
Master thesis : Multimodal analysis of the bone-tendon interface

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Faculté : Faculté des Sciences appliquées

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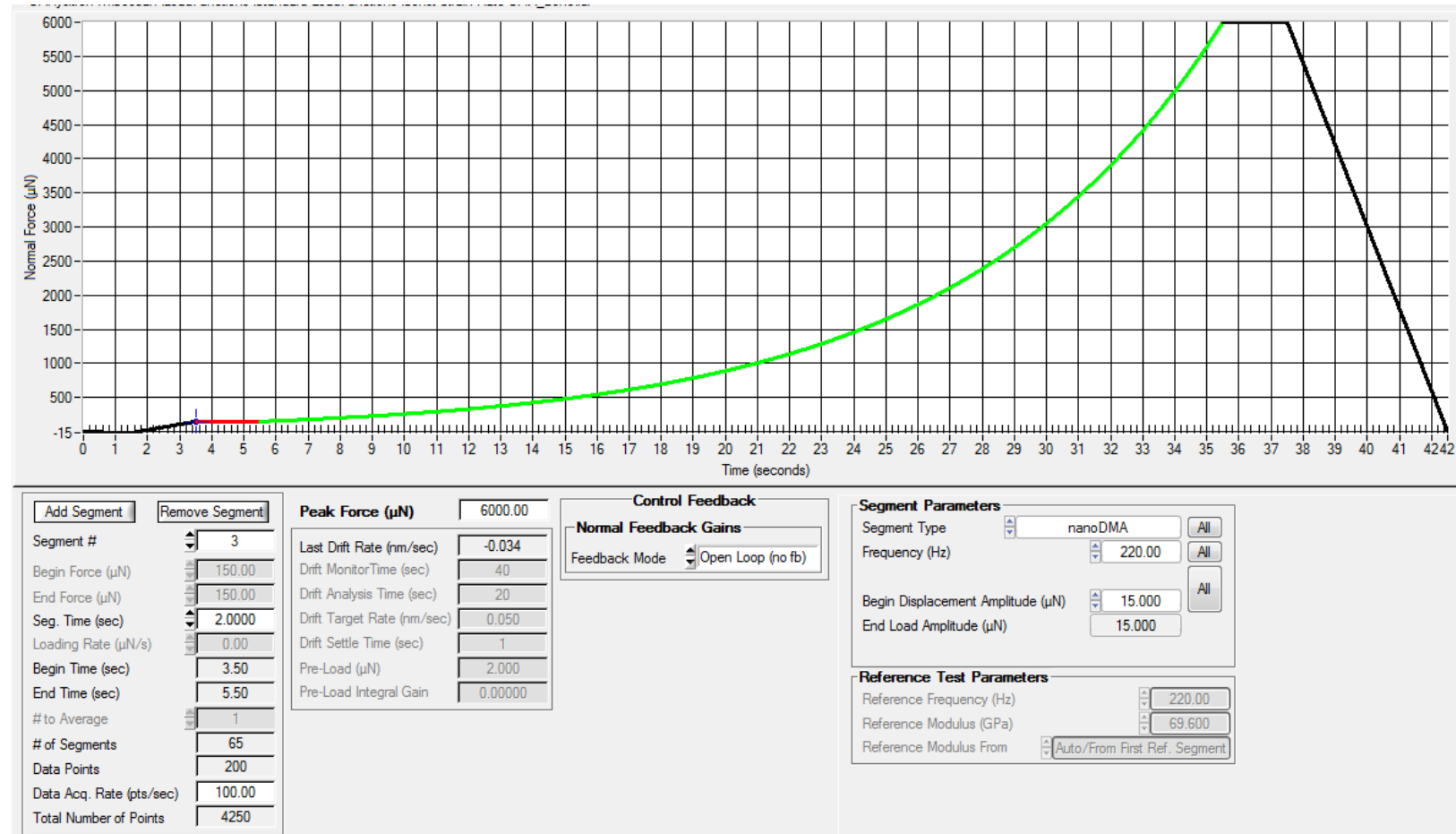
Data presentation

Parameters

- Storage Modulus (StorM)
- Loss Modulus (LossM)
- Hardness (Hard)
- Tan Delta (Tan)
- Roughness
 - Good (Green) if RMS <15 nm
 - Ok (Orange) if RMS <30nm
 - Bad (Red) if RMS >30 nm
- PF = Peak Force
- BDA = Displacement amplitude
- PL = preload
- RMS = Root mean square roughness

Dynamic Indentation Parameters

- Begin Displacement amplitude =15nm from 3rd segment
- Frequency=220Hz
- Preload=2 μ N
- Peak Force= 6000 μ N



Data presentation content of good lines

1 set= 1 complet indentation line

By region: bone, cartilage, tendon, (fibrocartilage) interface or interbone (=interface periosteal cartilage)

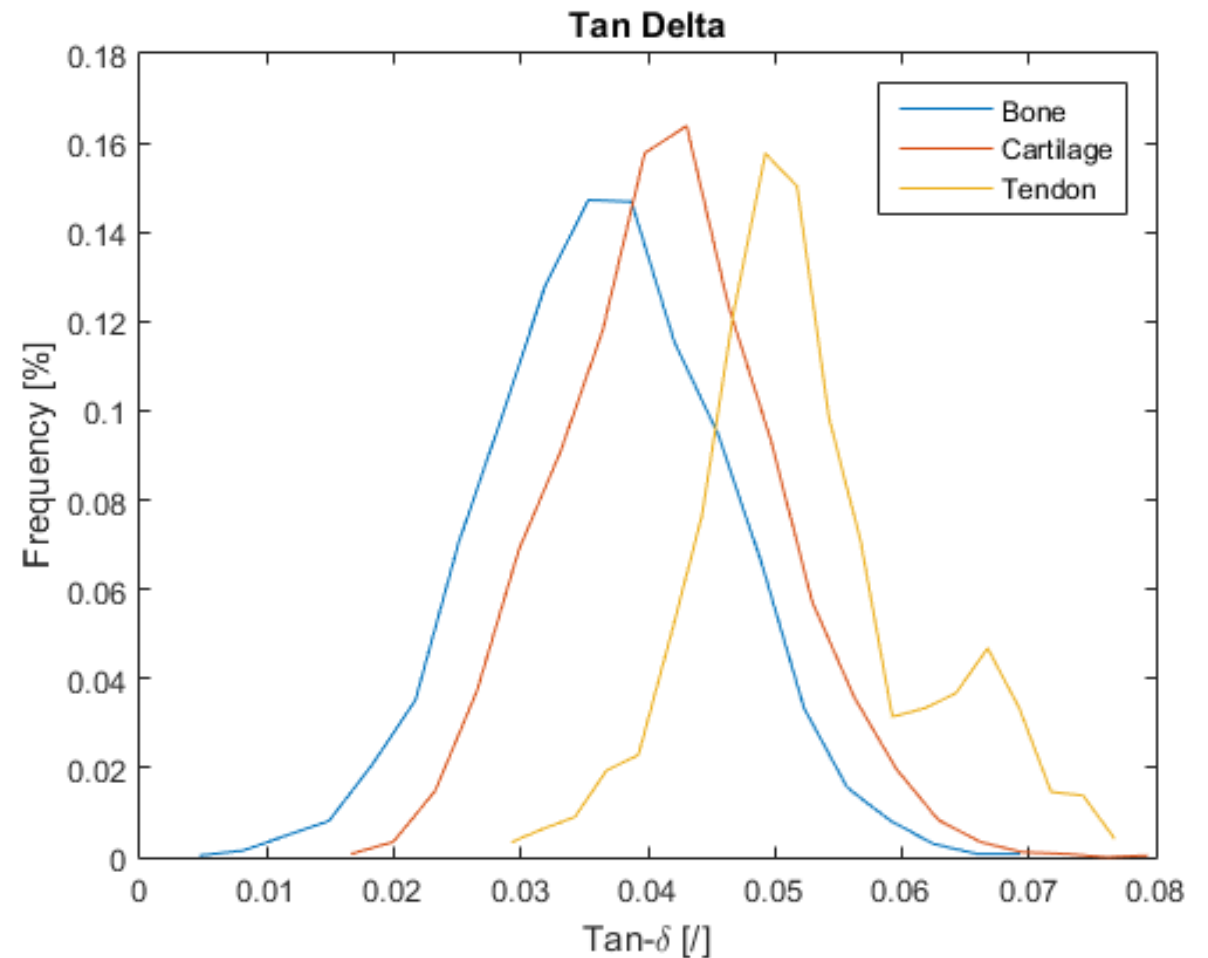
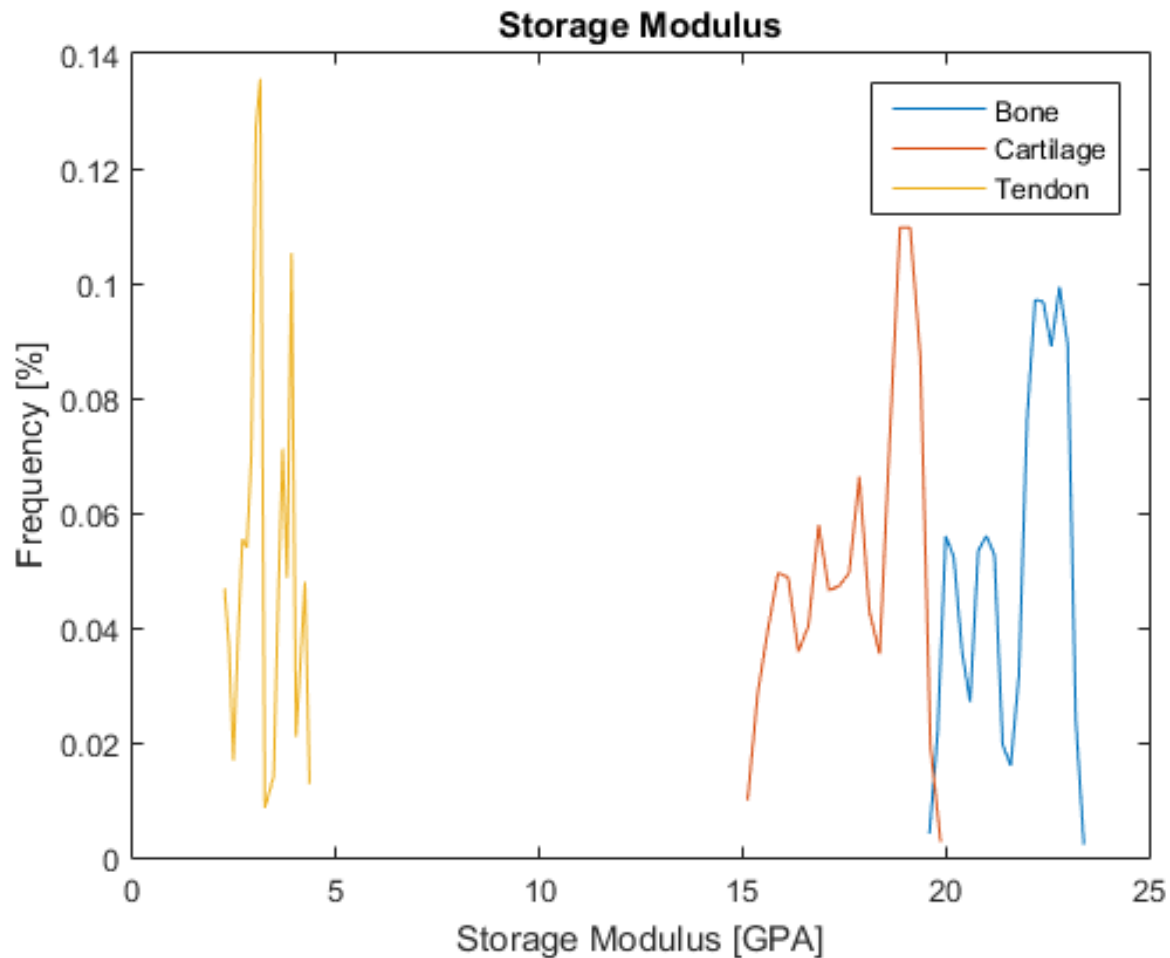
For storage modulus and tan delta,

- I. comparison of histograms providing from each indentation line
- II. Graph properties vs point position of each indentation line

By set

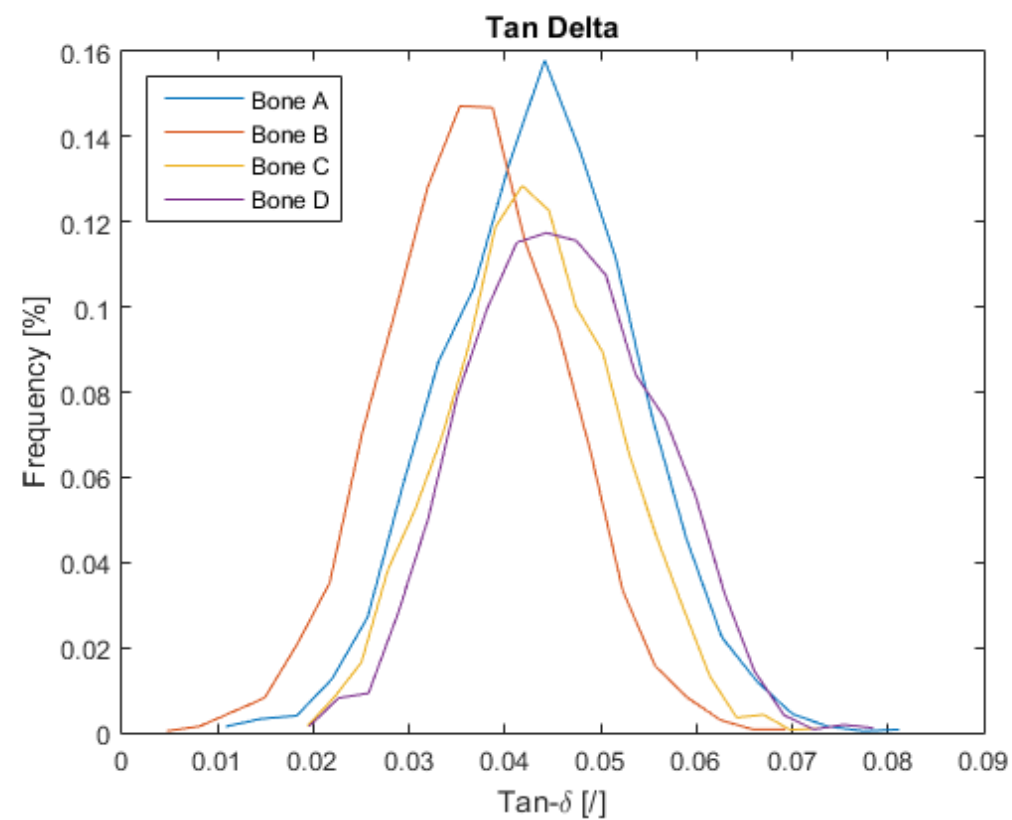
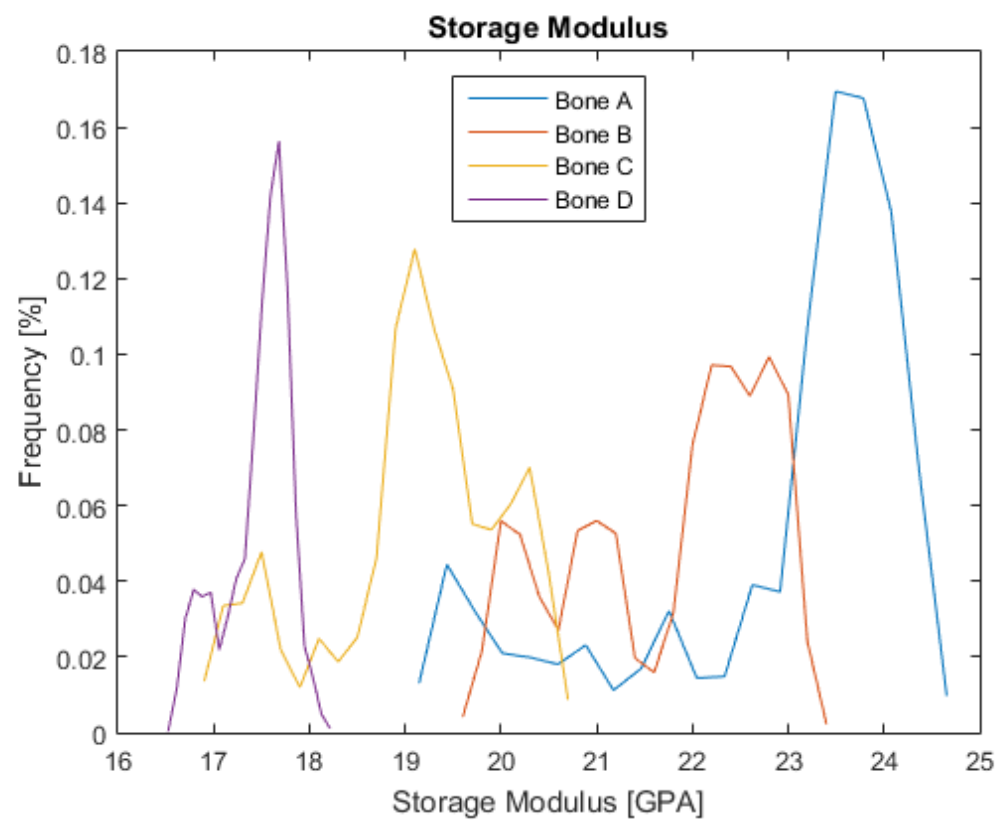
- I. Optical picture w/ & w/o dots
- II. Graph properties vs position
- III. Graph depth surface vs position
- IV. Complet histogram of the line
- V. Graph properties vs indentation depth
- VI. Individual histograms

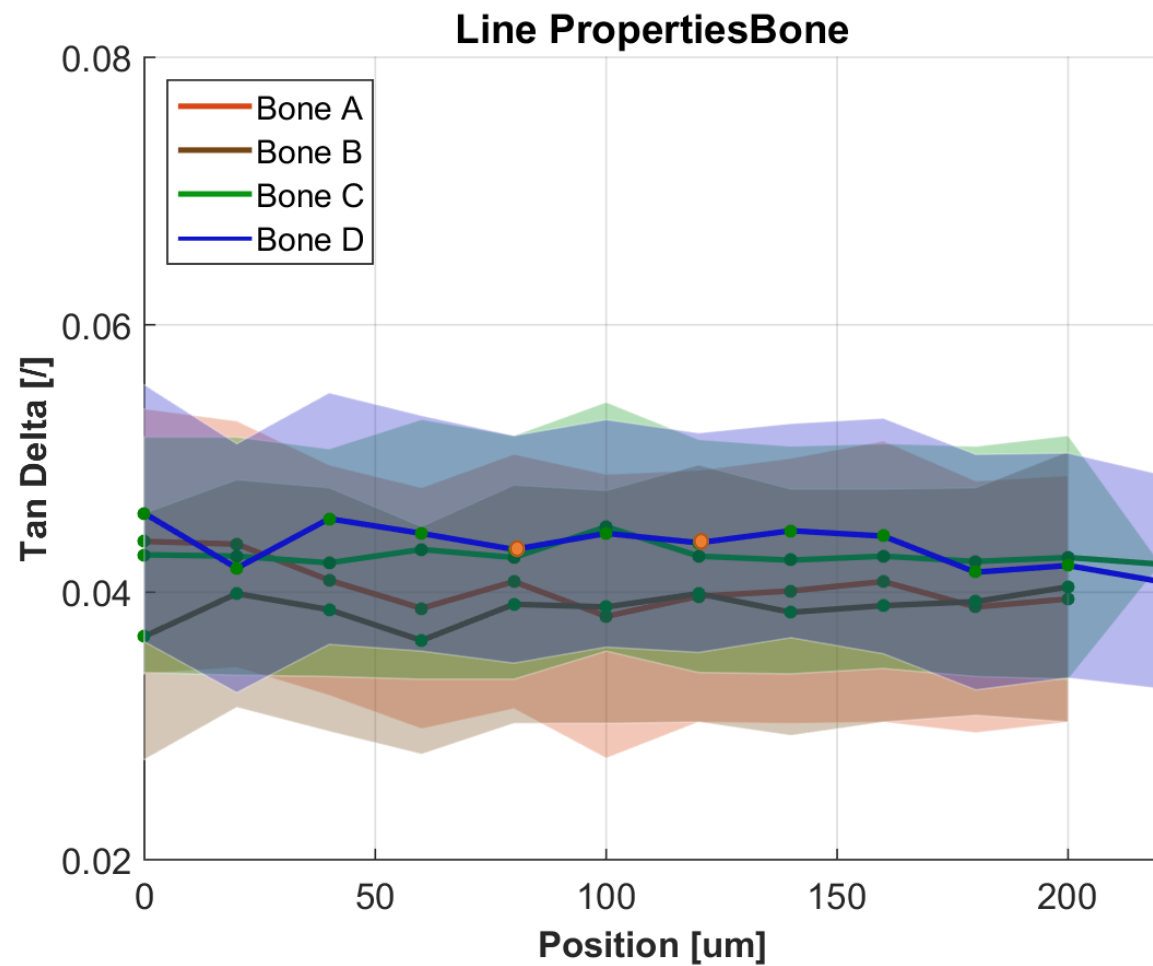
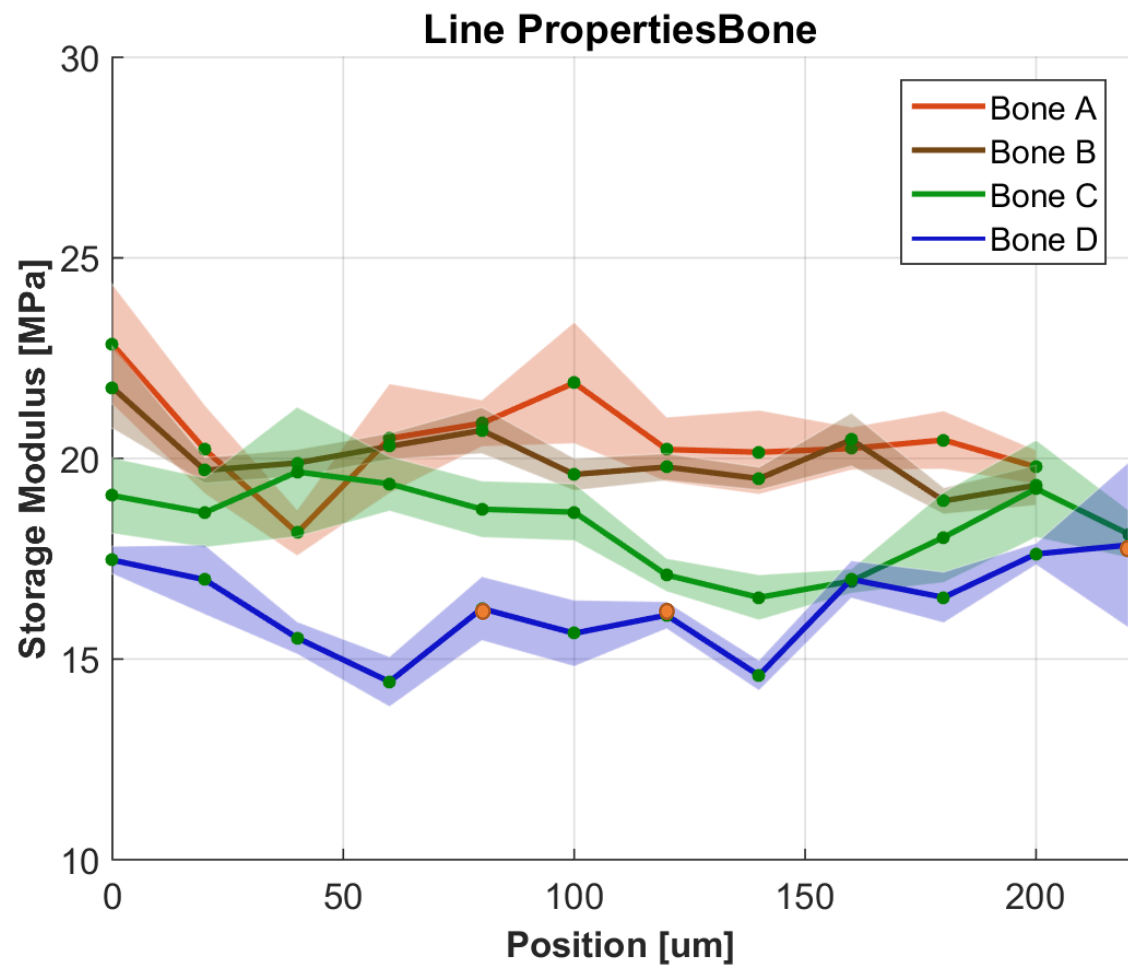
Comparison Bone B, Tendon B, Cartilage C



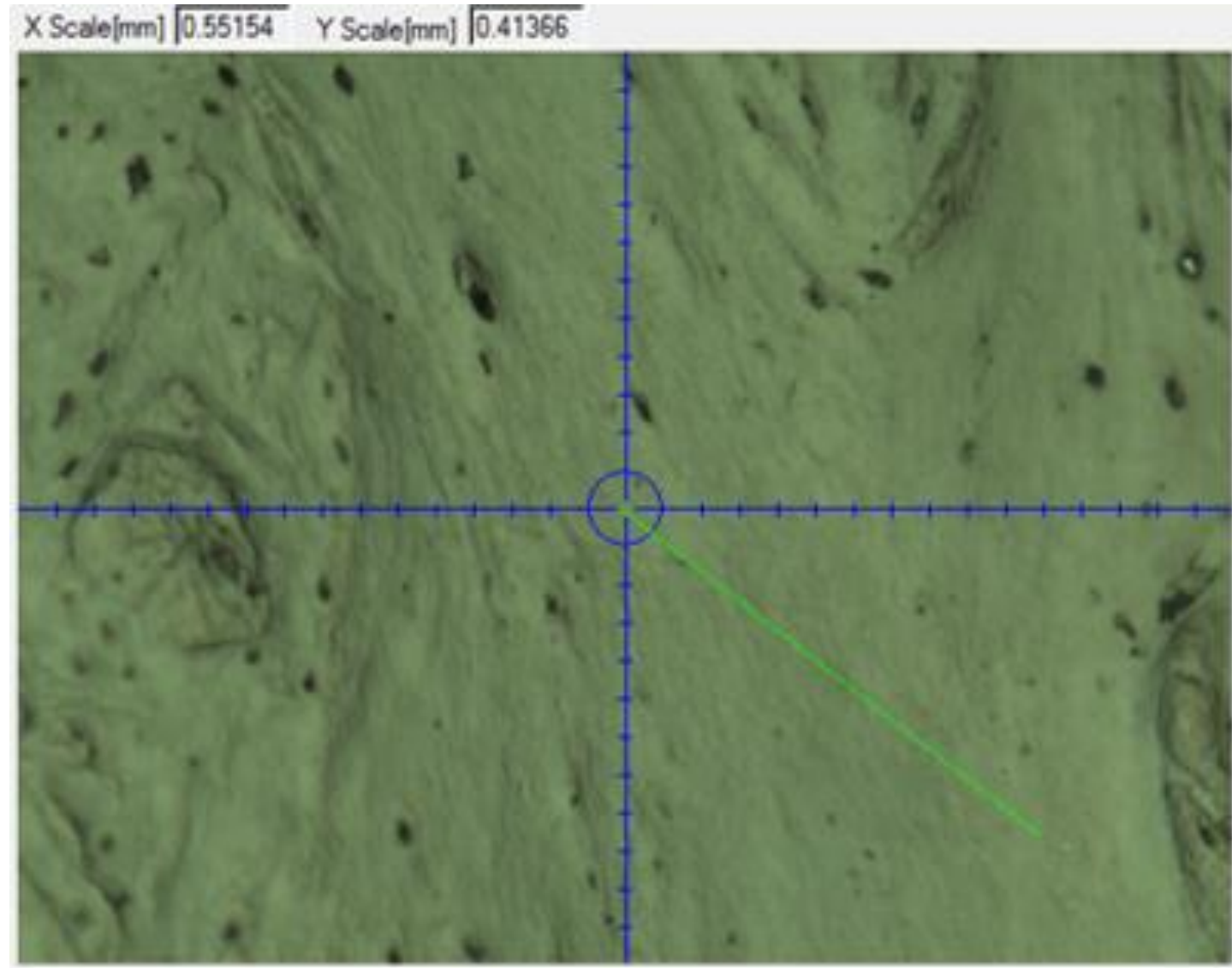
Bone

- A. D1 roughness Good
- B. D1 roughness Good
- C. D2 roughness Good
- D. D2 roughness Good/ok

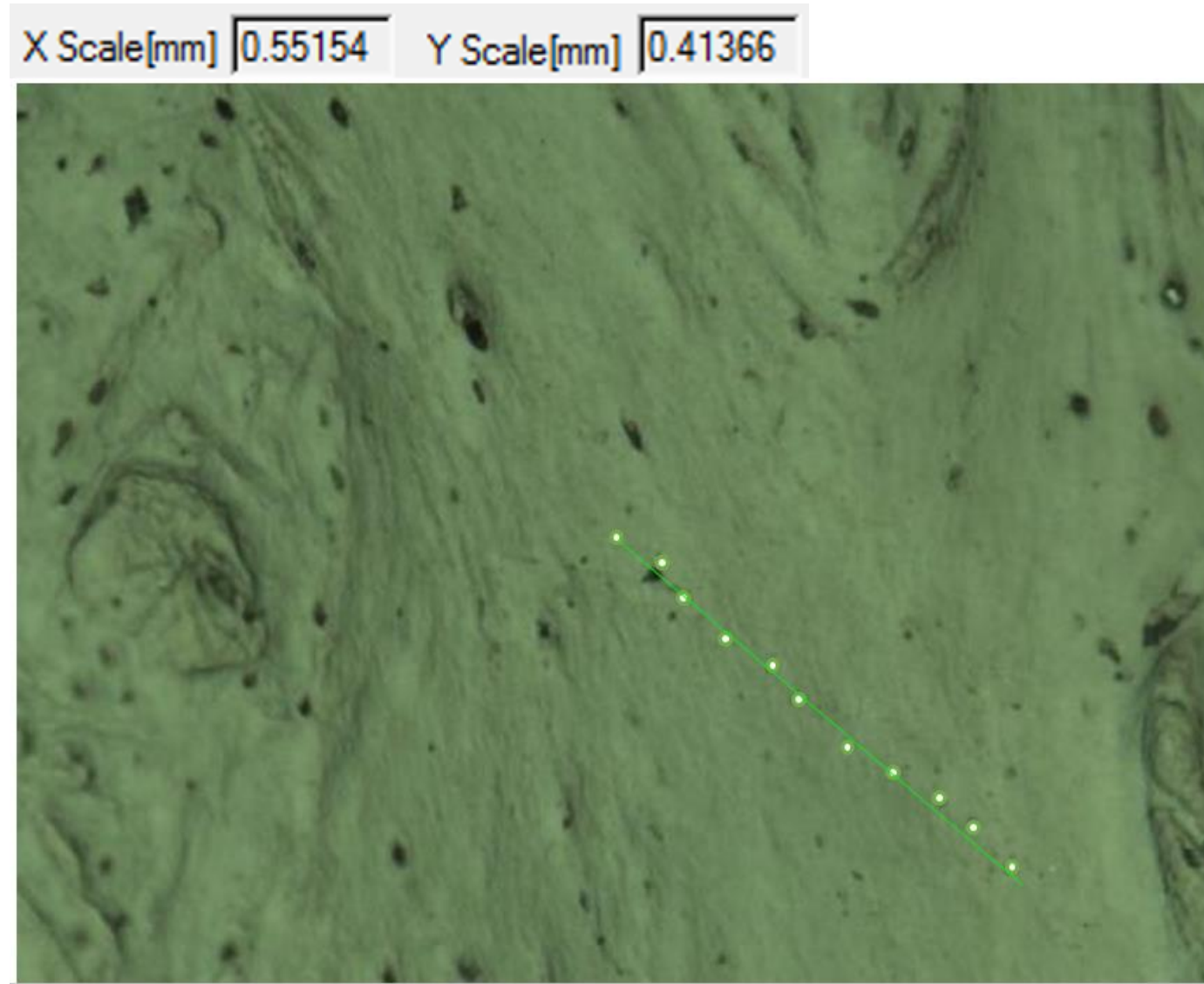


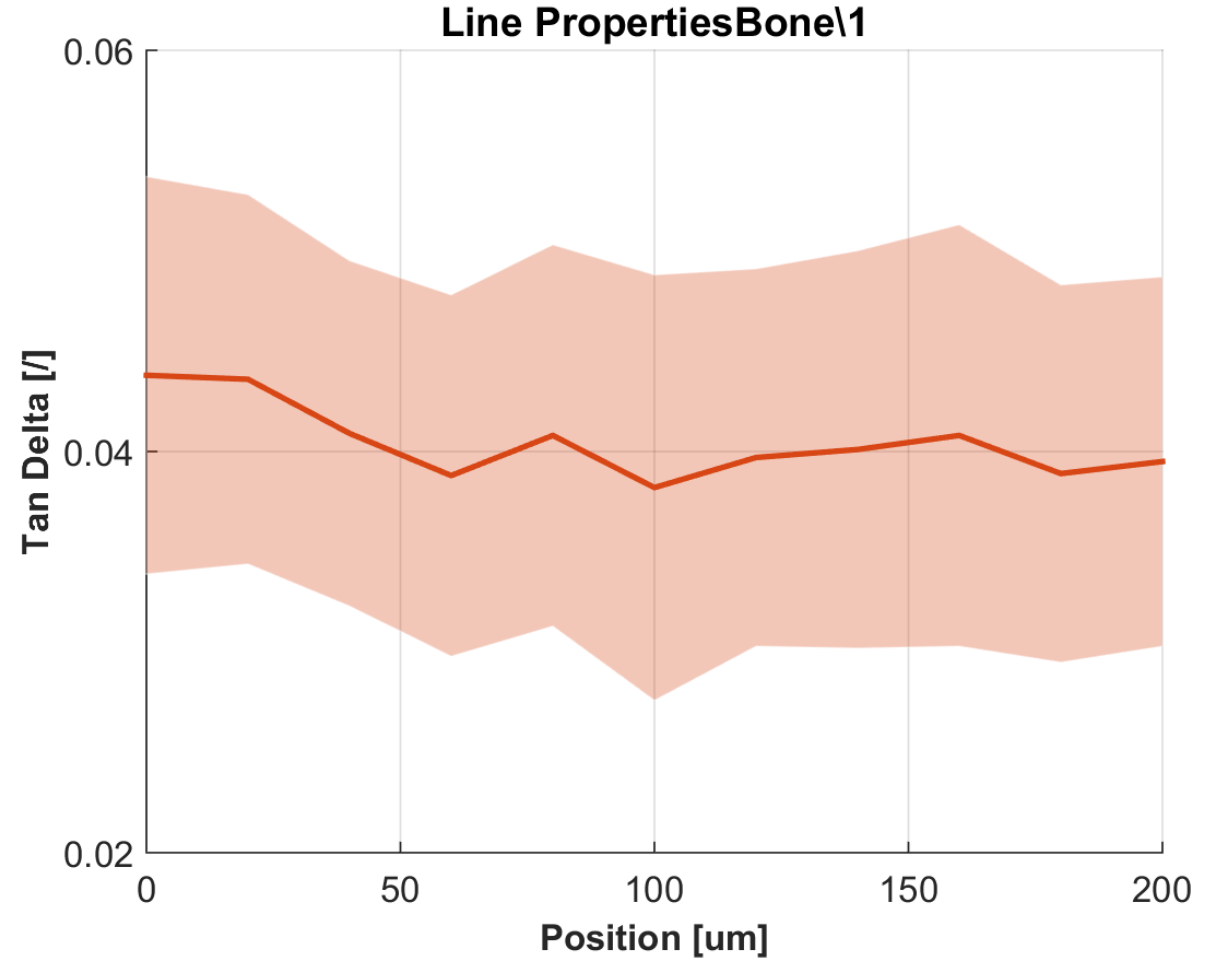
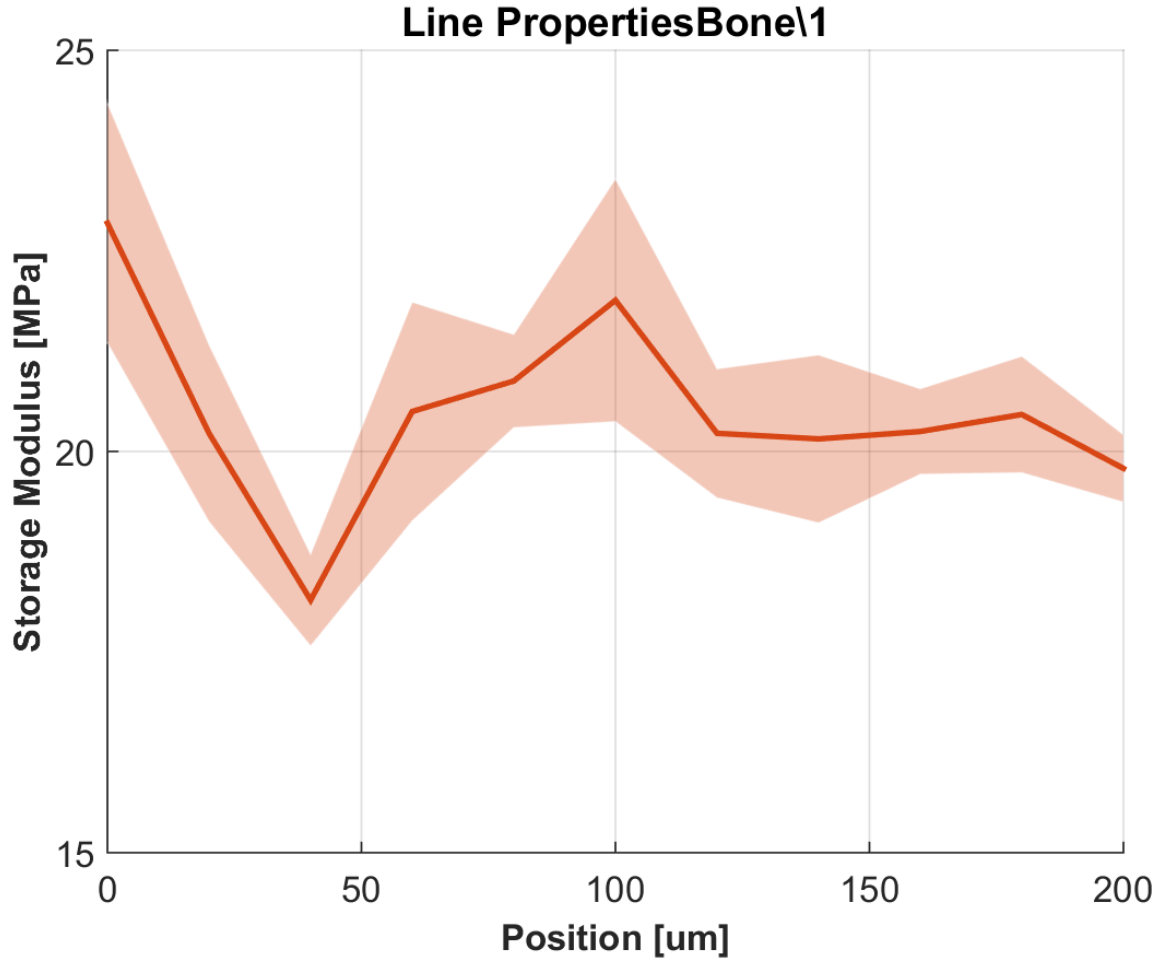


