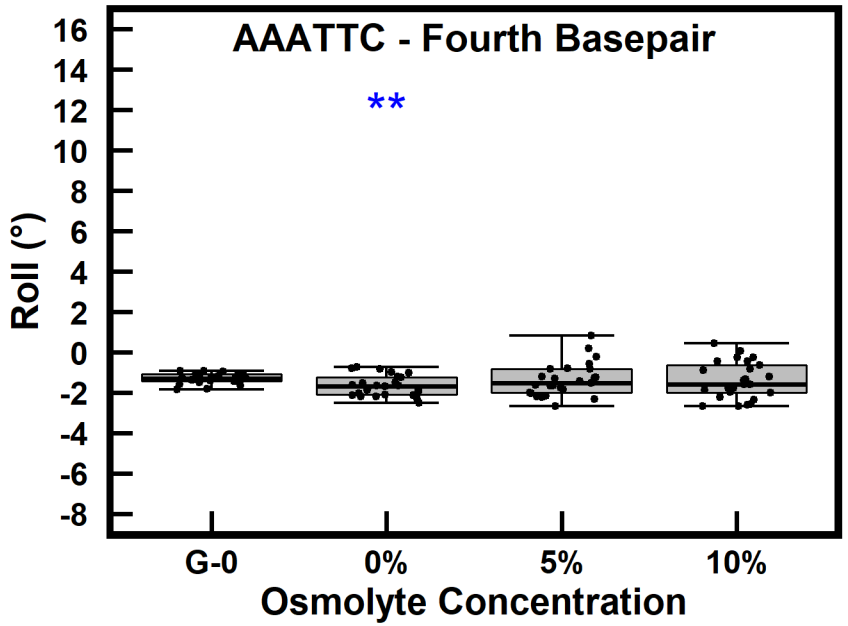

CAATTC - Third Basepair
****
****
**
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

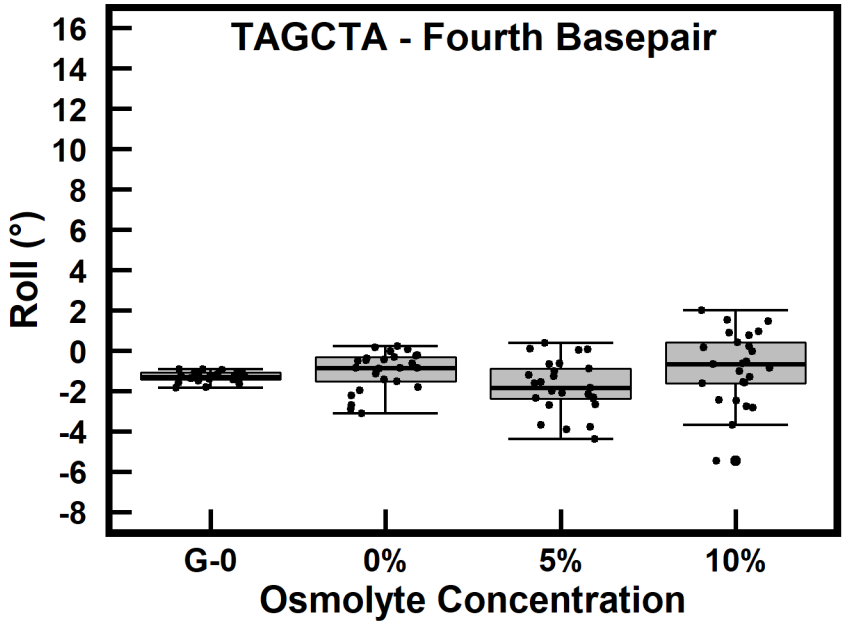

AAATTC - Third Basepair
****
*
*
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

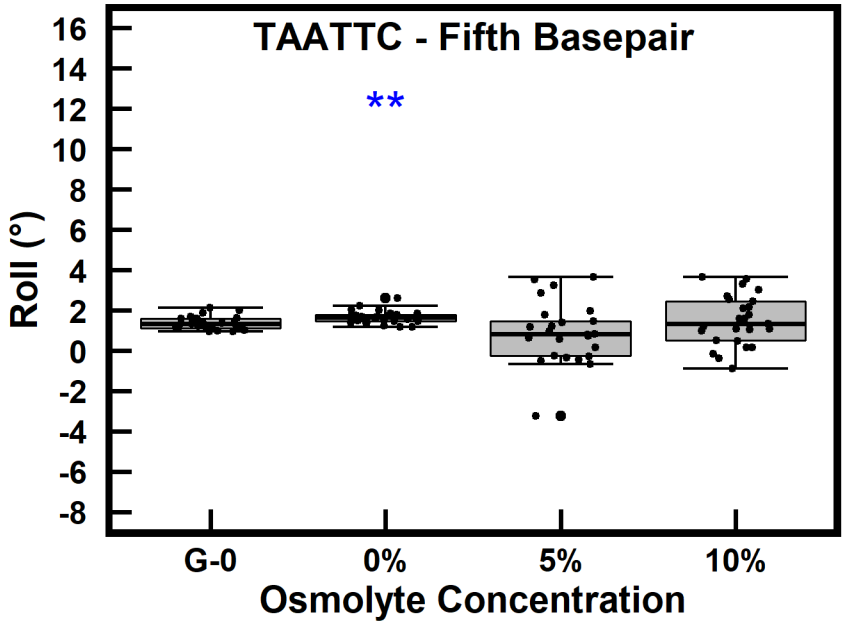

TAGCTA - Third Basepair
****
***
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

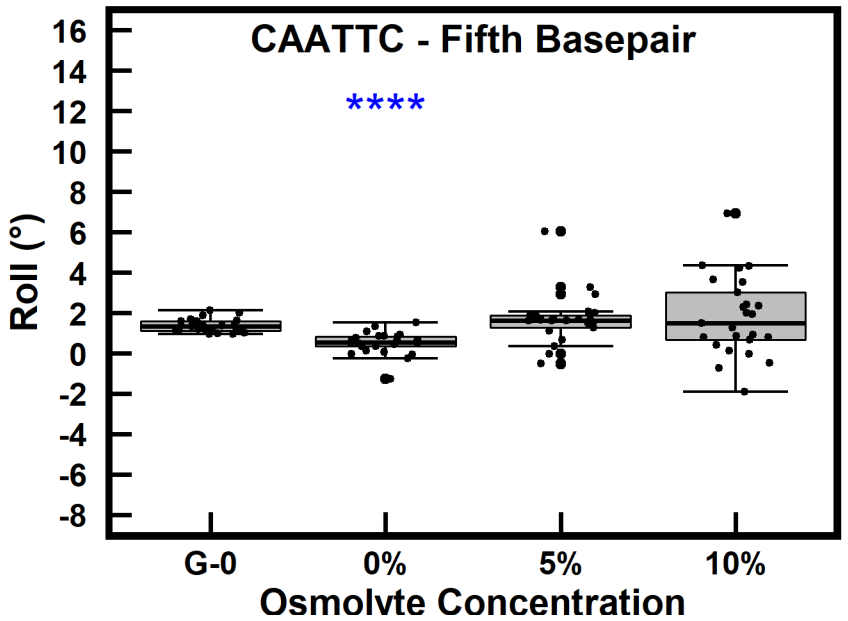

TAATTC - Fourth Basepair
*
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

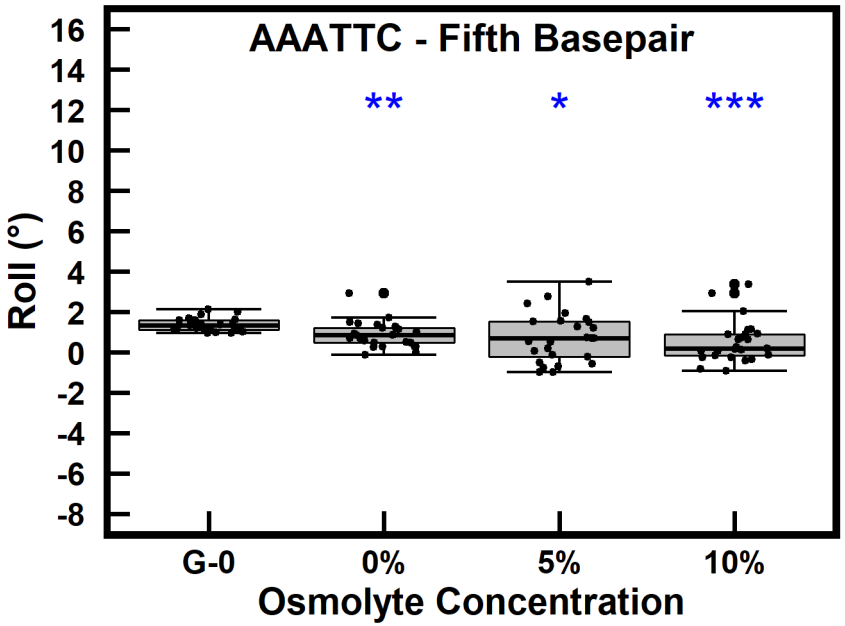

CAATTC - Fourth Basepair
****
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

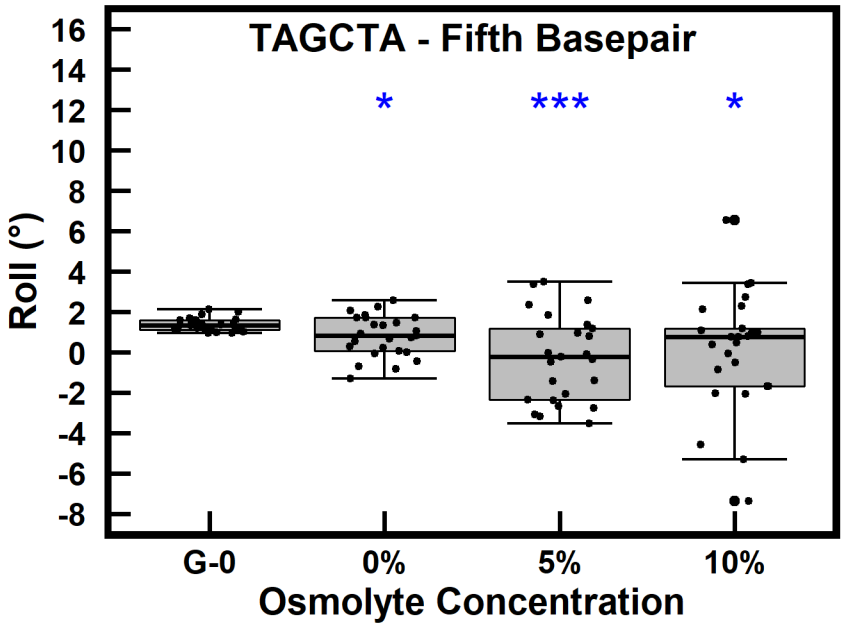

AAATTC - Fourth Basepair
**
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

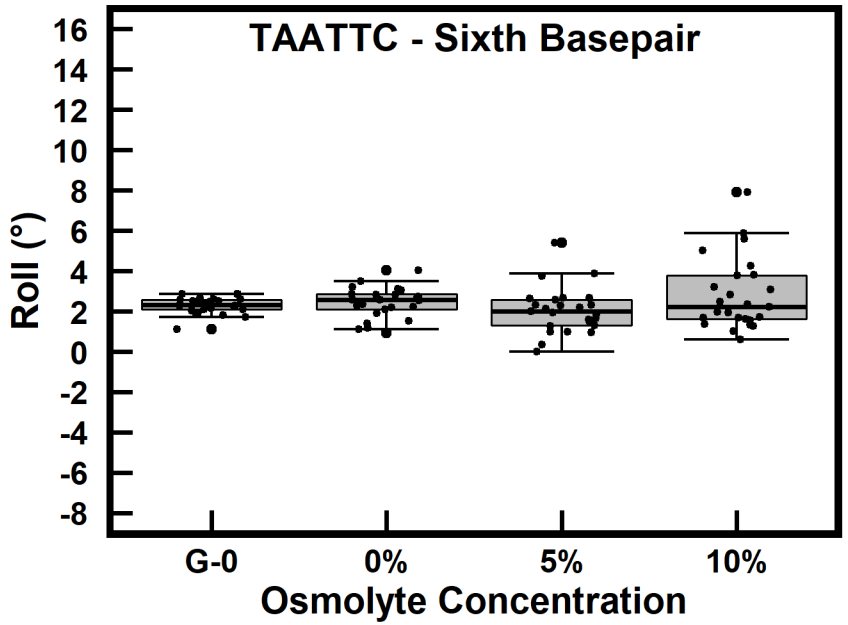

TAGCTA - Fourth Basepair
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

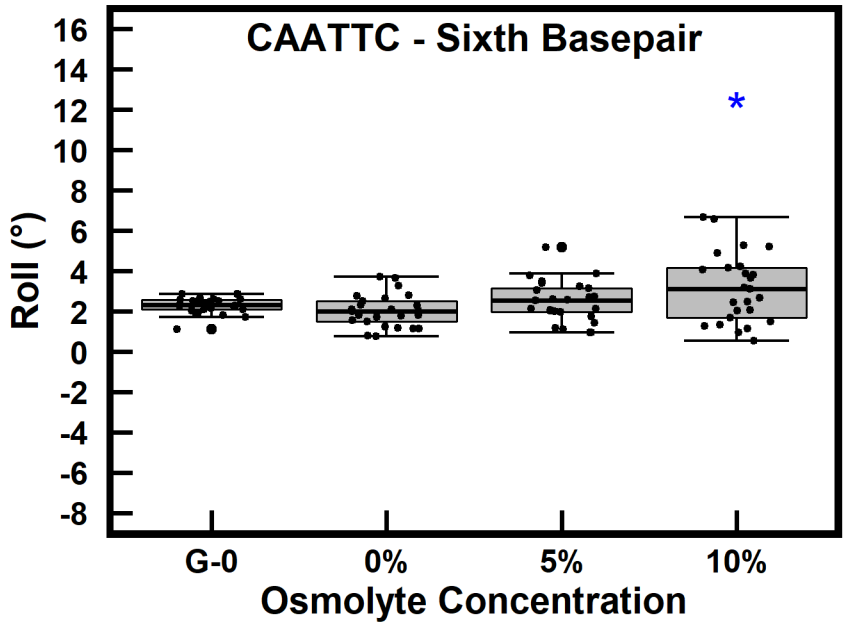

TAATTC - Fifth Basepair
**
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

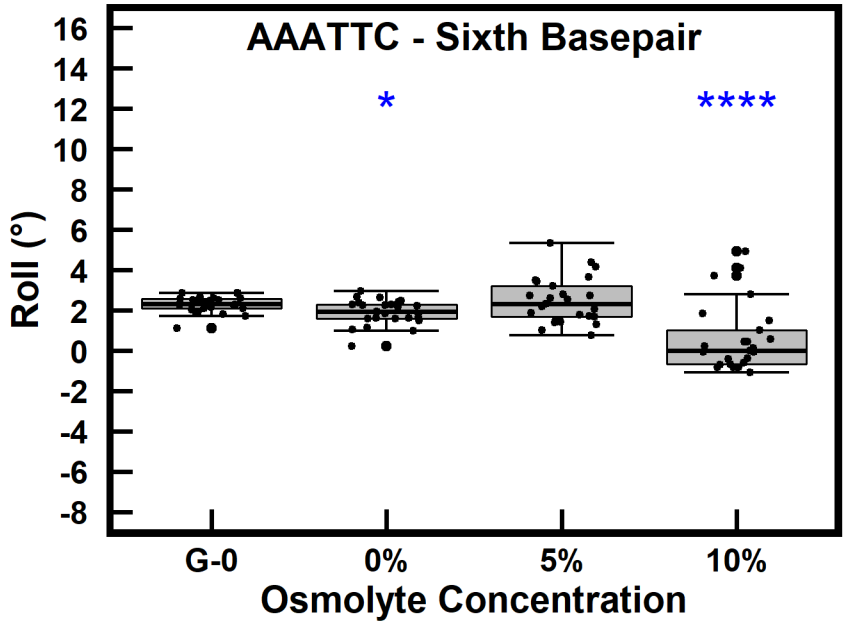

CAATTC - Fifth Basepair
****
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

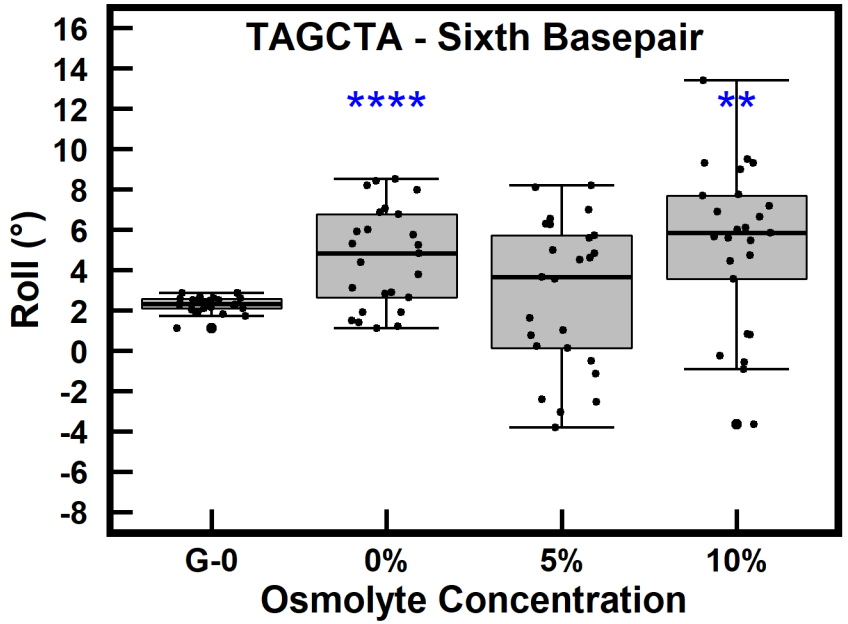

AAATTC - Fifth Basepair
**
*
***
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
*
***
*
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