A. Bone D1 11 points $\Delta=20\mu\text{m}$ roughness Good



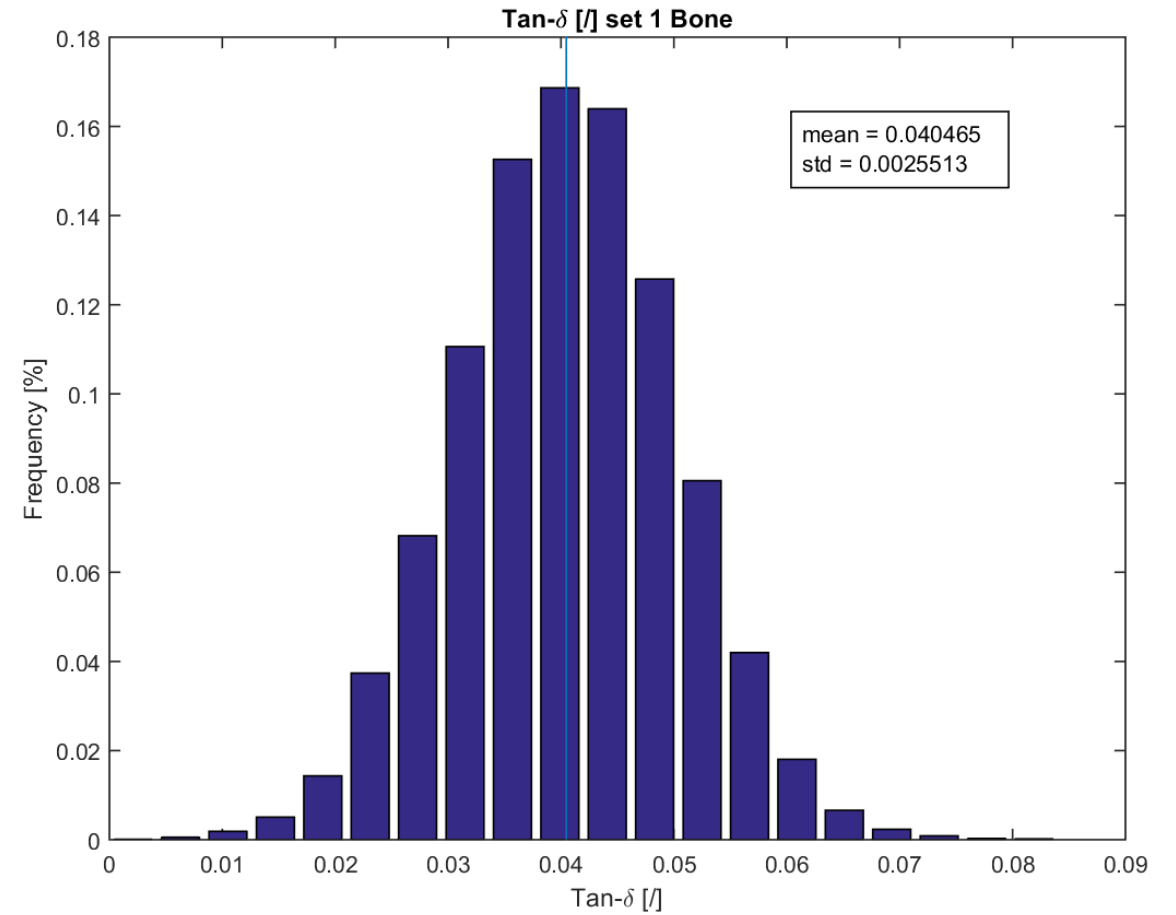
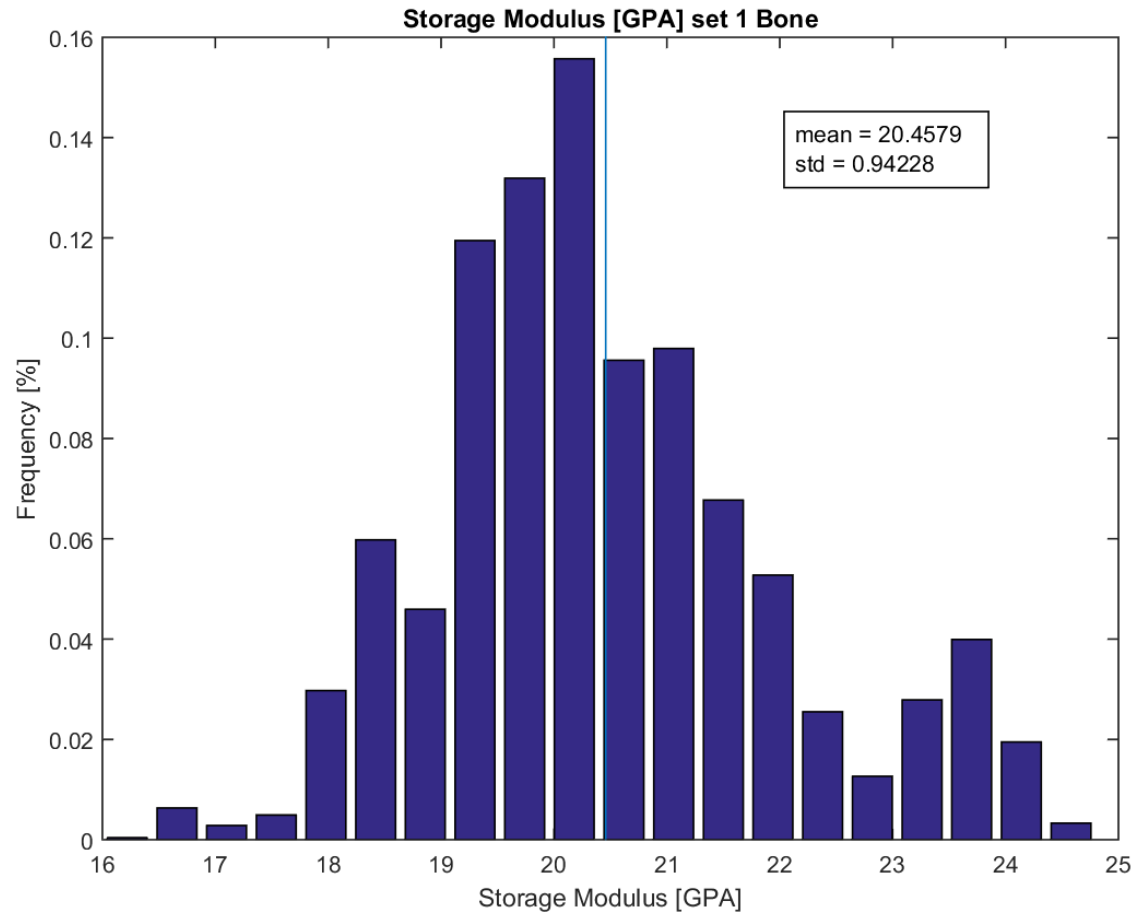
A. Bone D1 11 points $\Delta=20\mu\text{m}$ roughness Good



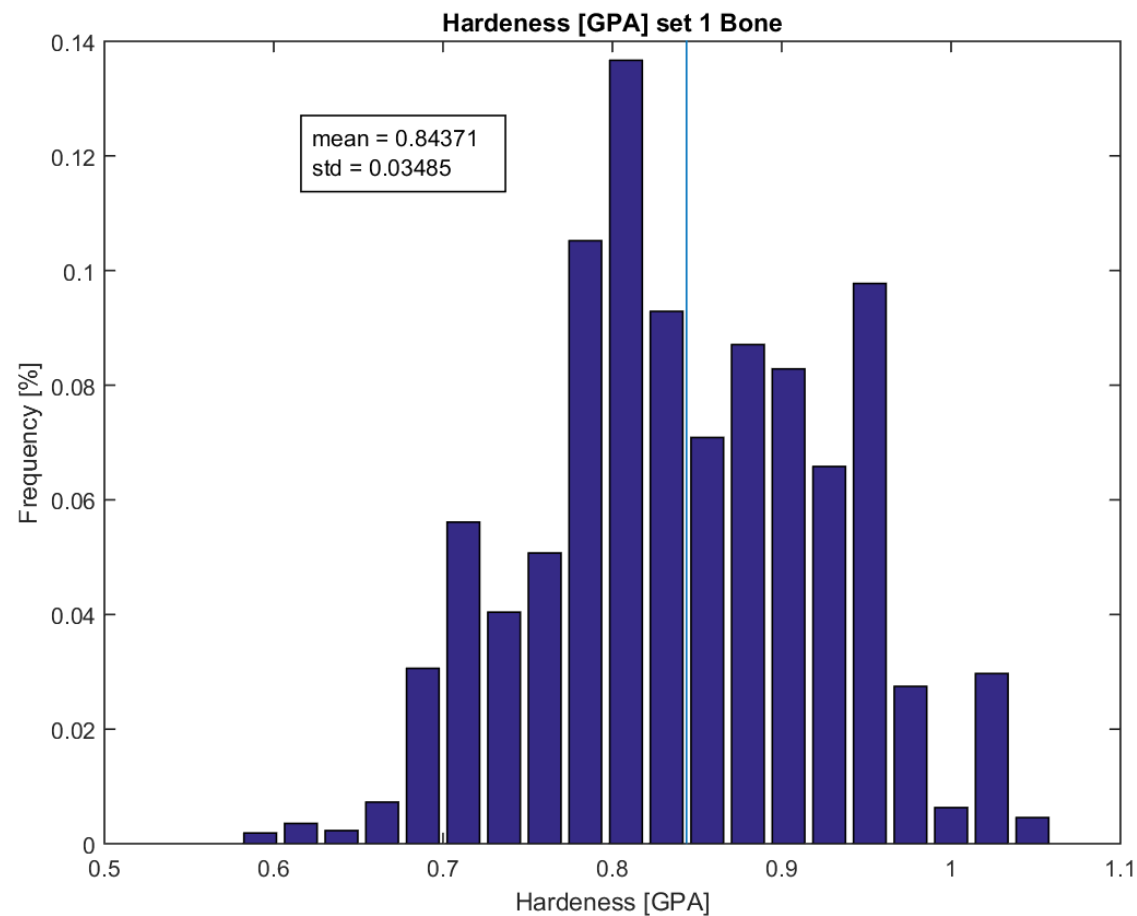
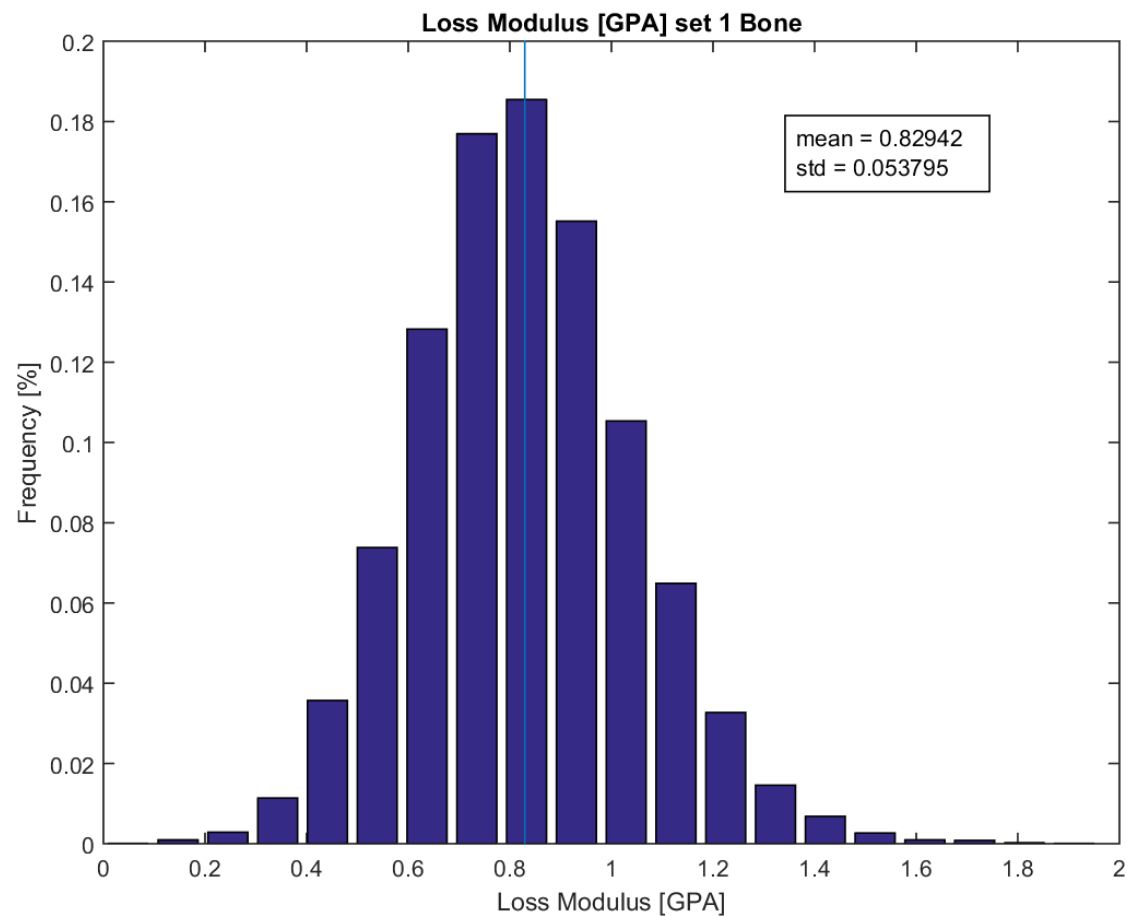


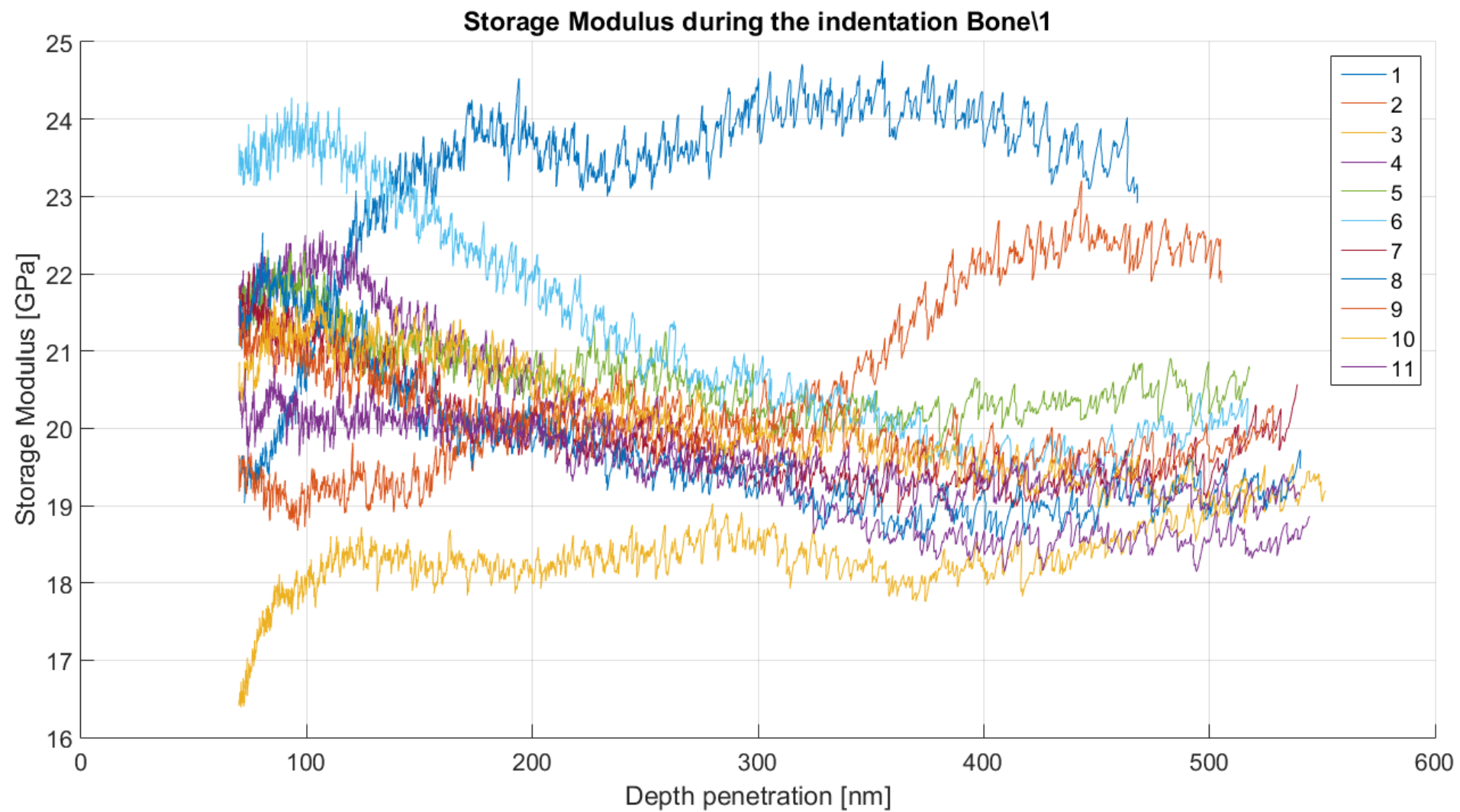
- No depth surface graph

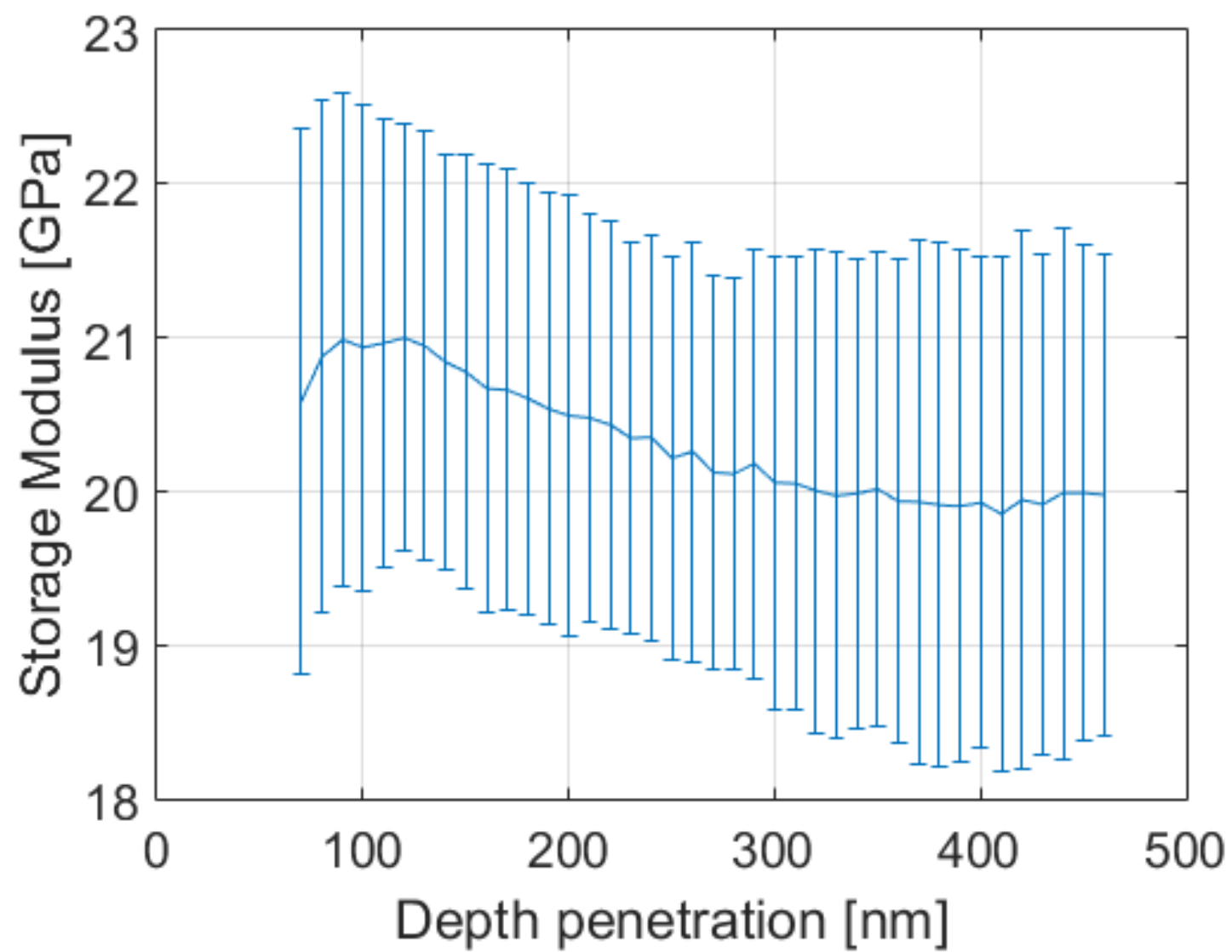
A. Complet



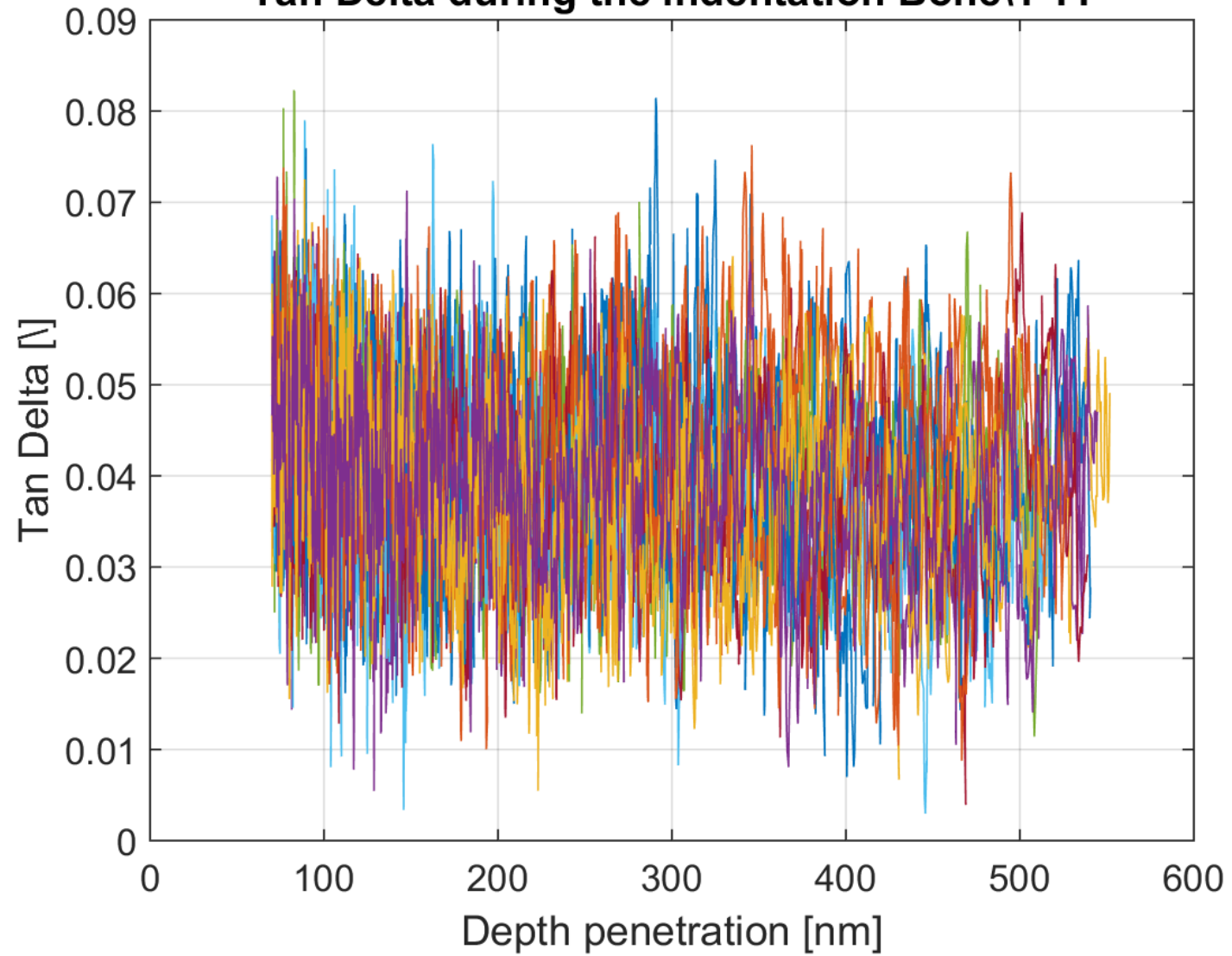
A. Complet

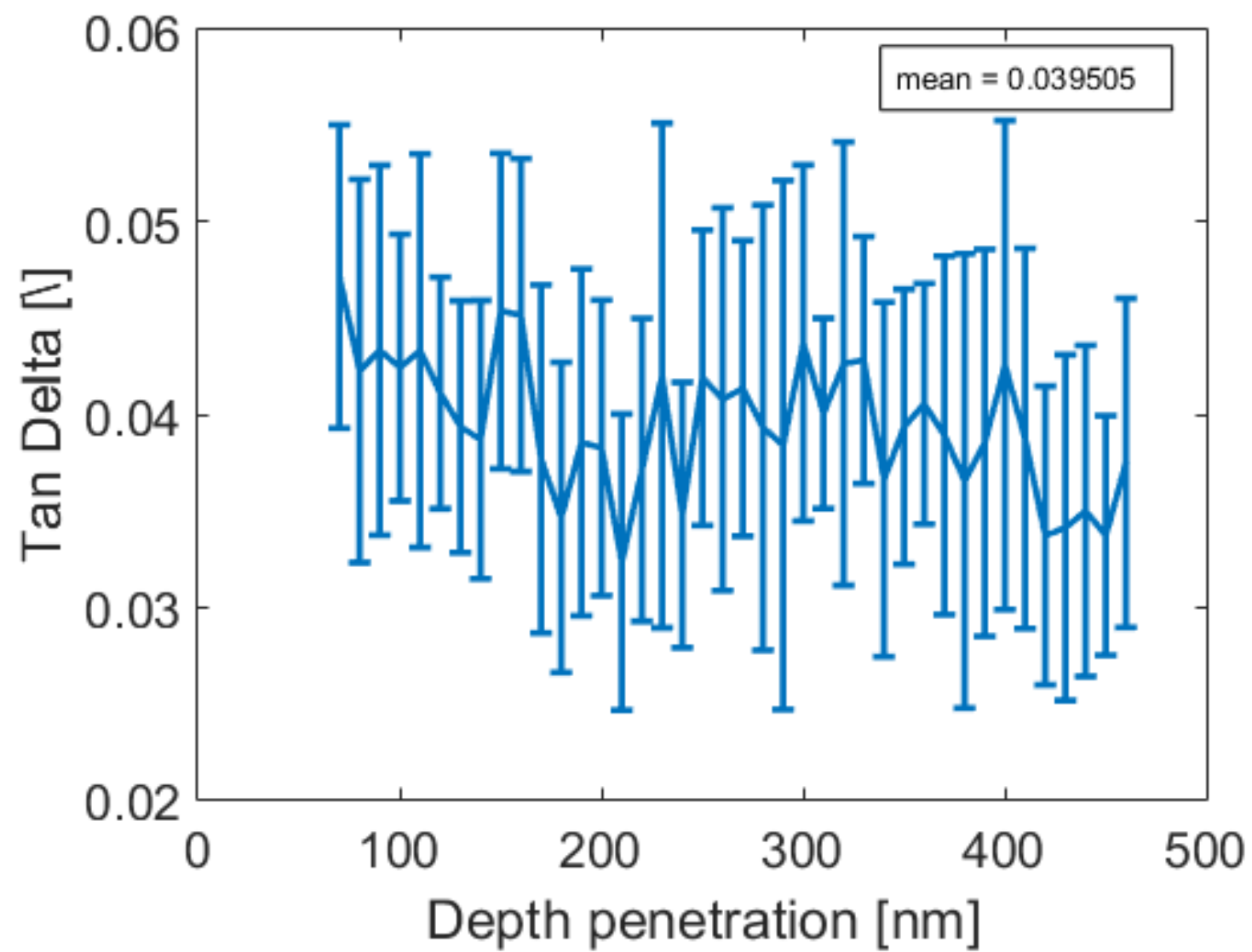




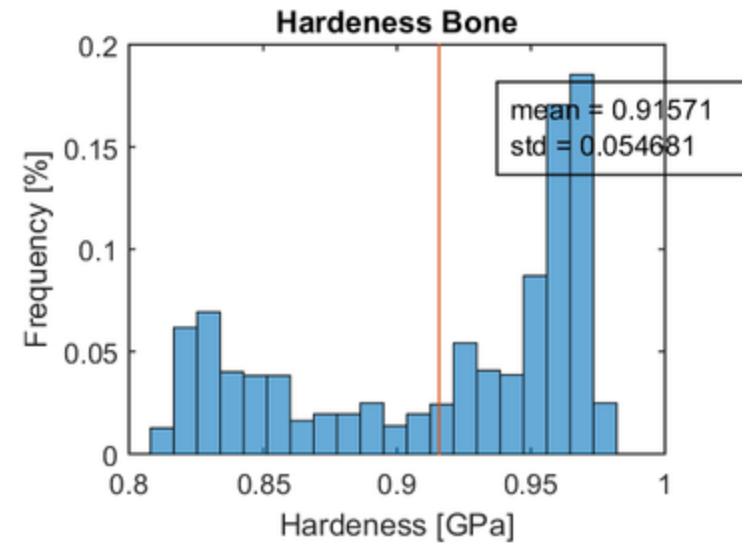
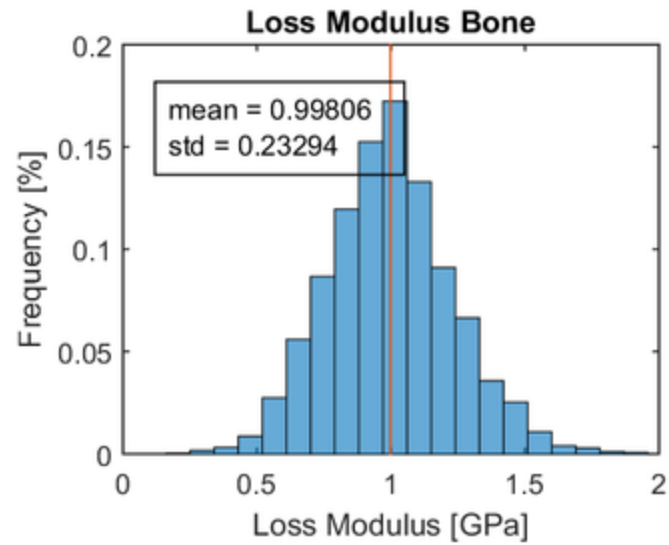
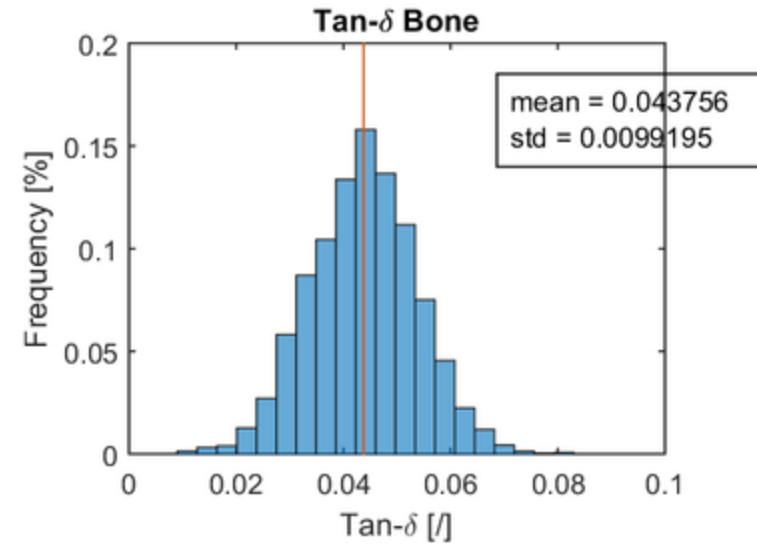
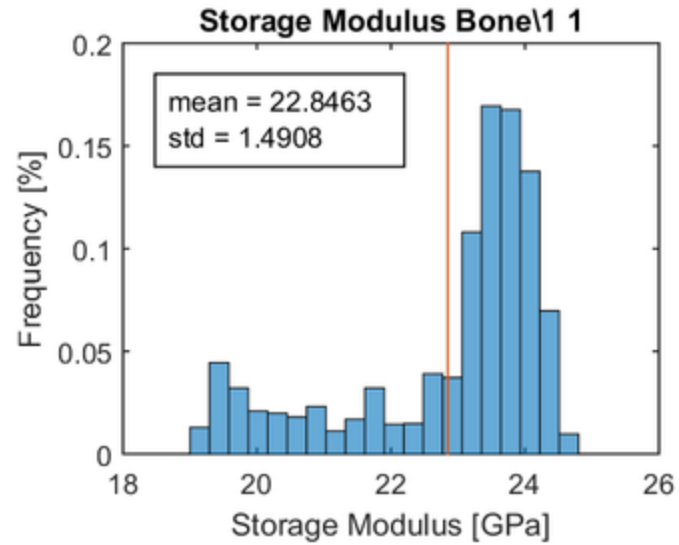


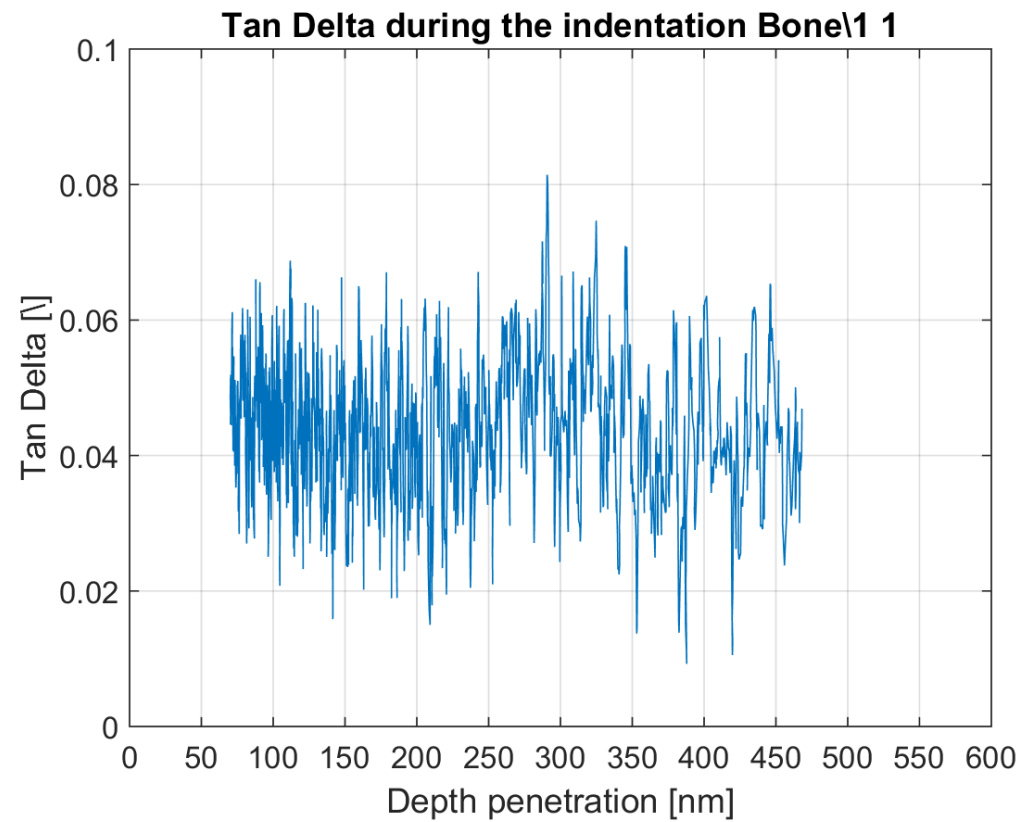
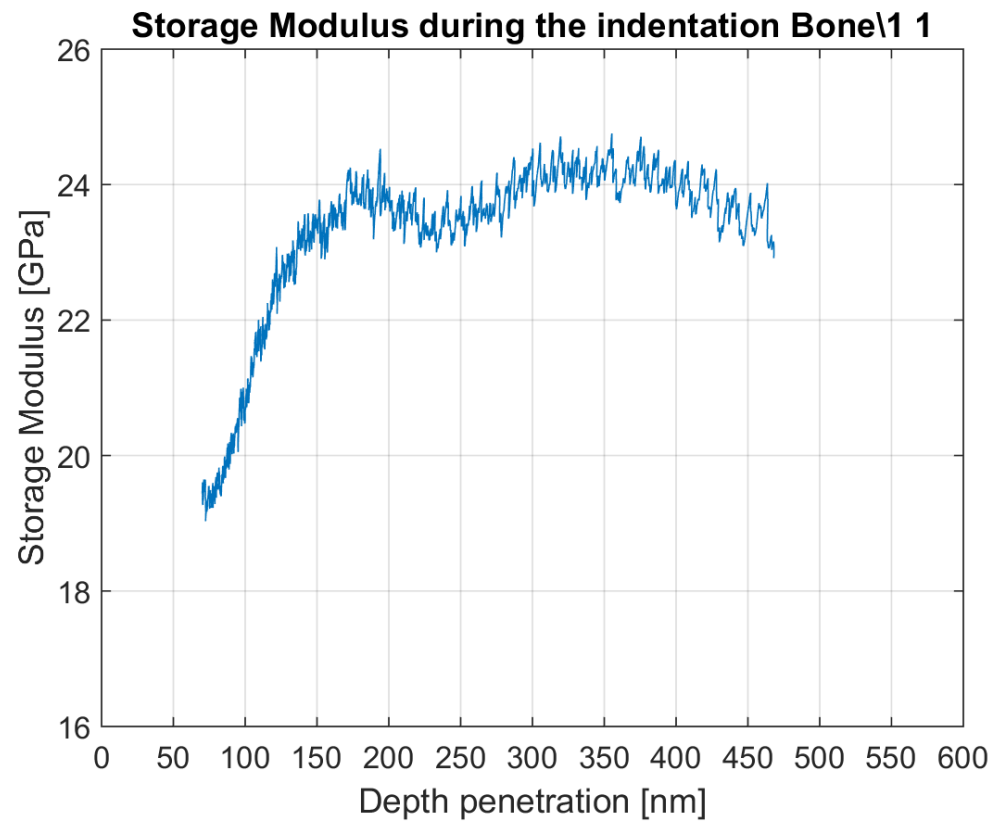
Tan Delta during the indentation Bone\1 11



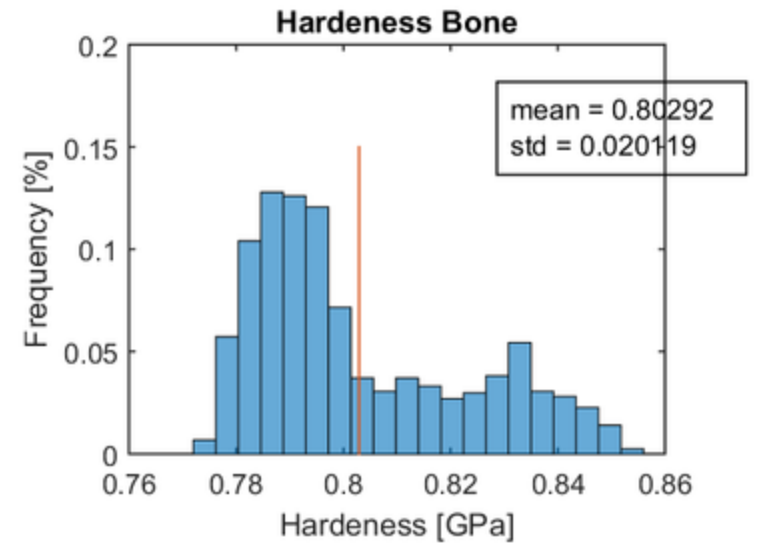
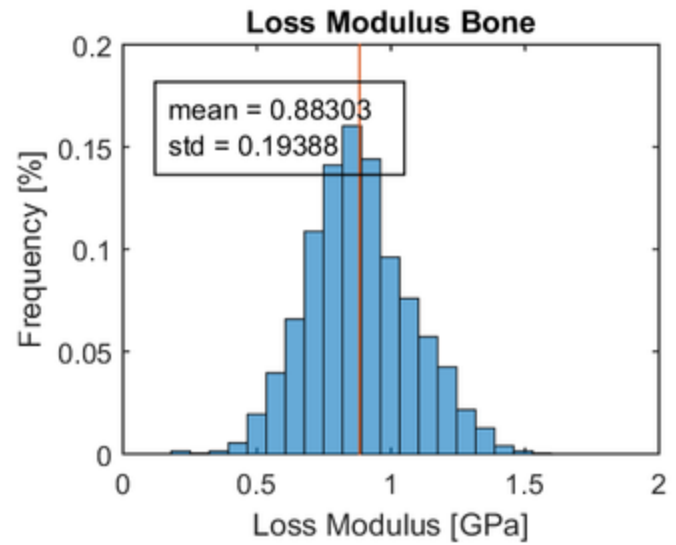
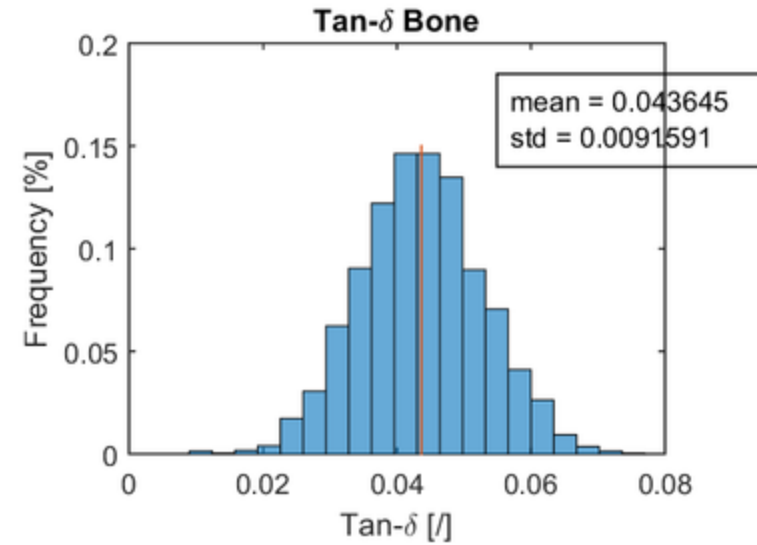
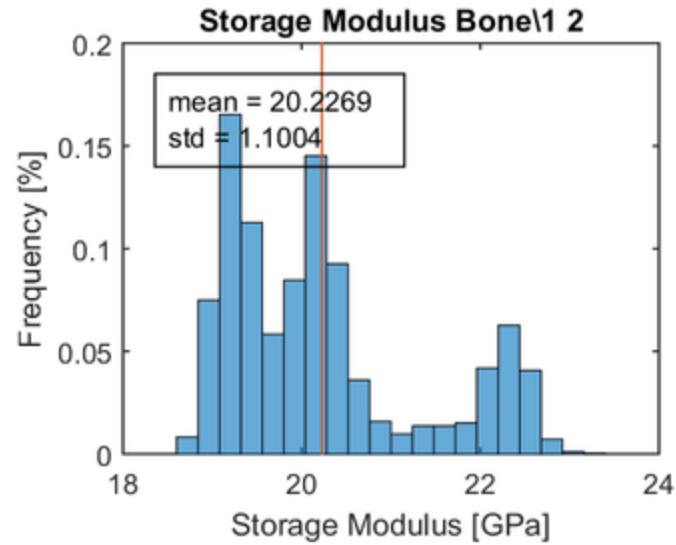


Bone A Point 1

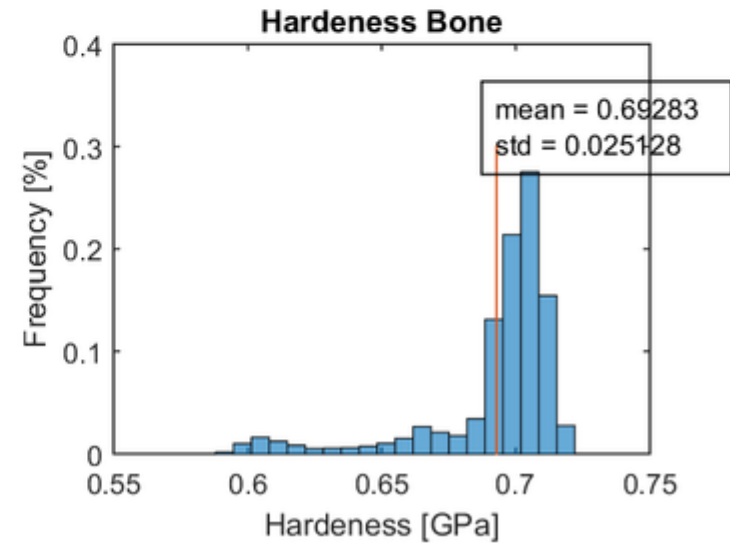
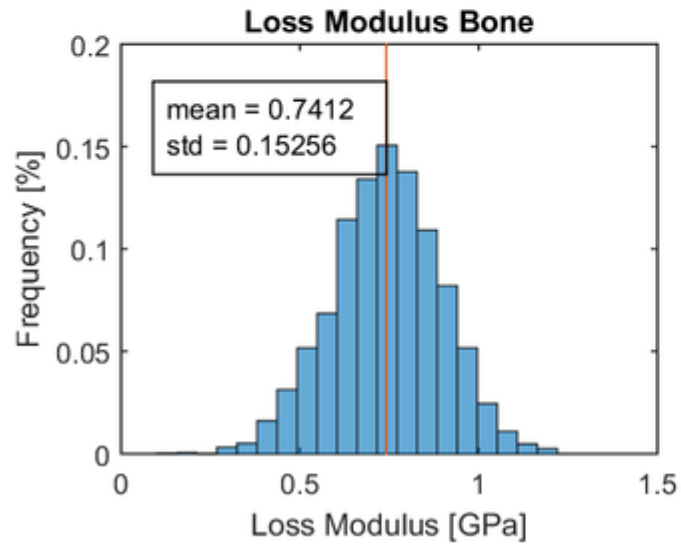
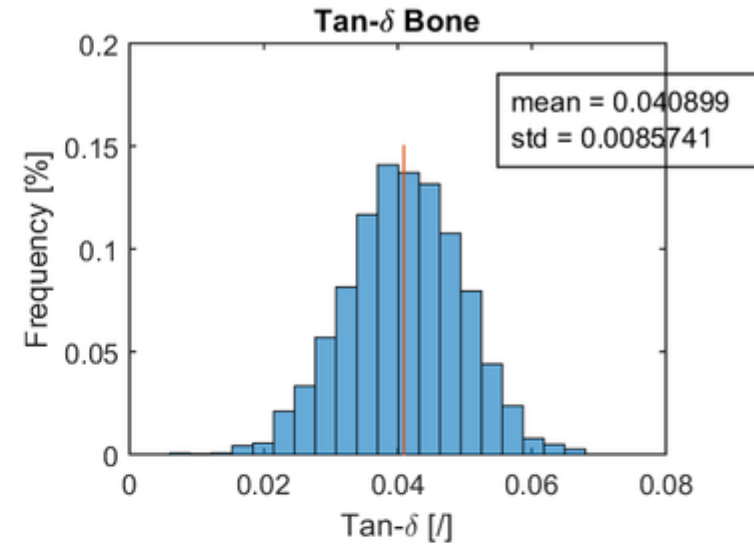
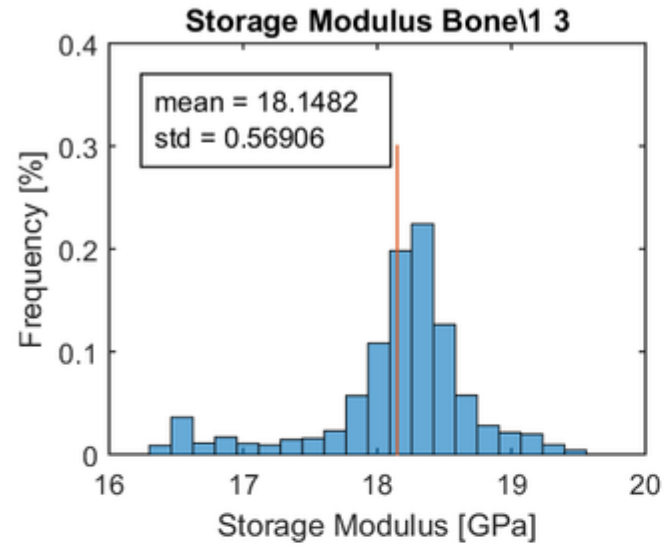




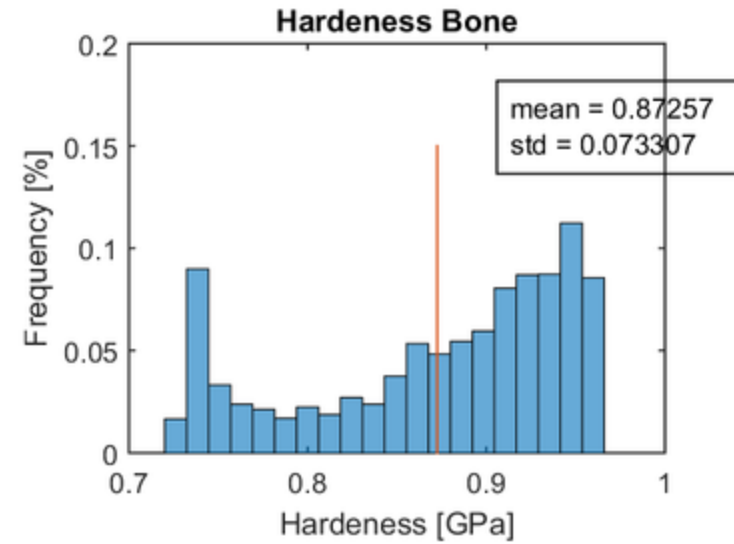
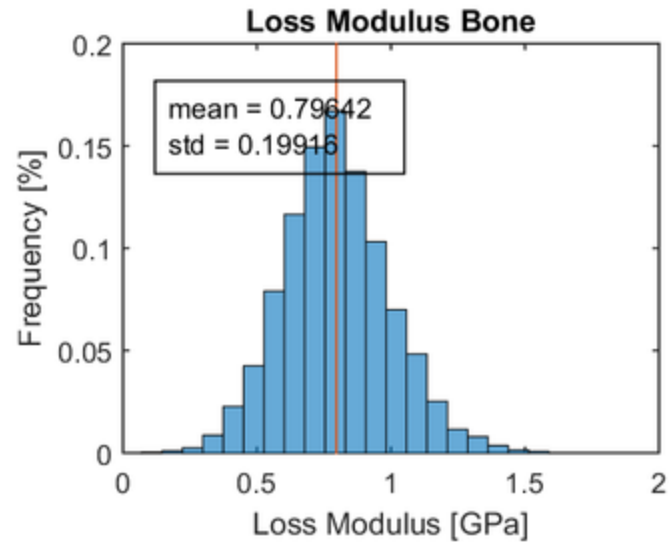
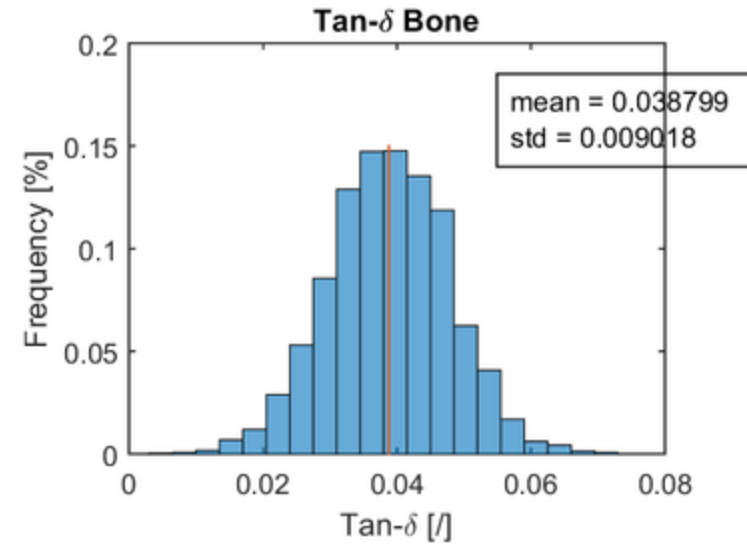
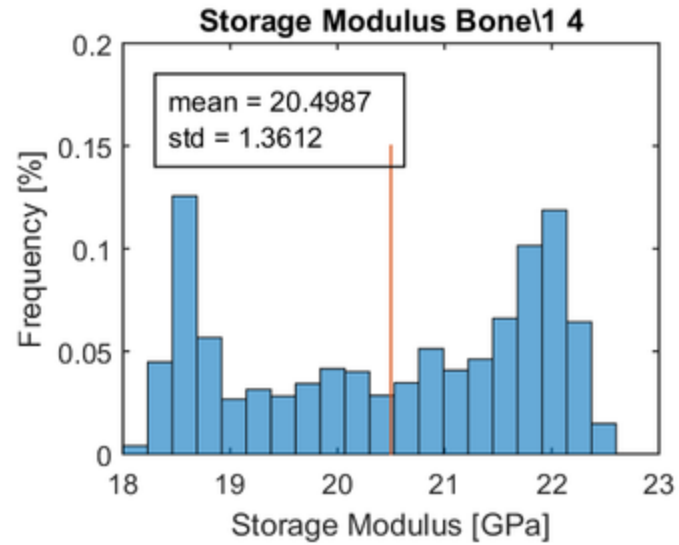
Bone A Point 2



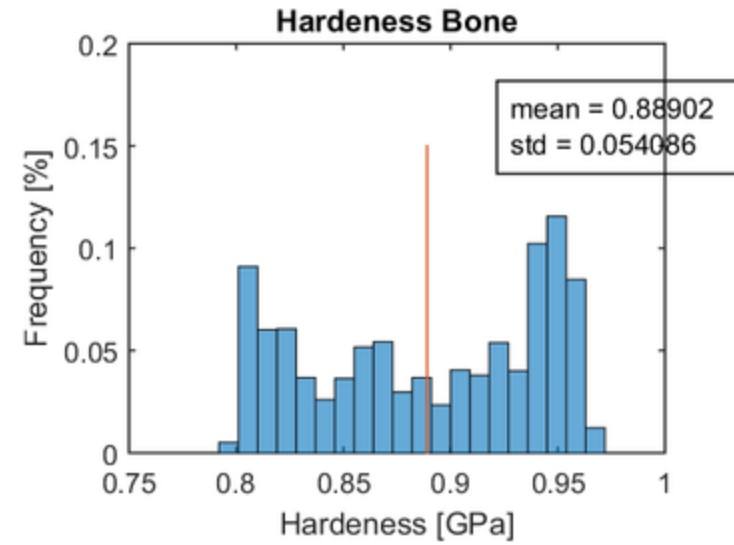
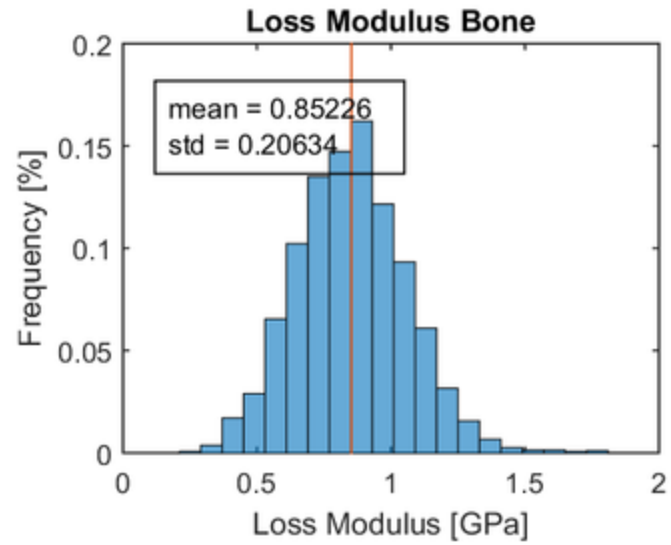
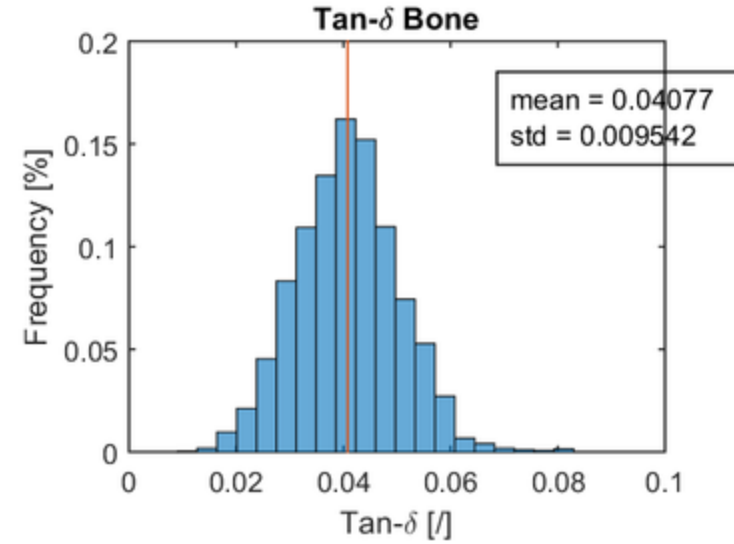
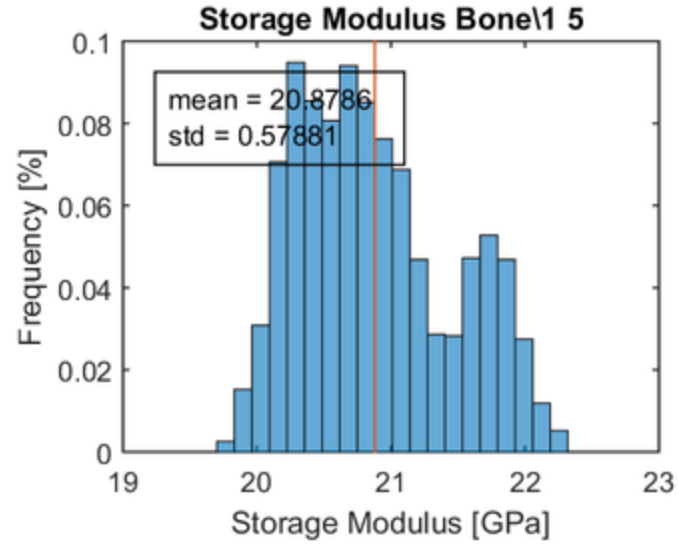
Bone A Point 3



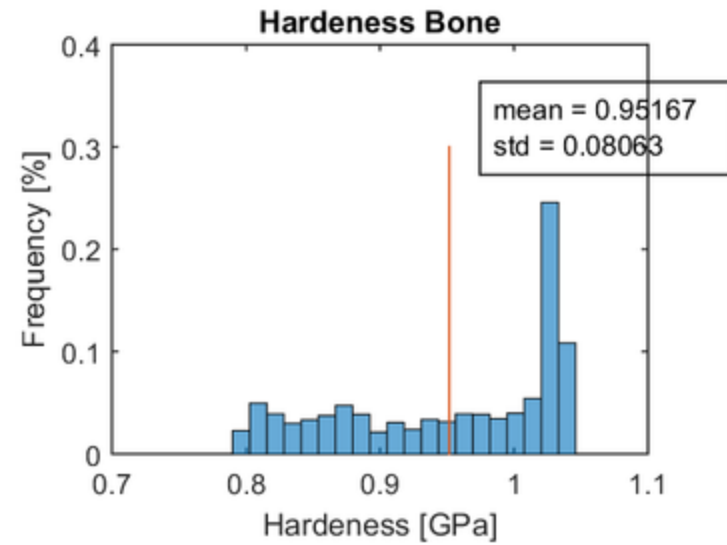
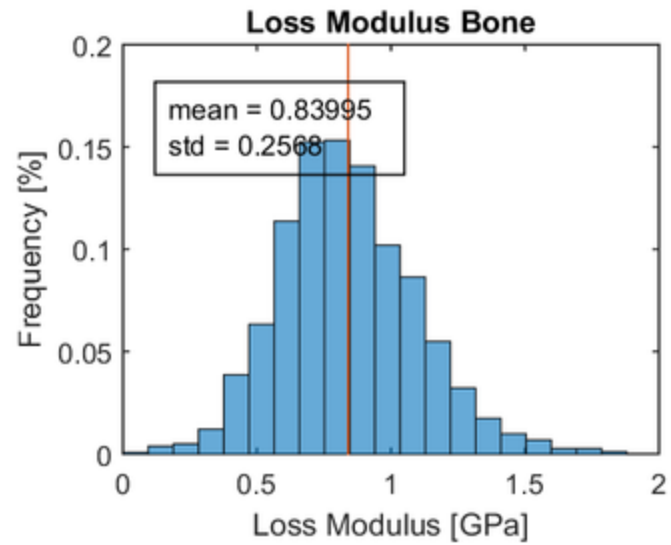
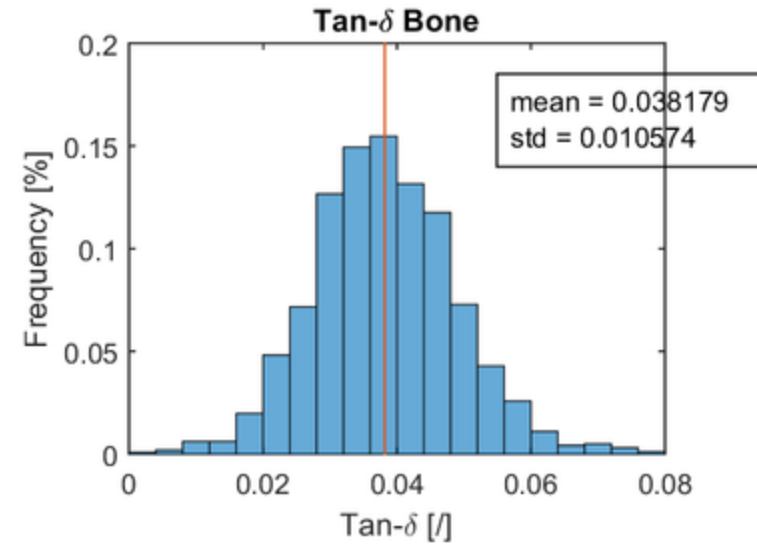
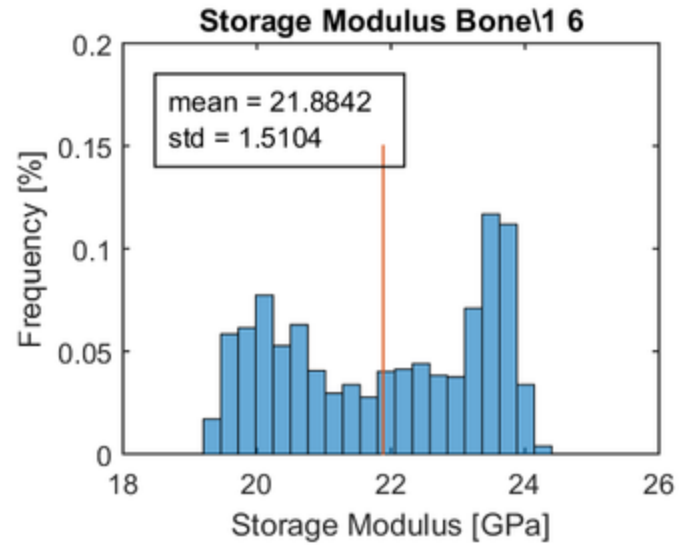
Bone A Point 4



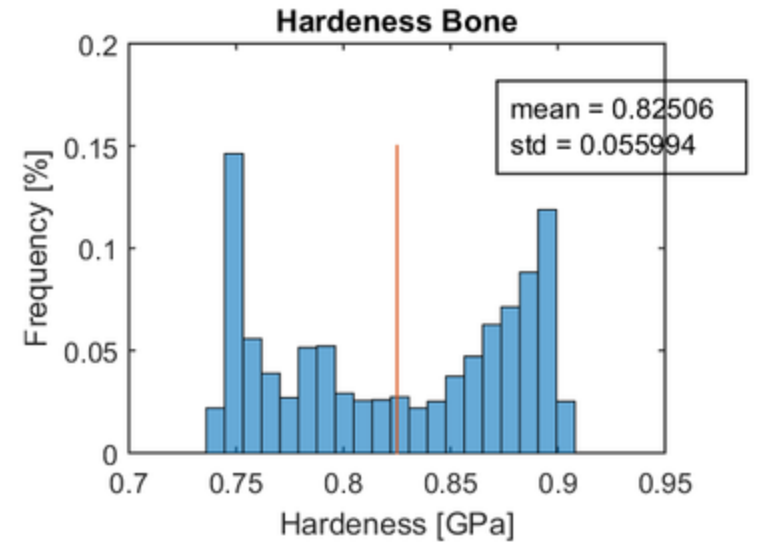
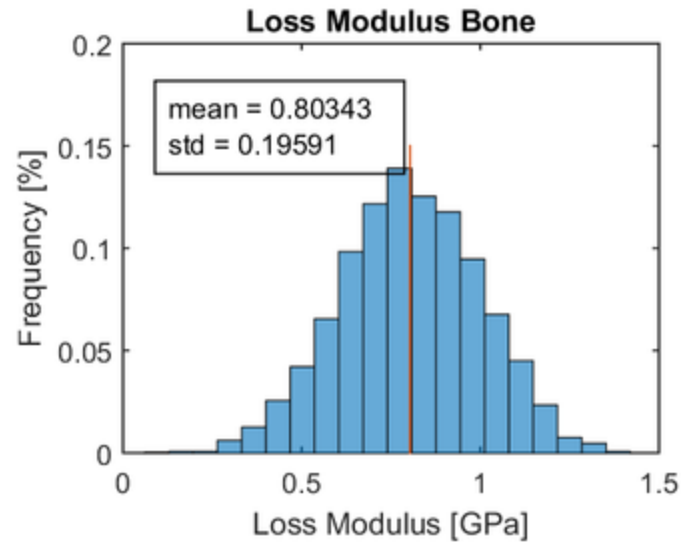
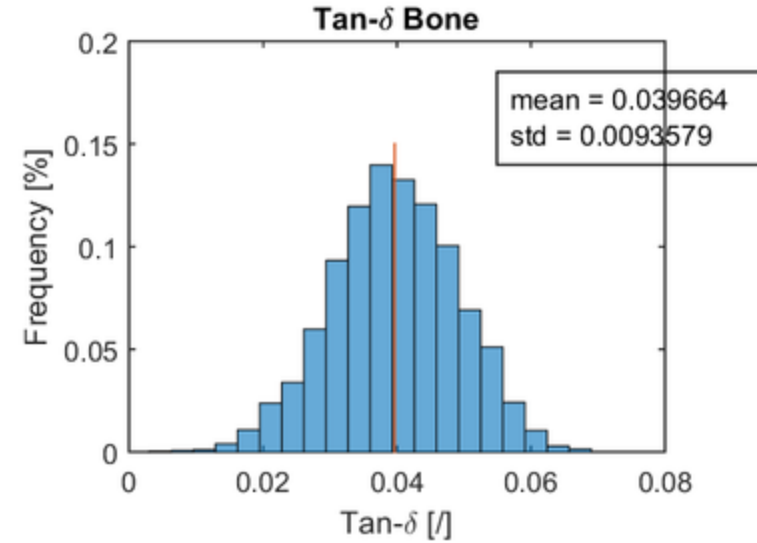
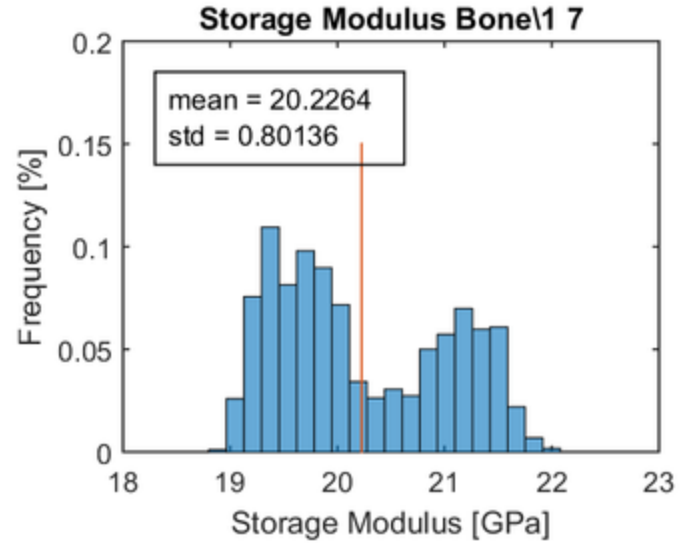
Bone A Point 5



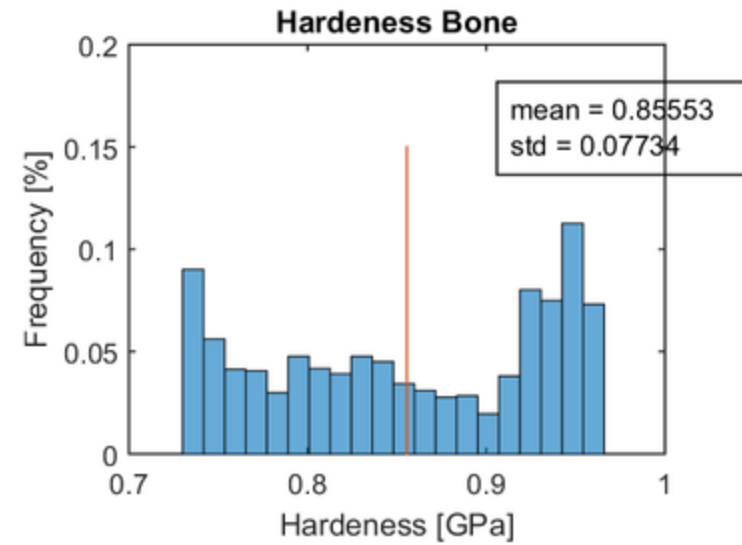
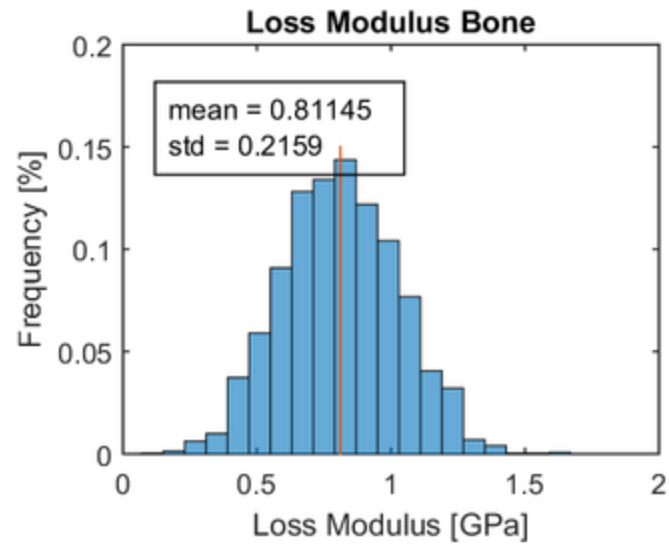
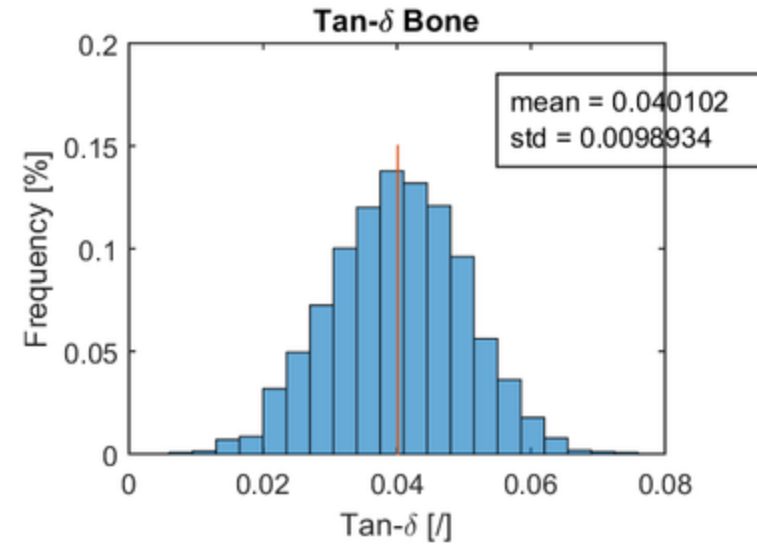
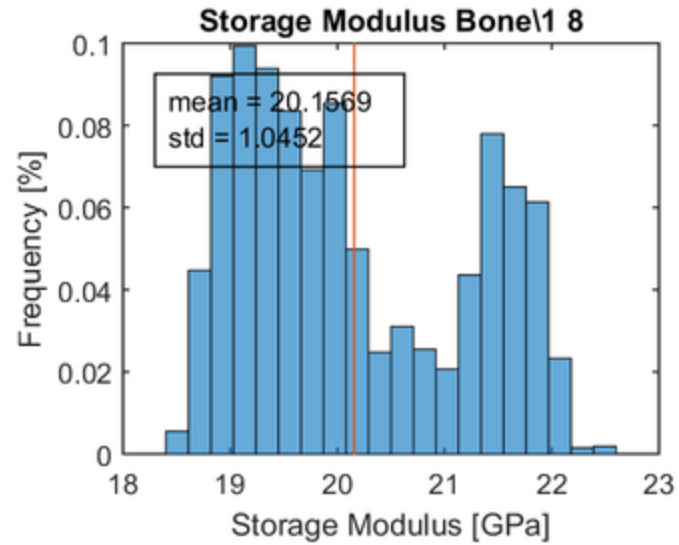
Bone A Point 6



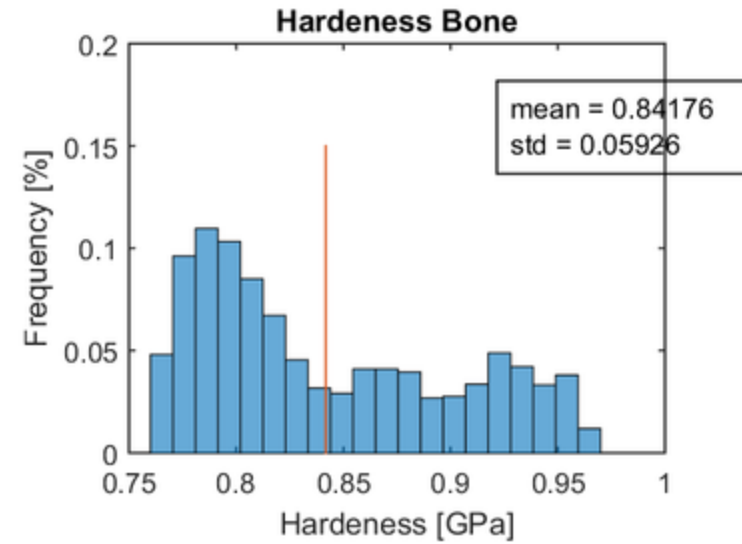
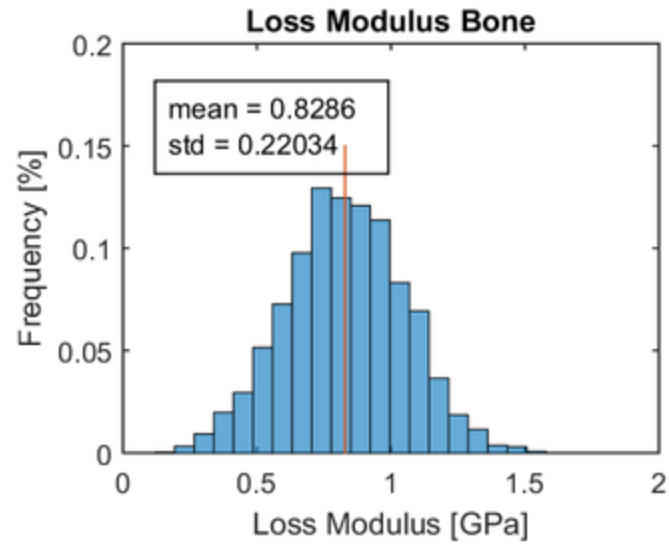
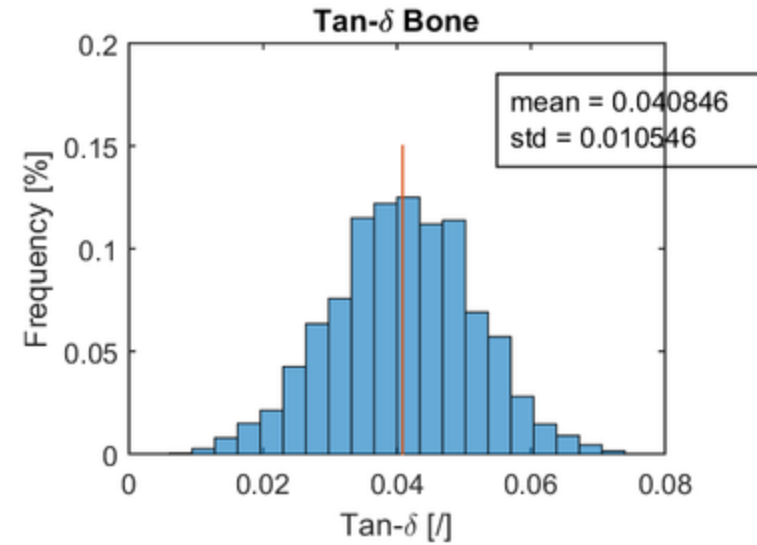
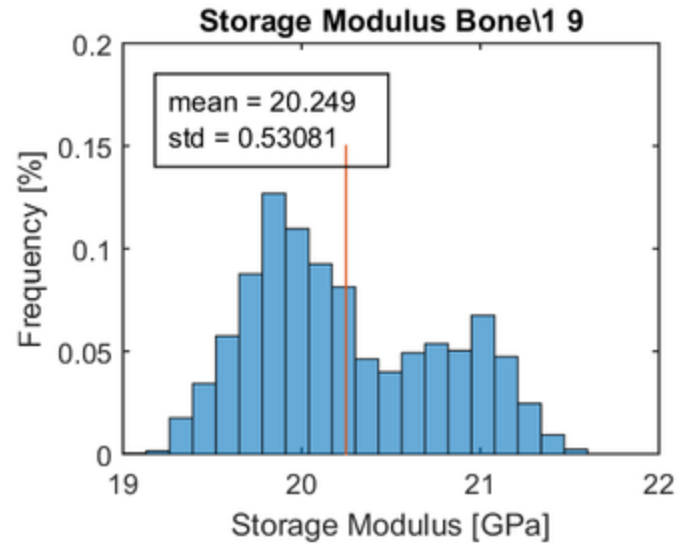
Bone A Point 7