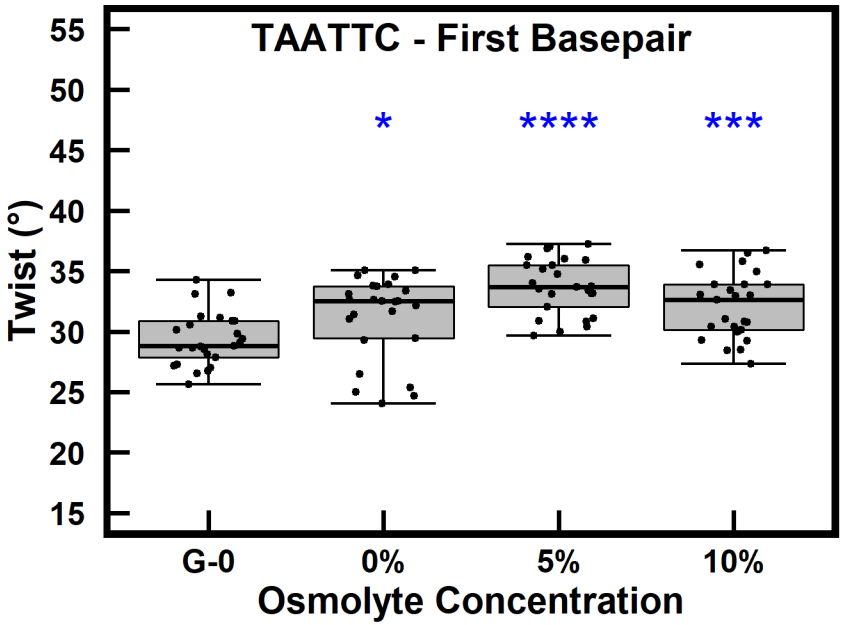

TAATTC - Sixth Basepair
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

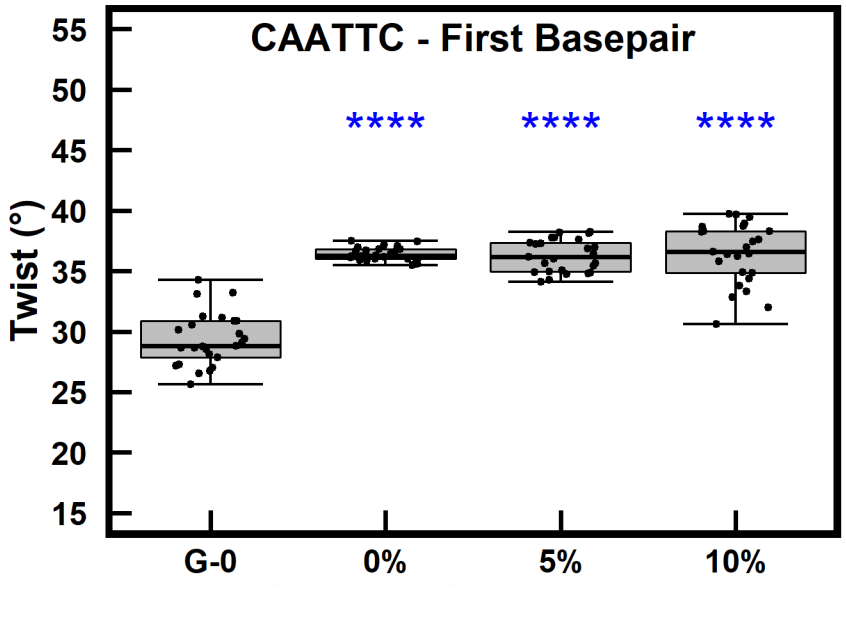

CAATTC - Sixth Basepair
*
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

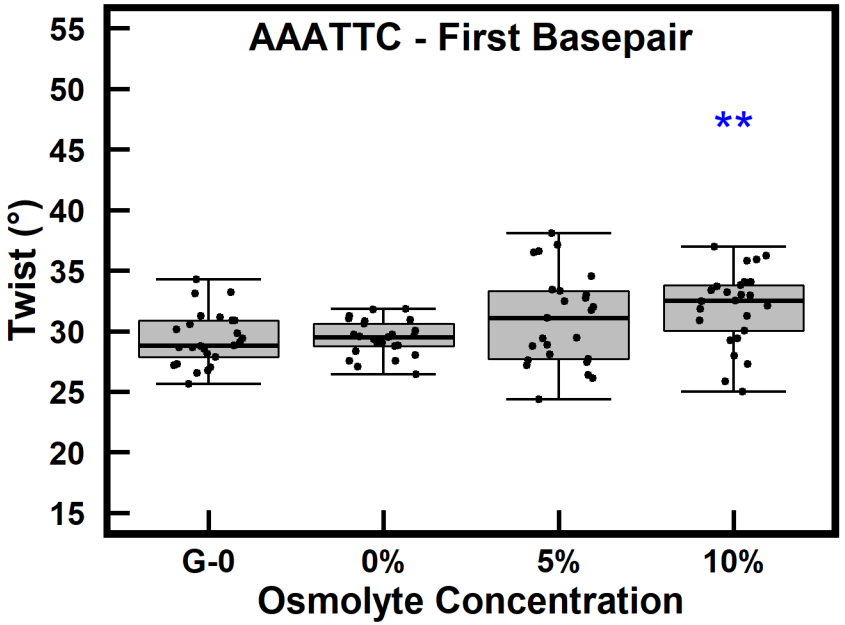

AAATTC - Sixth Basepair
*
****
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

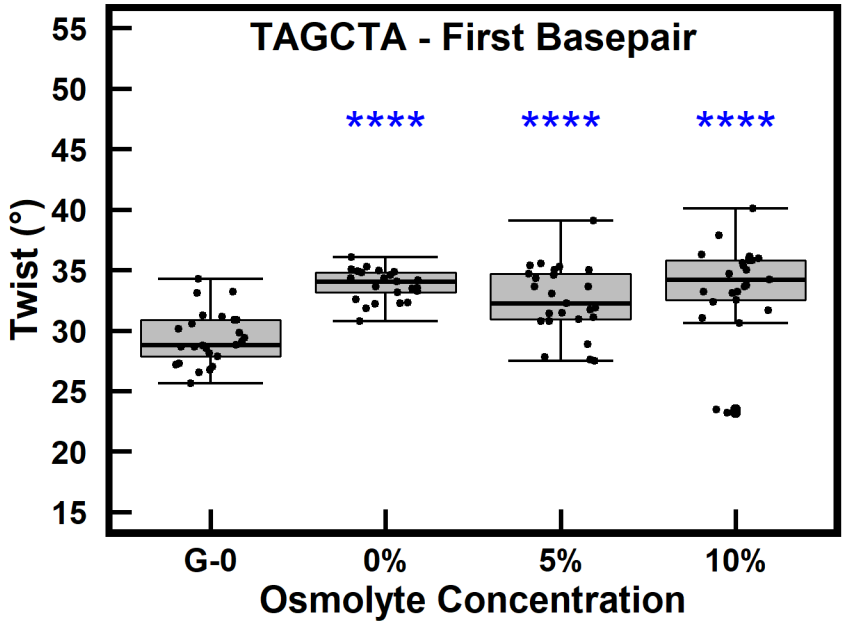

TAGCTA - Sixth Basepair
****
**
Roll (°)
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
G-0
0%
5%
10%
Osmolyte Concentration

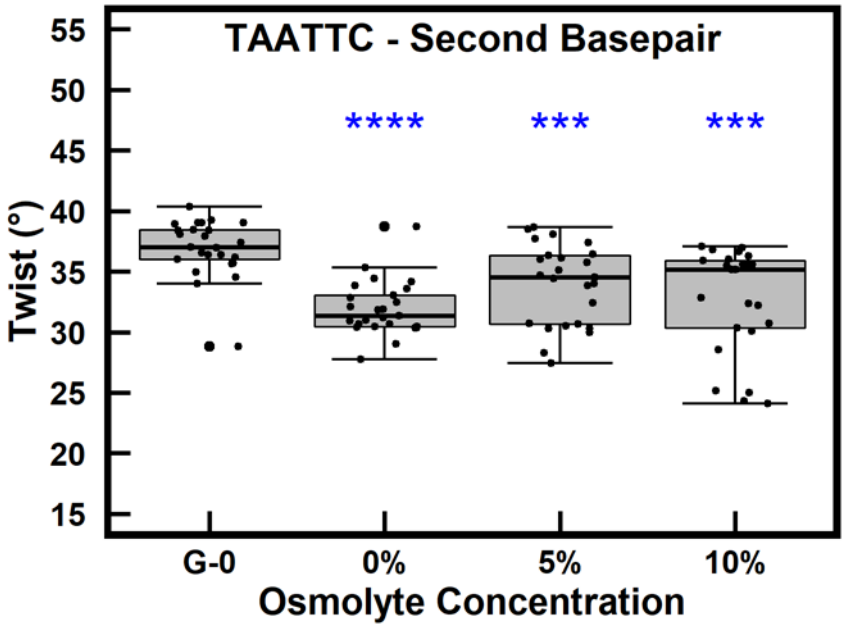
Twist

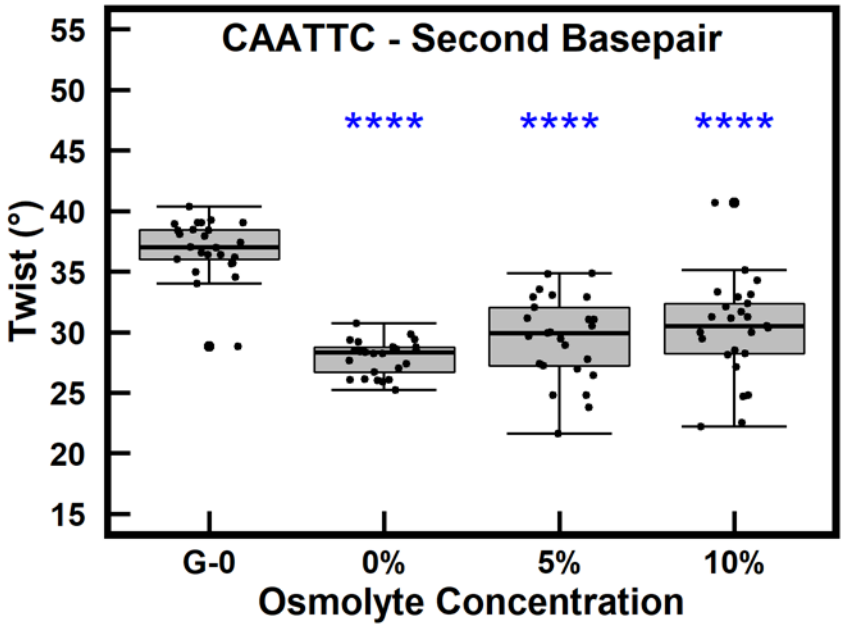

TAATTC - First Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
*
****
***
G-0
0%
5%
10%
Osmolyte Concentration

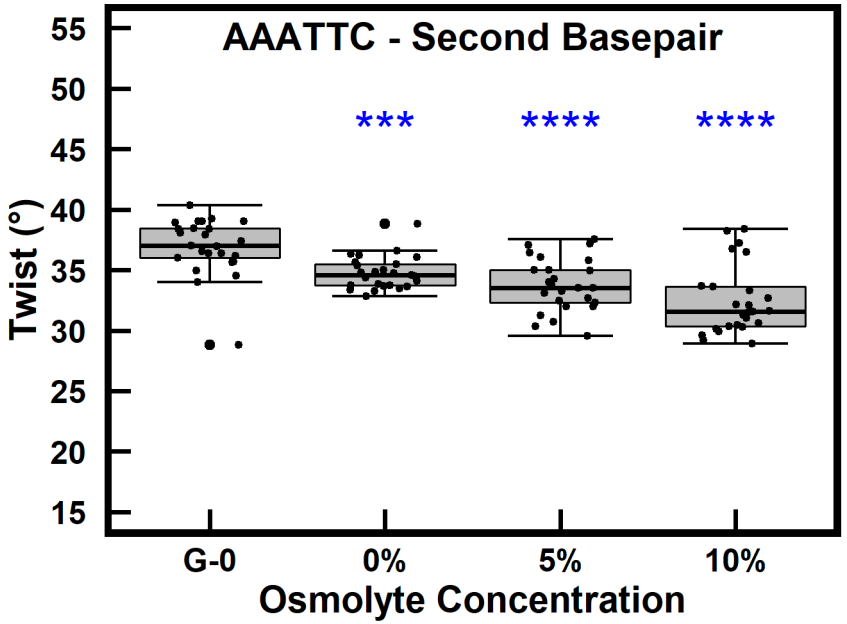

CAATTC - First Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
****
****
****
G-0
0%
5%
10%

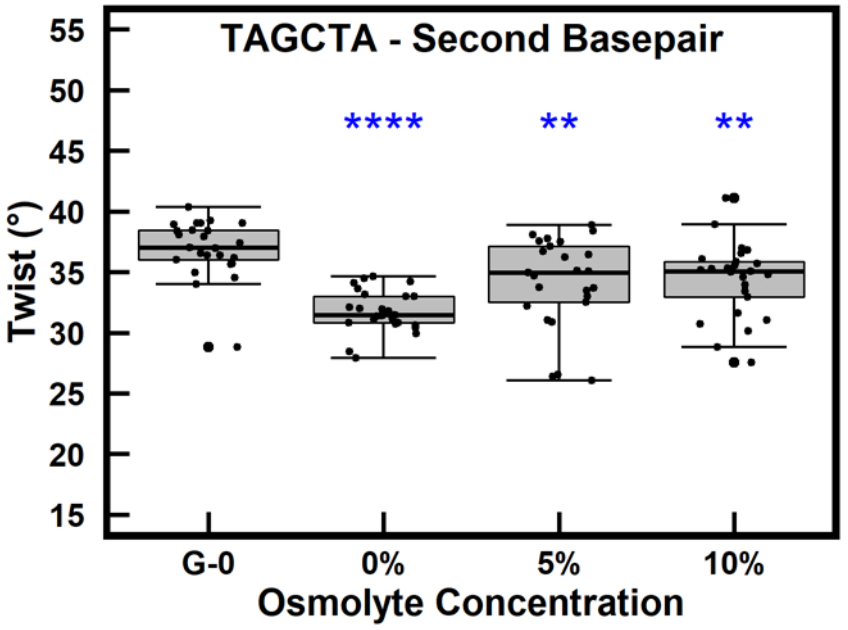

AAATTC - First Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
**
G-0
0%
5%
10%
Osmolyte Concentration

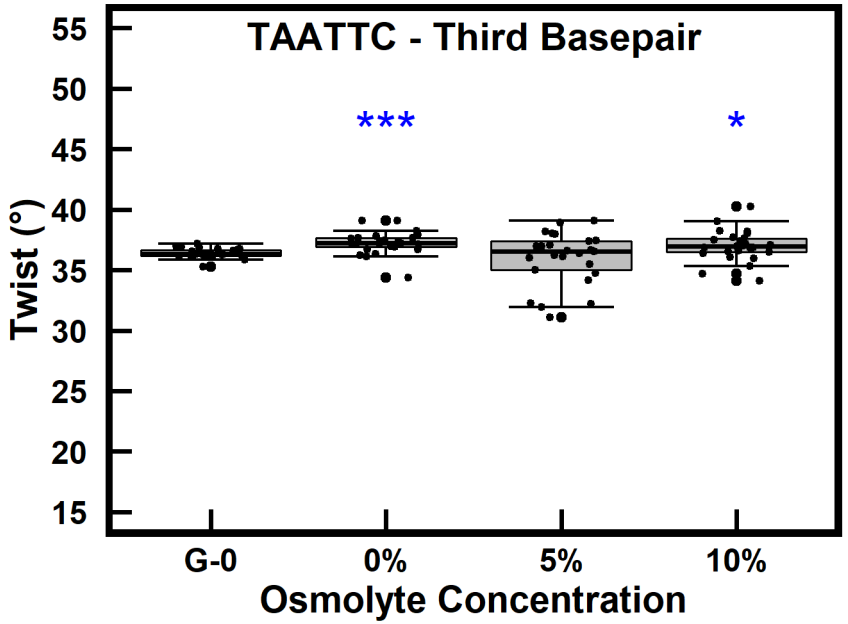

TAGCTA - First Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

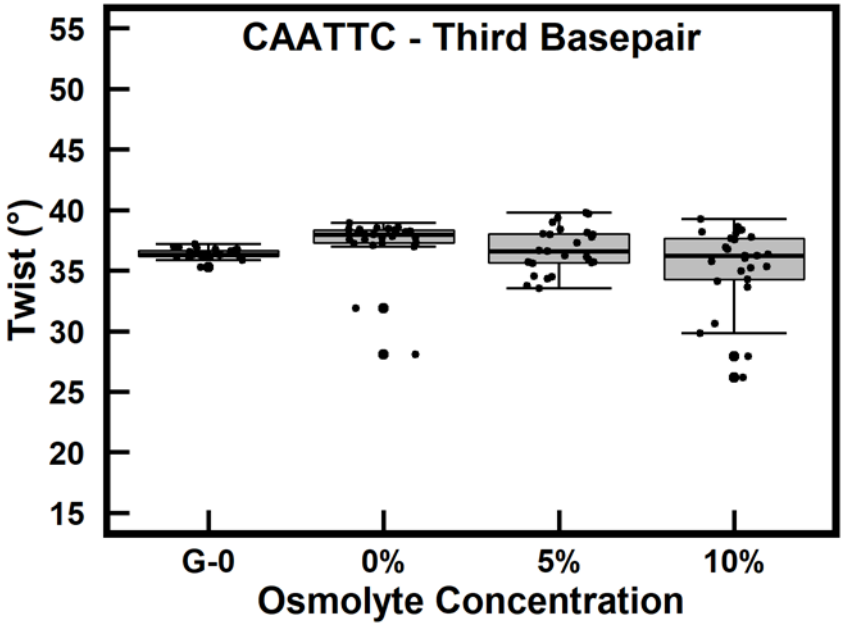

TAATTC - Second Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
****
***
***
G-0
0%
5%
10%
Osmolyte Concentration