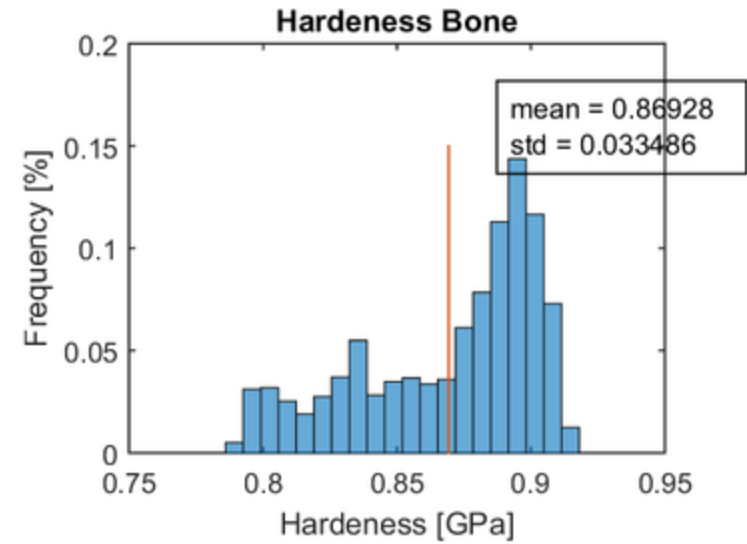
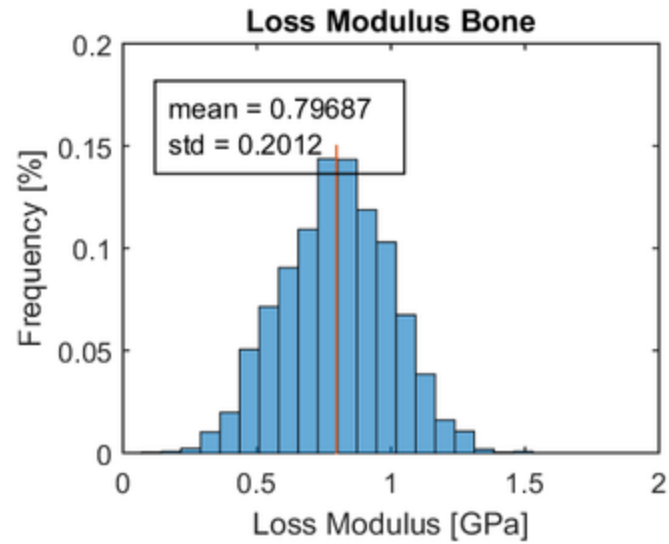
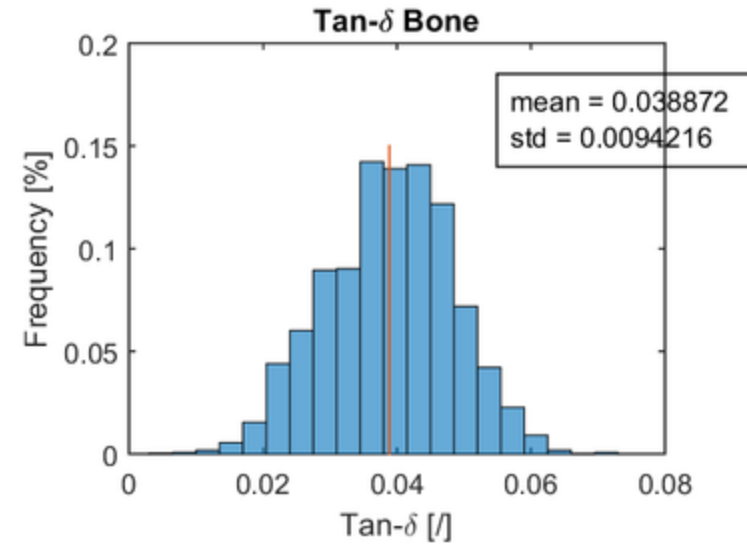
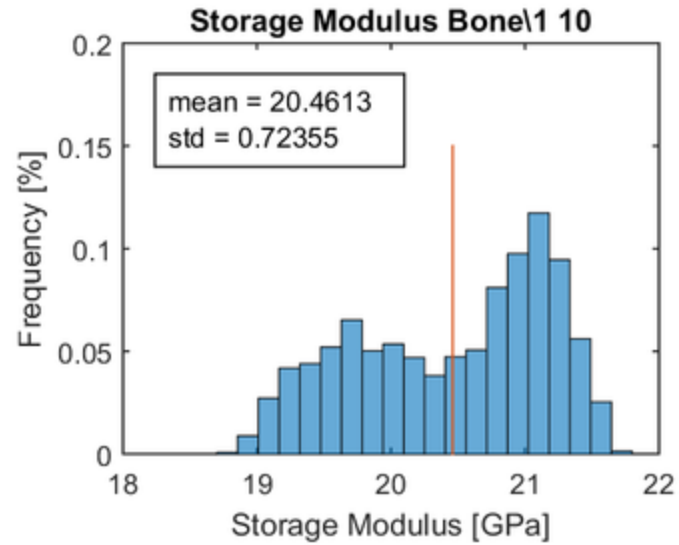
Bone A Point 8



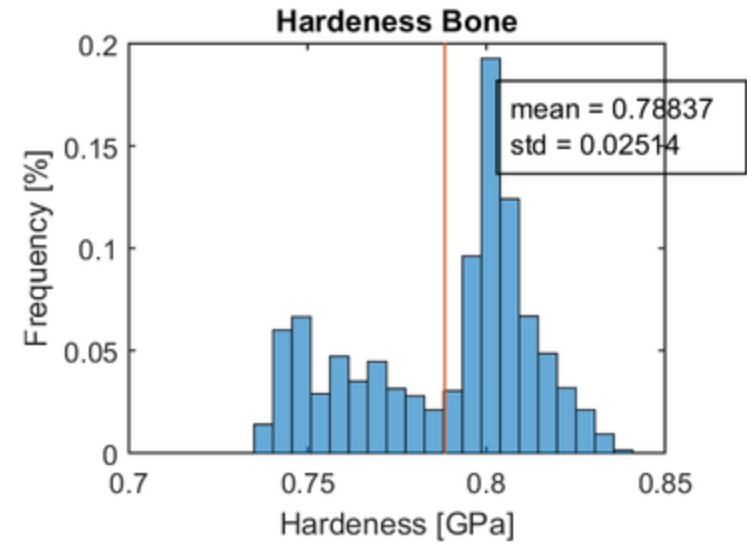
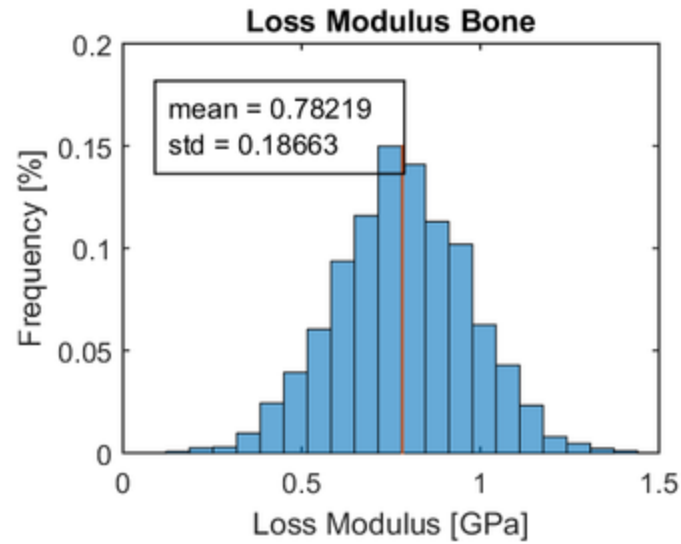
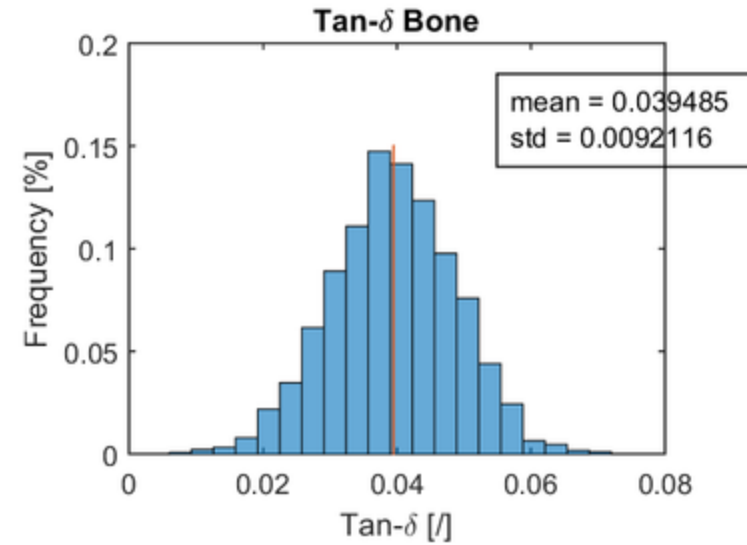
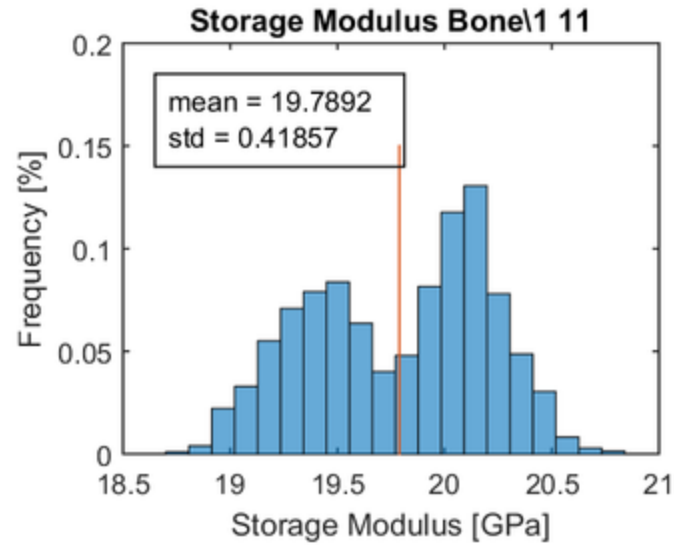
Bone A Point 9



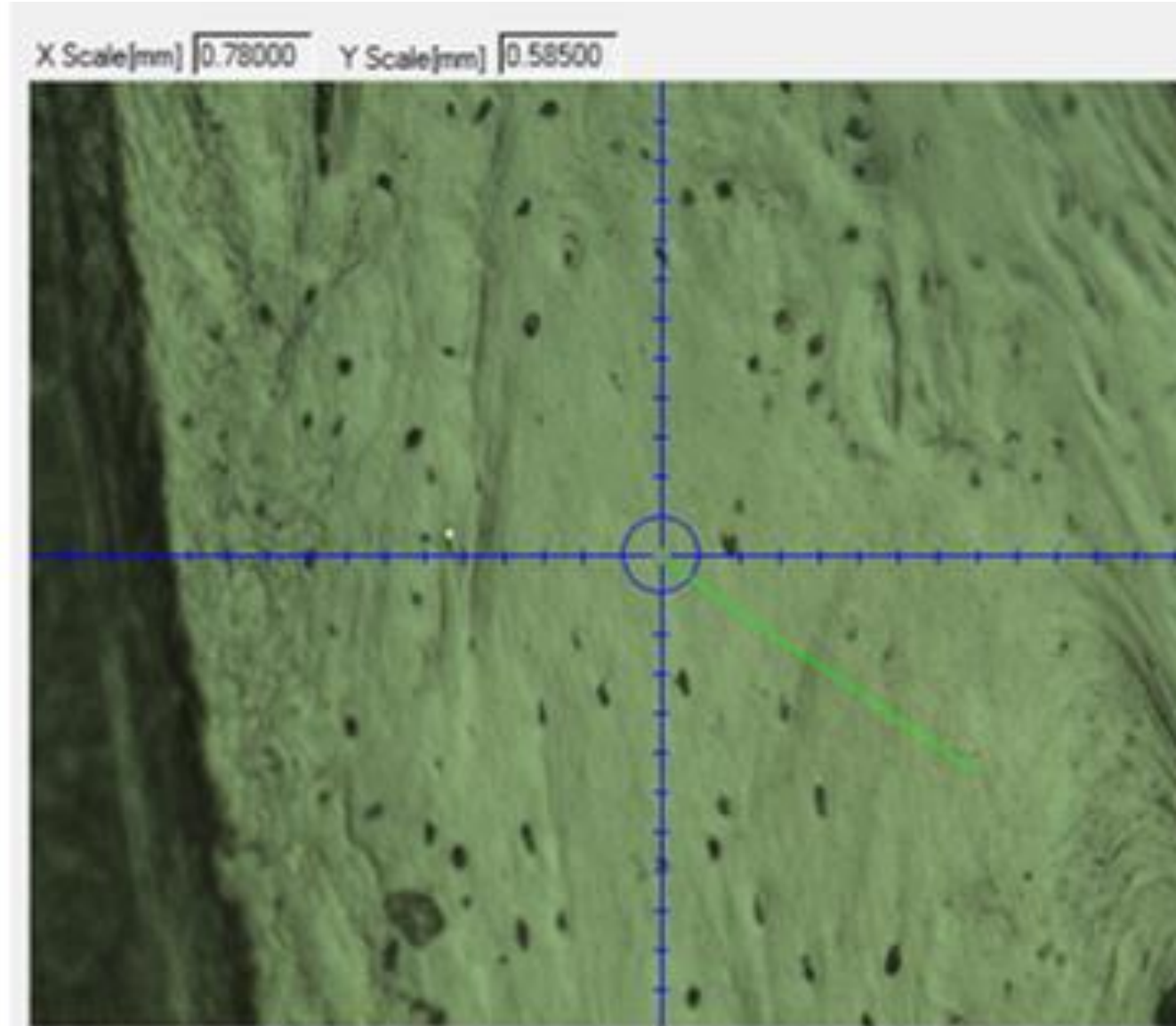
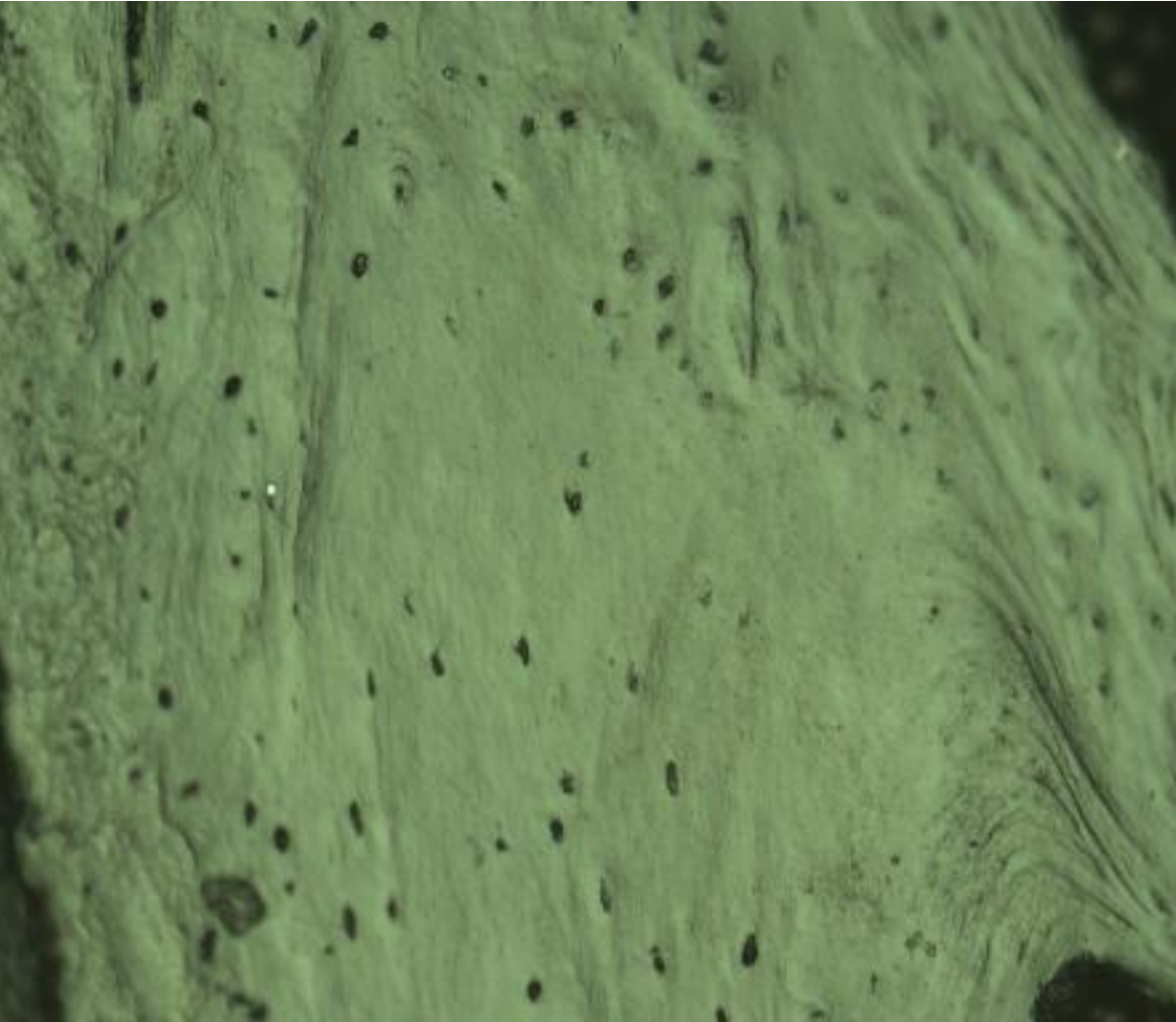
Bone A Point 10



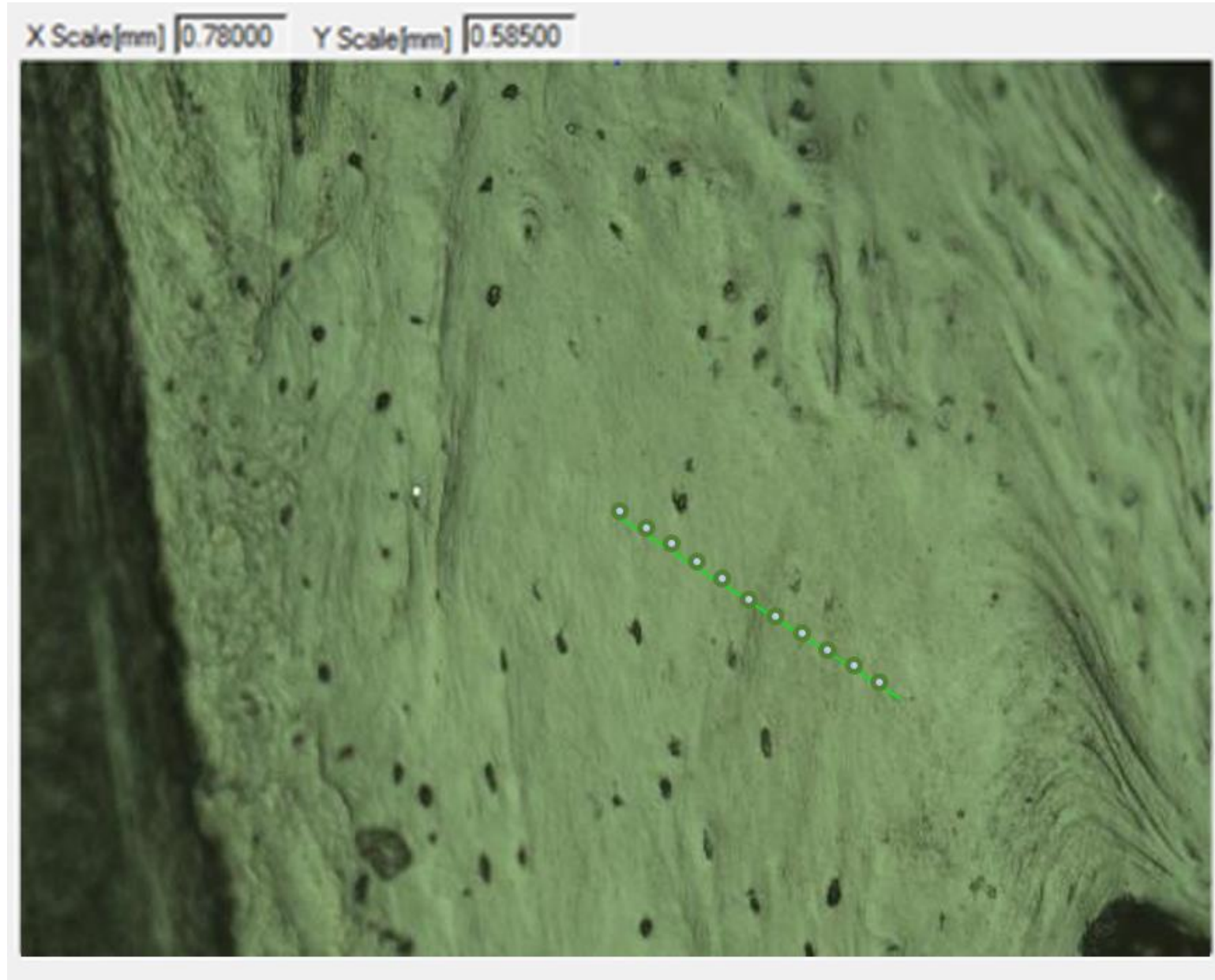
Bone A Point 11

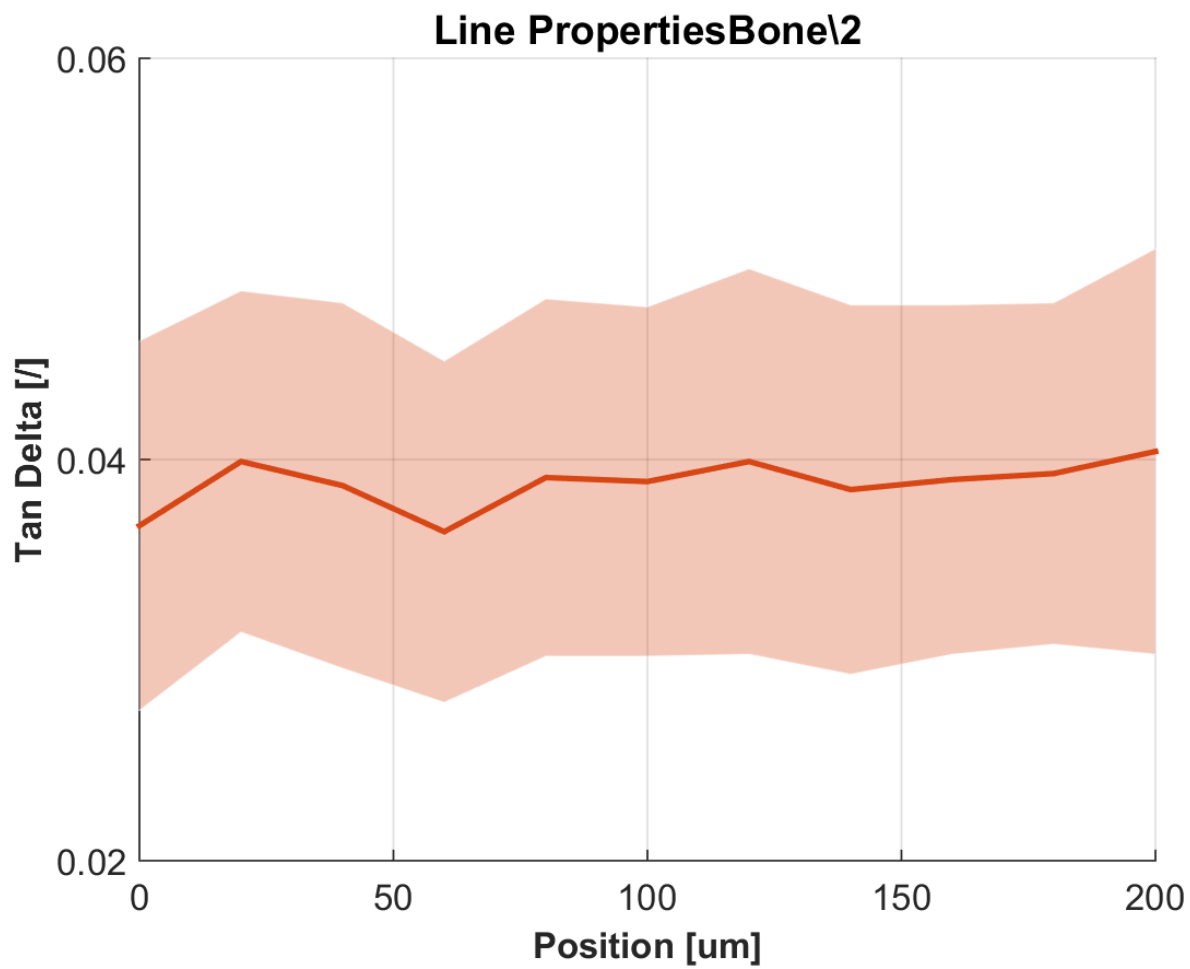
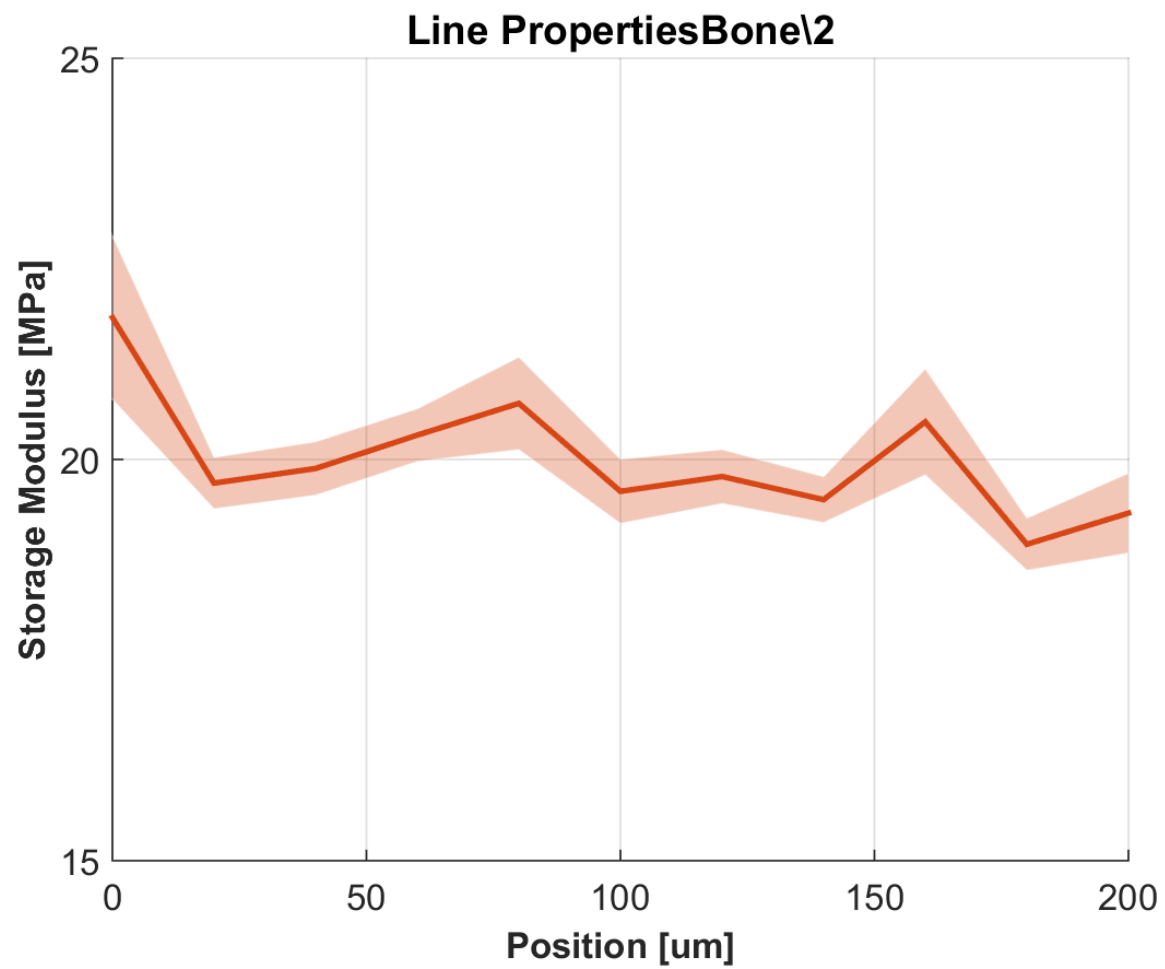


B. Bone D1 11 points $\Delta=20\mu\text{m}$ roughness Good



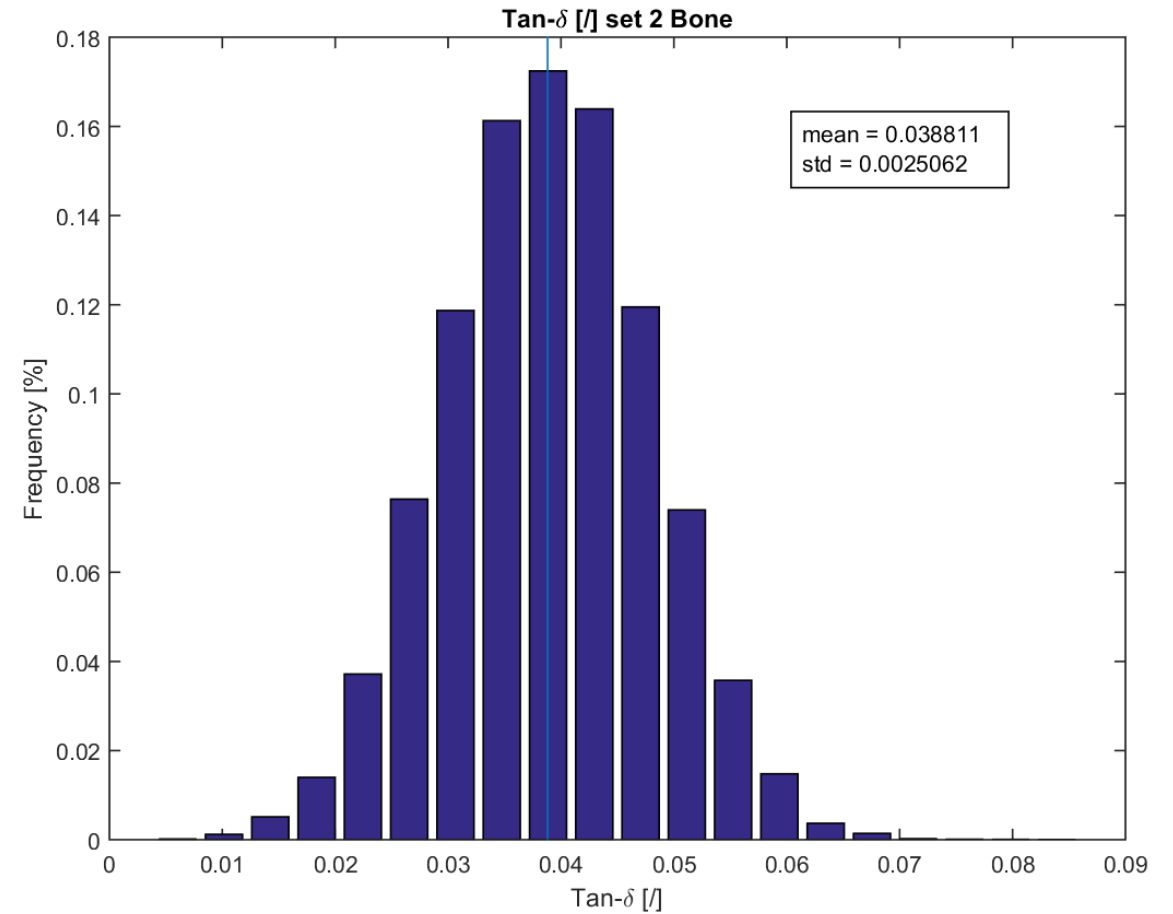
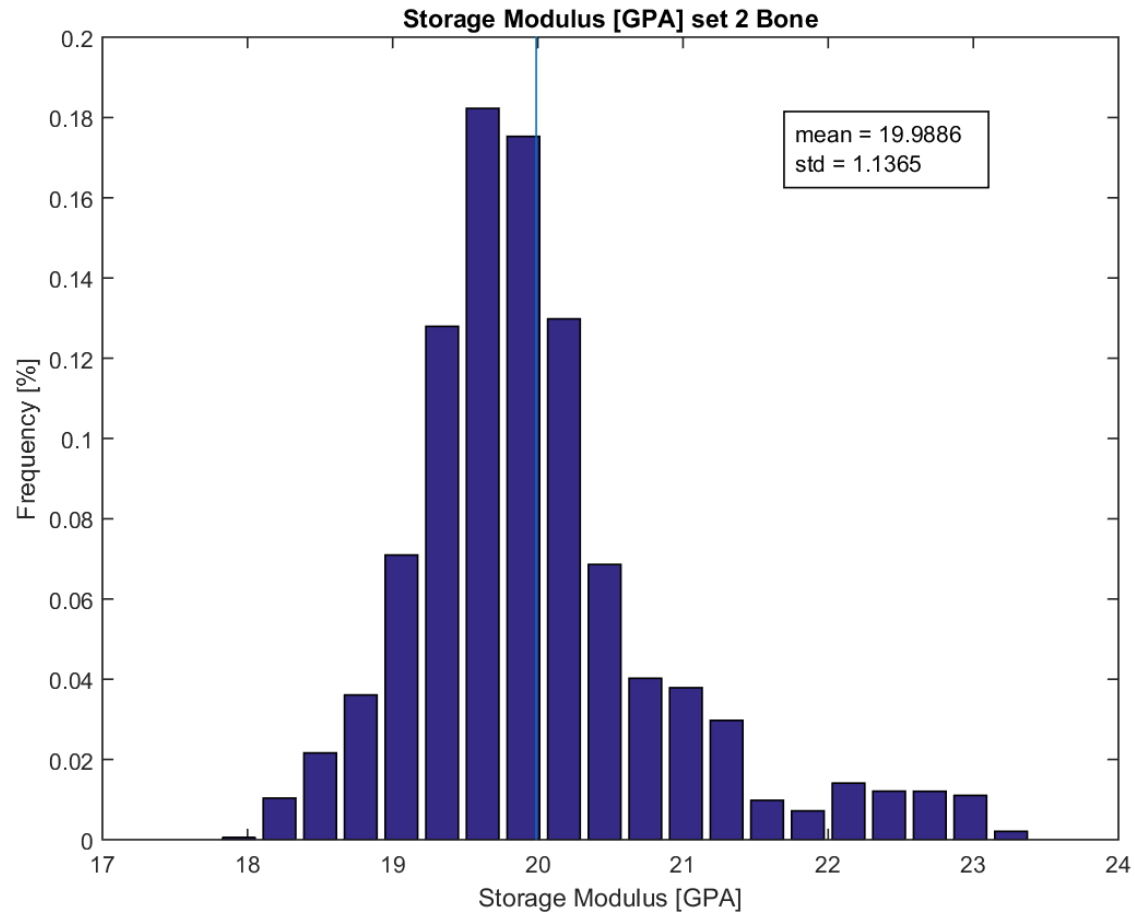
B. Bone D1 11 points $\Delta=20\mu\text{m}$ roughness Good

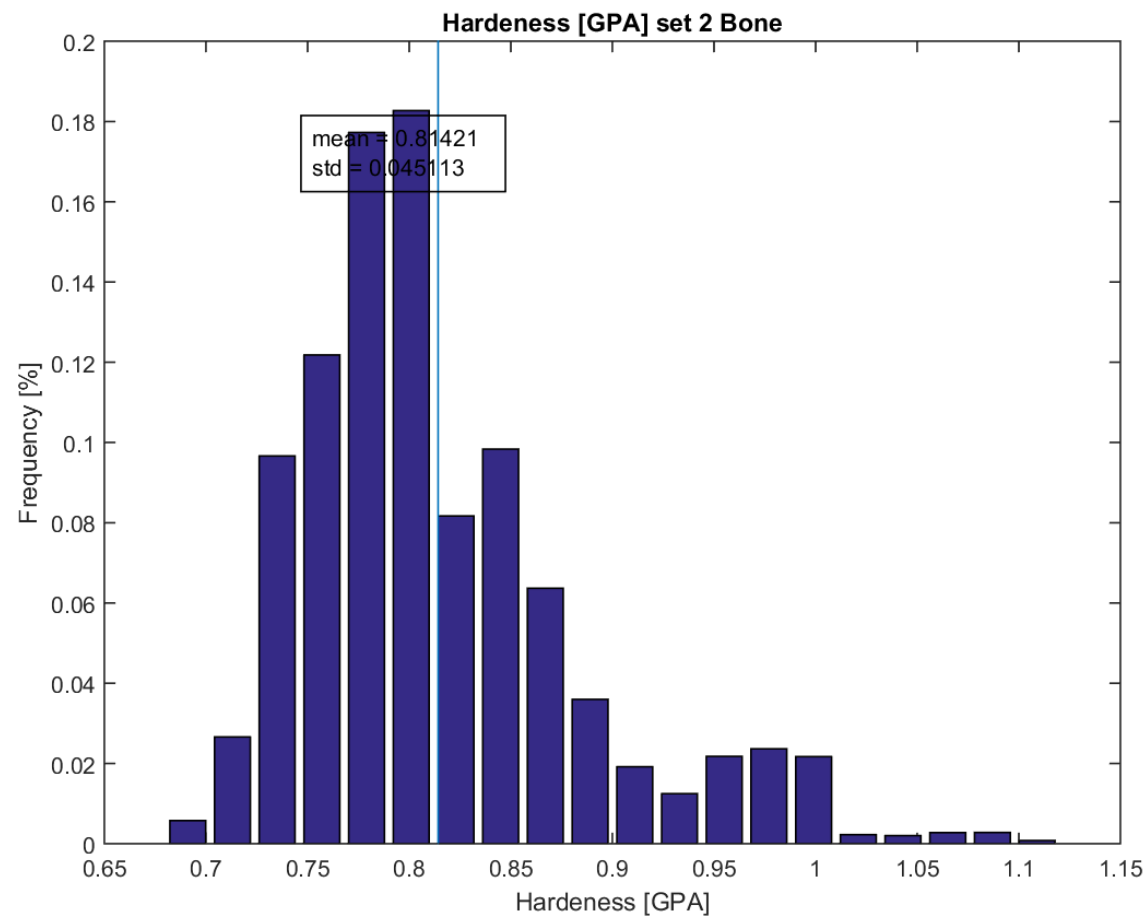
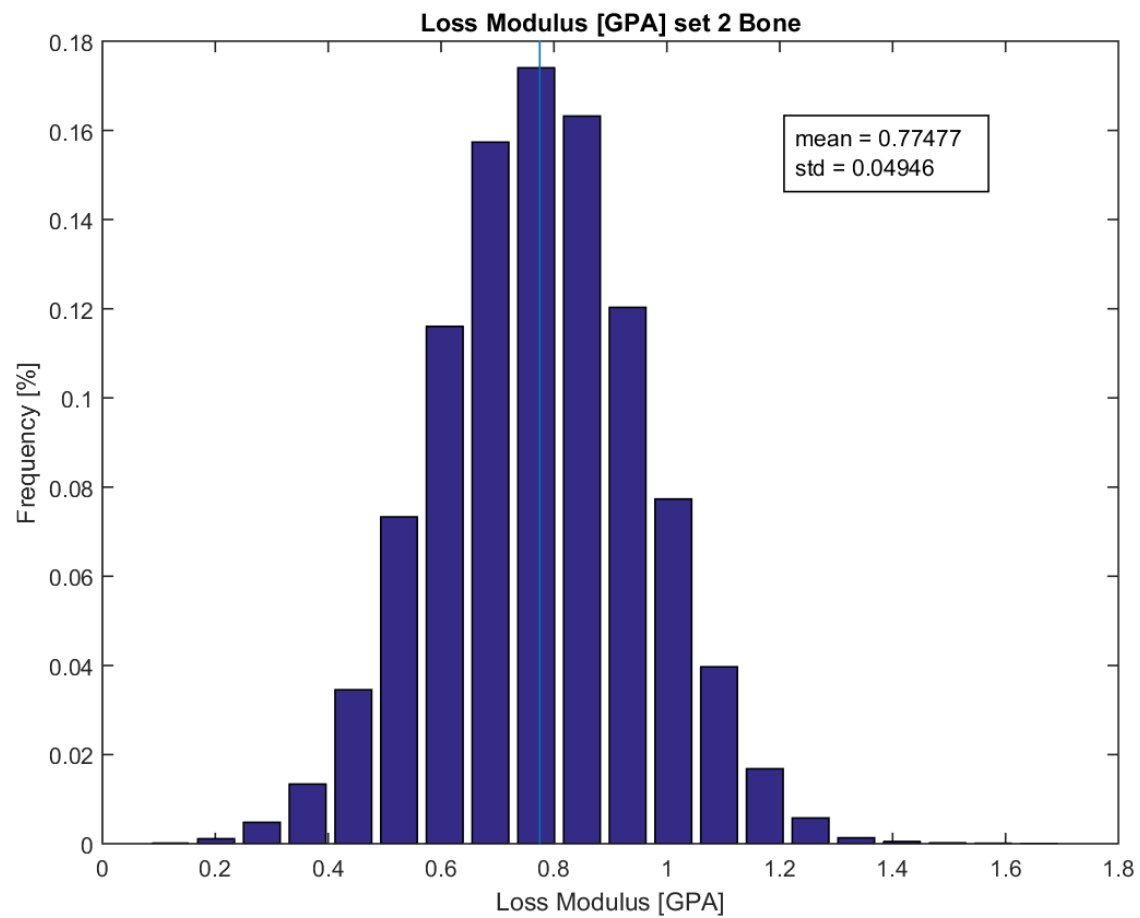




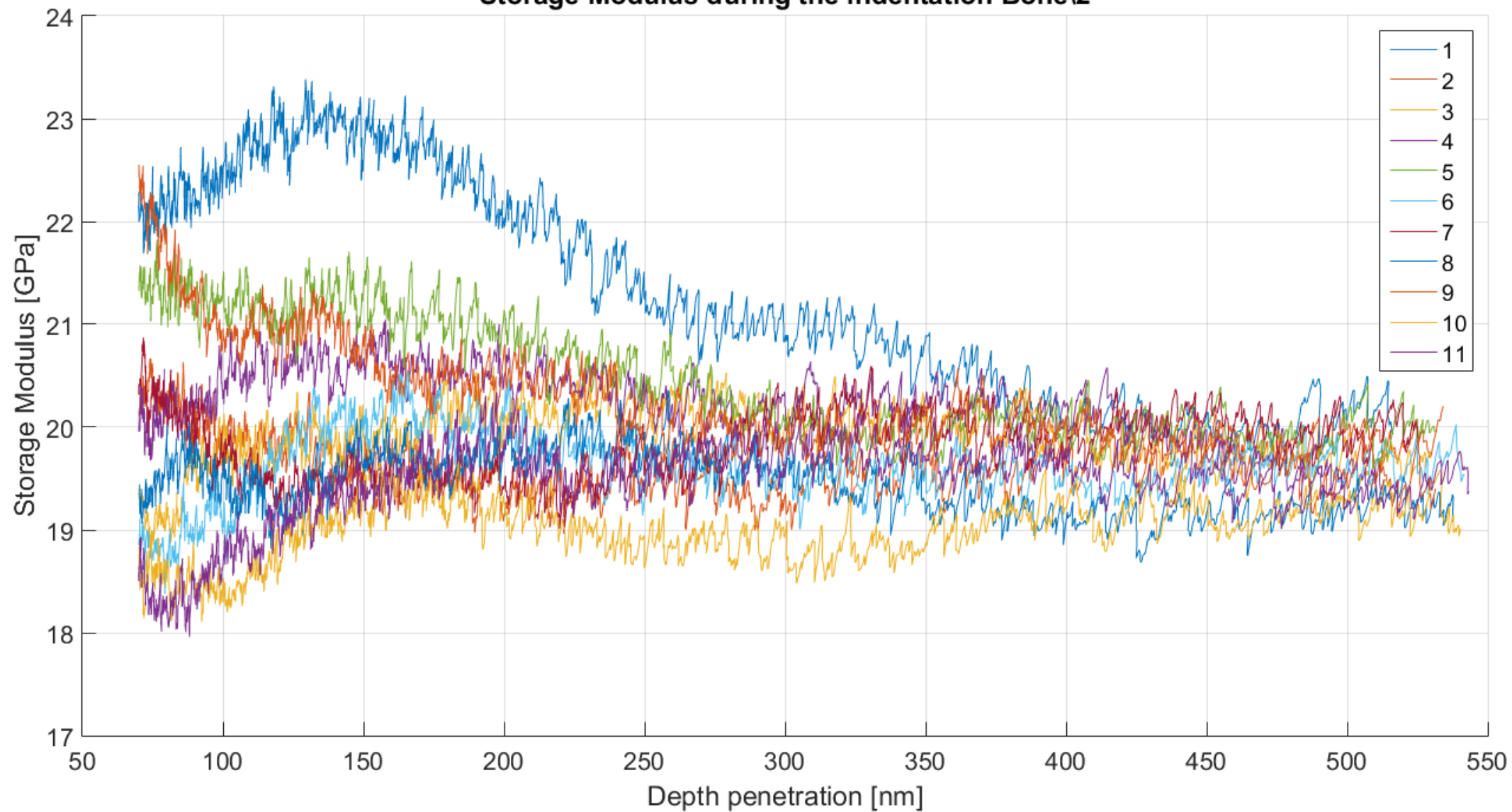
- No depth surface graph

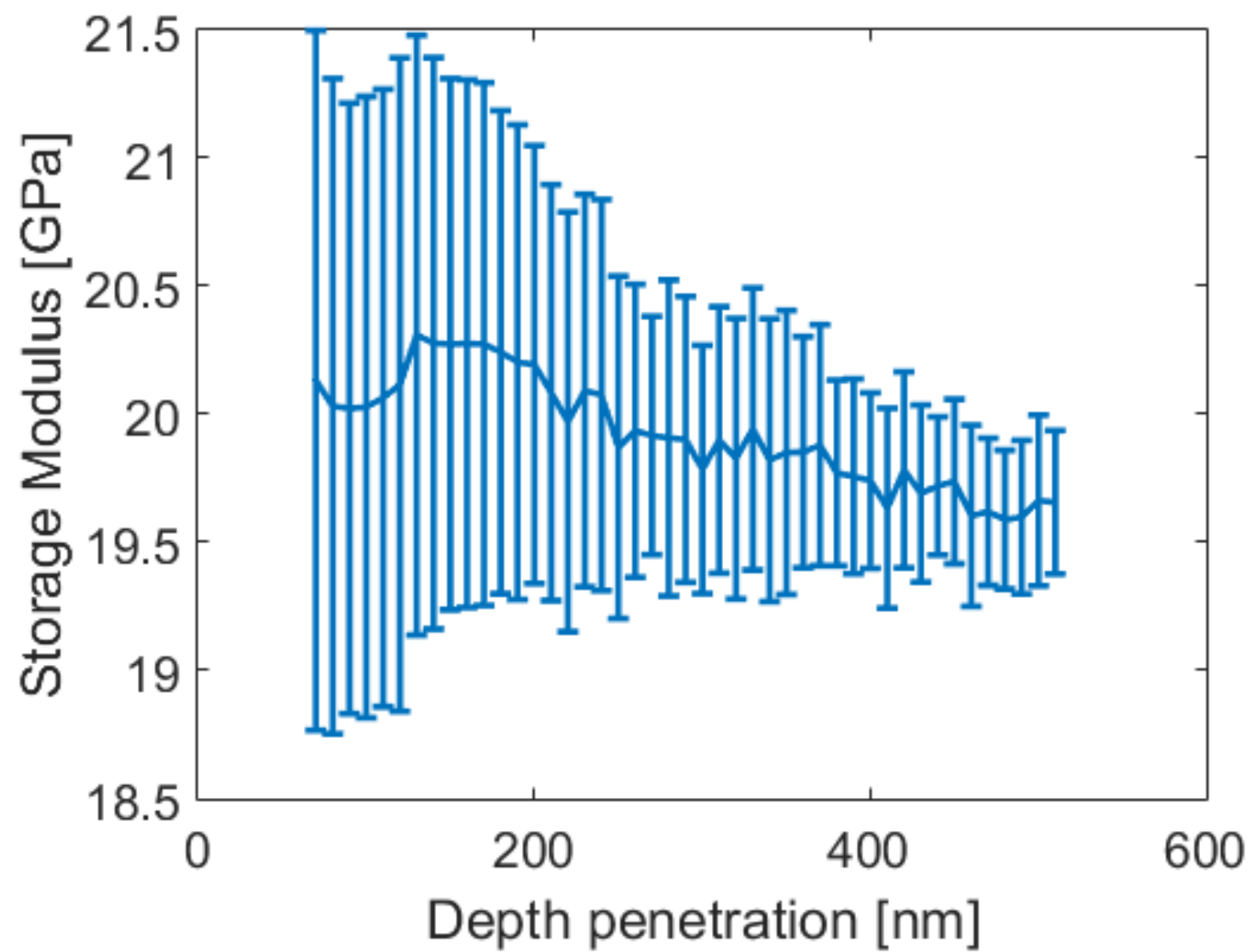
B. Complet

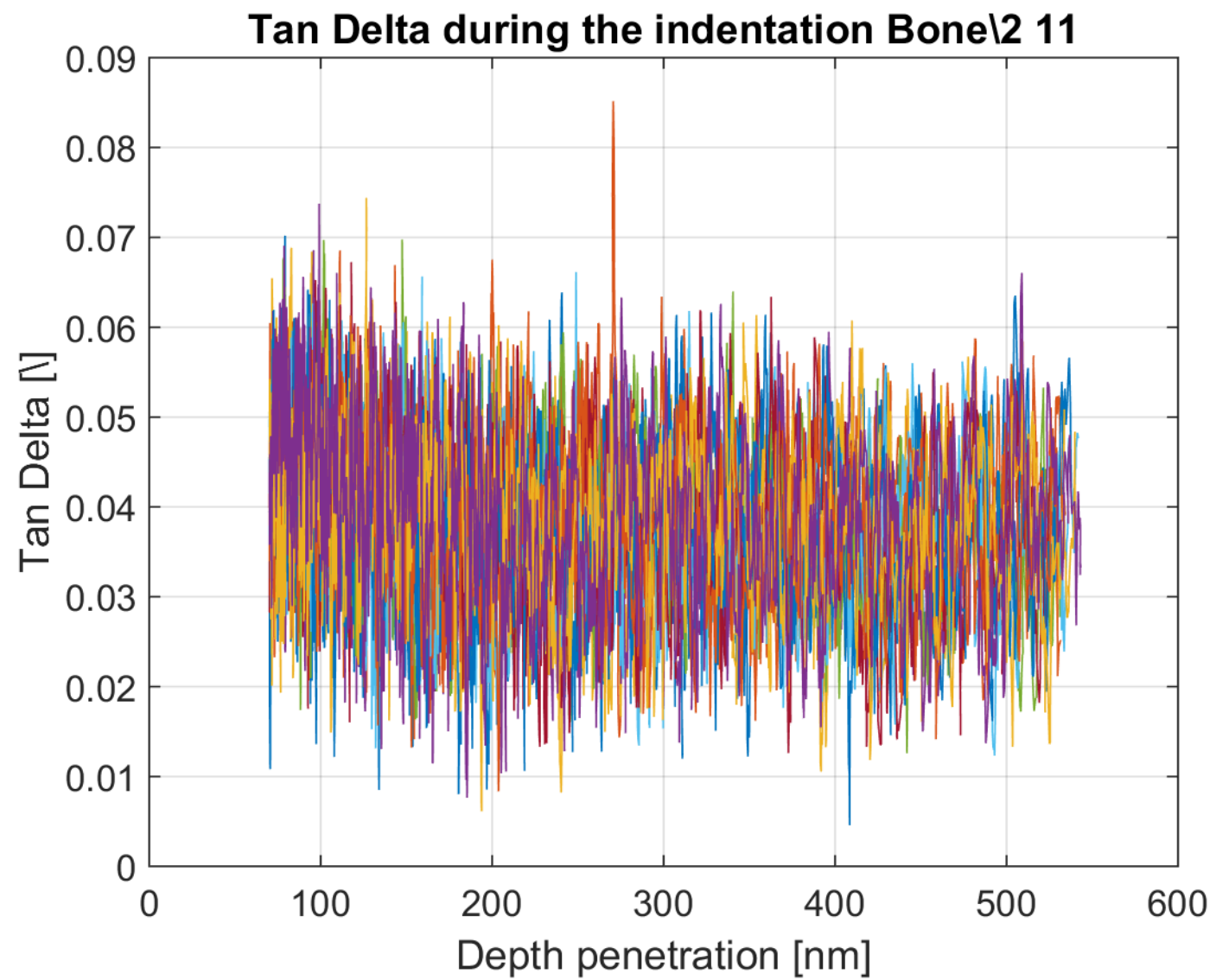


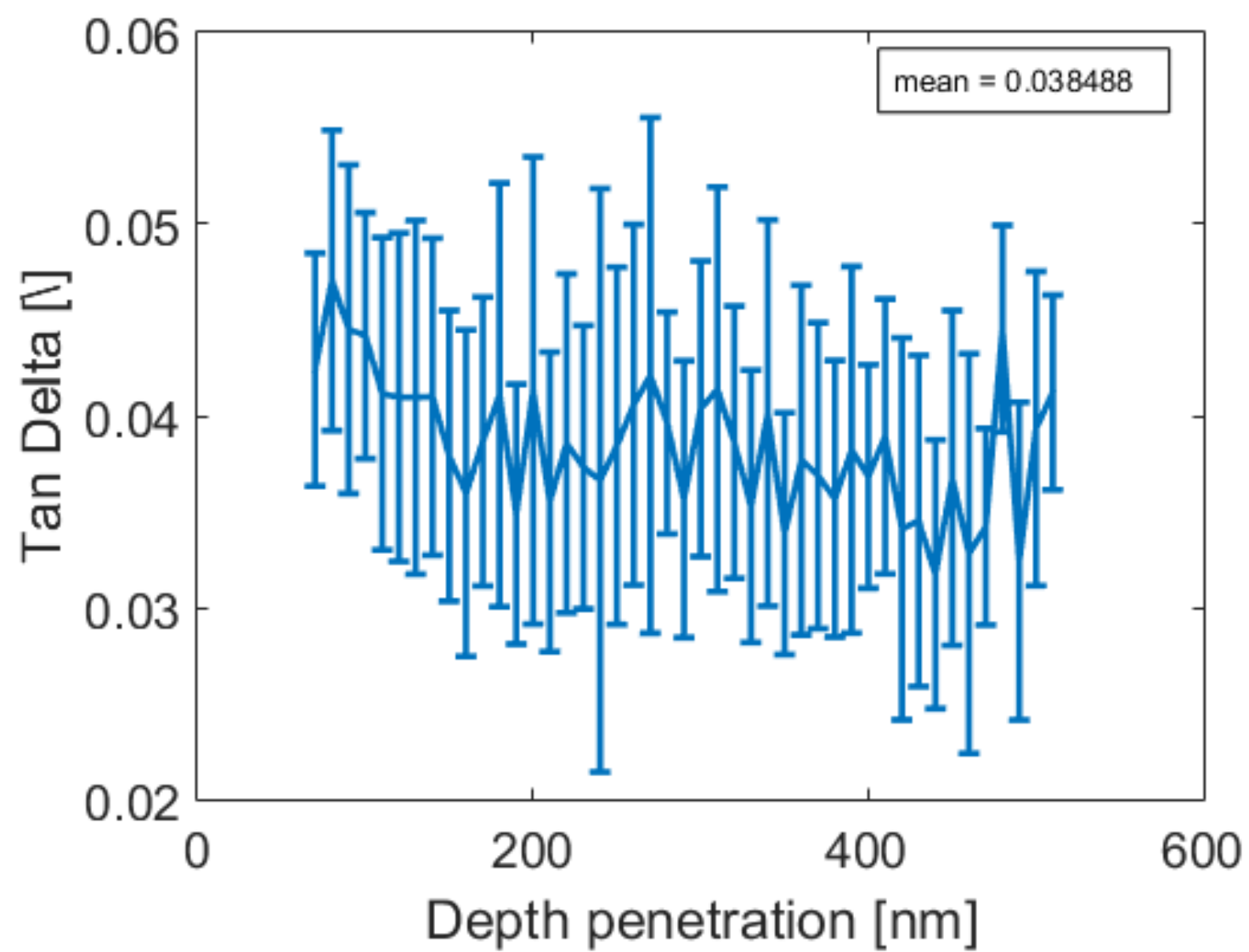


Storage Modulus during the indentation Bone\2

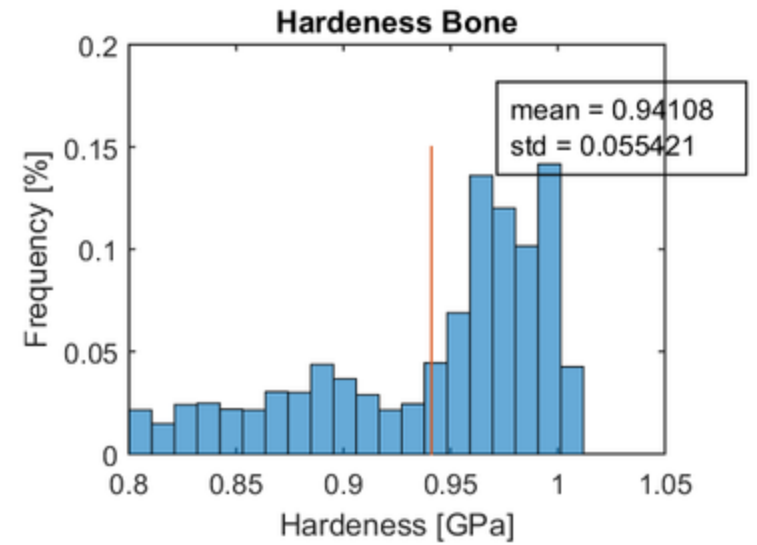
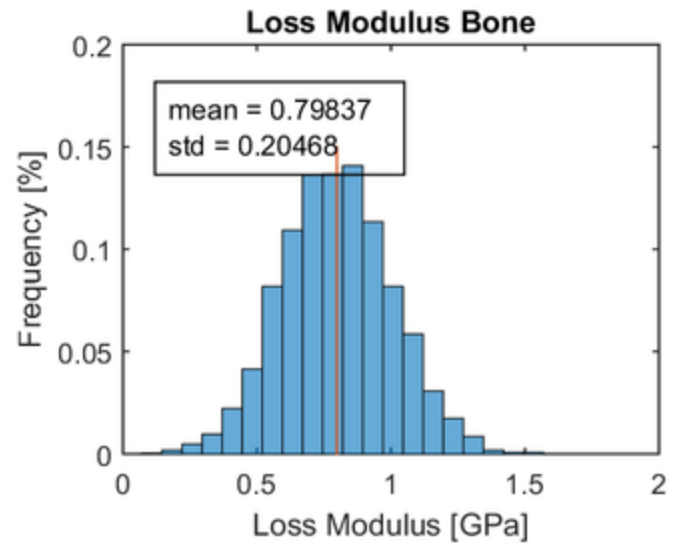
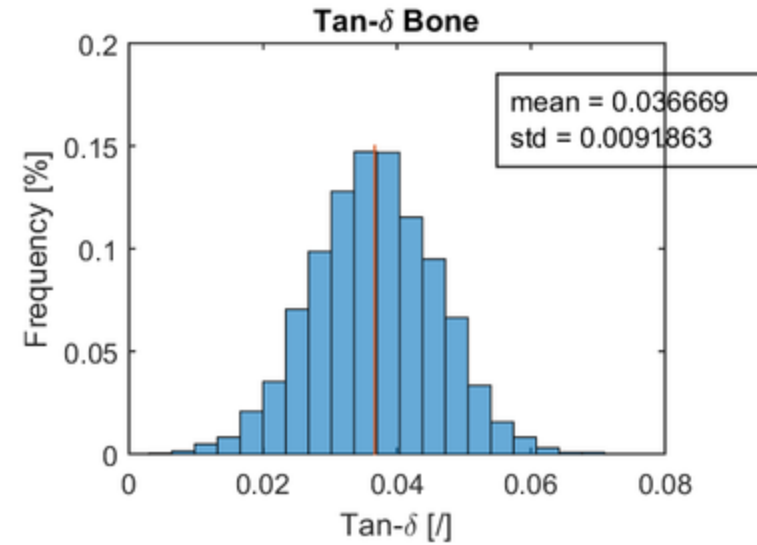
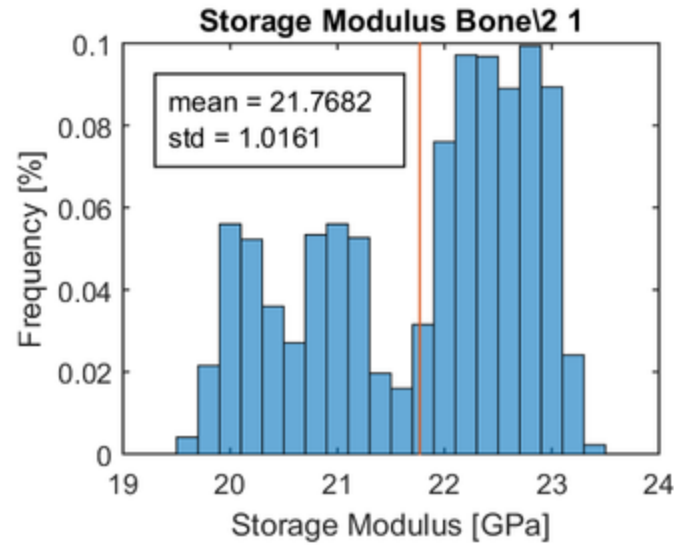




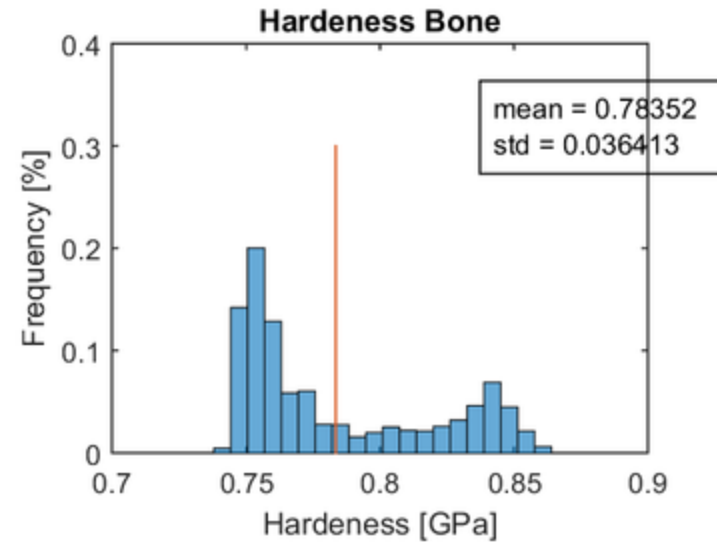
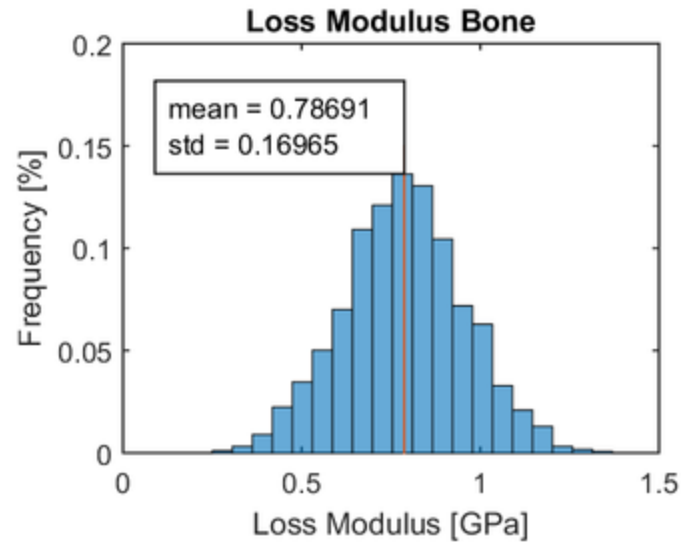
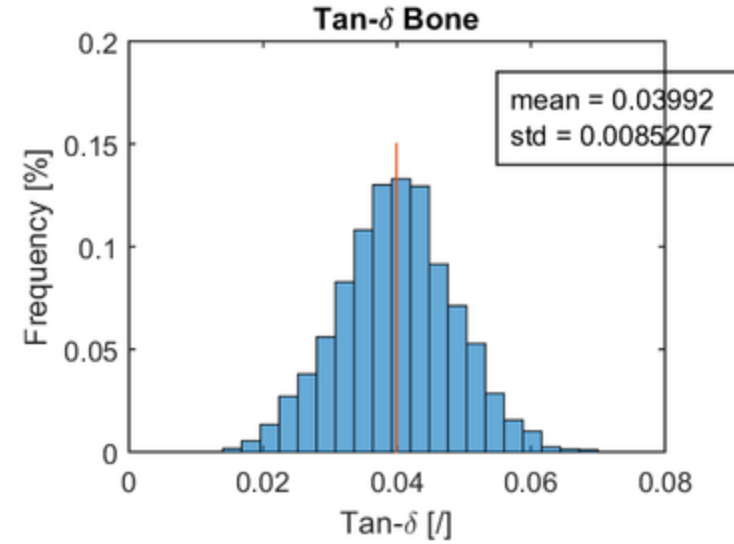
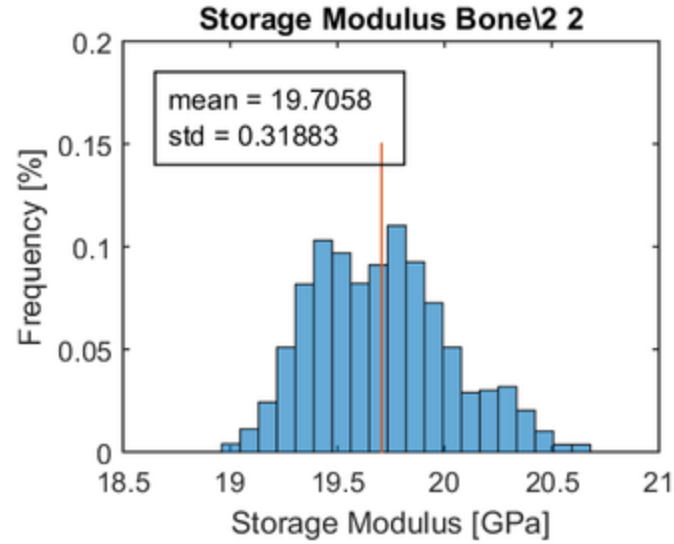




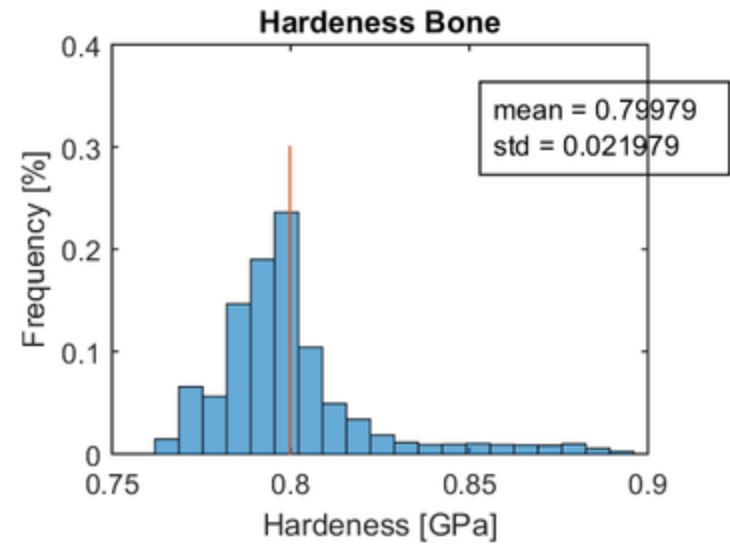
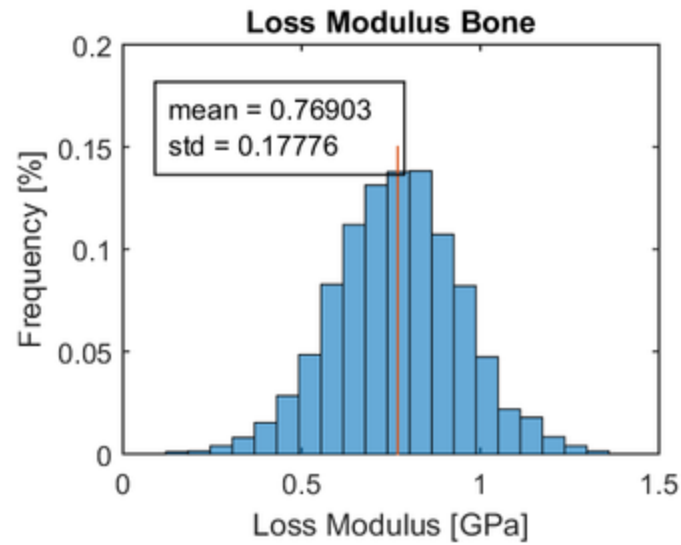
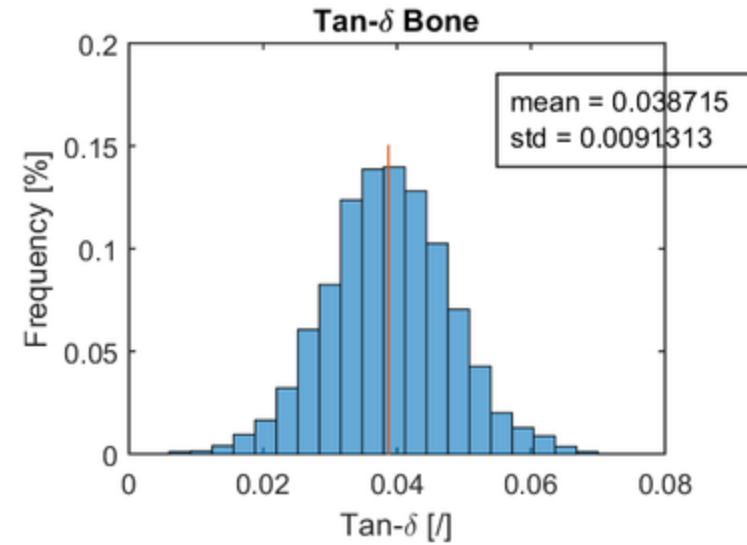
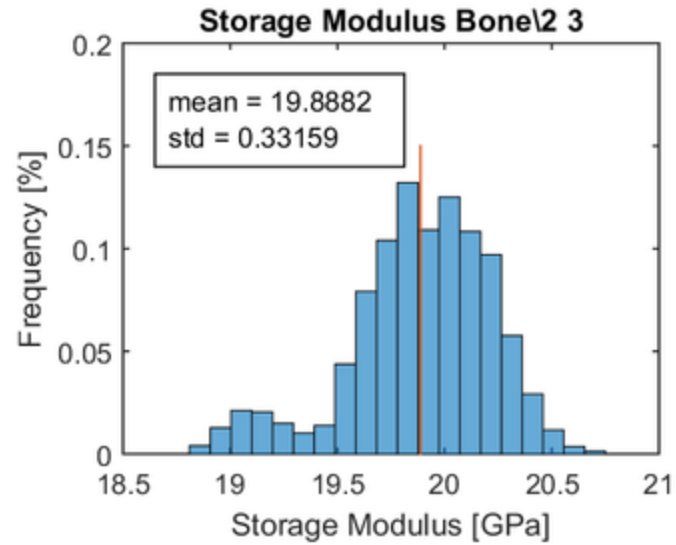
Bone B Point 1



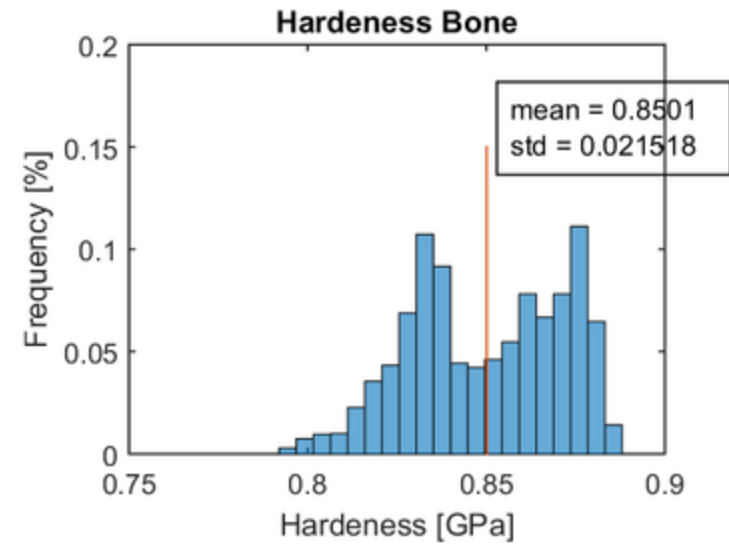
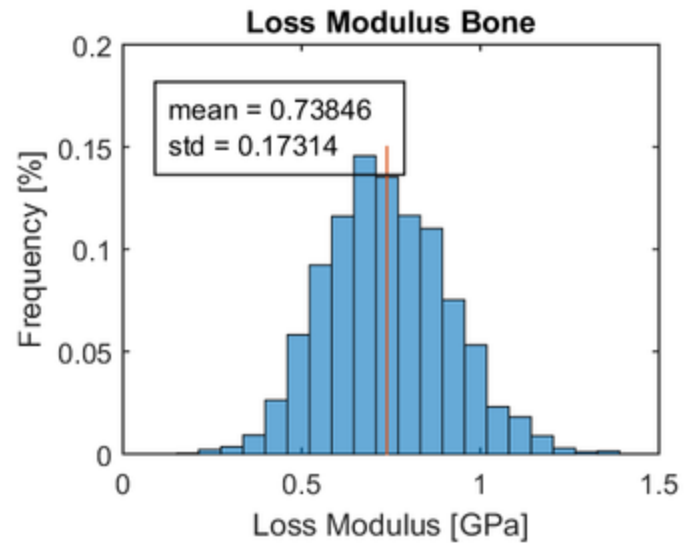
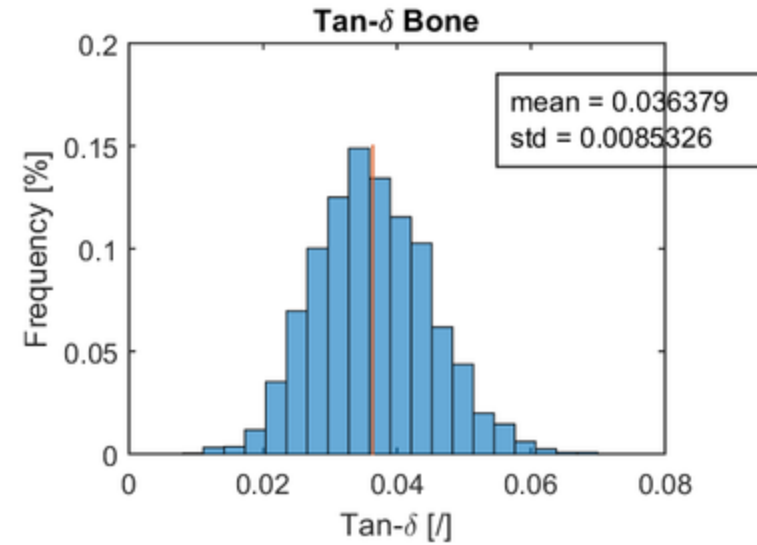
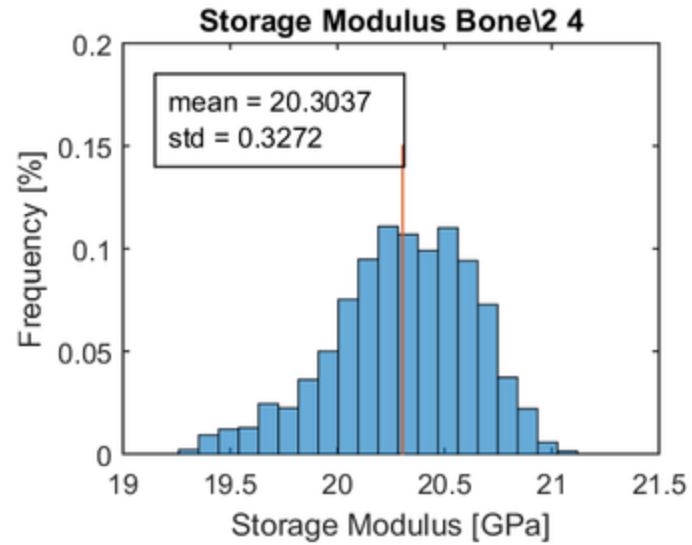
Bone B Point 2