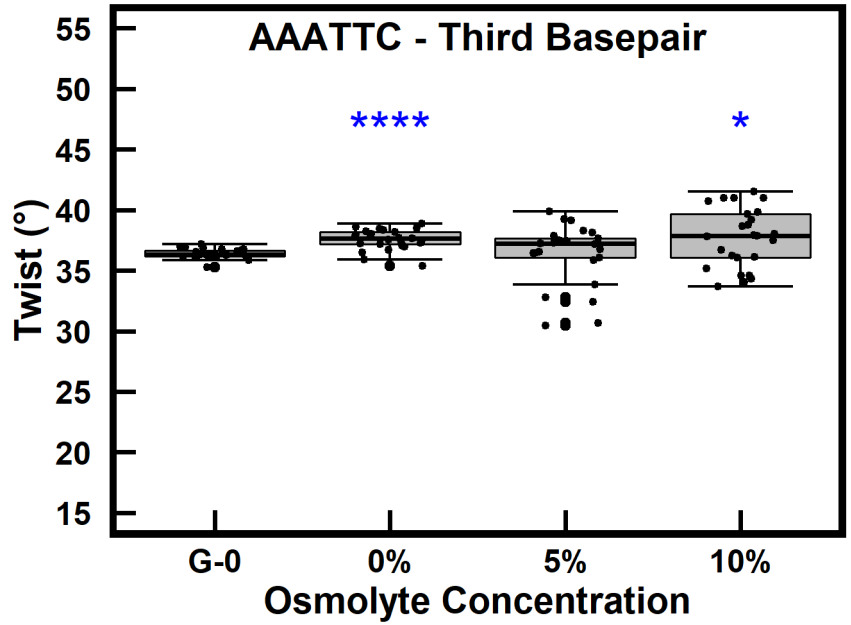

CAATTC - Second Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

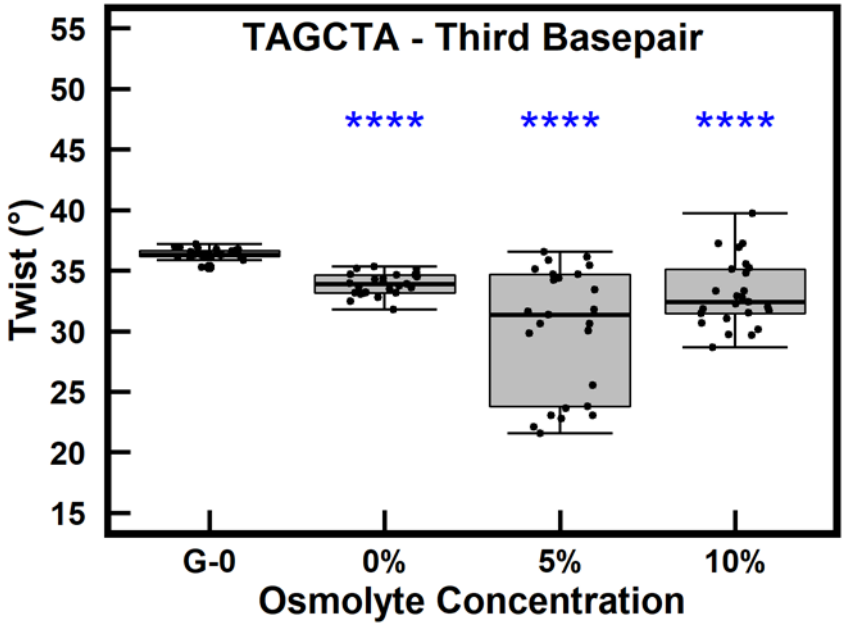

AAATTC - Second Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
***
****
****
G-0
0%
5%
10%
Osmolyte Concentration

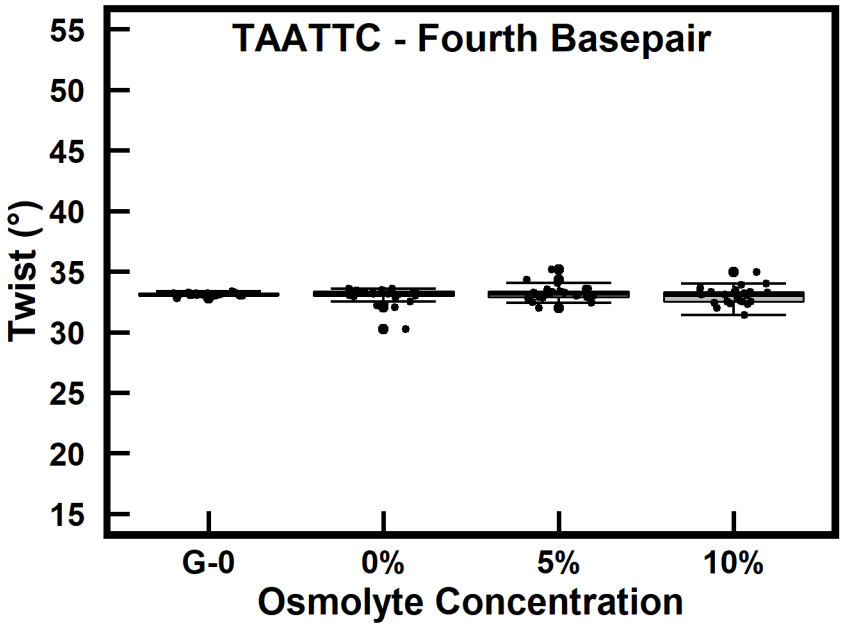

TAGCTA - Second Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
****
**
**
G-0
0%
5%
10%
Osmolyte Concentration

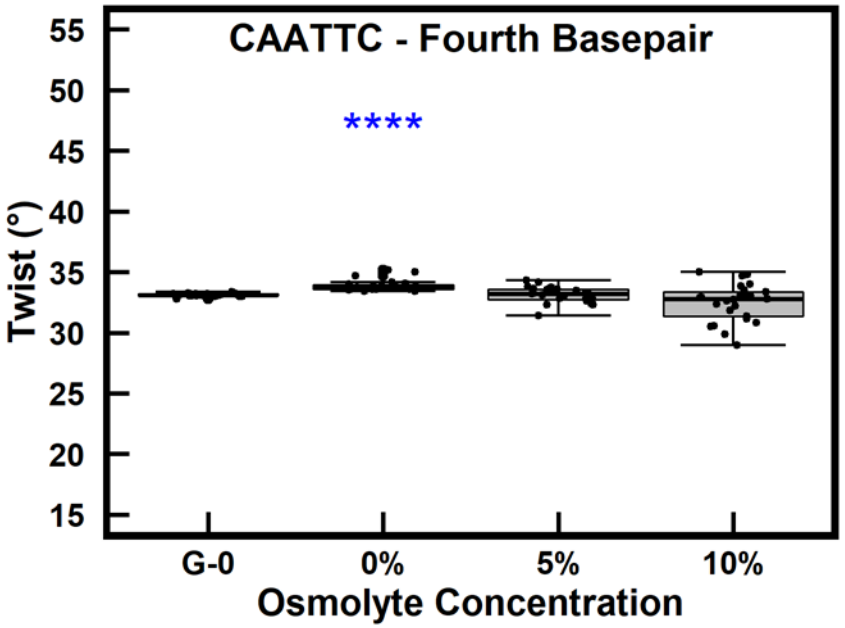

TAATTC - Third Basepair
***
*
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

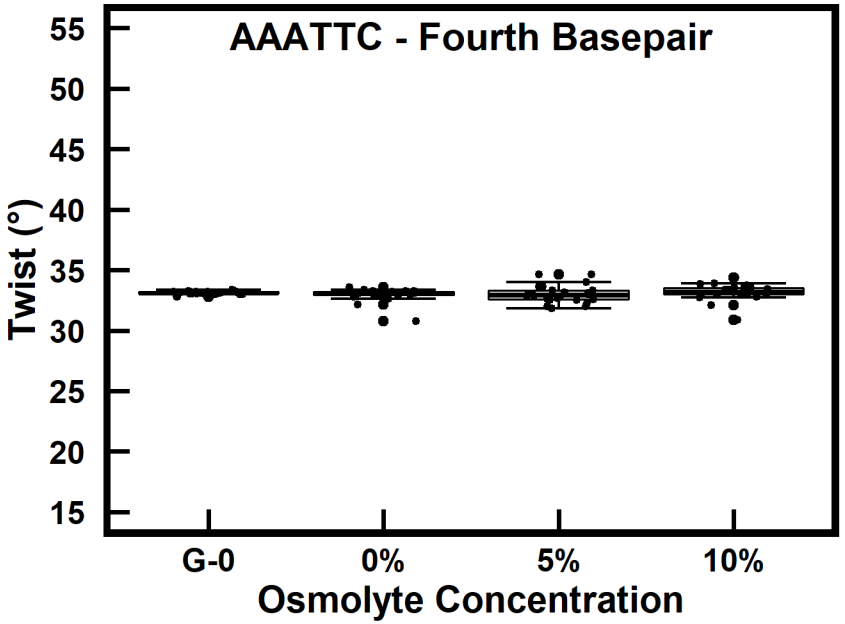

CAATTC - Third Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

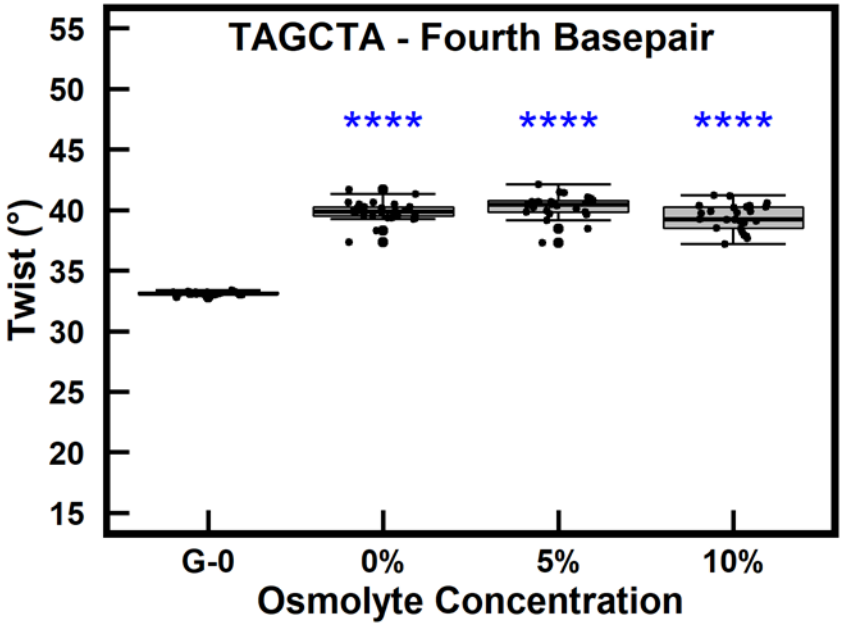

AAATTC - Third Basepair
****
*
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

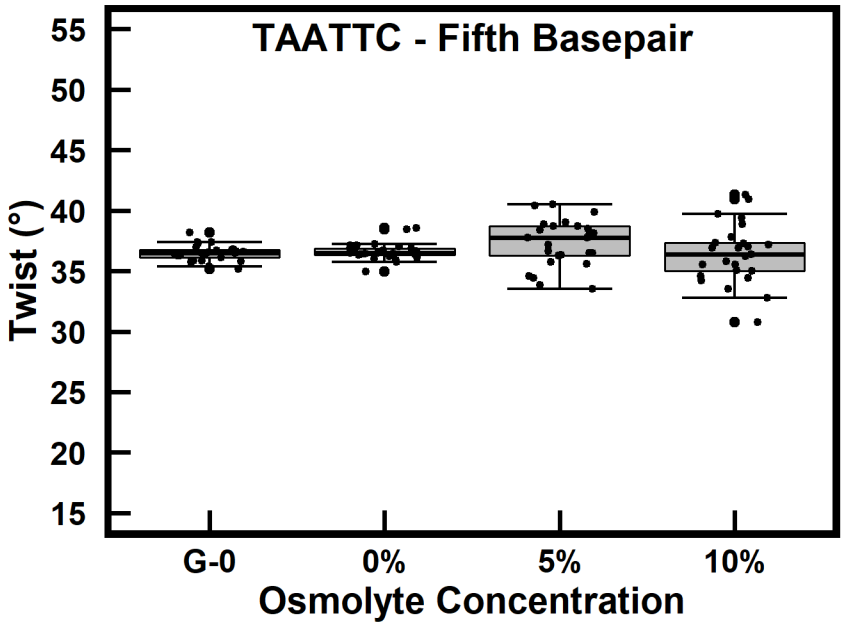

TAGCTA - Third Basepair
****
****
****
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

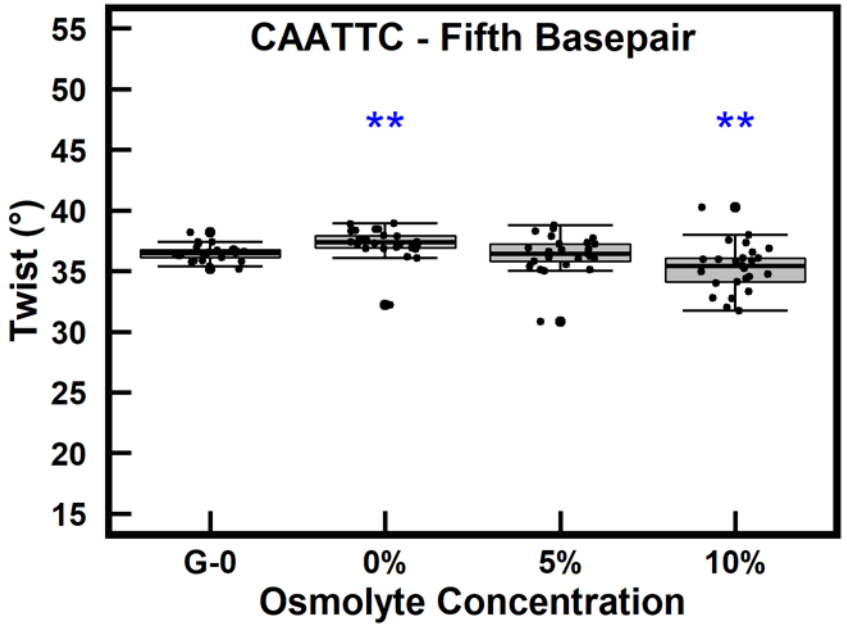

TAATTC - Fourth Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

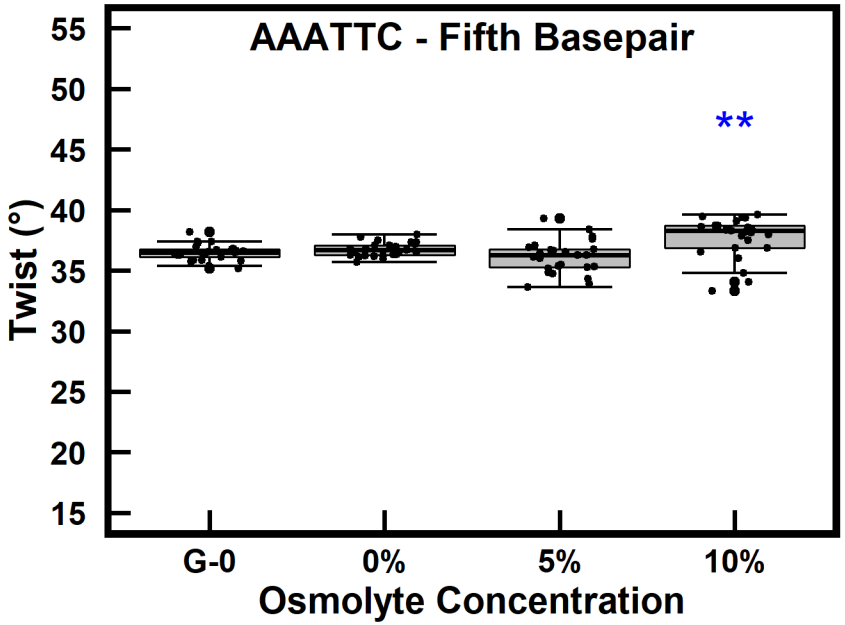

CAATTC - Fourth Basepair
****
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

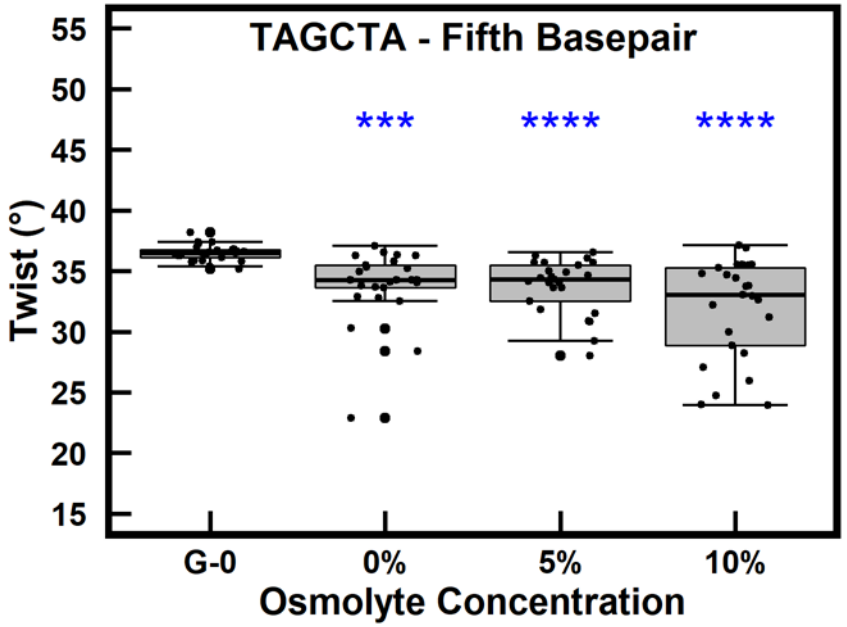

AAATTC - Fourth Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

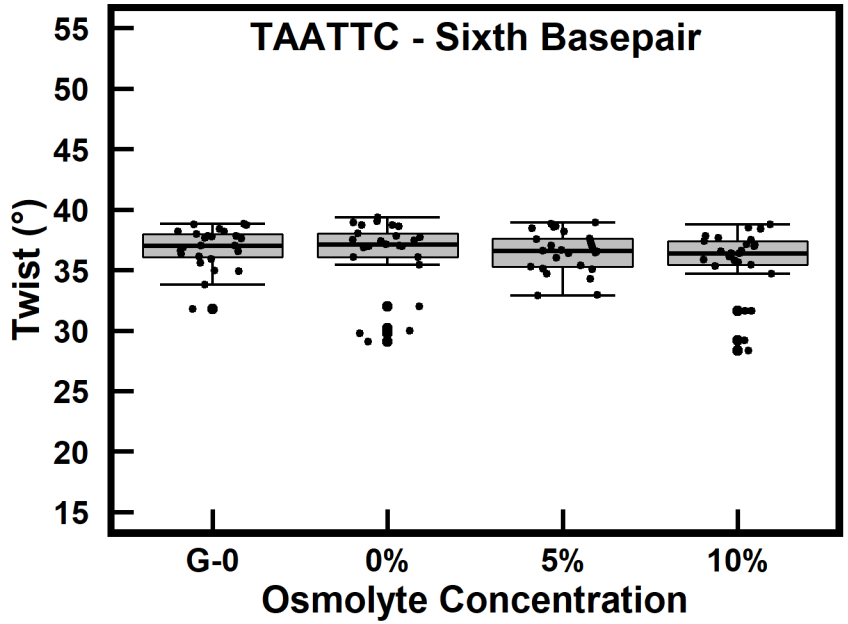

TAGCTA - Fourth Basepair
****
****
****
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

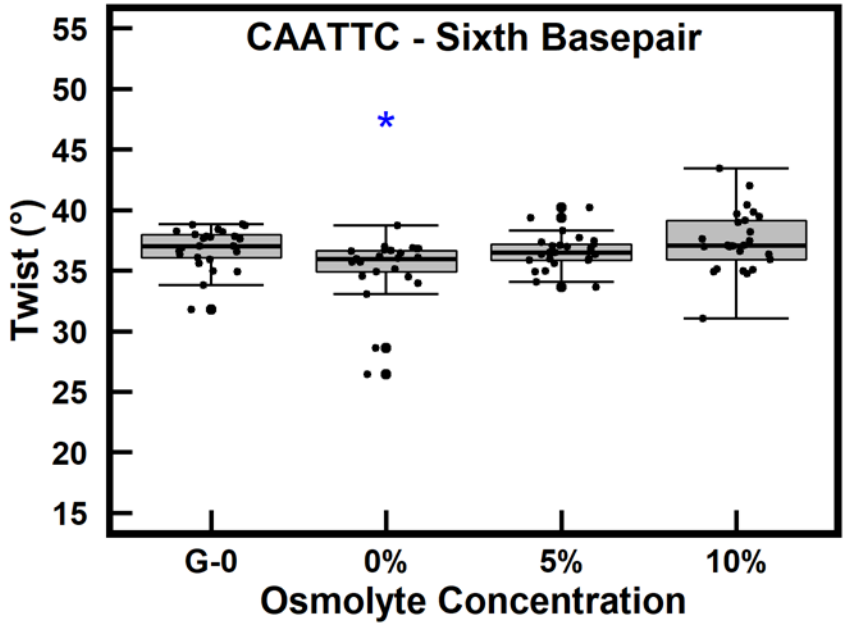

TAATTC - Fifth Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

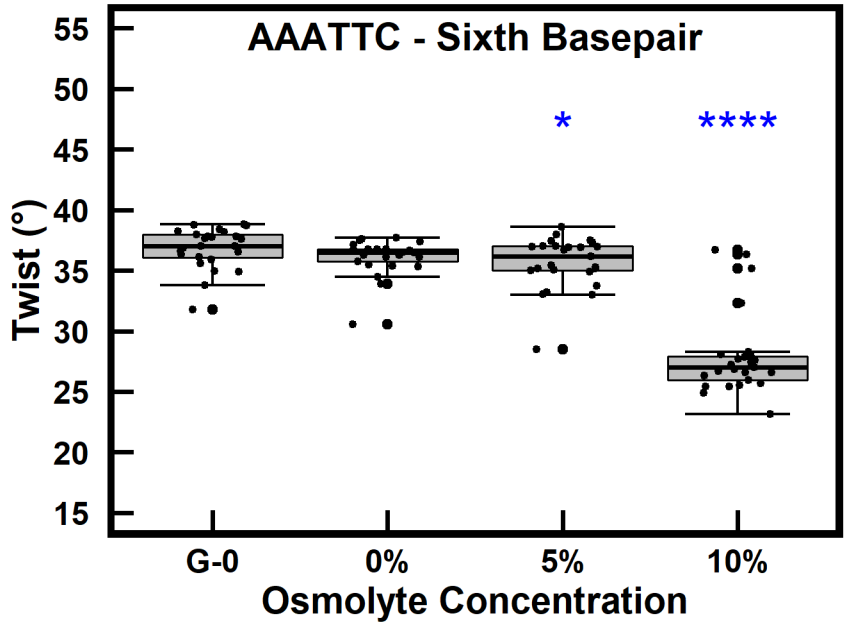

CAATTC - Fifth Basepair
**
**
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

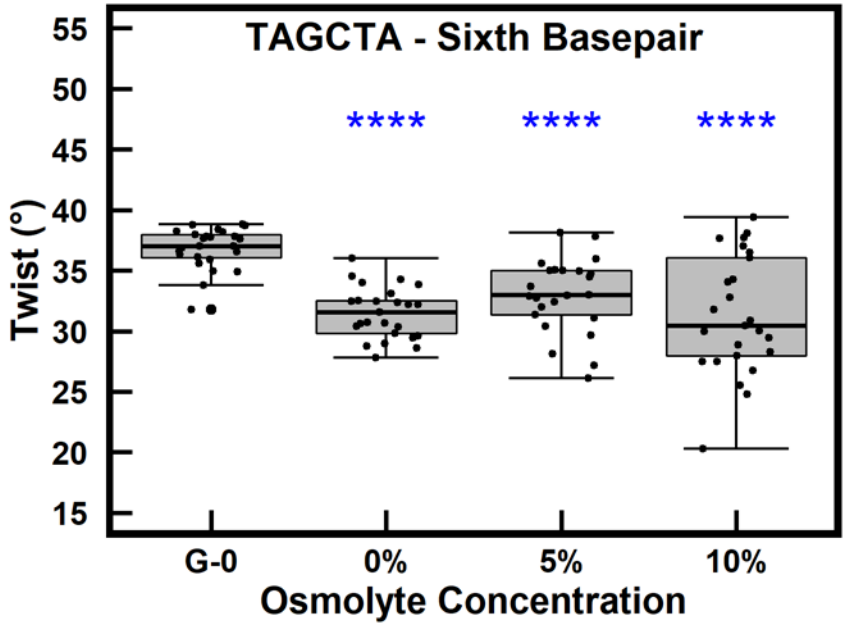

AAATTC - Fifth Basepair
**
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
***
****
****
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

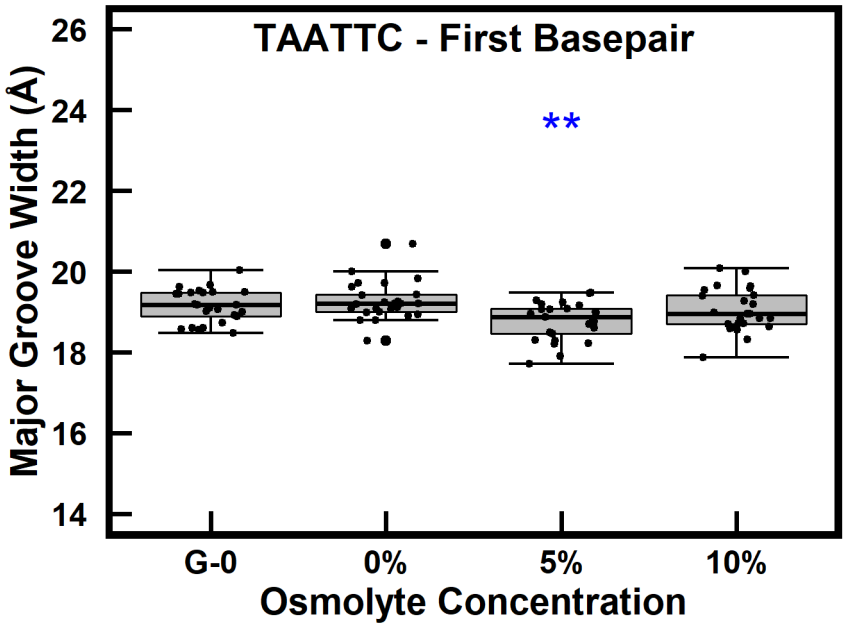

TAATTC - Sixth Basepair
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

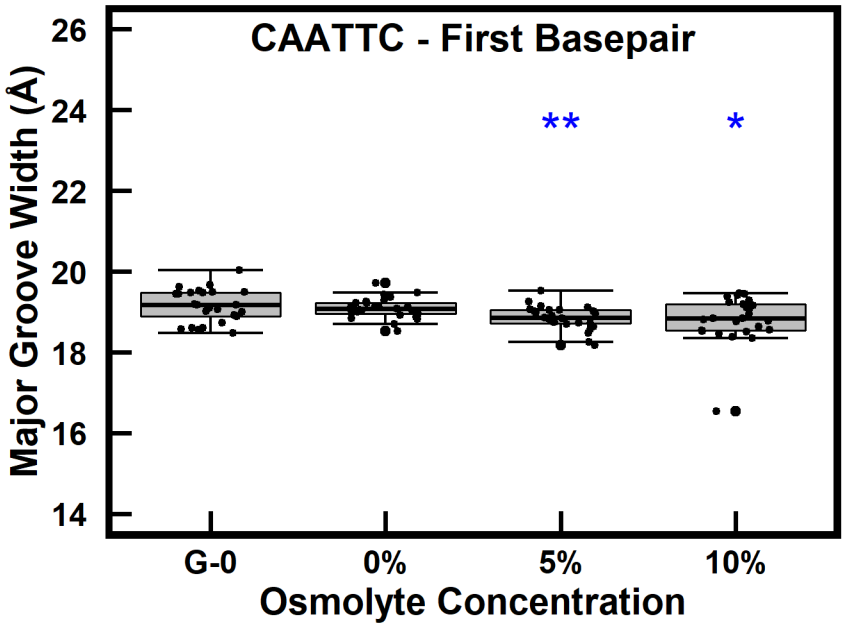

CAATTC - Sixth Basepair
*
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

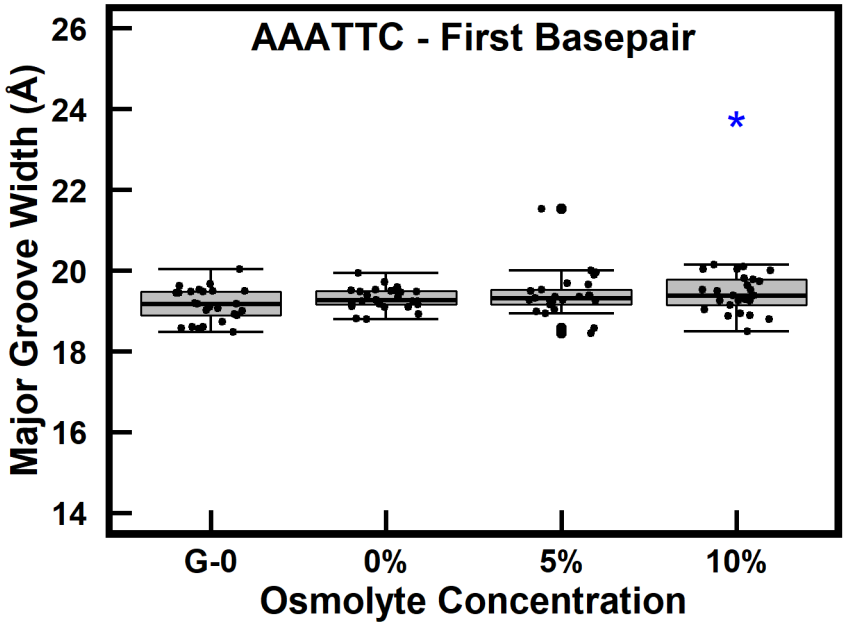

AAATTC - Sixth Basepair
*
****
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

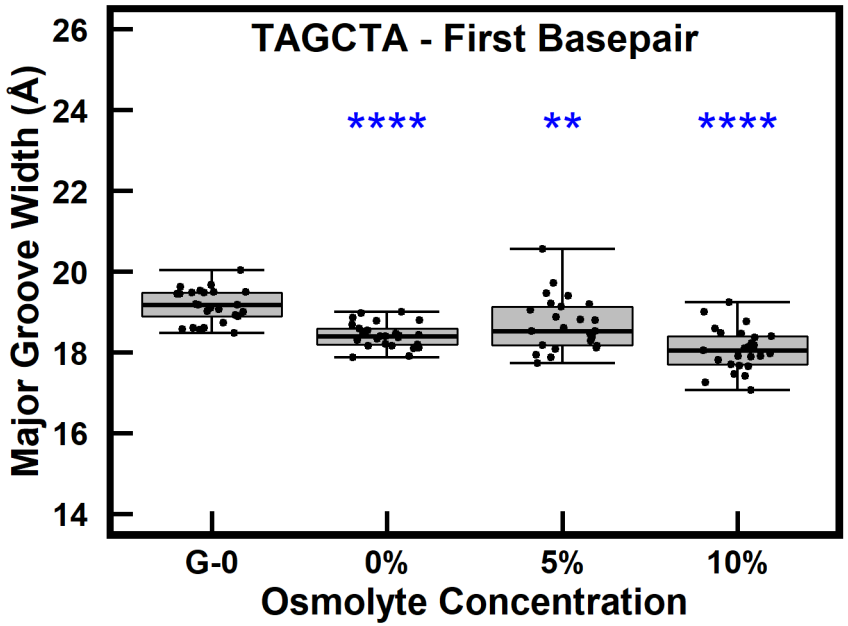

TAGCTA - Sixth Basepair
****
****
****
Twist (°)
55
50
45
40
35
30
25
20
15
G-0
0%
5%
10%
Osmolyte Concentration

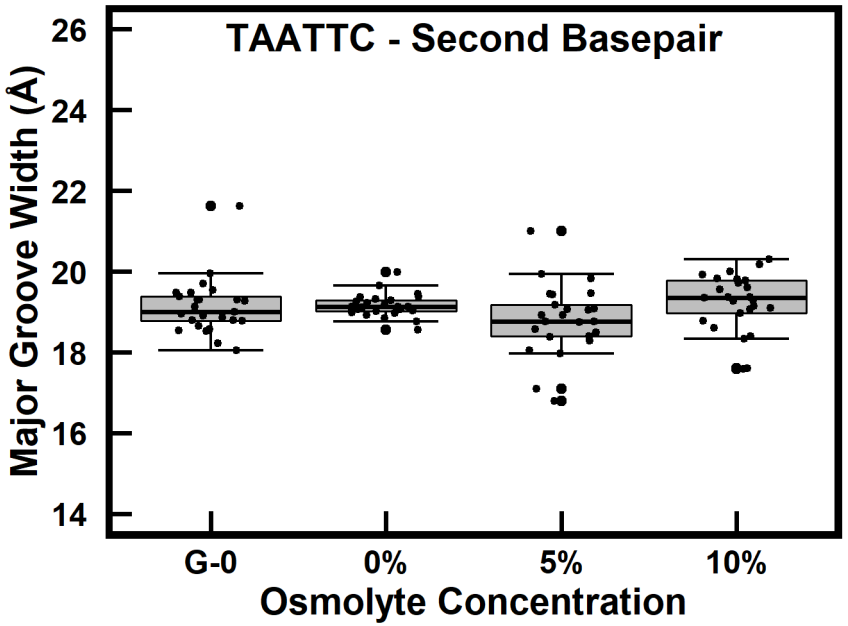
Major Groove Width

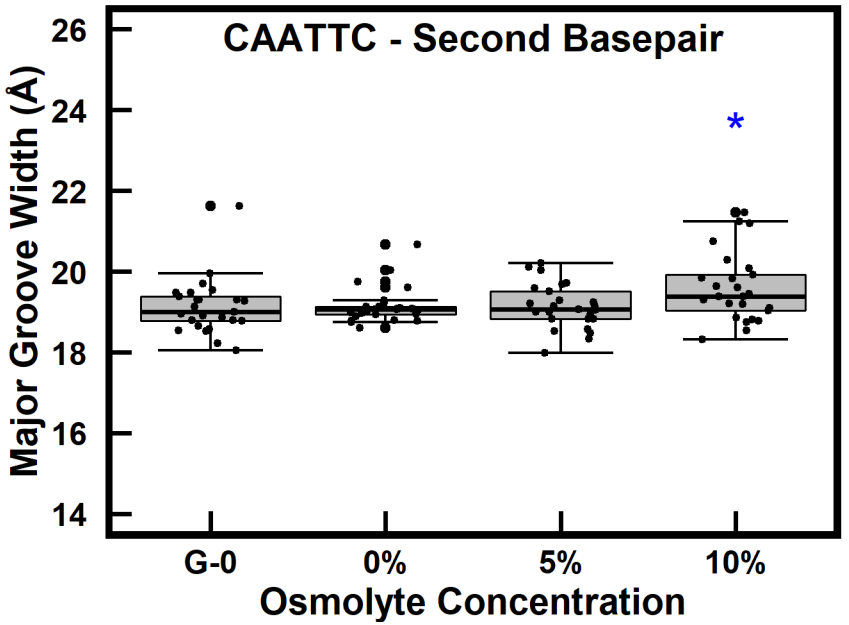

TAATTC - First Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
**
G-0
0%
5%
10%
Osmolyte Concentration

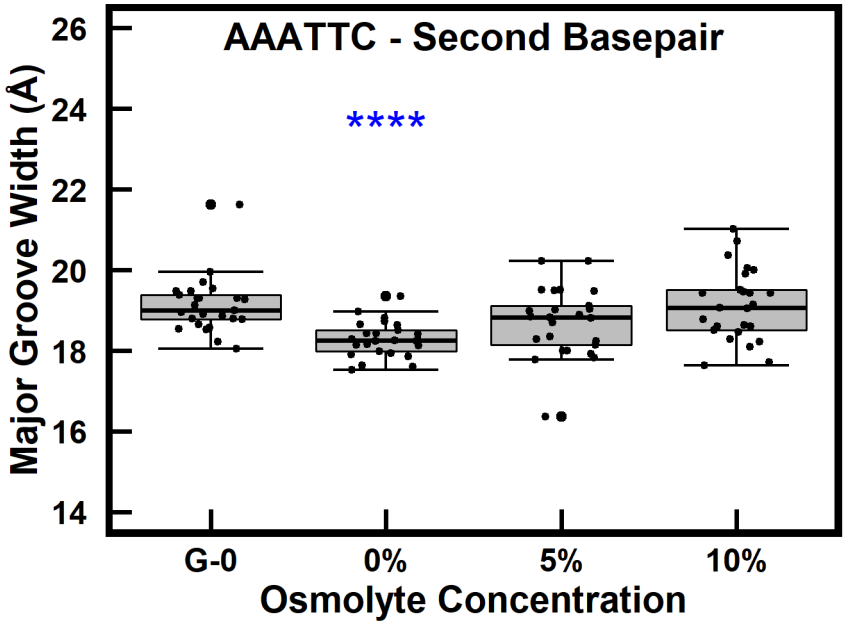

CAATTC - First Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
**
*
G-0
0%
5%
10%
Osmolyte Concentration