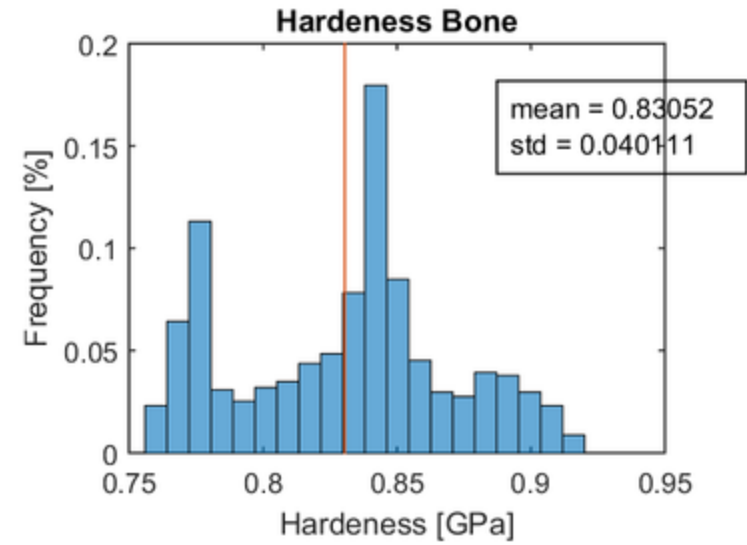
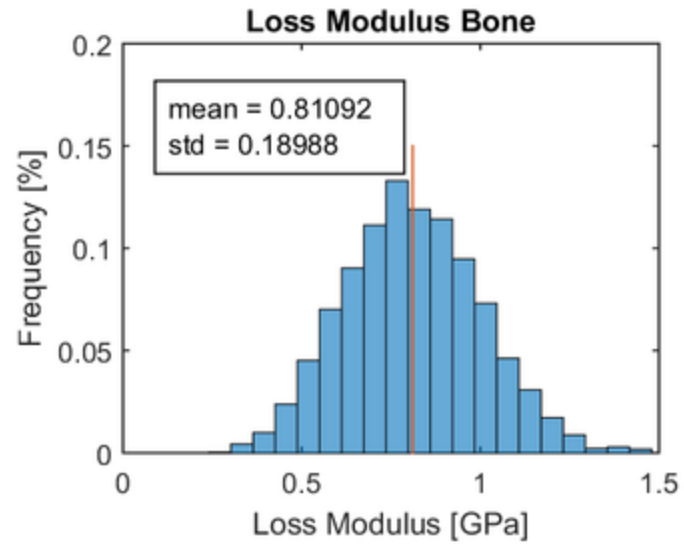
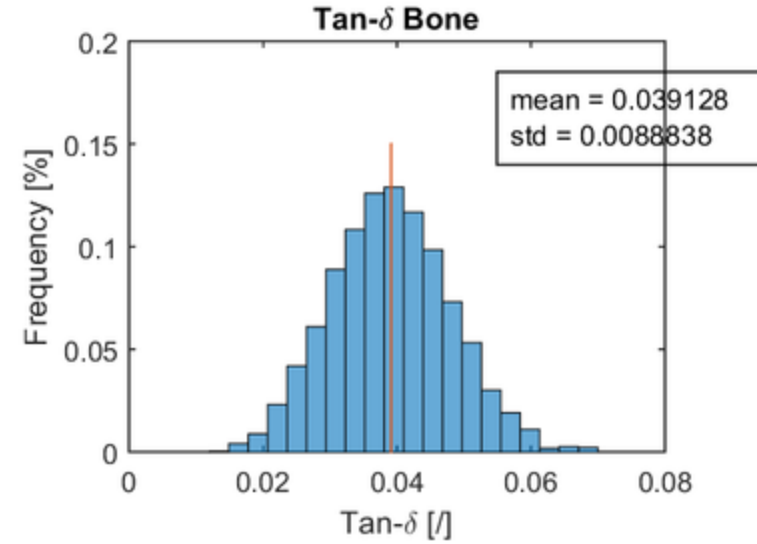
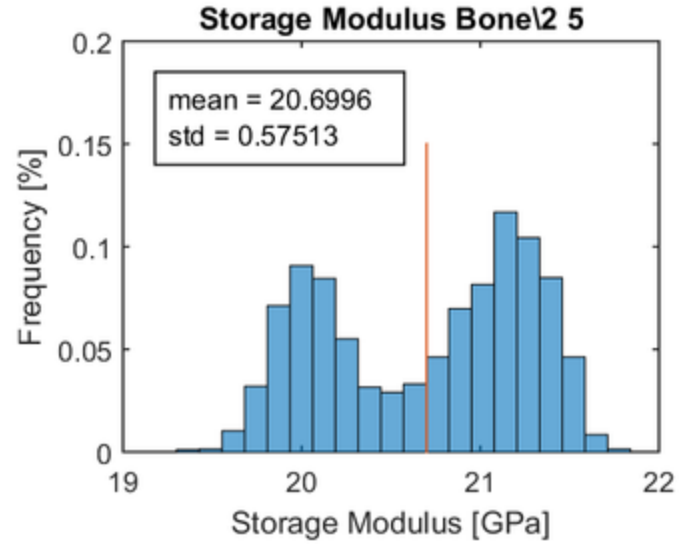
Bone B Point 3



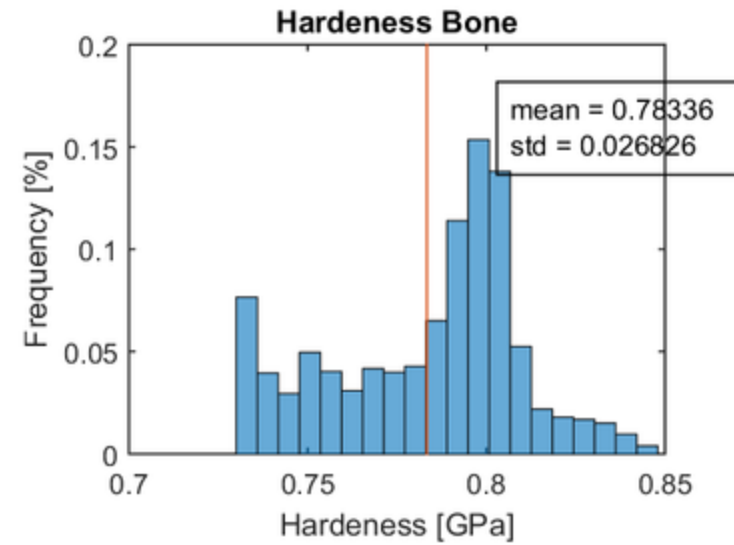
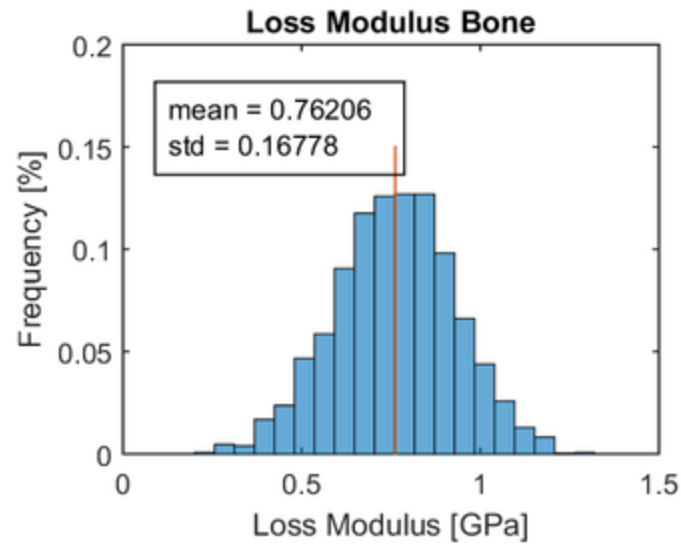
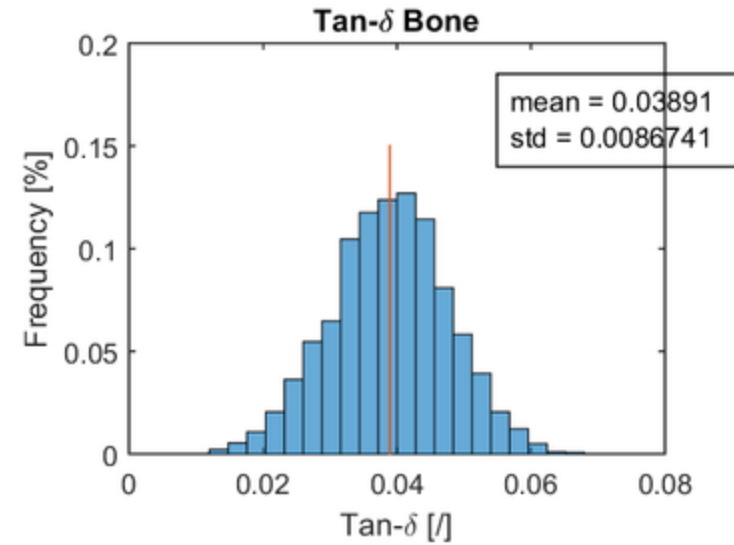
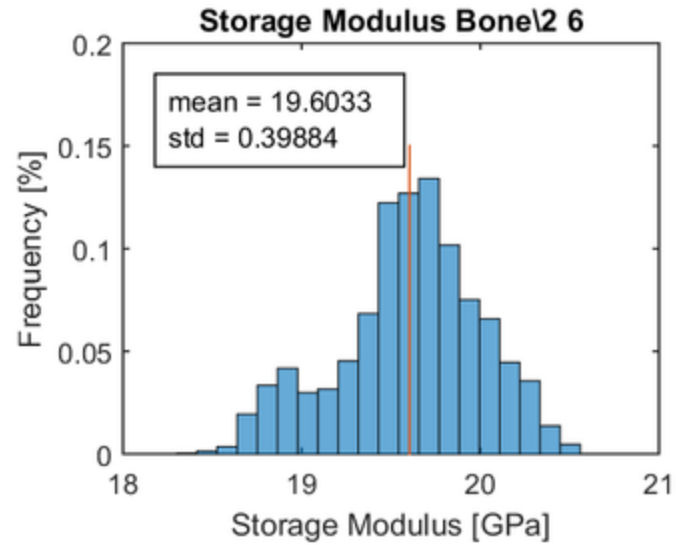
Bone B Point 4



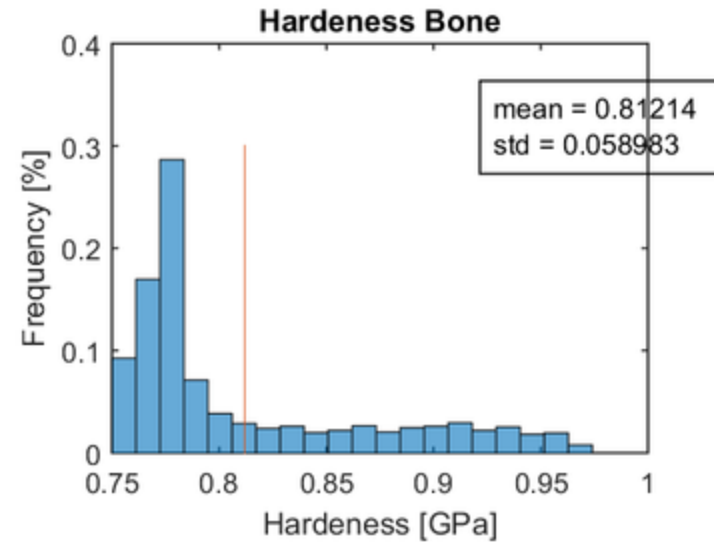
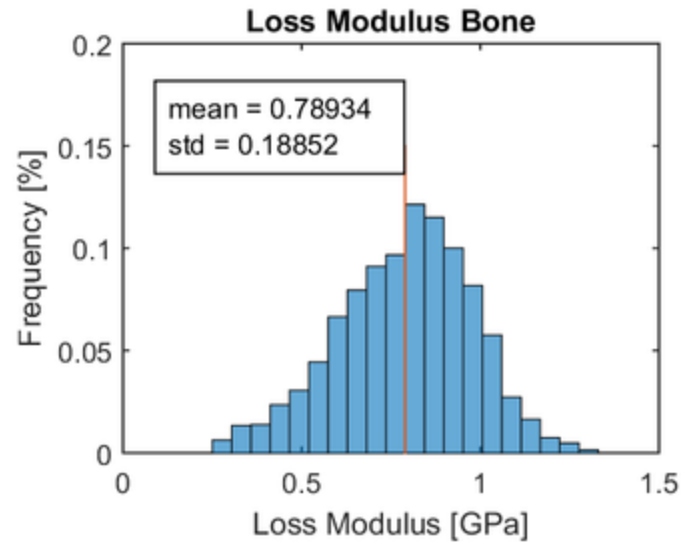
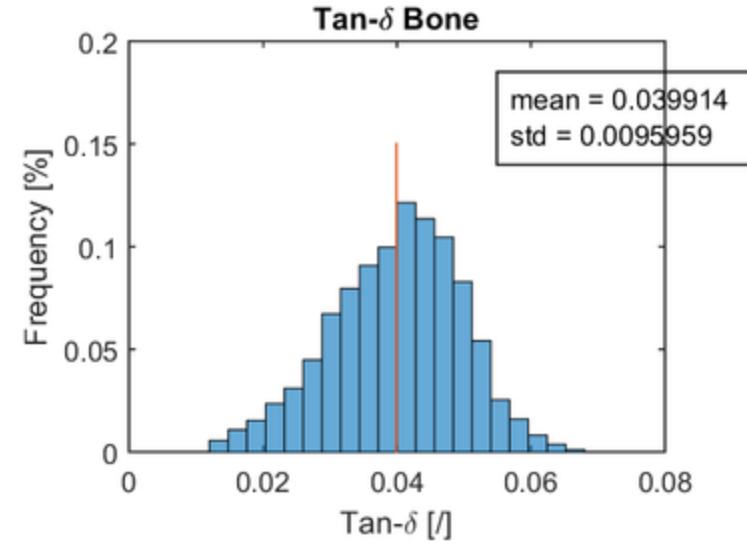
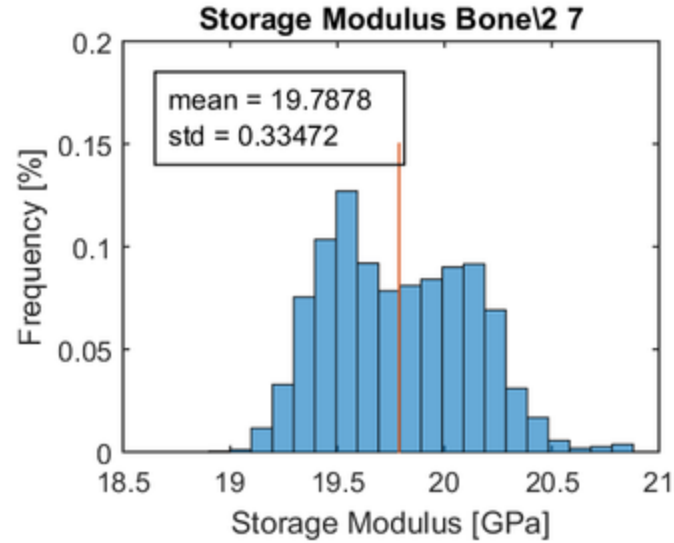
Bone B Point 5



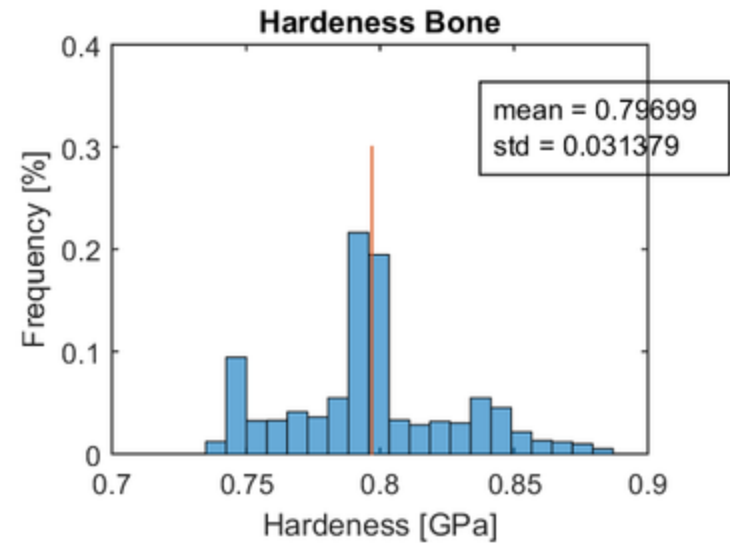
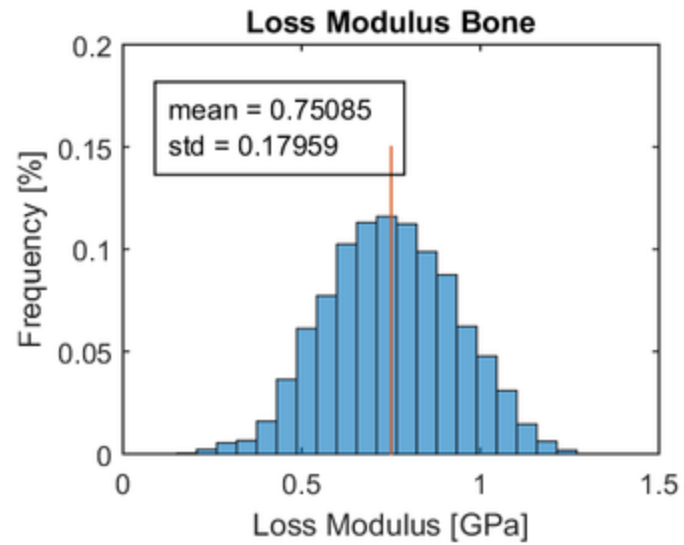
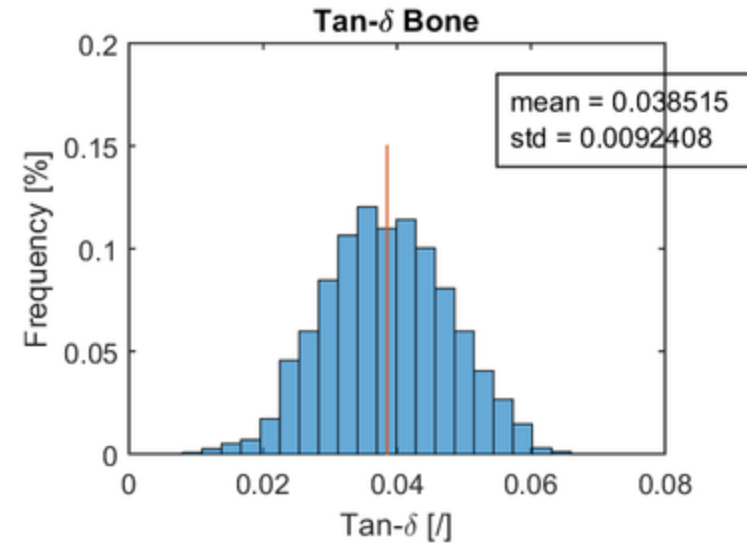
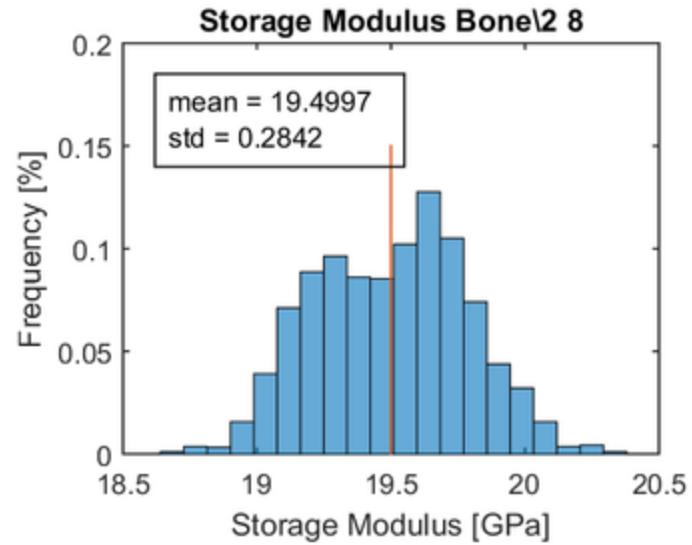
Bone B Point 6



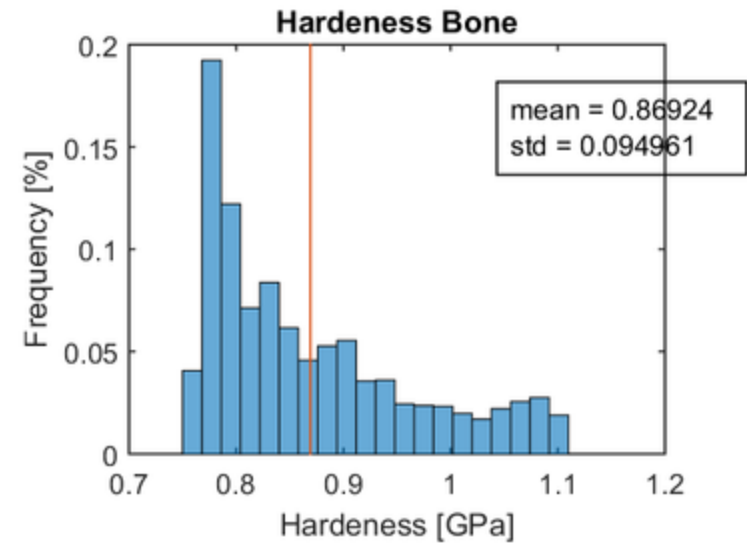
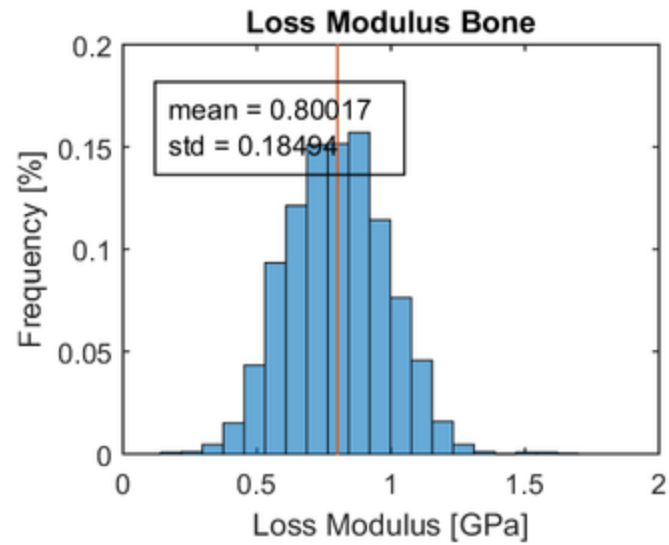
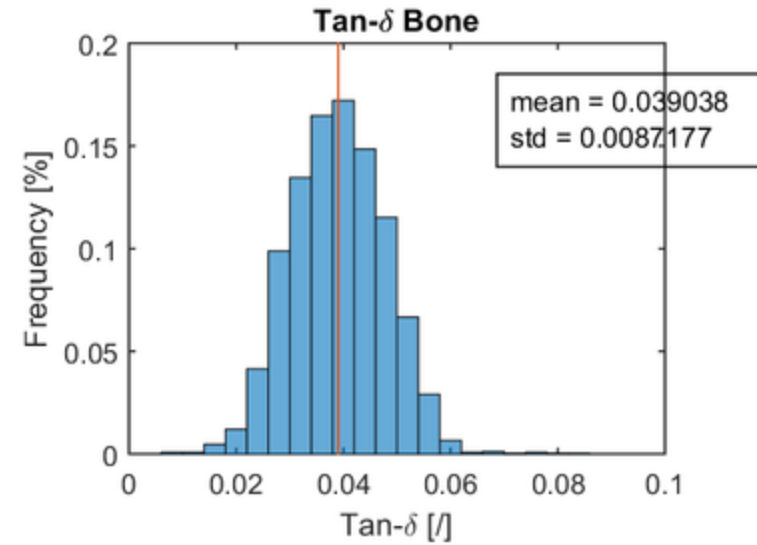
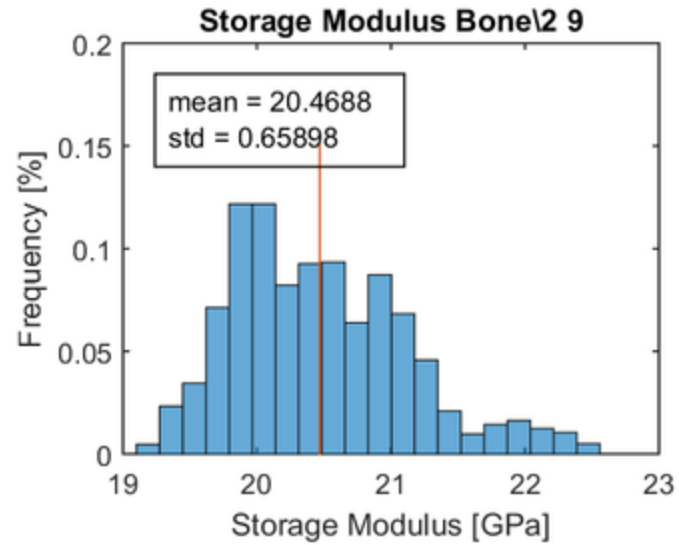
Bone B Point 7



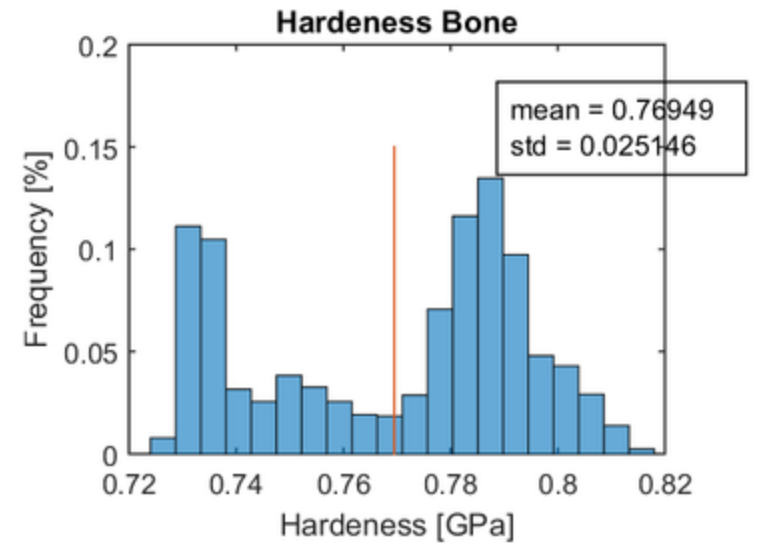
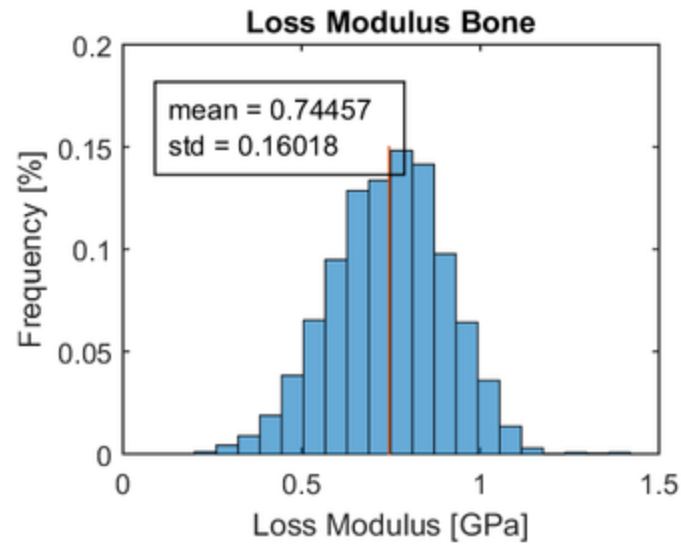
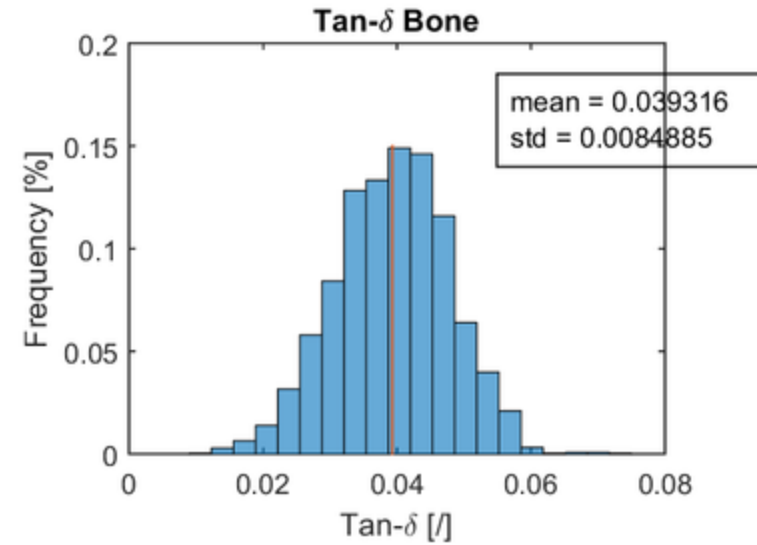
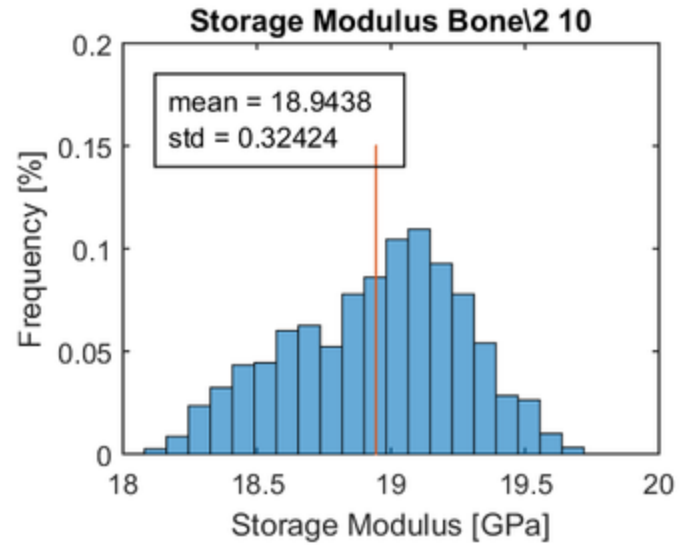
Bone B Point 8



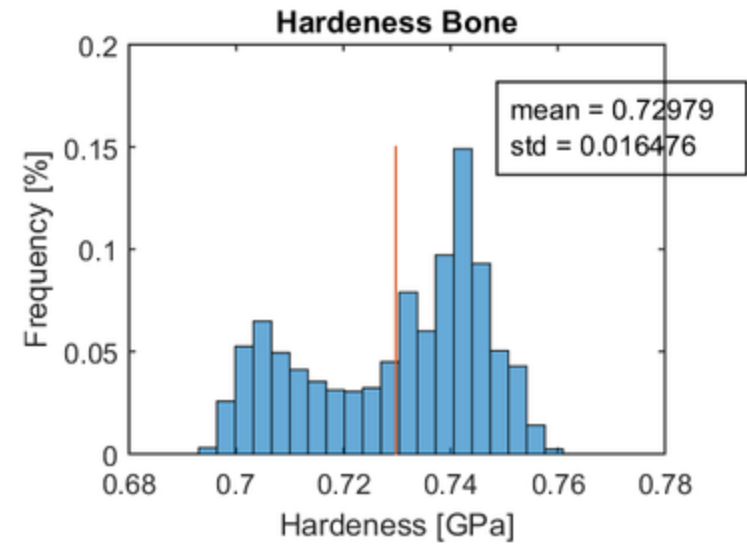
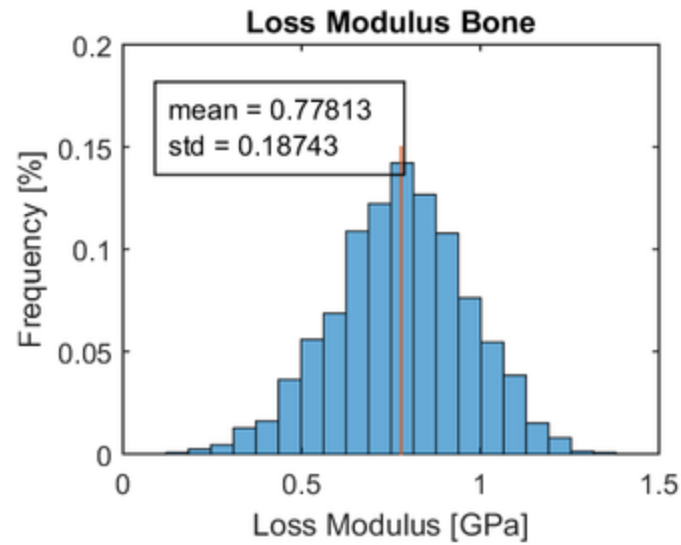
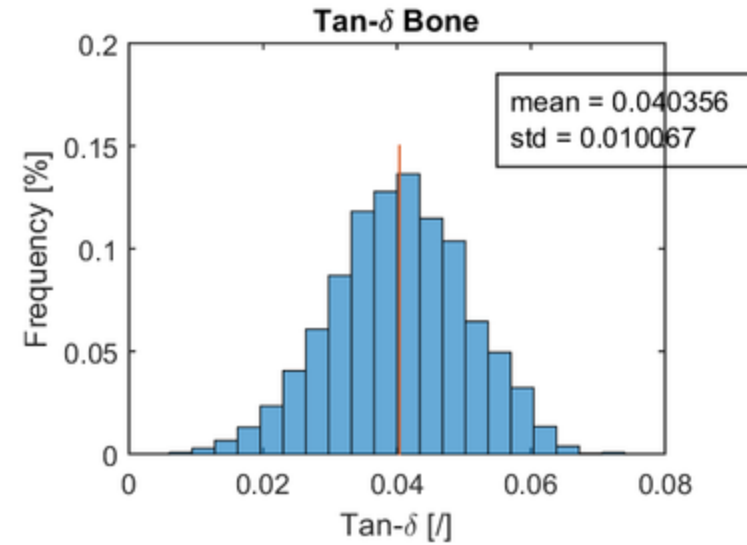
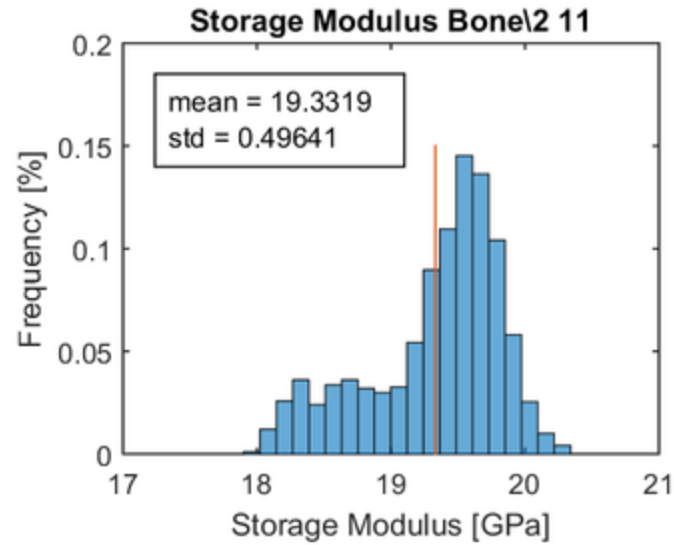
Bone B Point 9



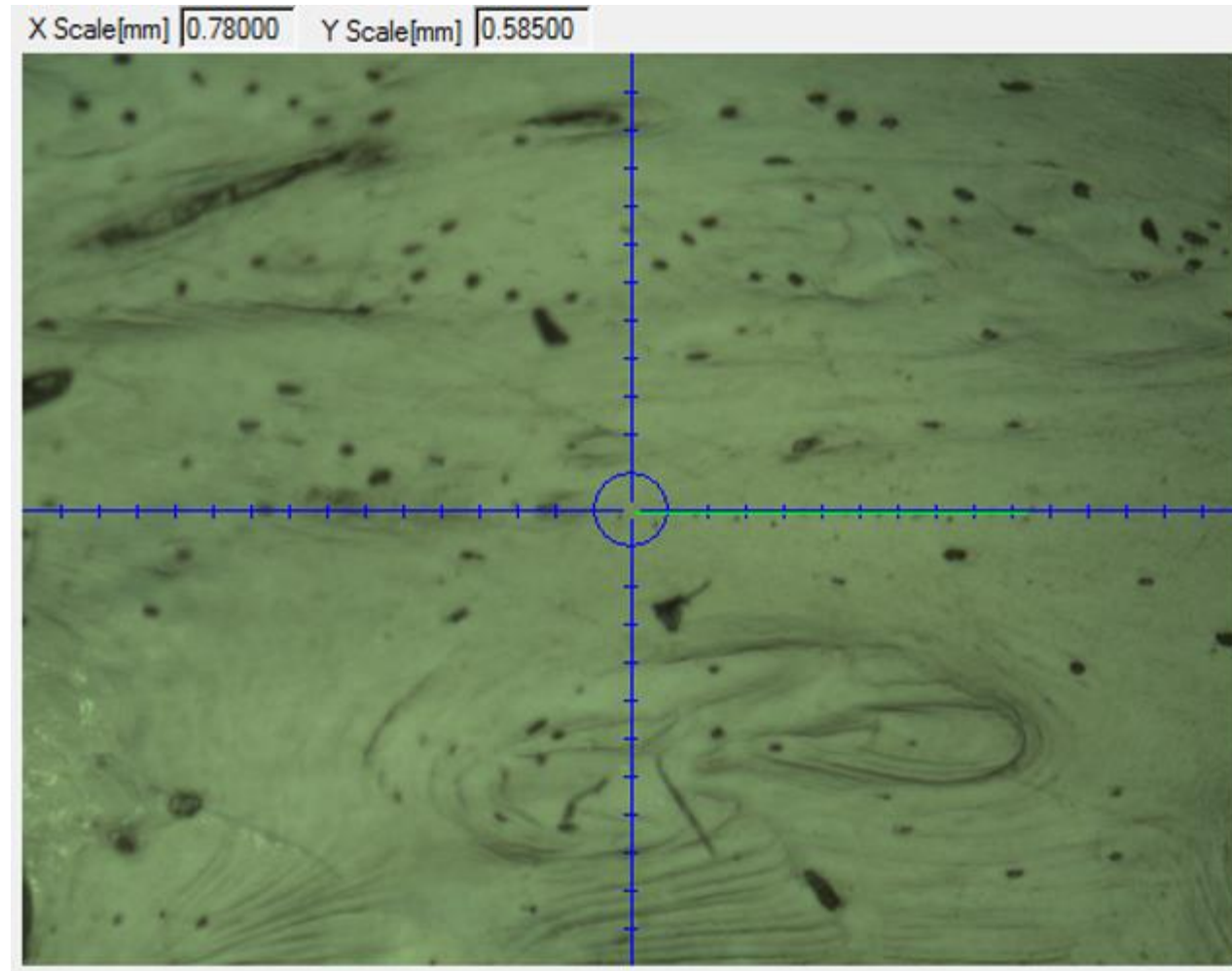
Bone B Point 10



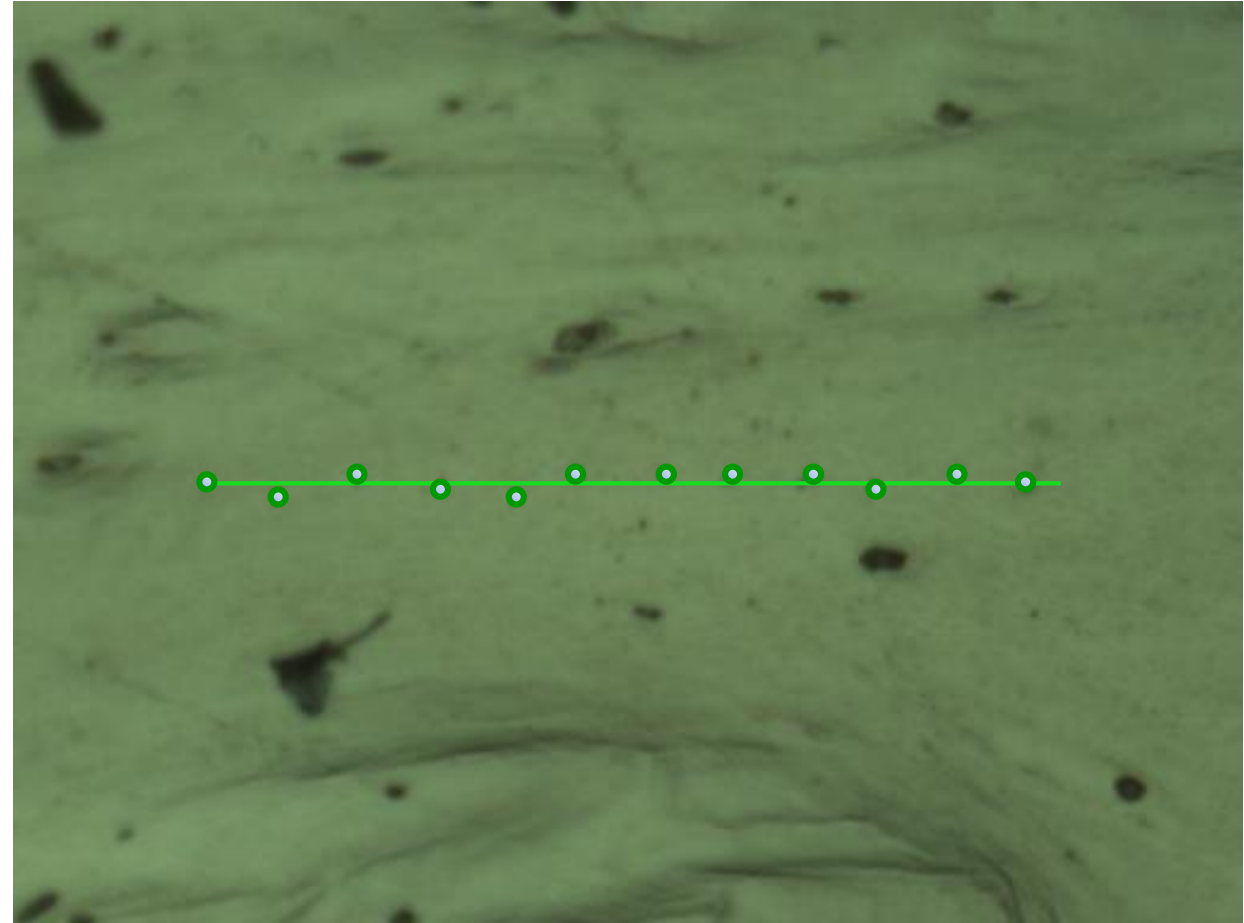
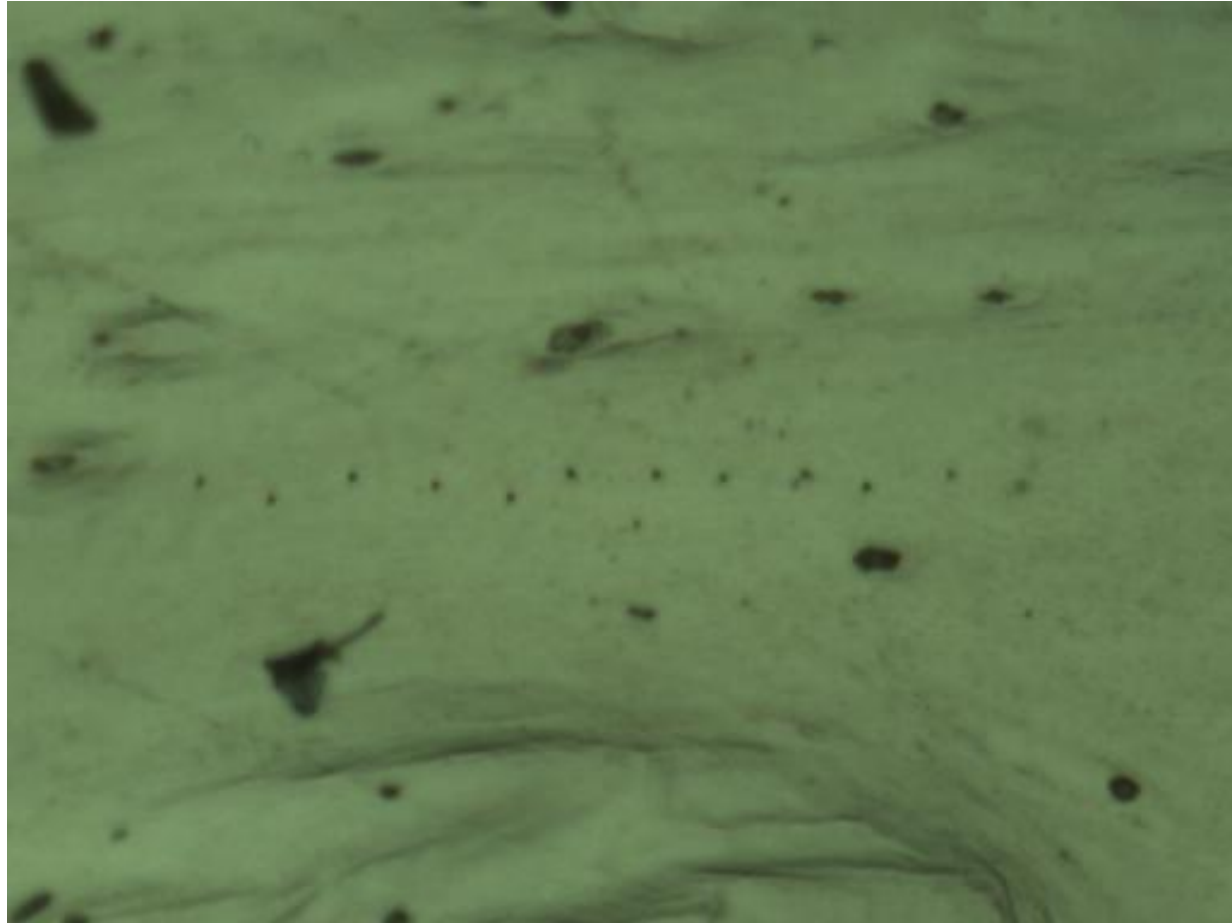
Bone B Point 11



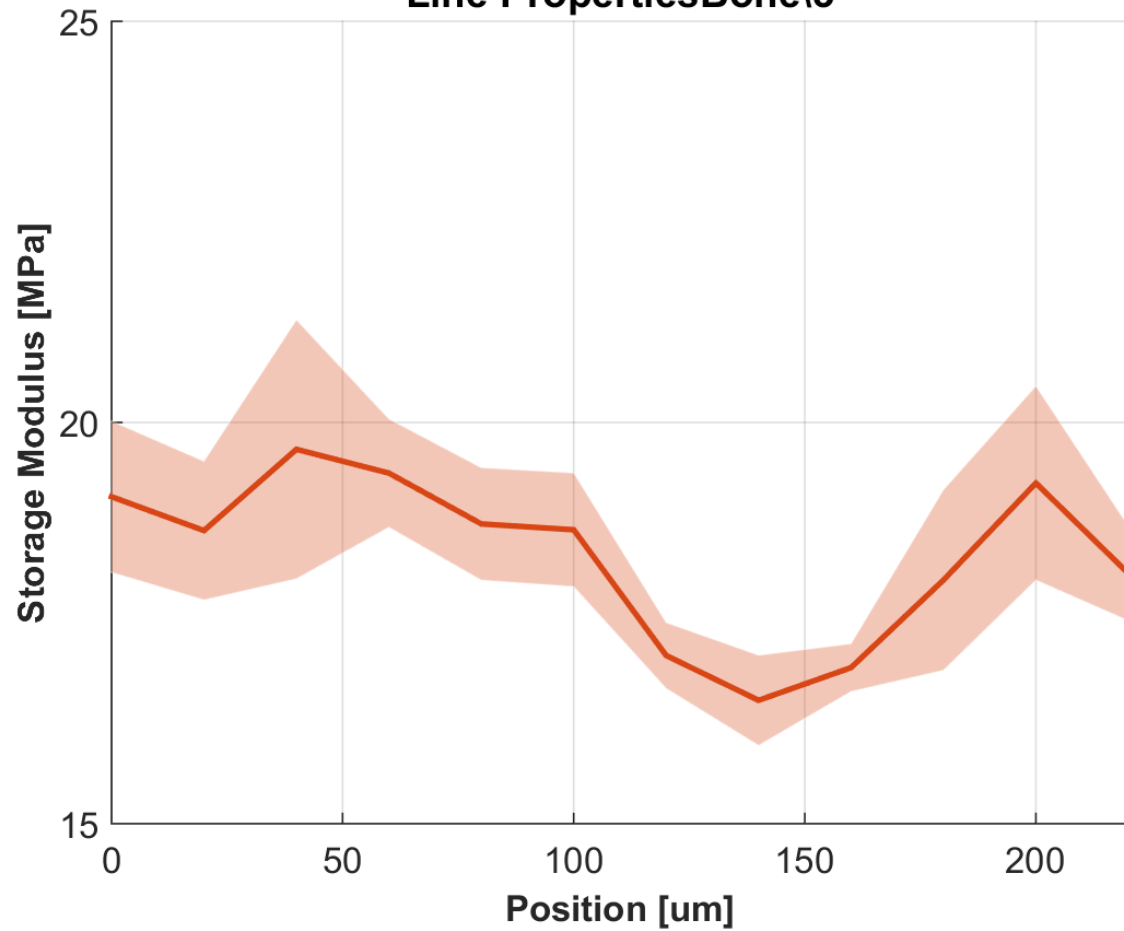
C. Bone D2 12 points $\Delta=20\mu\text{m}$ roughness Good



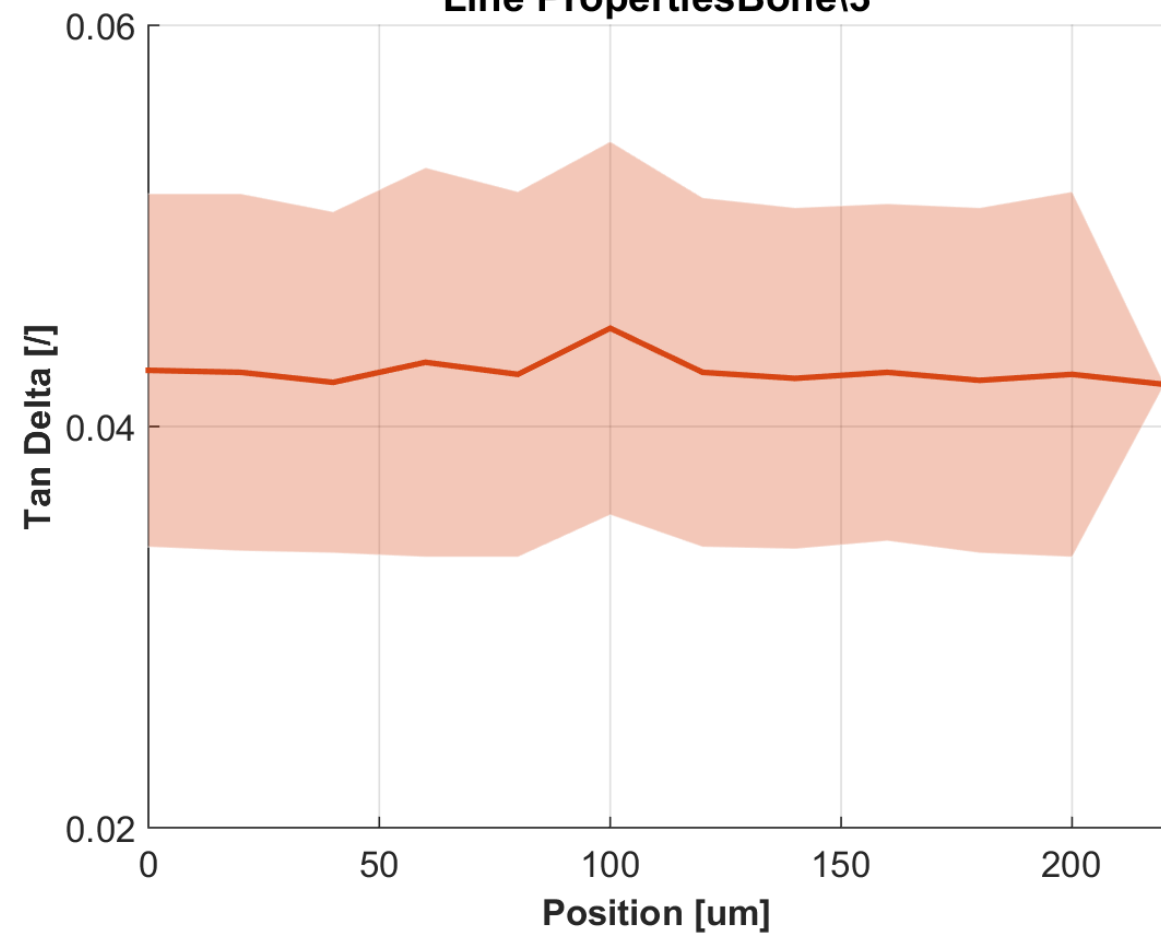
C. Bone D2 12 points $\Delta=20\mu\text{m}$ roughness Good



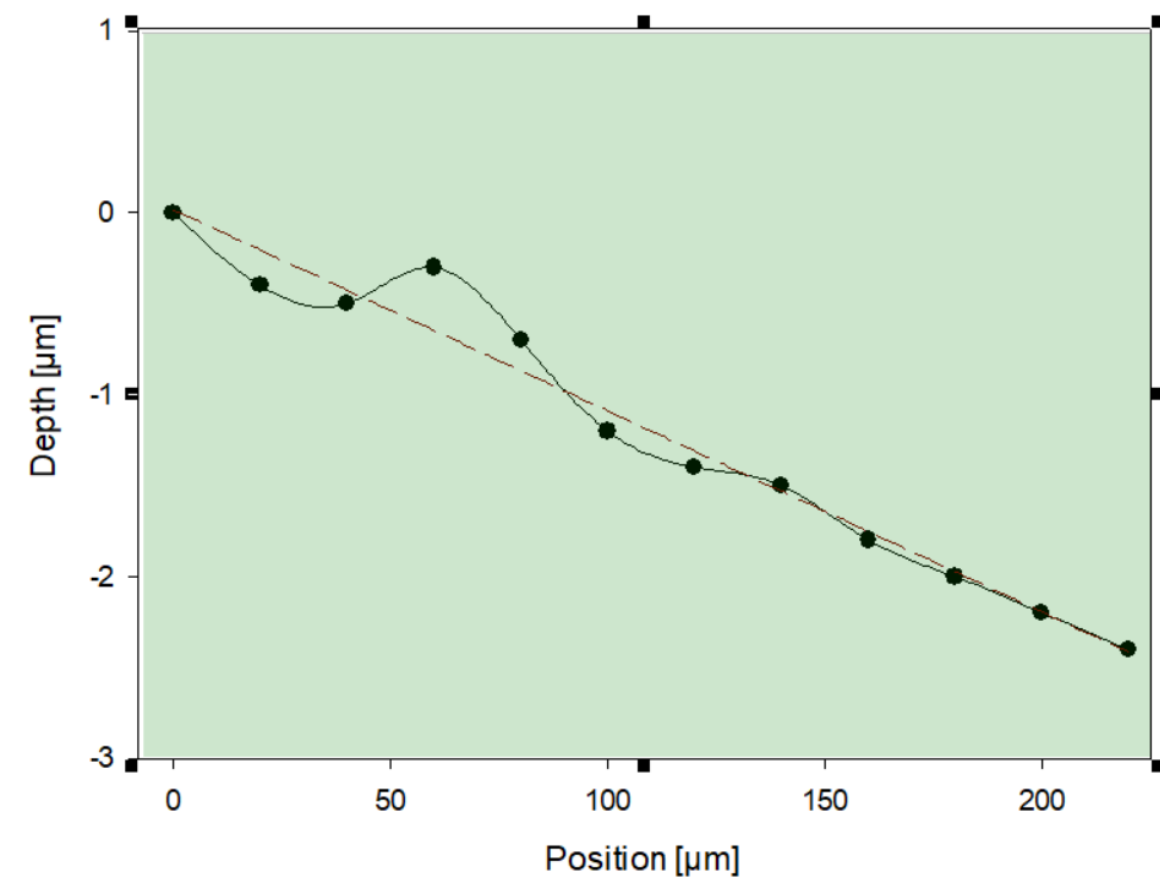
Line PropertiesBone\3



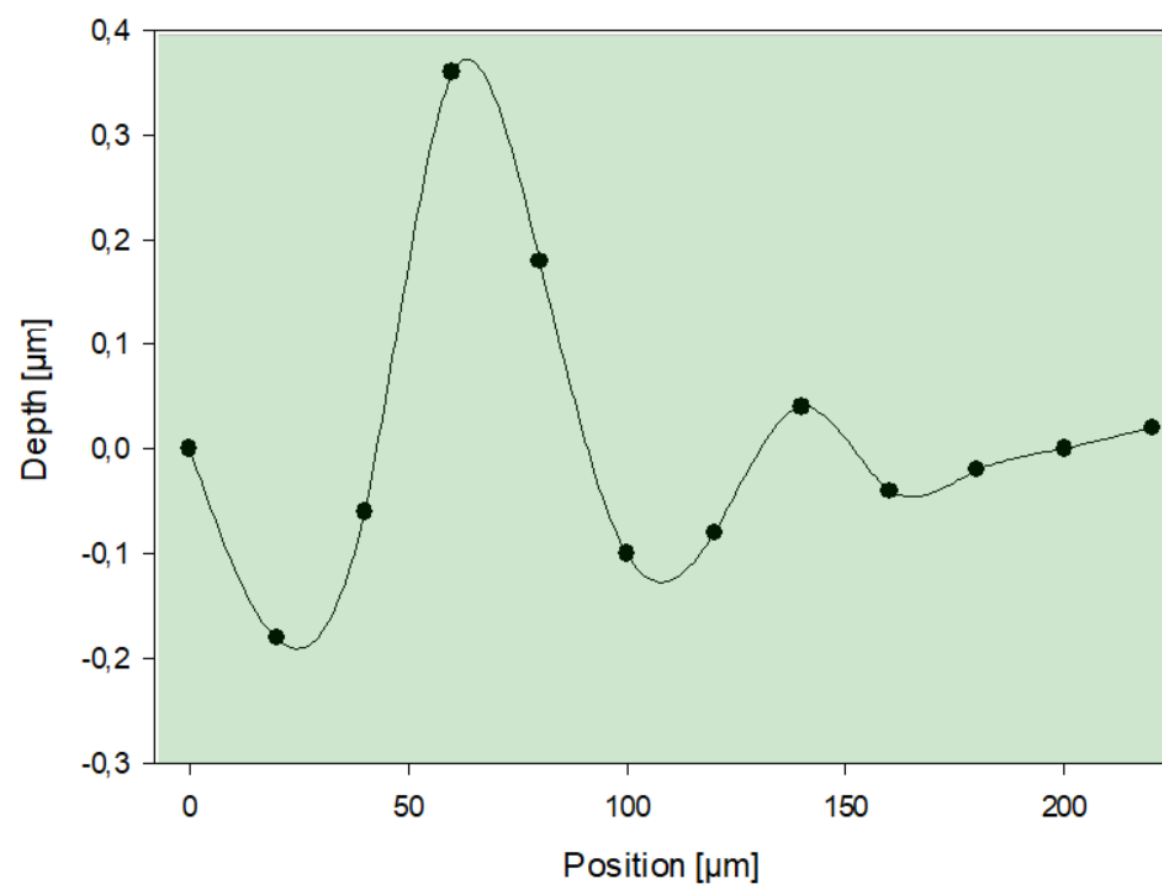
Line PropertiesBone\3



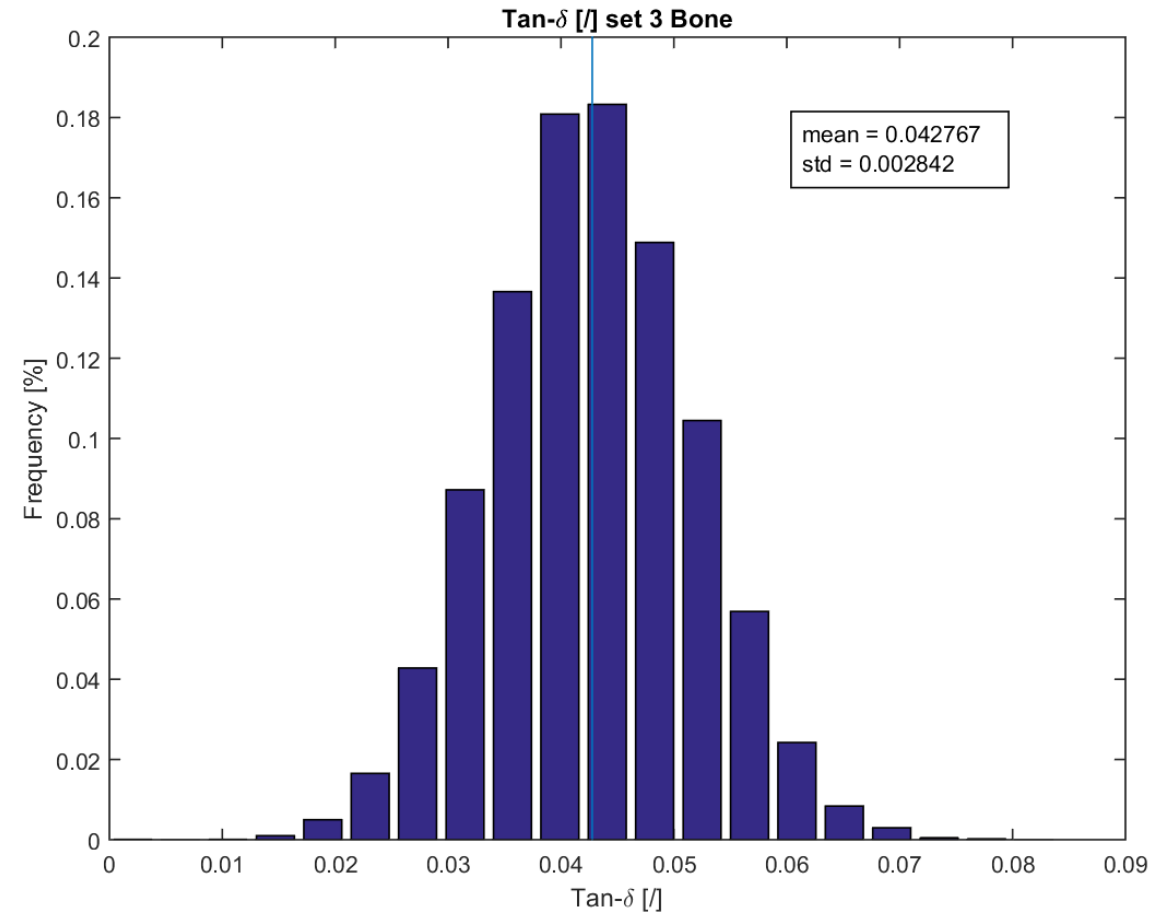
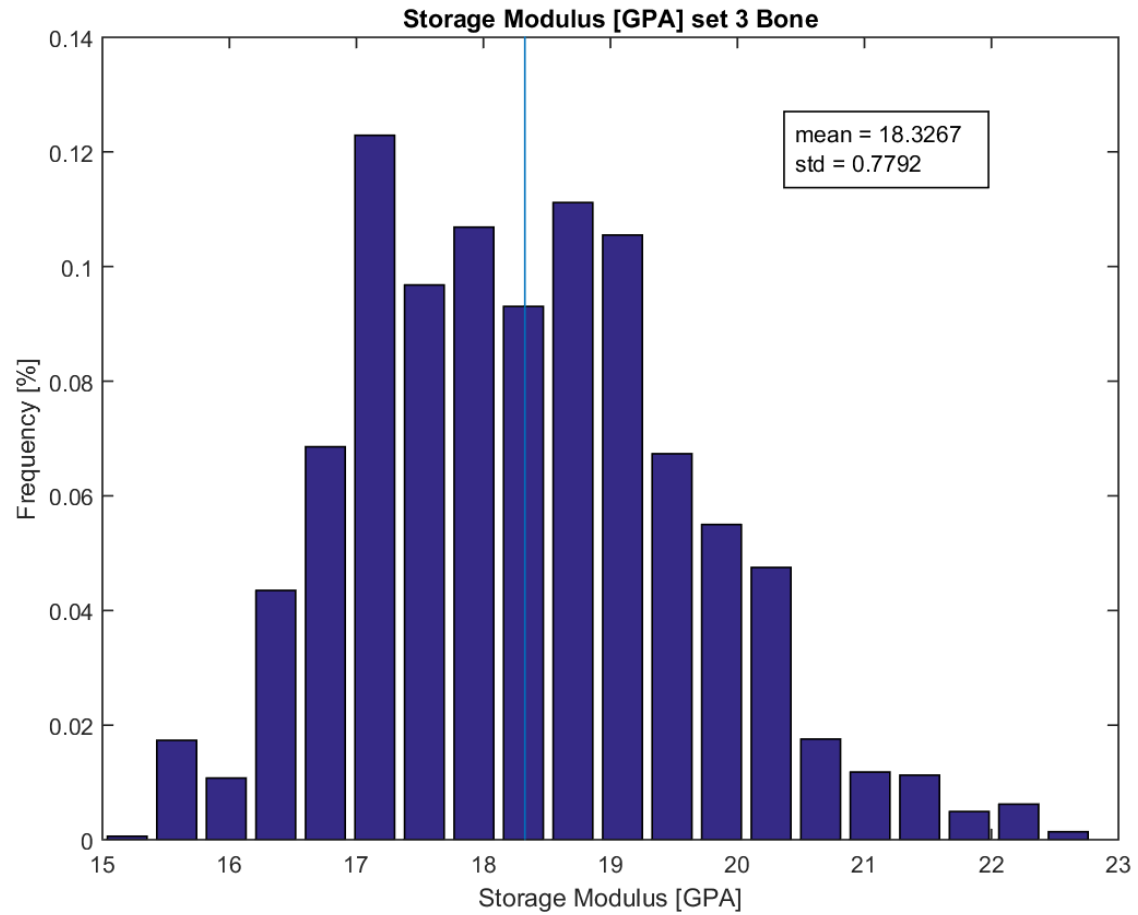
BoneC

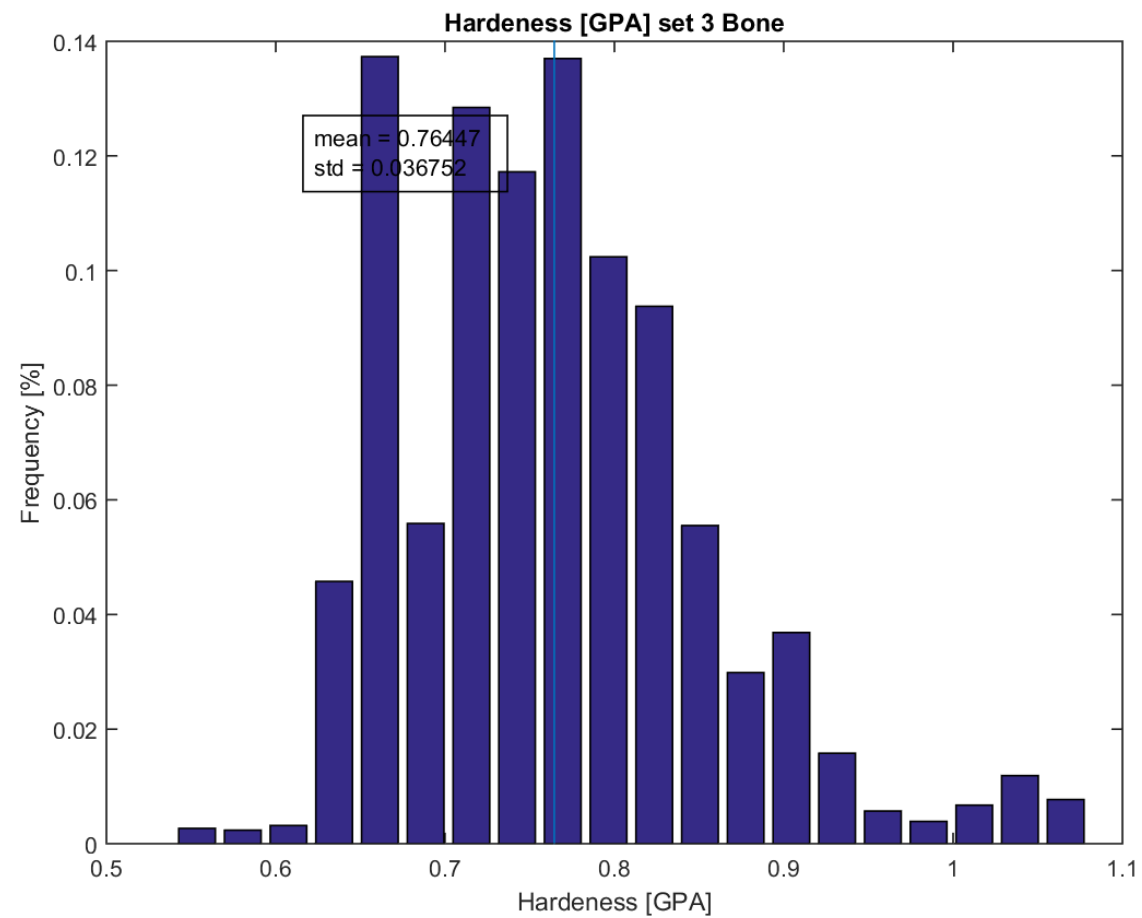
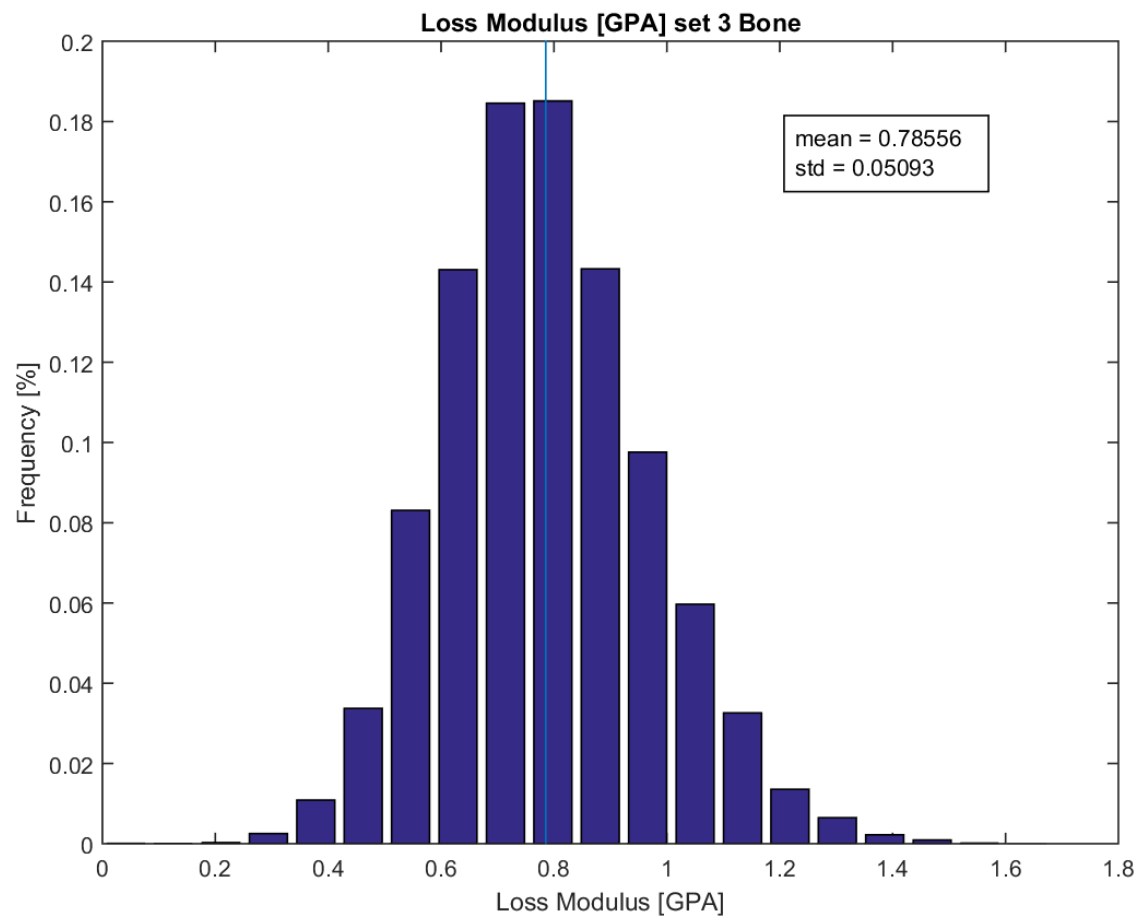