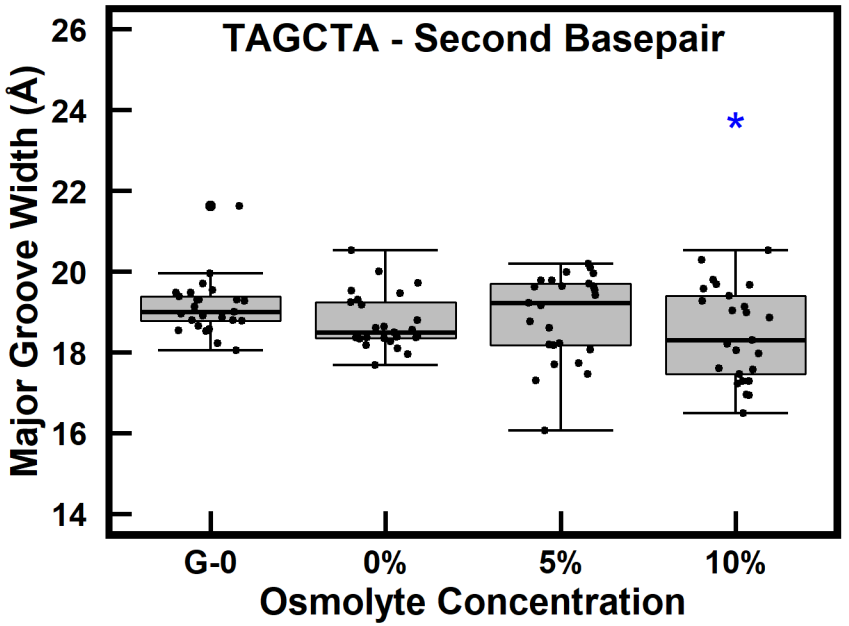

AAATTC - First Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
*
G-0
0%
5%
10%
Osmolyte Concentration

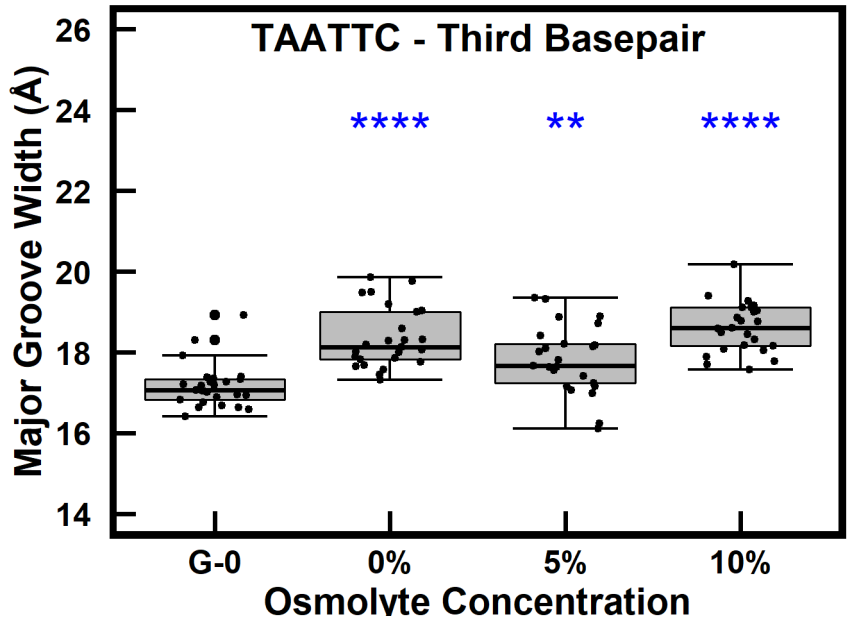

TAGCTA - First Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
****
**
****
G-0
0%
5%
10%
Osmolyte Concentration

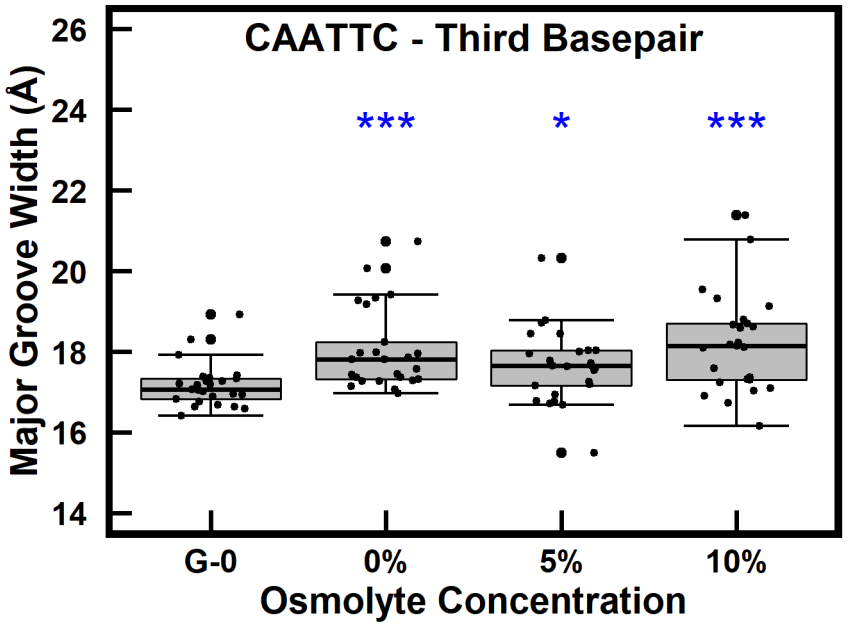

TAATTC - Second Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
G-0
0%
5%
10%
Osmolyte Concentration

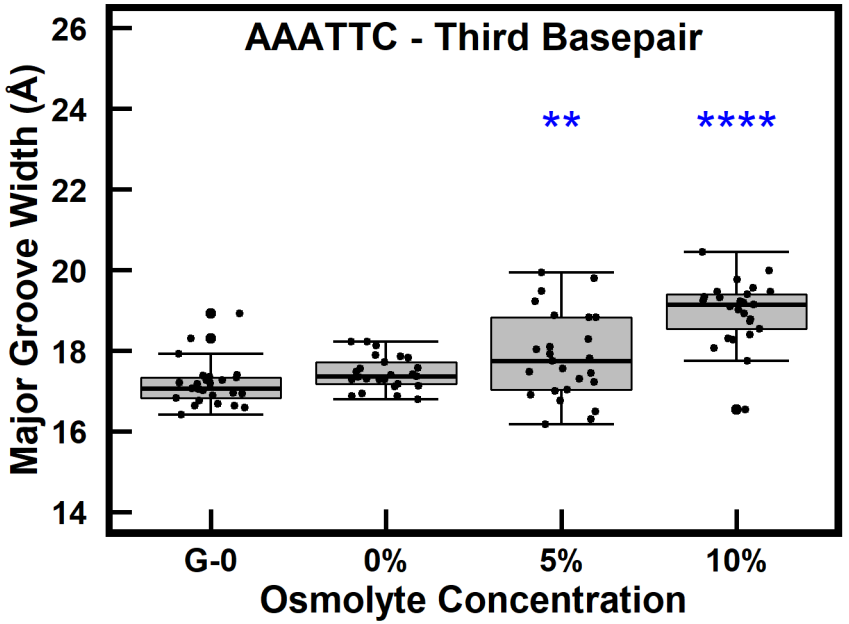

CAATTC - Second Basepair
*
Major Groove Width (Å)
26
24
22
20
18
16
14
G-0
0%
5%
10%
Osmolyte Concentration

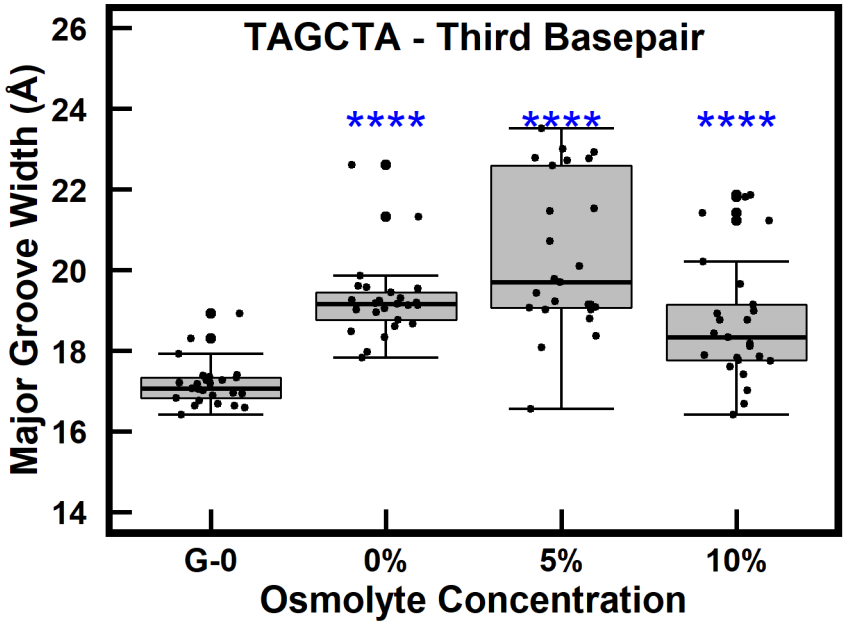

AAATTC - Second Basepair
****
Major Groove Width (Å)
26
24
22
20
18
16
14
G-0
0%
5%
10%
Osmolyte Concentration

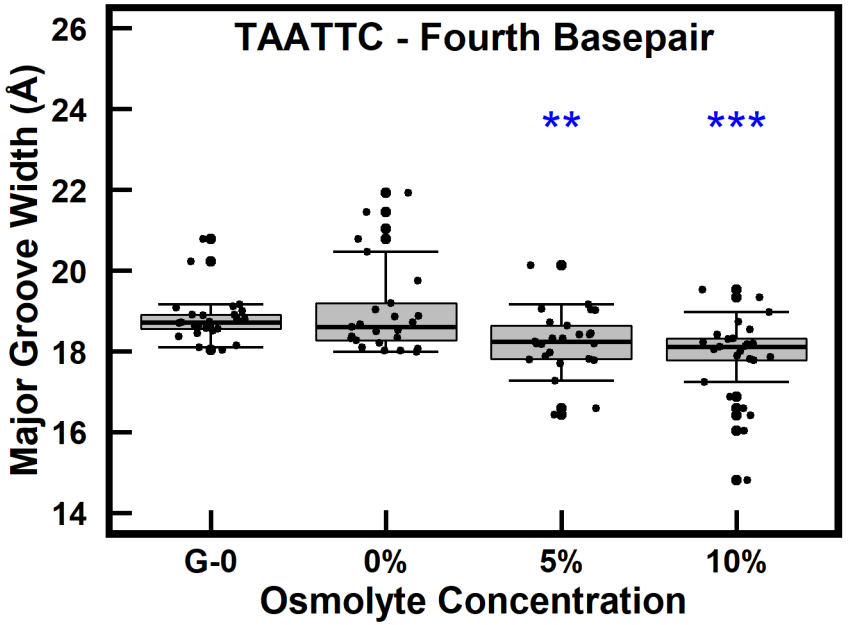

TAGCTA - Second Basepair
*
Major Groove Width (Å)
26
24
22
20
18
16
14
G-0
0%
5%
10%
Osmolyte Concentration

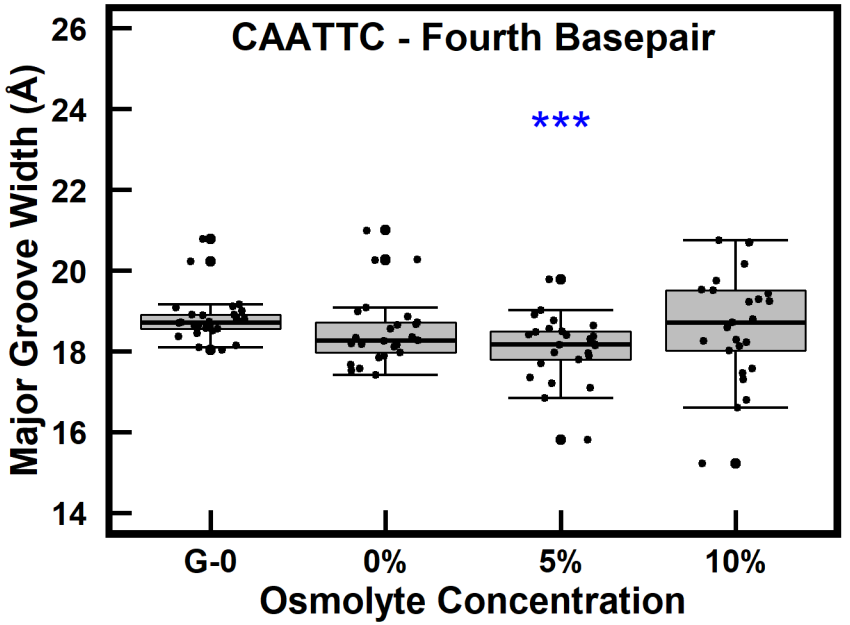

TAATTC - Third Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
****
**
****
G-0
0%
5%
10%
Osmolyte Concentration

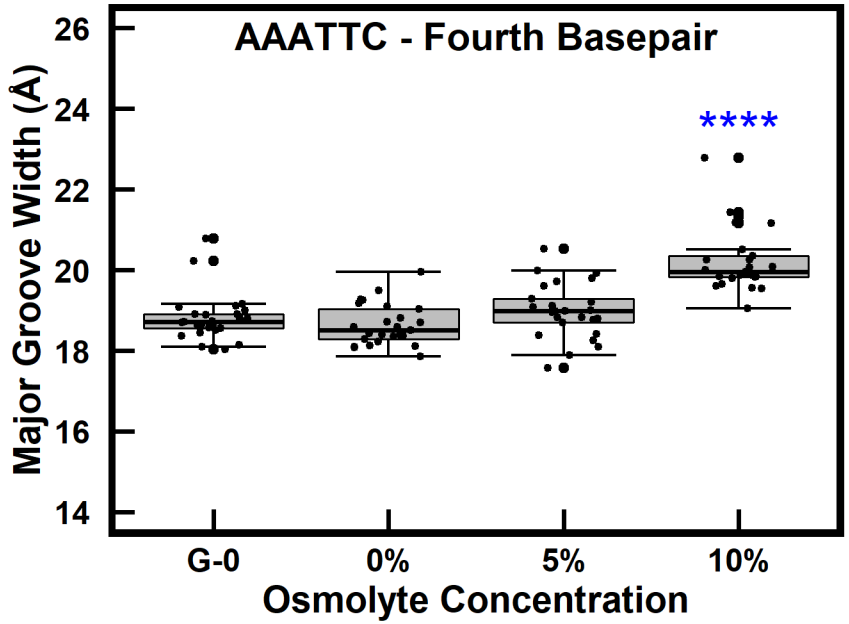

CAATTC - Third Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
***
*
***
G-0
0%
5%
10%
Osmolyte Concentration

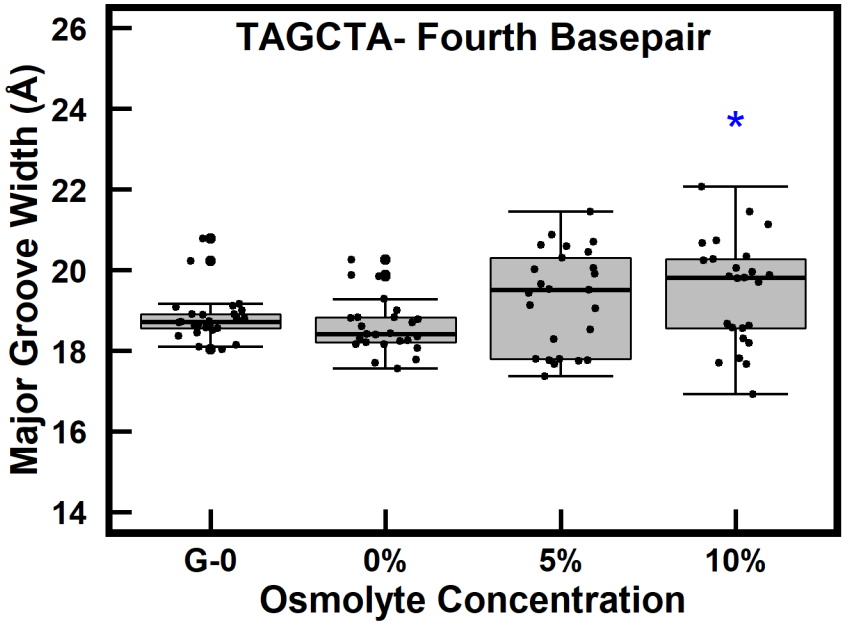

AAATTC - Third Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
**
****
G-0
0%
5%
10%
Osmolyte Concentration

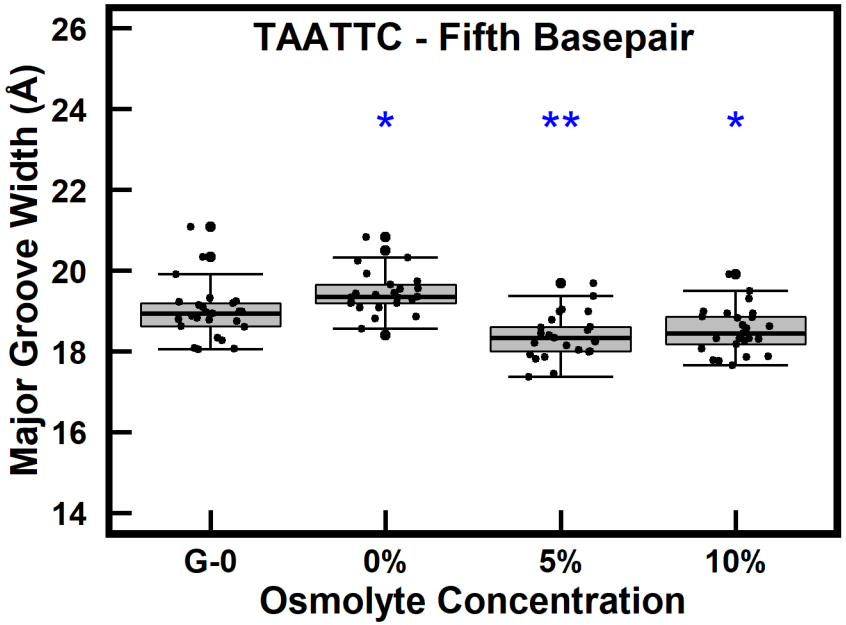

TAGCTA - Third Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

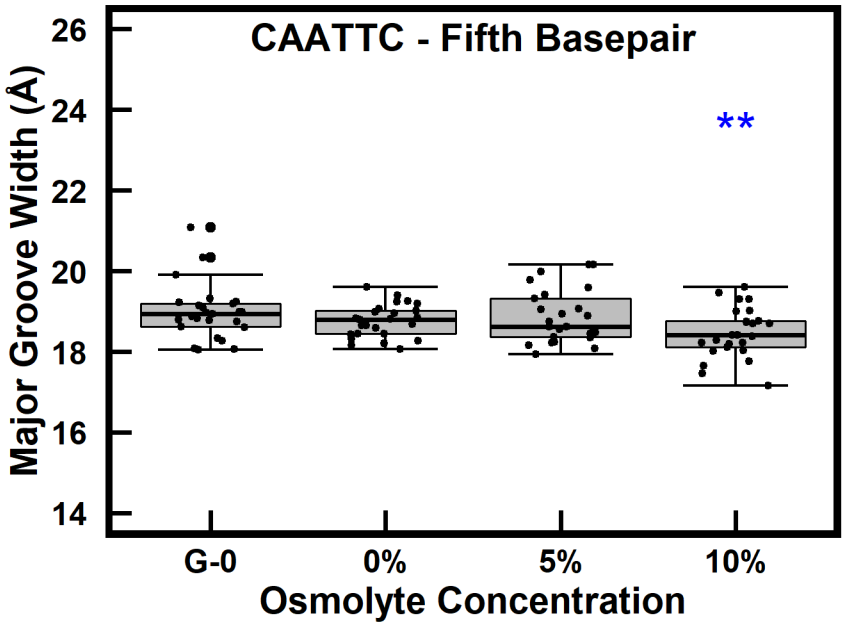

TAATTC - Fourth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
**
***
G-0
0%
5%
10%
Osmolyte Concentration

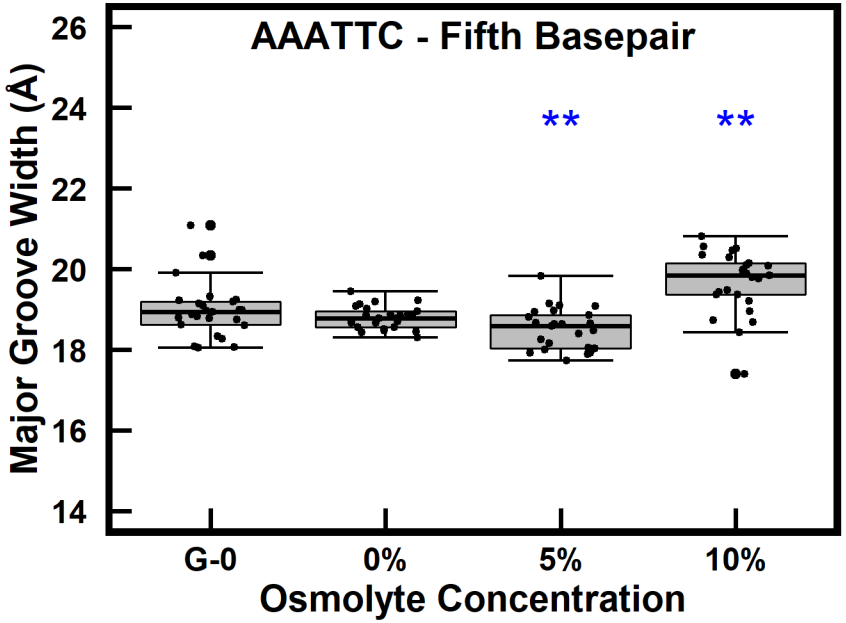

CAATTC - Fourth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
***
G-0
0%
5%
10%
Osmolyte Concentration

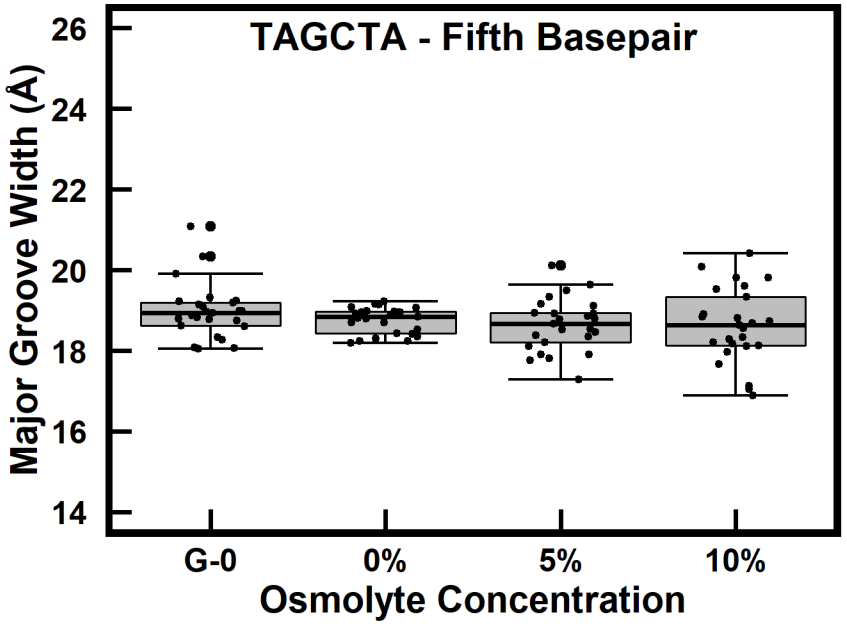

AAATTC - Fourth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
****
G-0
0%
5%
10%
Osmolyte Concentration

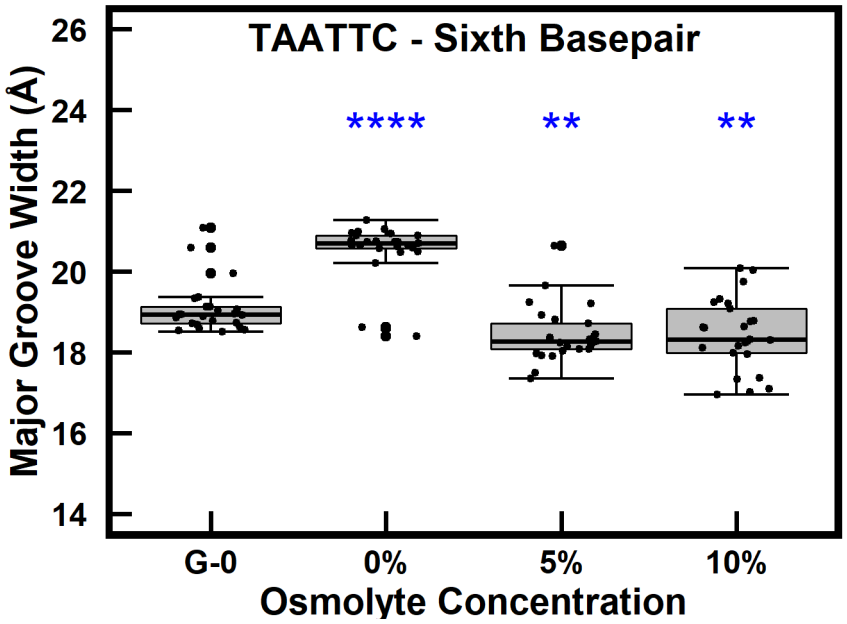

TAGCTA- Fourth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
*
G-0
0%
5%
10%
Osmolyte Concentration

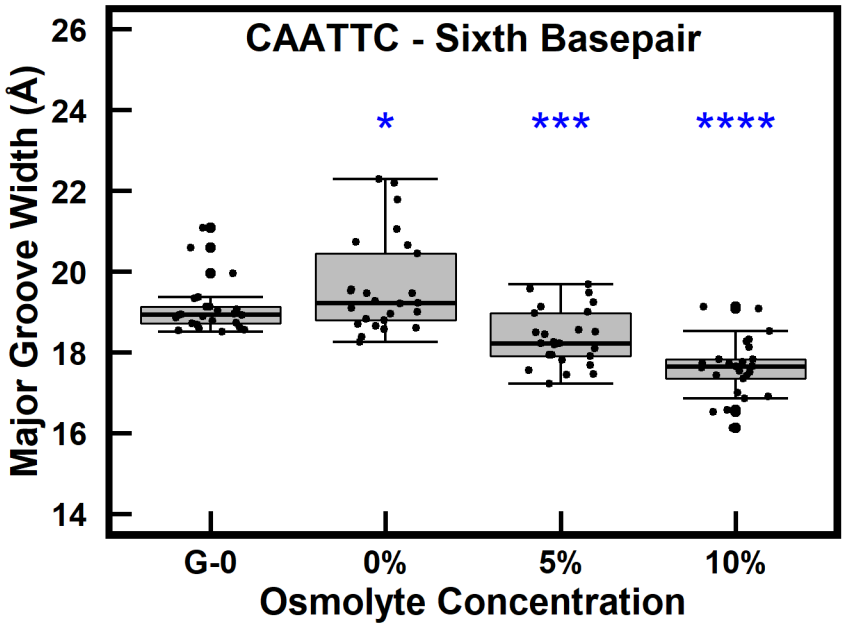

TAATTC - Fifth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
*
**
*
G-0
0%
5%
10%
Osmolyte Concentration

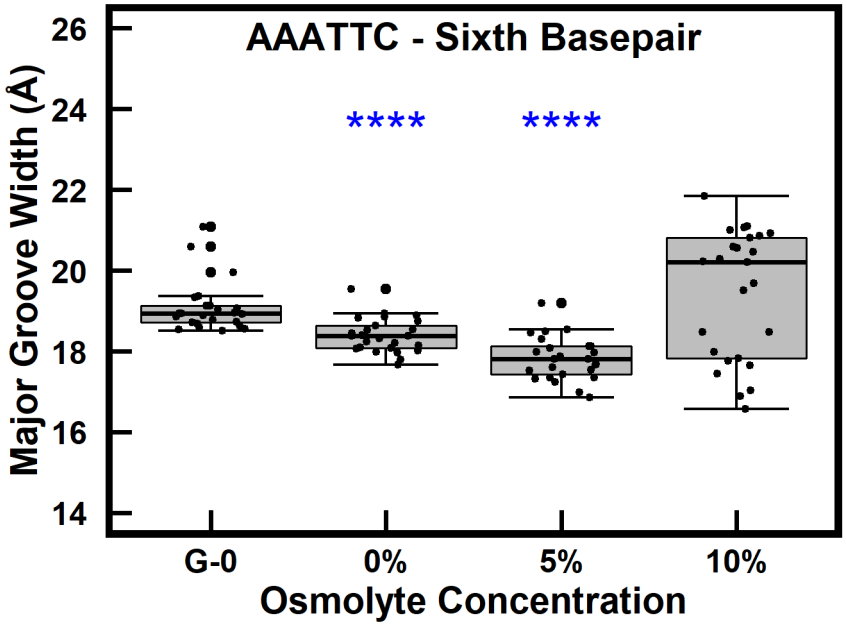

CAATTC - Fifth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
**
G-0
0%
5%
10%
Osmolyte Concentration

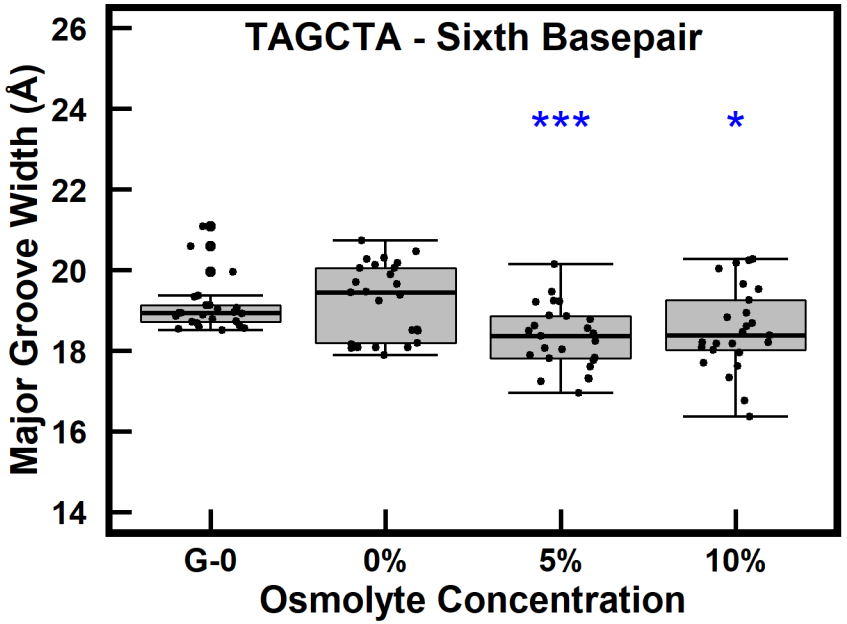

AAATTC - Fifth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
**
**
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
G-0
0%
5%
10%
Osmolyte Concentration

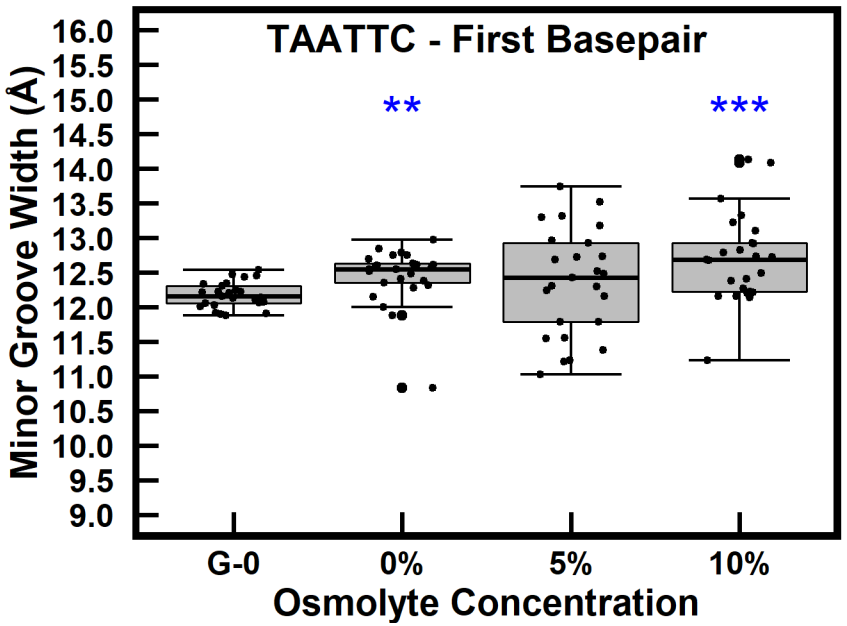

TAATTC - Sixth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
****
**
**
G-0
0%
5%
10%
Osmolyte Concentration

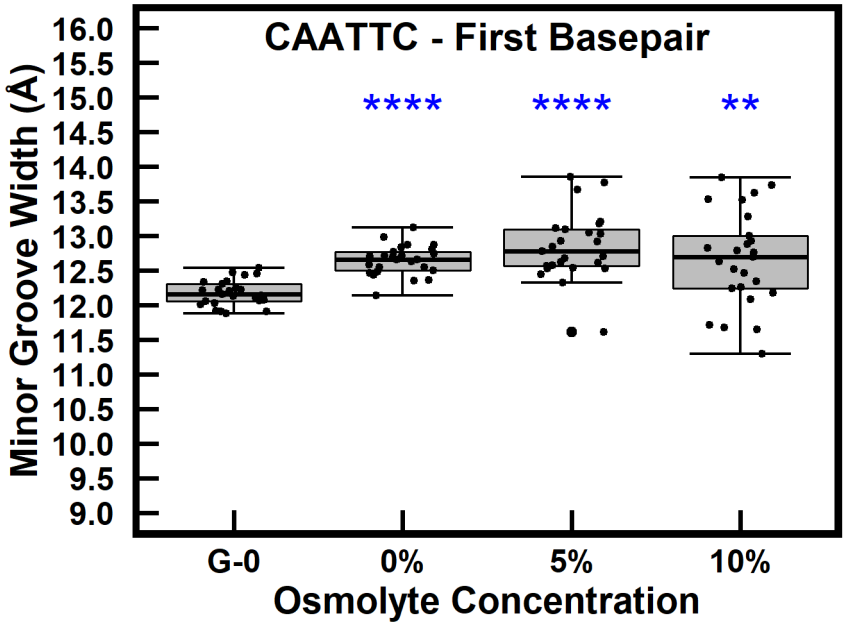

CAATTC - Sixth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
*
***
****
G-0
0%
5%
10%
Osmolyte Concentration

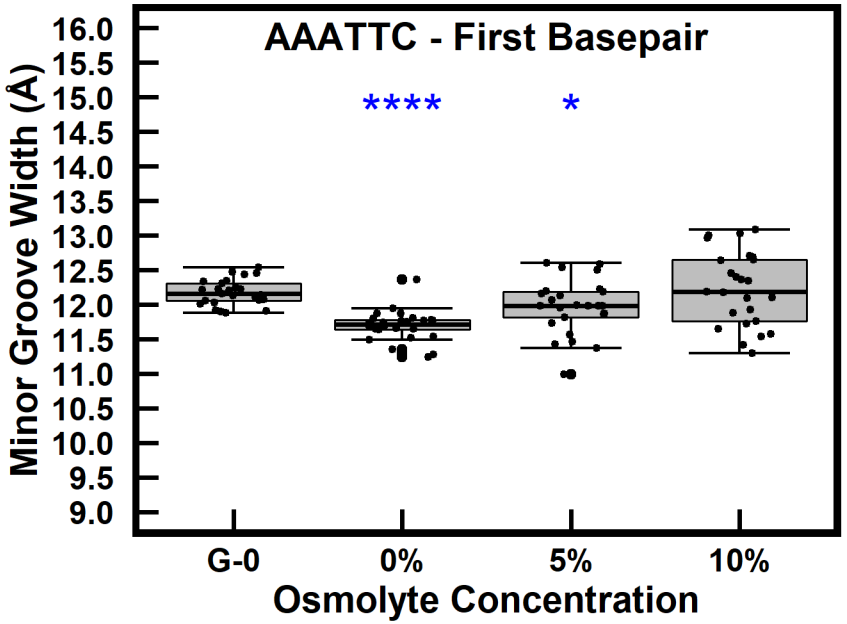

AAATTC - Sixth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
****
****
G-0
0%
5%
10%
Osmolyte Concentration

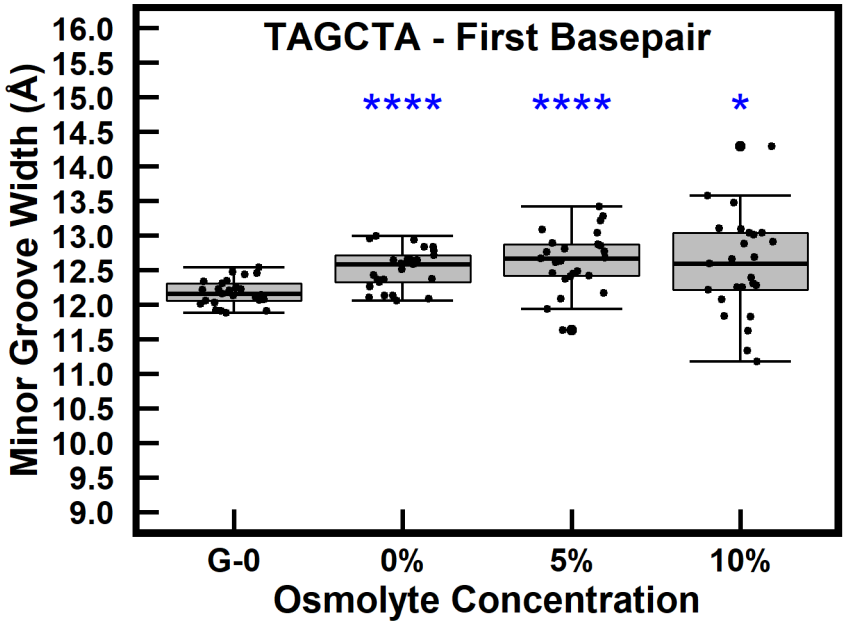

TAGCTA - Sixth Basepair
Major Groove Width (Å)
26
24
22
20
18
16
14
***
*
G-0
0%
5%
10%
Osmolyte Concentration

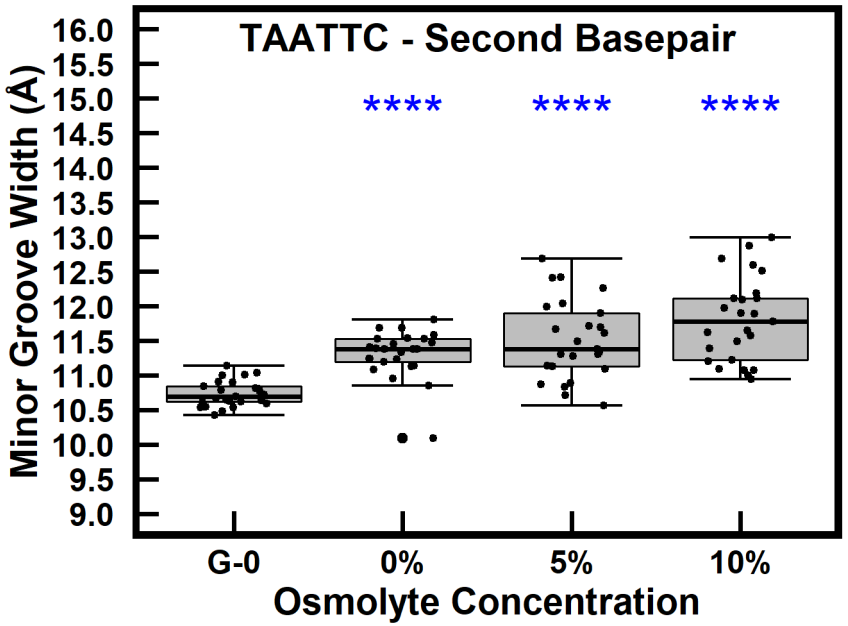
Minor Groove Width

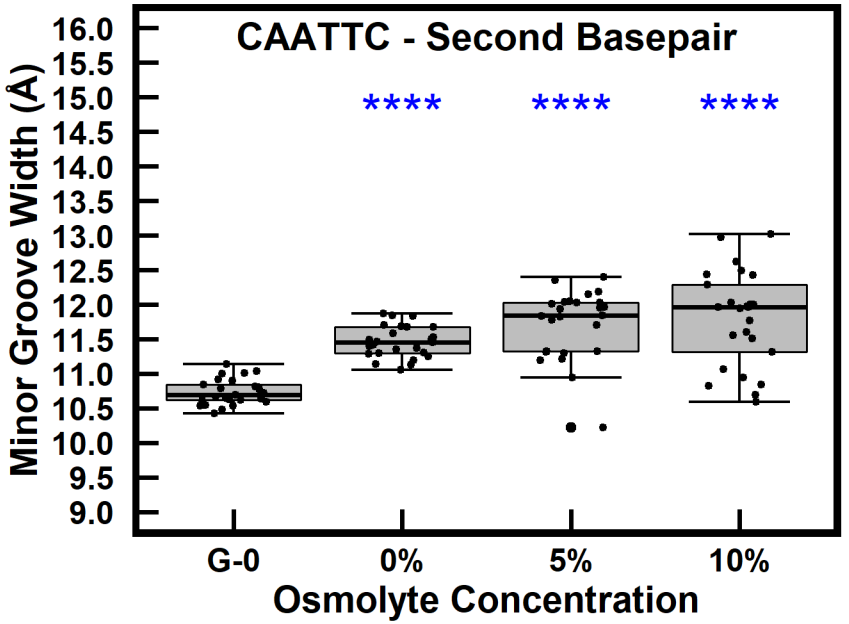

TAATTC - First Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
**
***
G-0
0%
5%
10%
Osmolyte Concentration

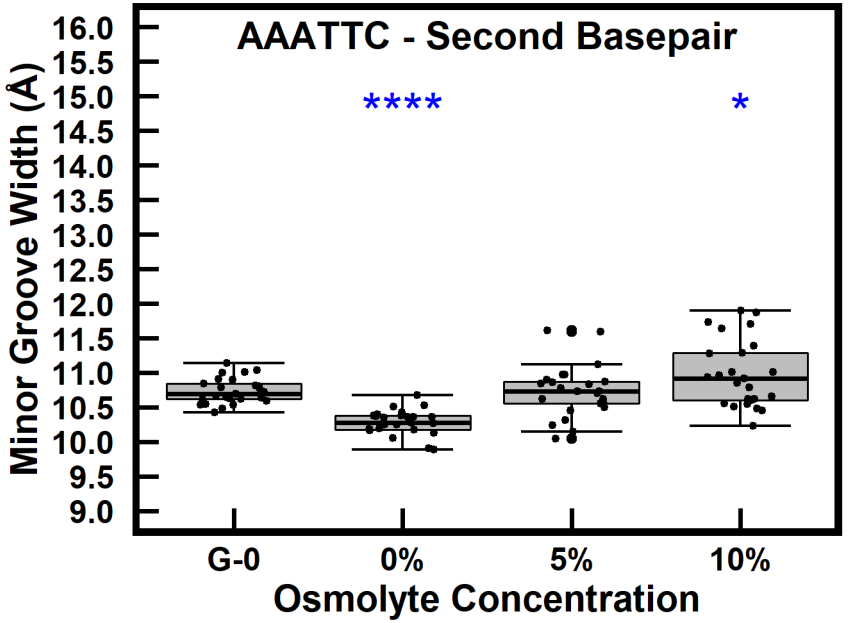

CAATTC - First Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
**
G-0
0%
5%
10%
Osmolyte Concentration

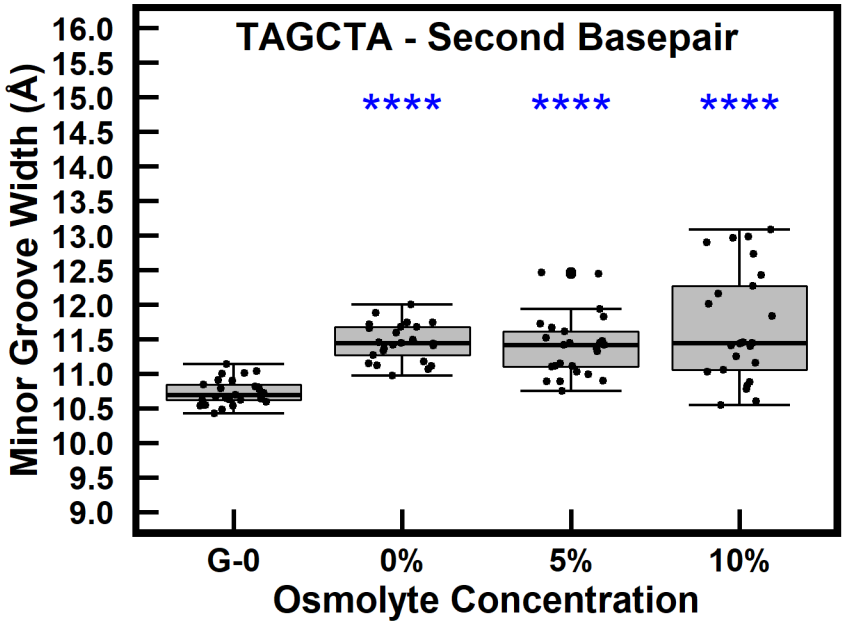

AAATTC - First Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
*
G-0
0%
5%
10%
Osmolyte Concentration

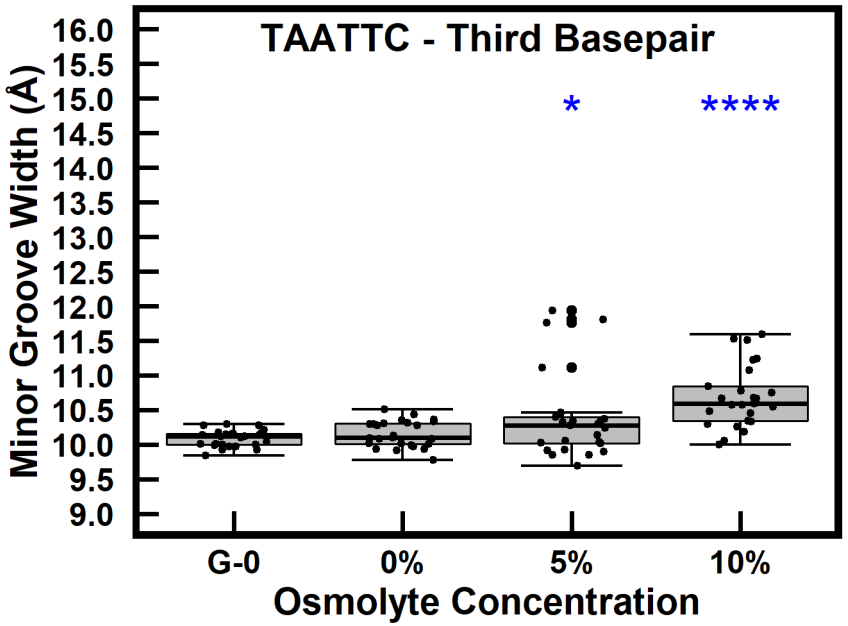

TAGCTA - First Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
*
G-0
0%
5%
10%
Osmolyte Concentration

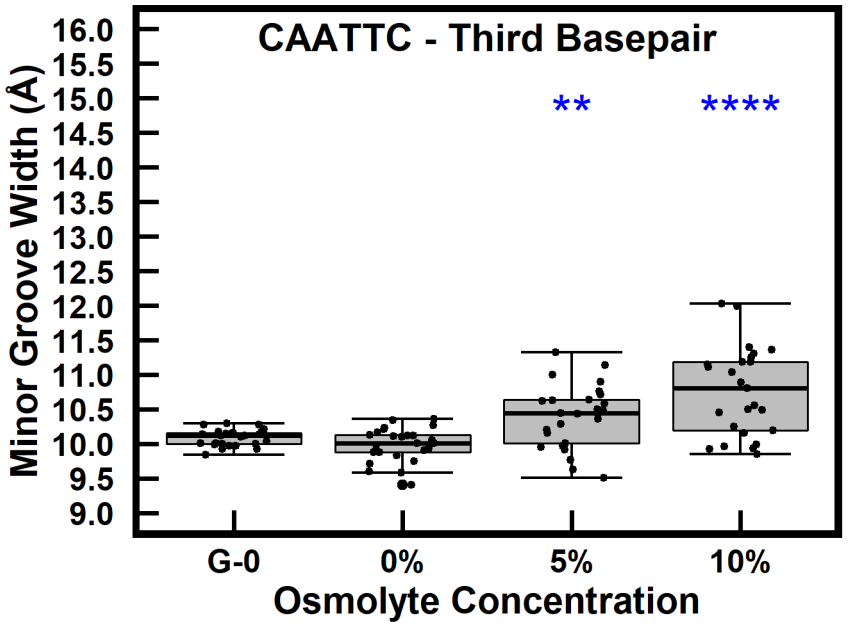

TAATTC - Second Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

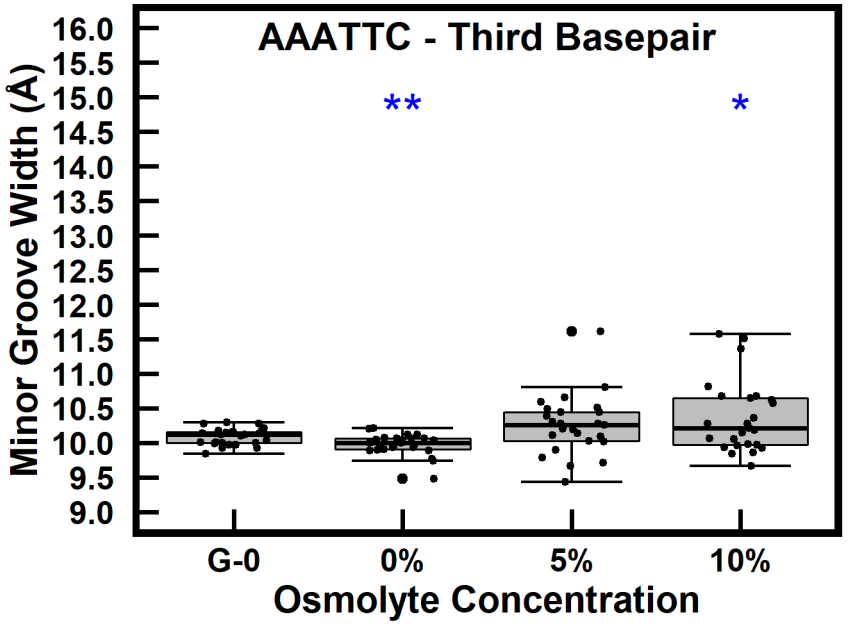

CAATTC - Second Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

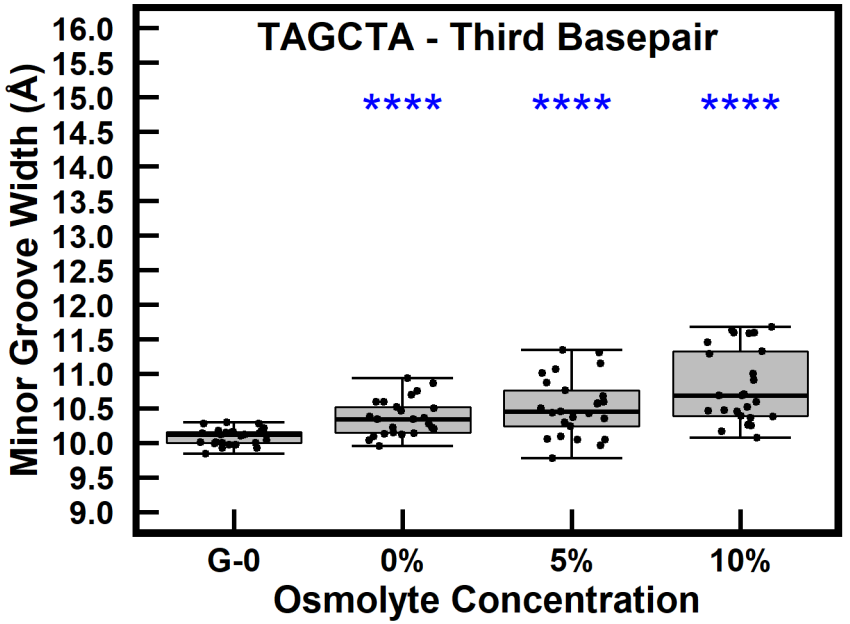

AAATTC - Second Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
*
G-0
0%
5%
10%
Osmolyte Concentration

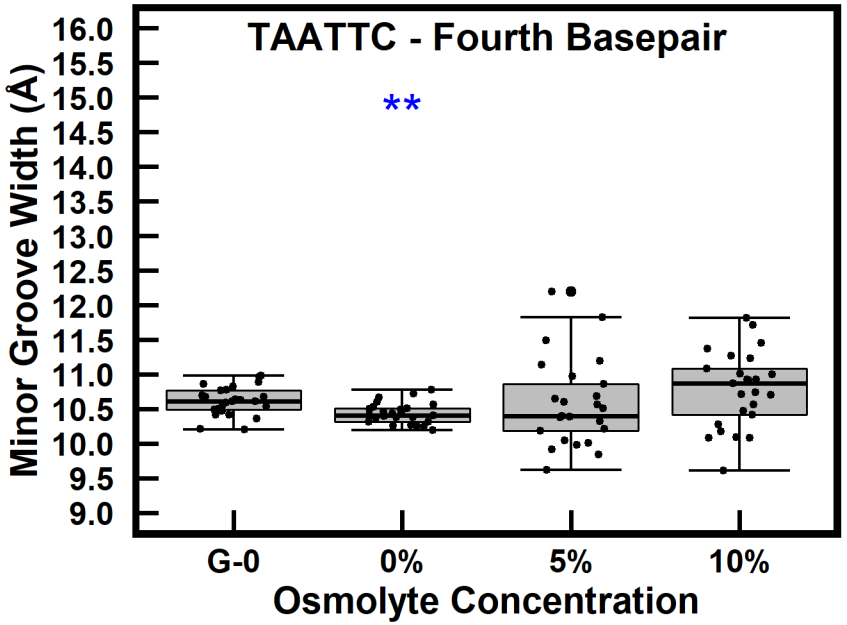

TAGCTA - Second Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

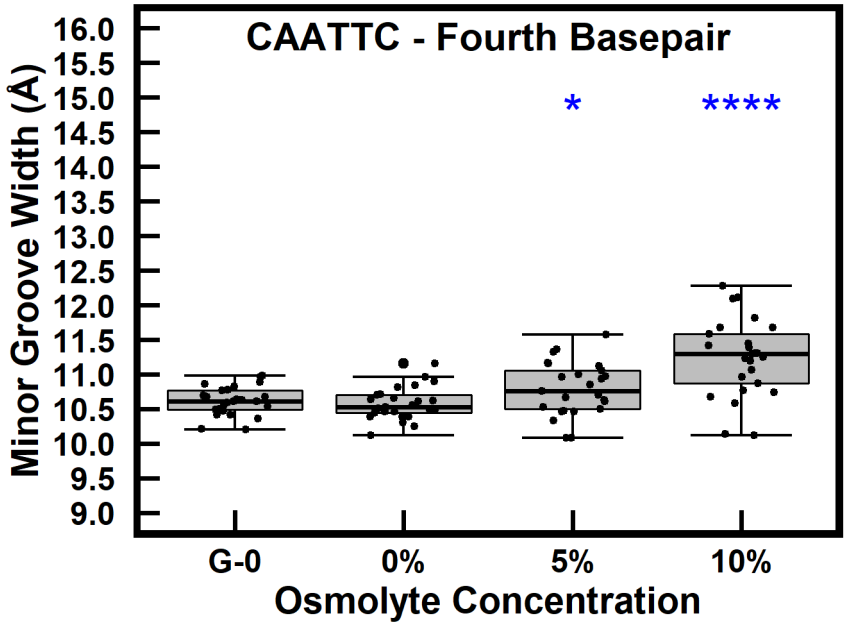

TAATTC - Third Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
*
****
G-0
0%
5%
10%
Osmolyte Concentration

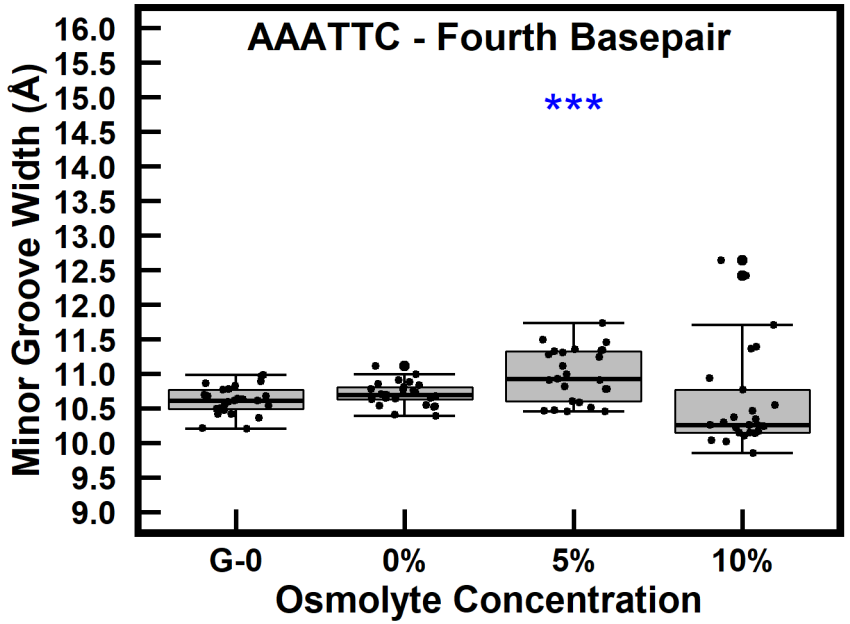

CAATTC - Third Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
**
****
G-0
0%
5%
10%
Osmolyte Concentration

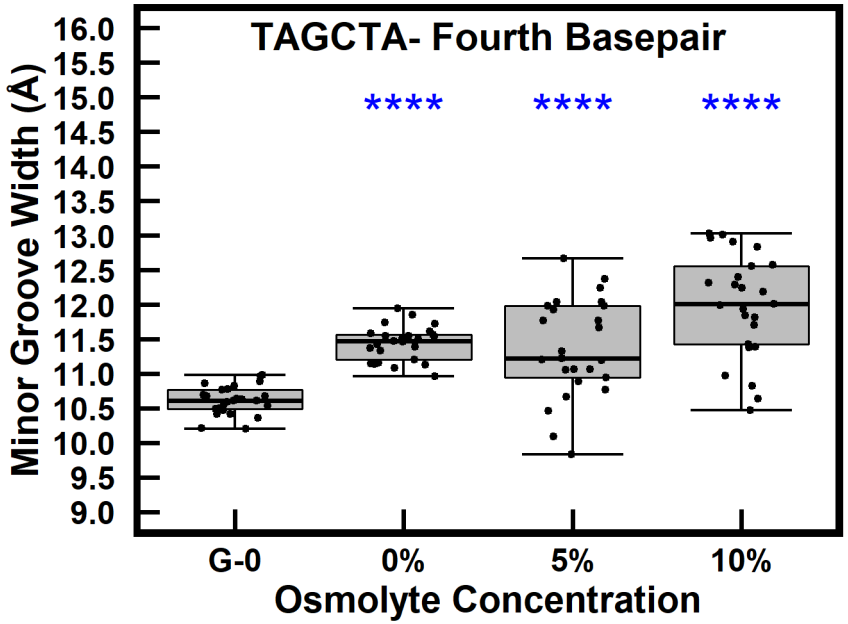

AAATTC - Third Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
**
*
G-0
0%
5%
10%
Osmolyte Concentration

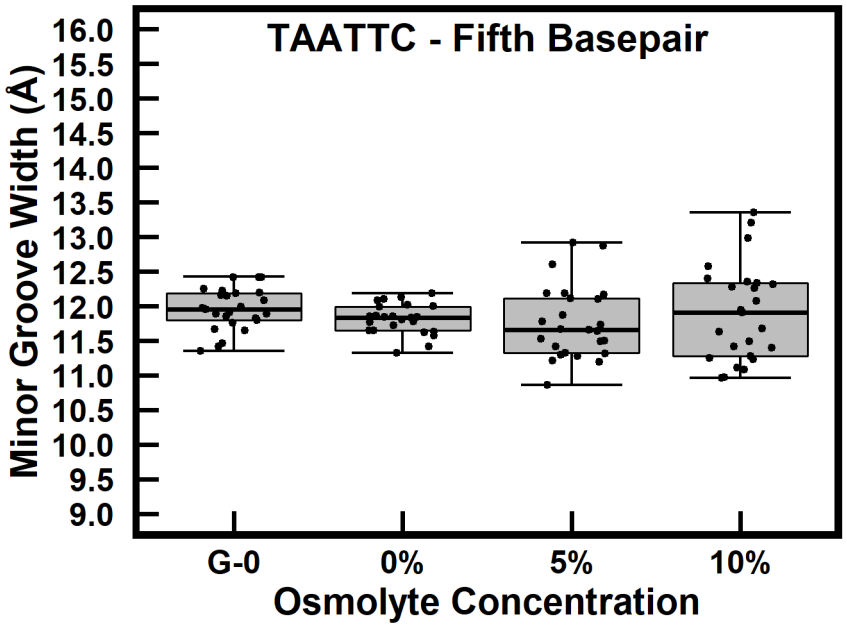

TAGCTA - Third Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration

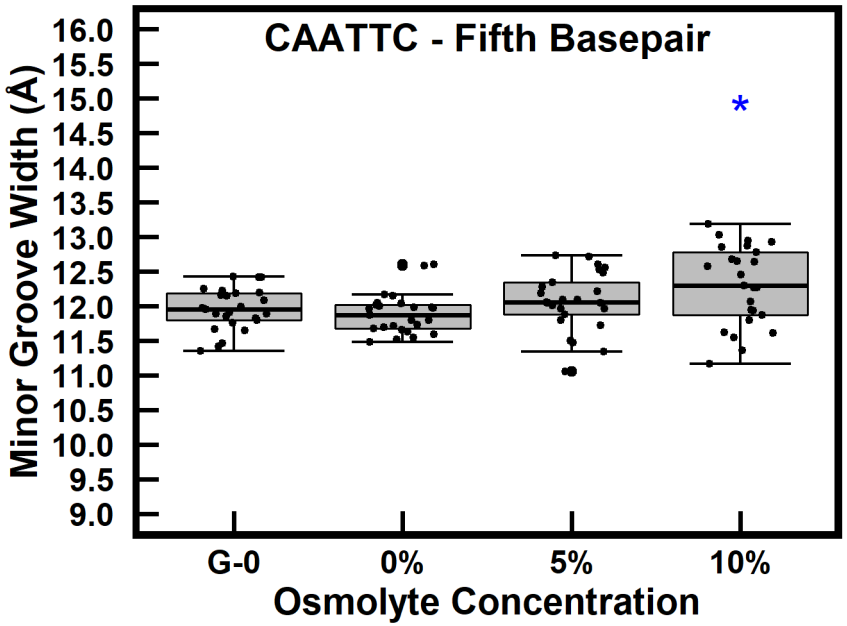

TAATTC - Fourth Basepair
**
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration

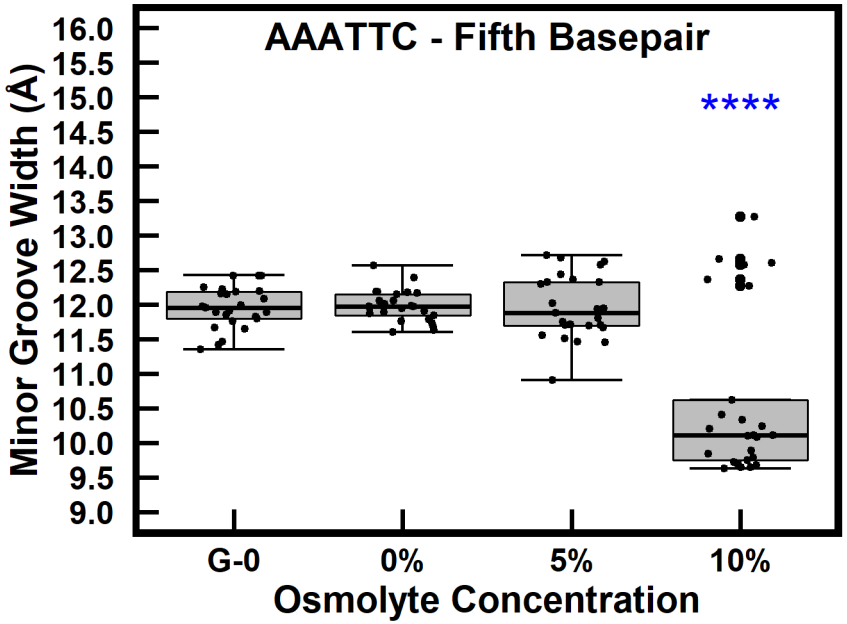

CAATTC - Fourth Basepair
*
****
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration

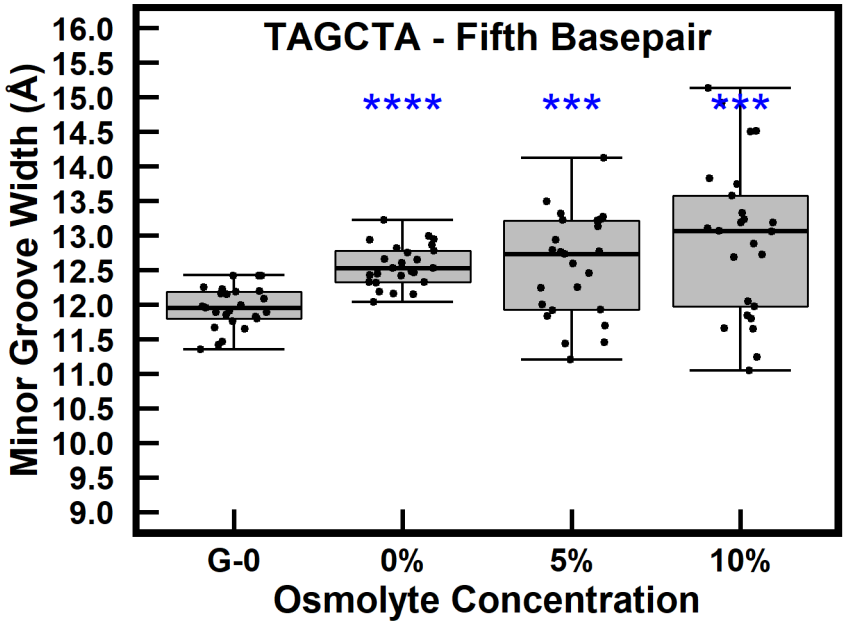

AAATTC - Fourth Basepair
***
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration

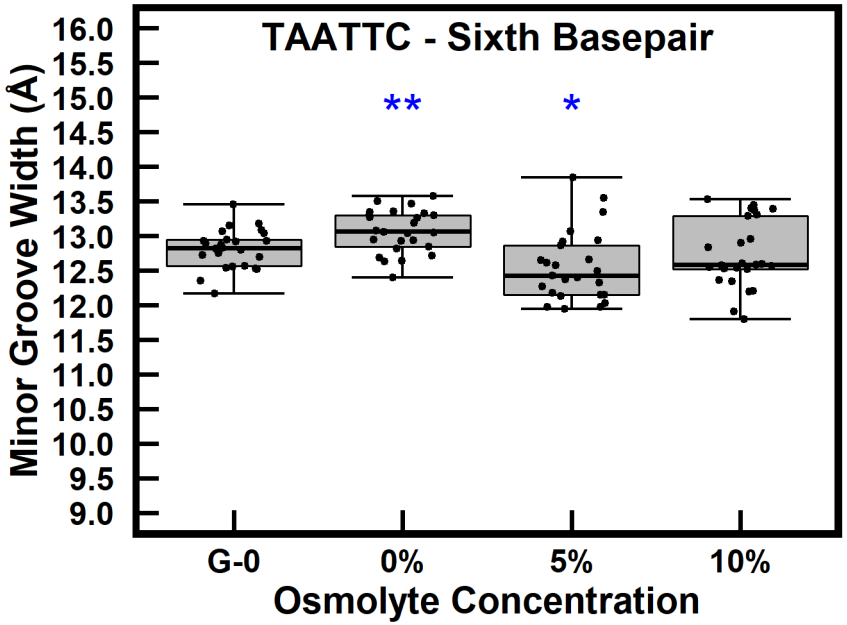

TAGCTA- Fourth Basepair
****
****
****
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration

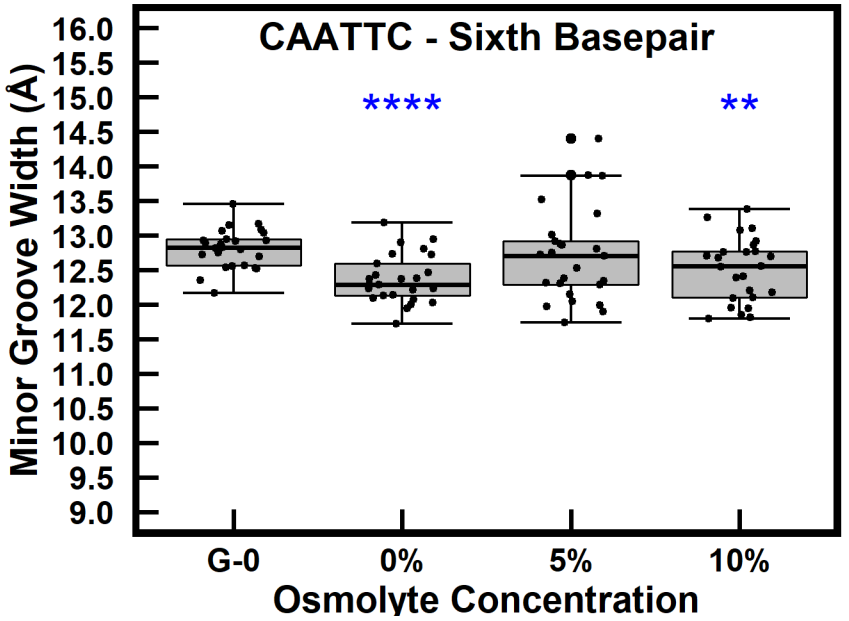

TAATTC - Fifth Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration

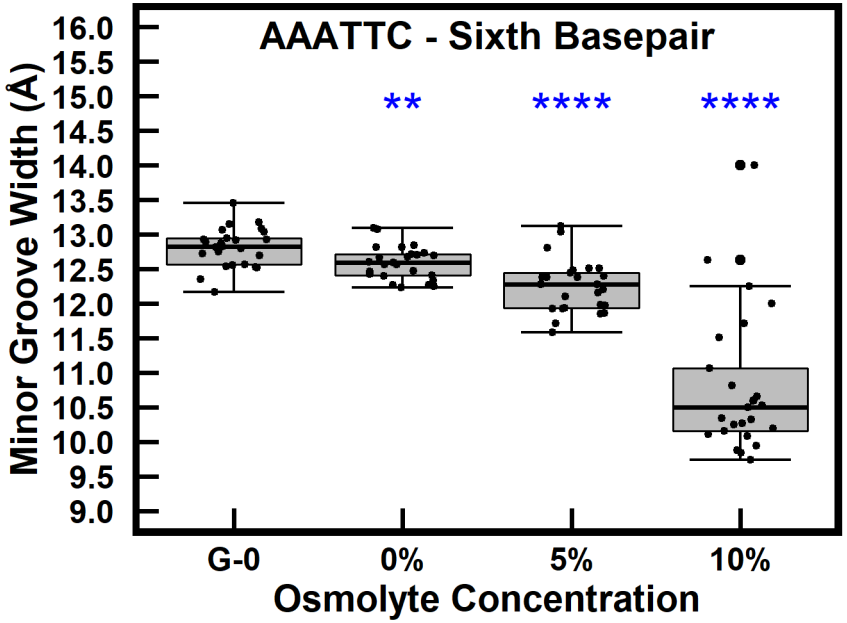

CAATTC - Fifth Basepair
*
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration

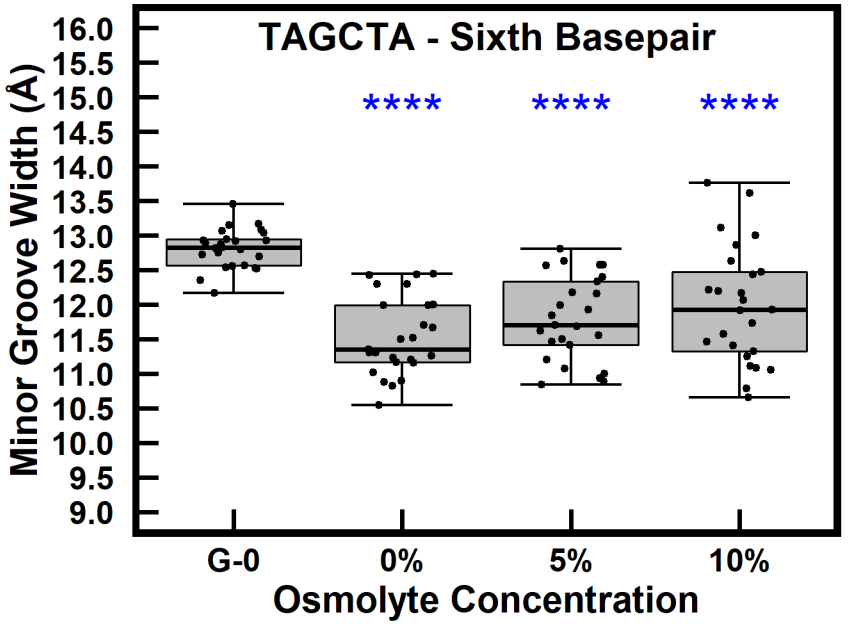

AAATTC - Fifth Basepair
****
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Fifth Basepair
****
***
***
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
G-0
0%
5%
10%
Osmolyte Concentration


TAATTC - Sixth Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
**
*
G-0
0%
5%
10%
Osmolyte Concentration


CAATTC - Sixth Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
**
G-0
0%
5%
10%
Osmolyte Concentration


AAATTC - Sixth Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
**
****
****
G-0
0%
5%
10%
Osmolyte Concentration


TAGCTA - Sixth Basepair
Minor Groove Width (Å)
16.0
15.5
15.0
14.5
14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
****
****
****
G-0
0%
5%
10%
Osmolyte Concentration