BoneC w/o tilde

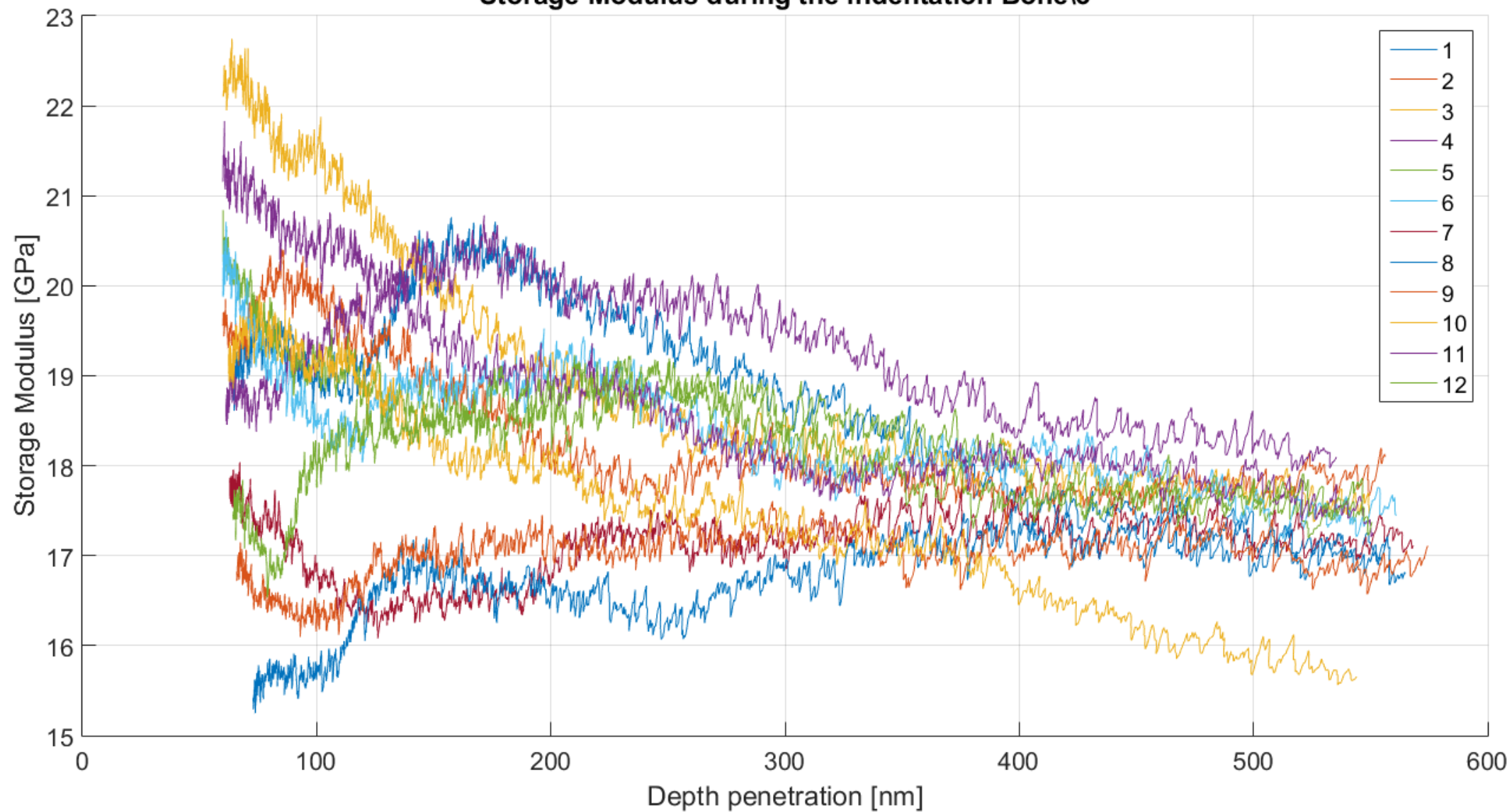


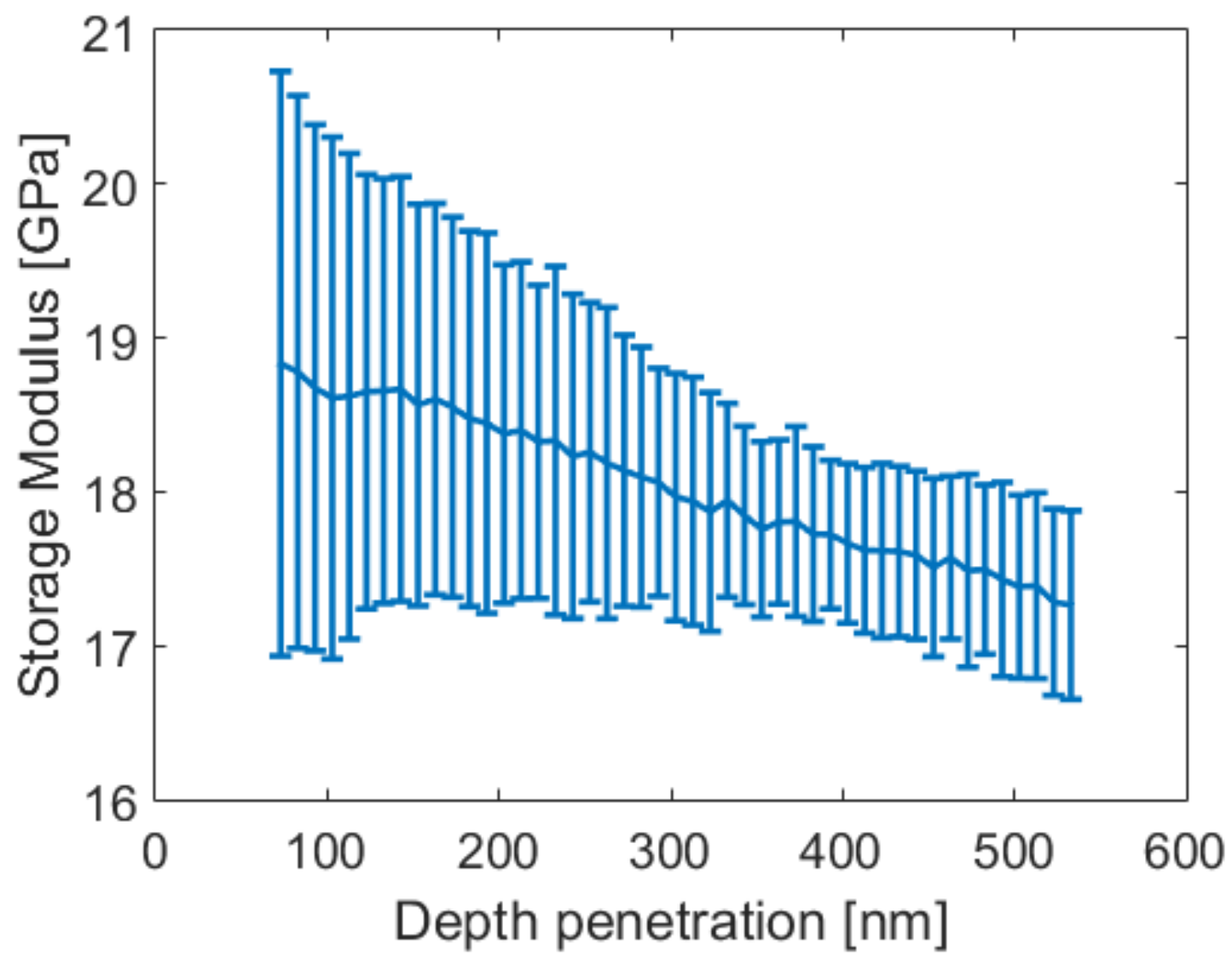
C. Complet

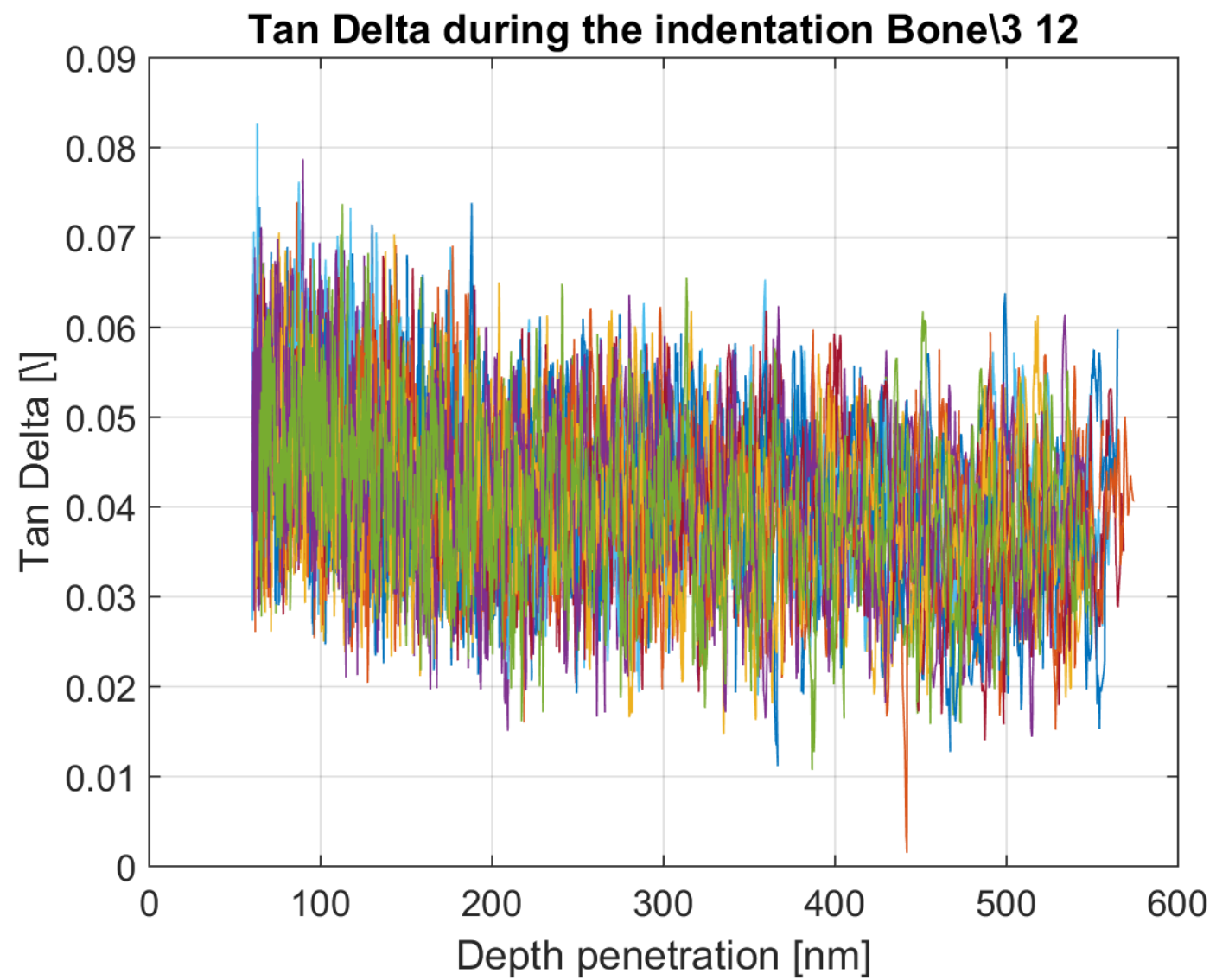


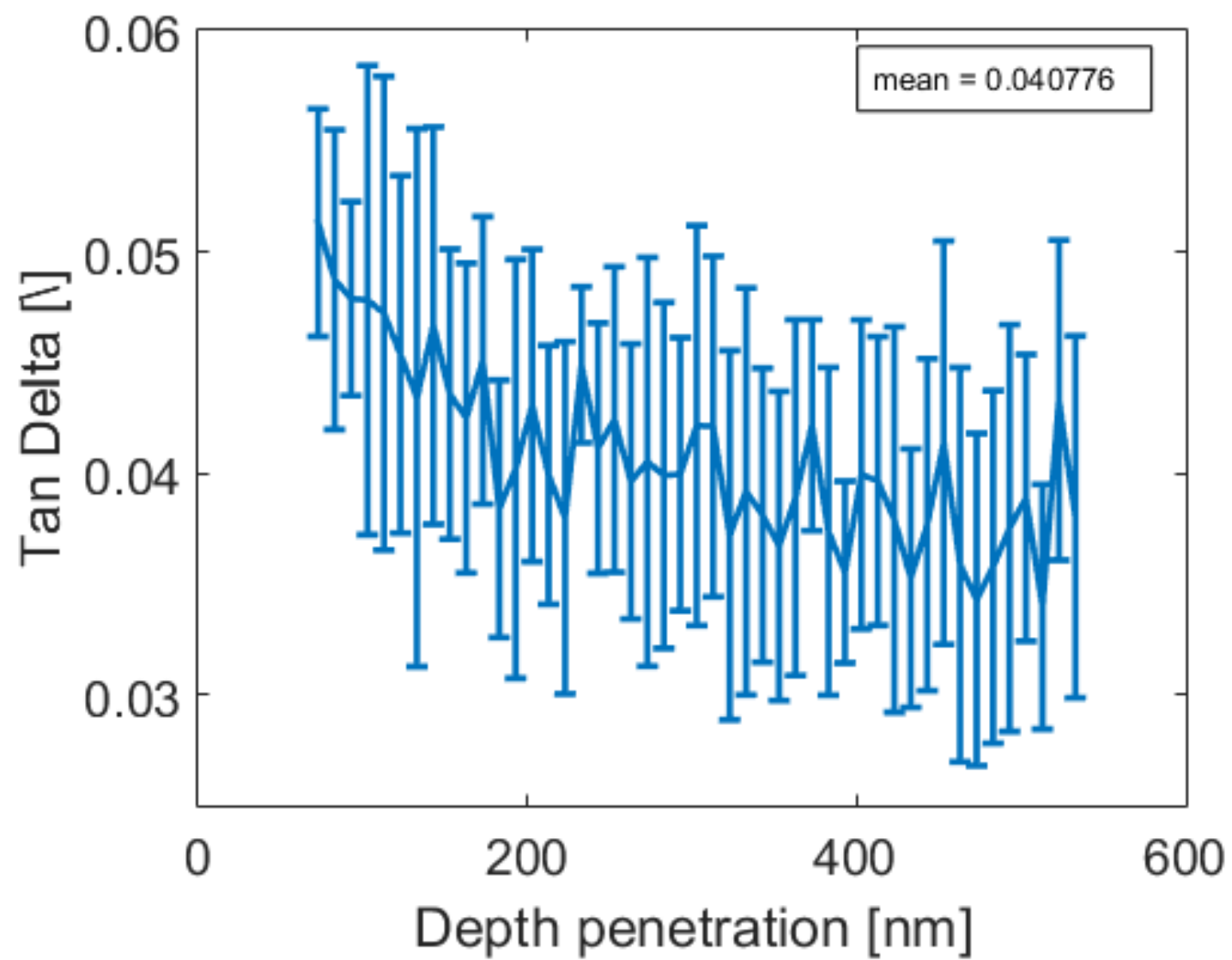


Storage Modulus during the indentation Bone\3

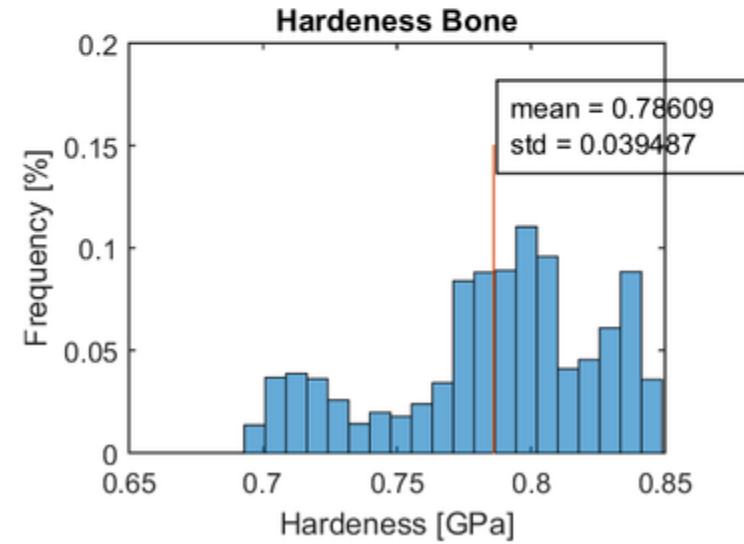
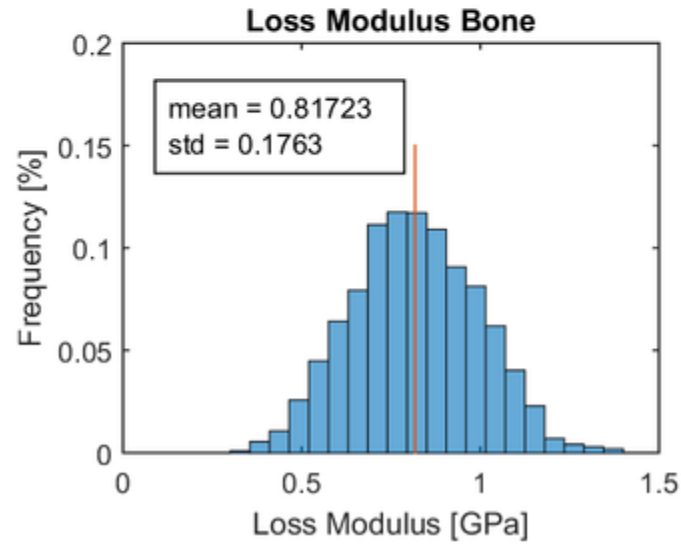
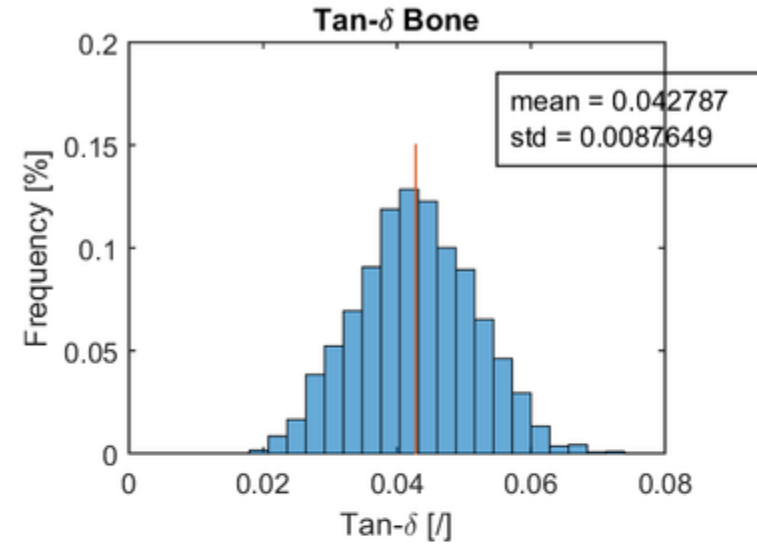
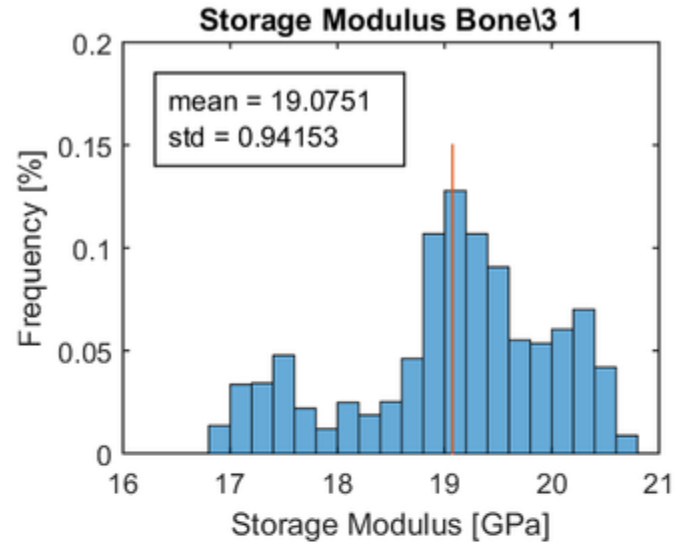




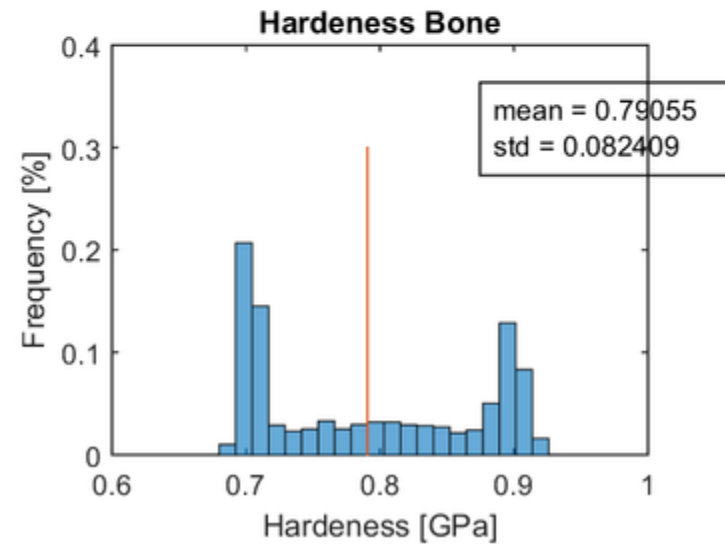
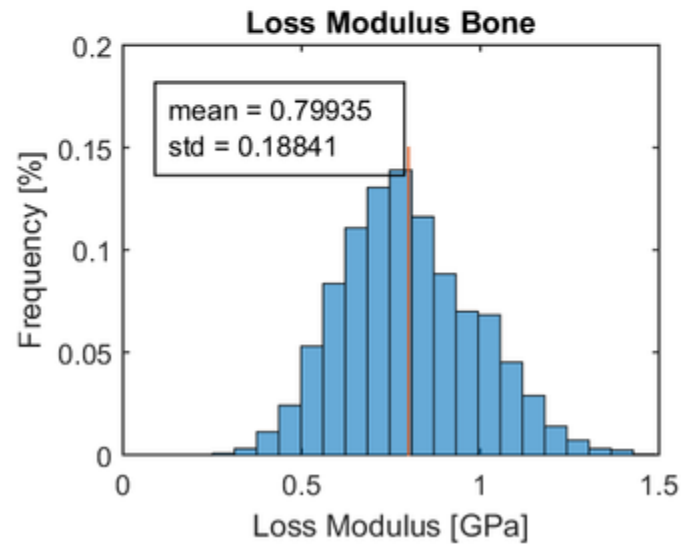
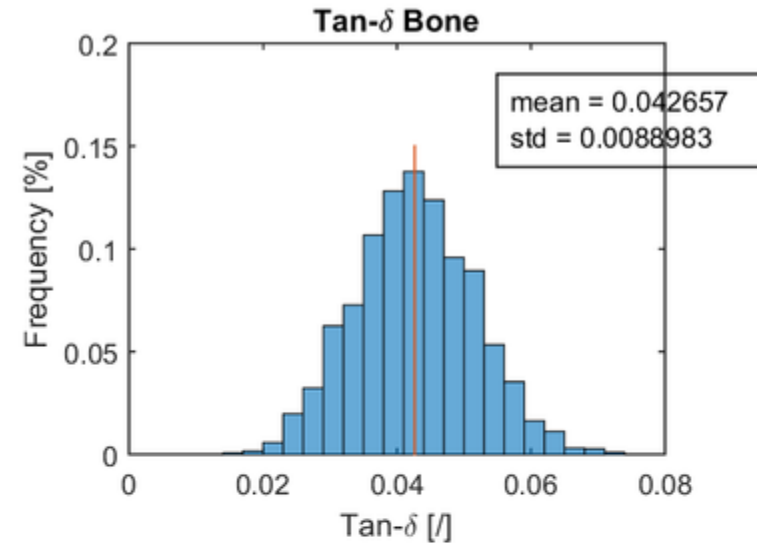
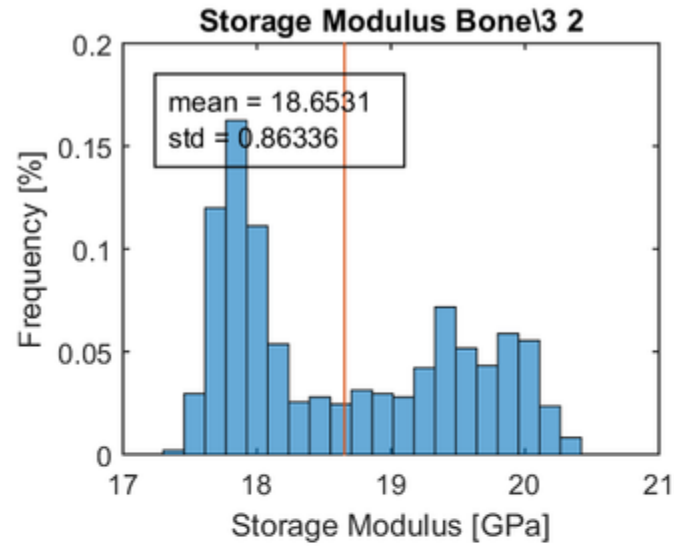




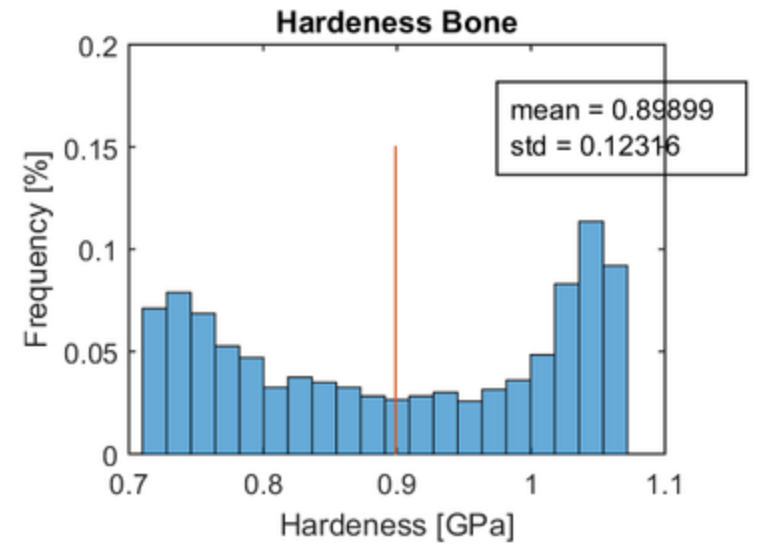
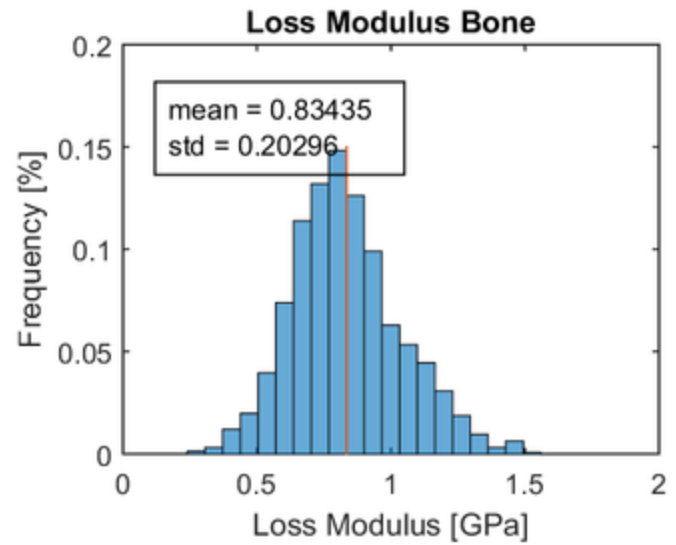
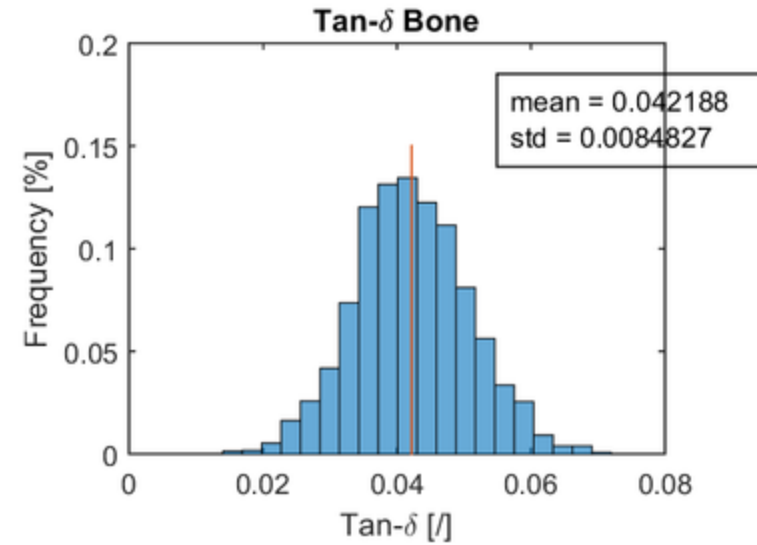
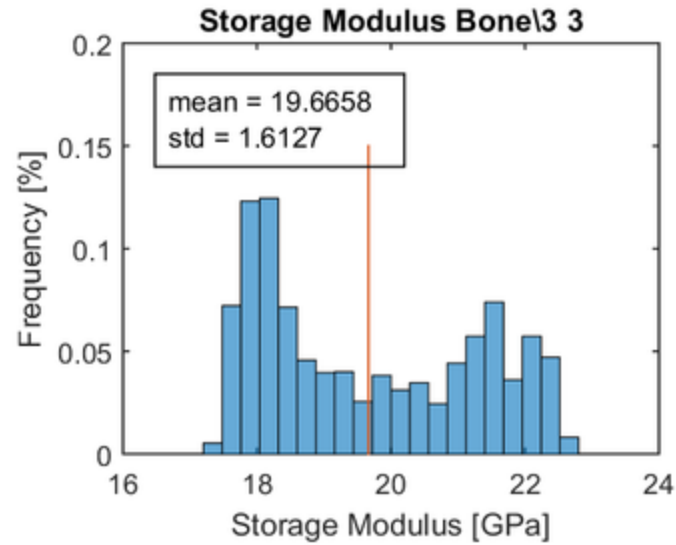
Bone C Point 1



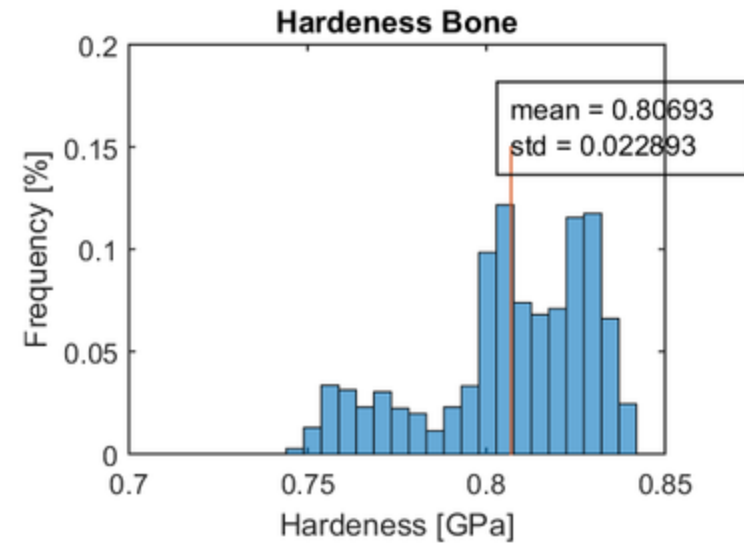
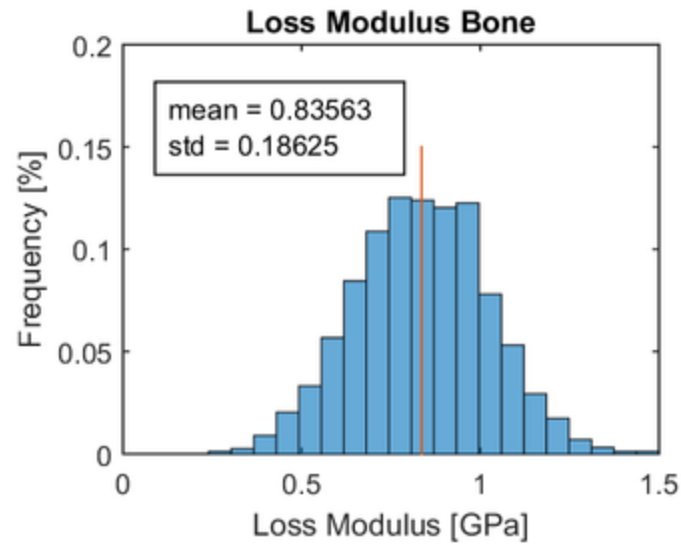
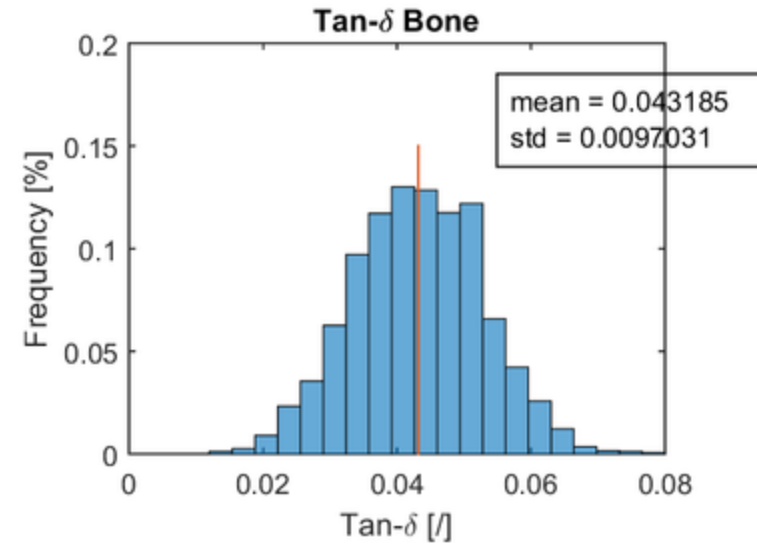
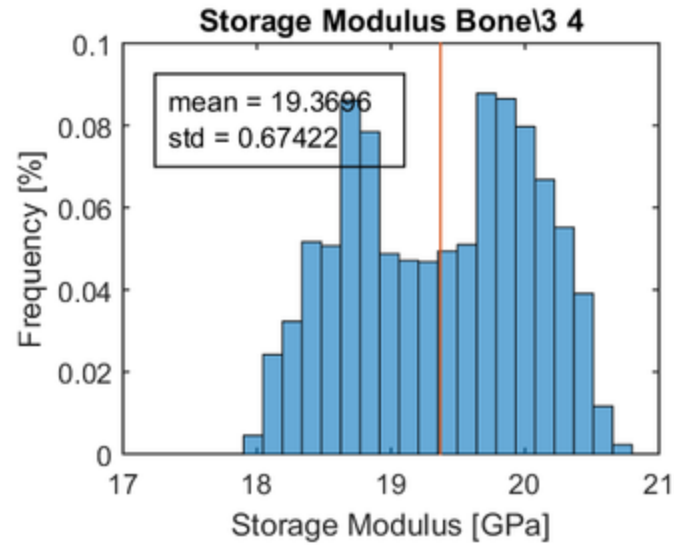
Bone C Point 2



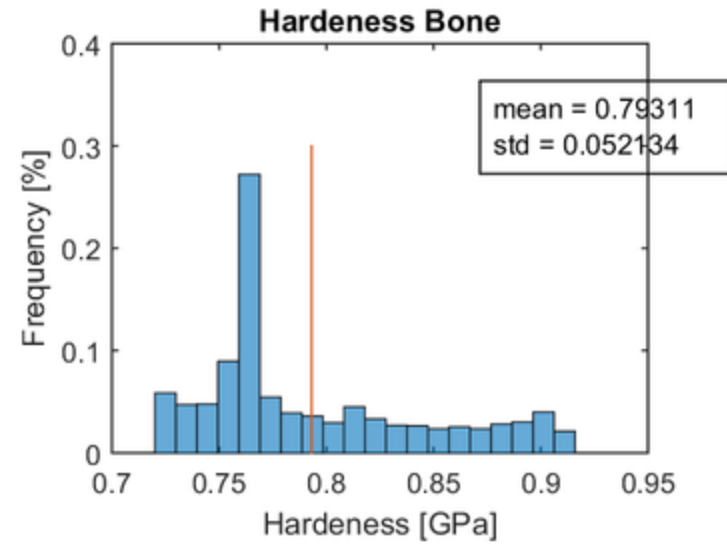
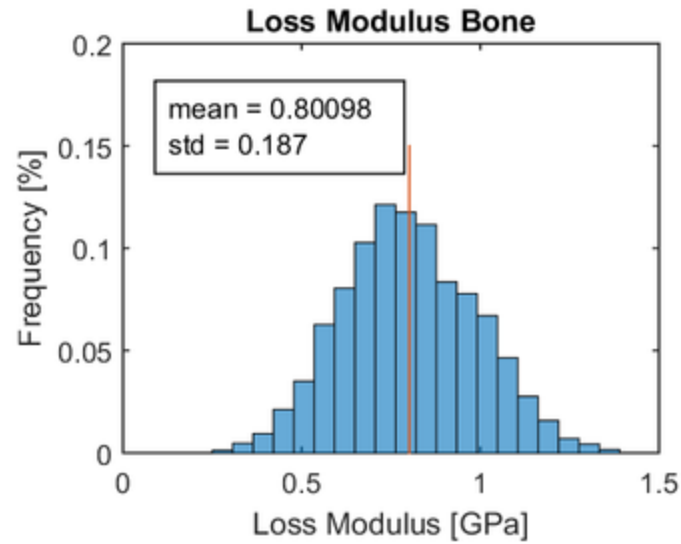
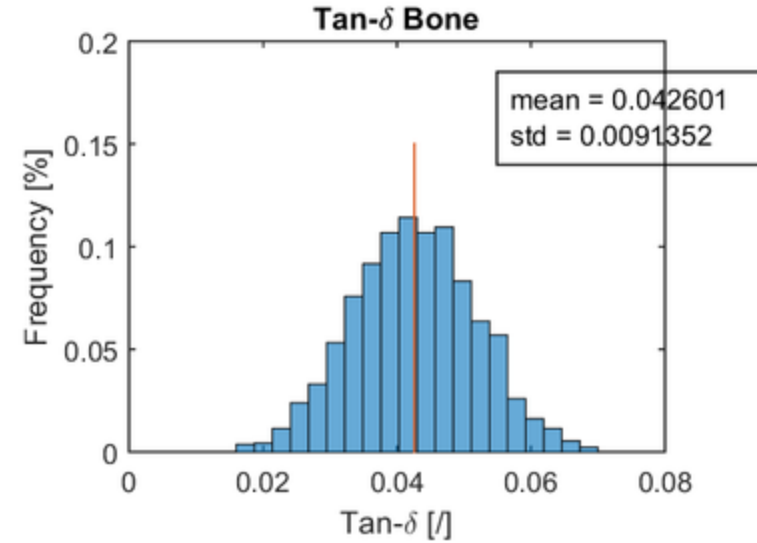
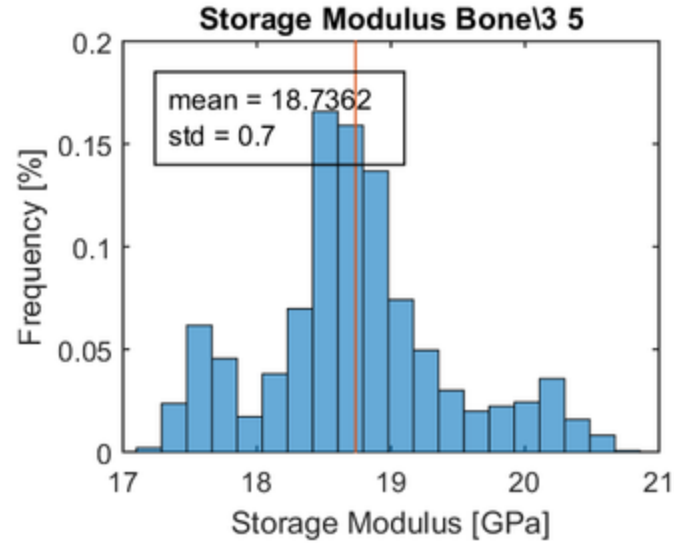
Bone C Point 3



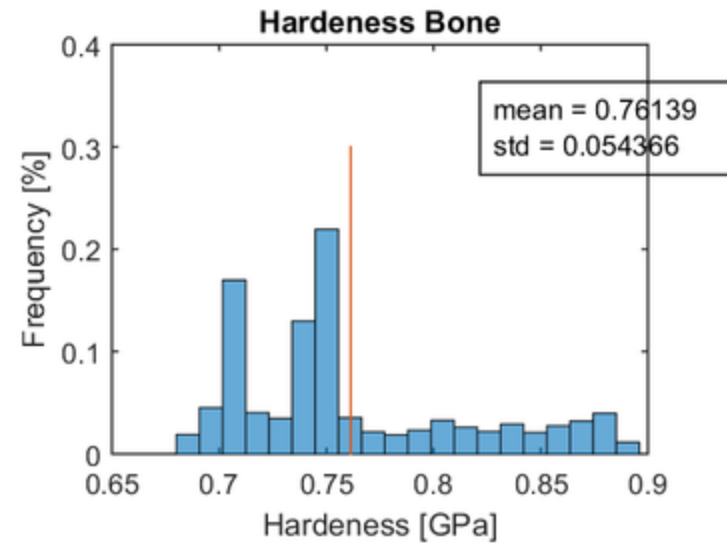
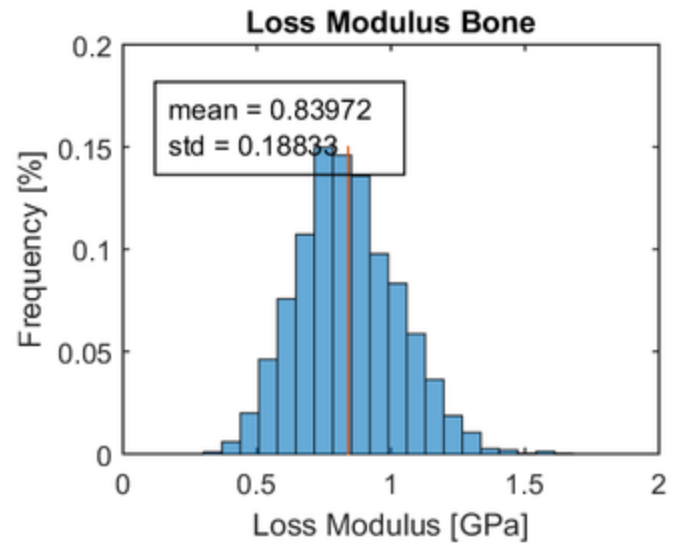
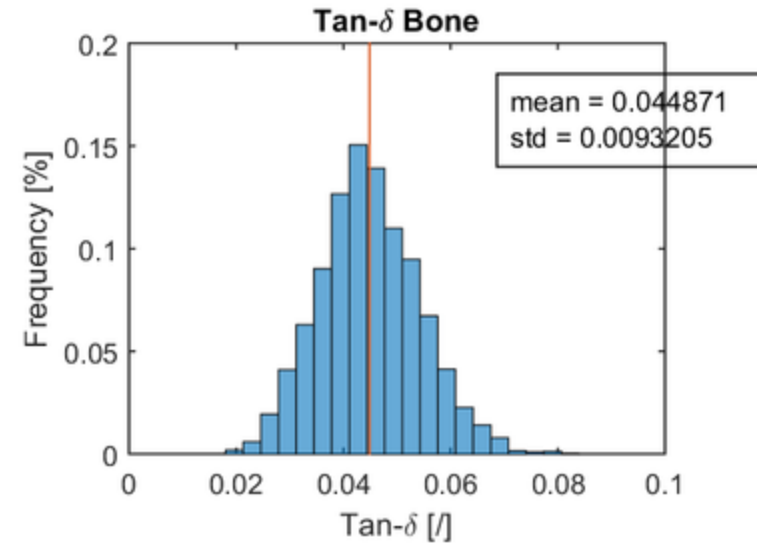
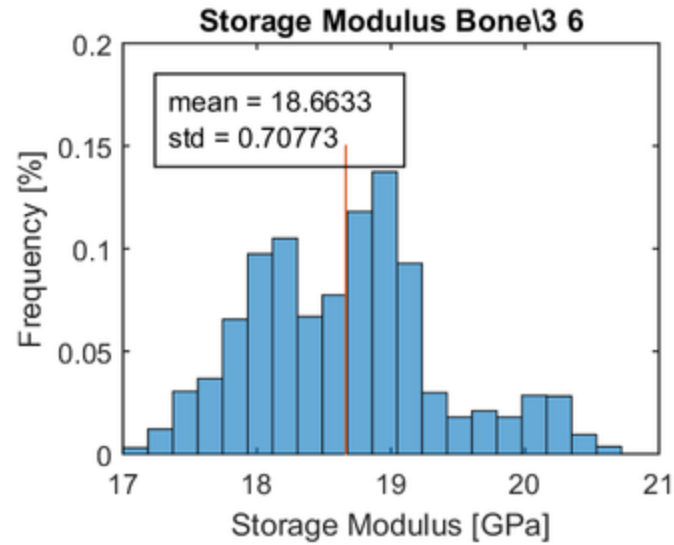
Bone C Point 4



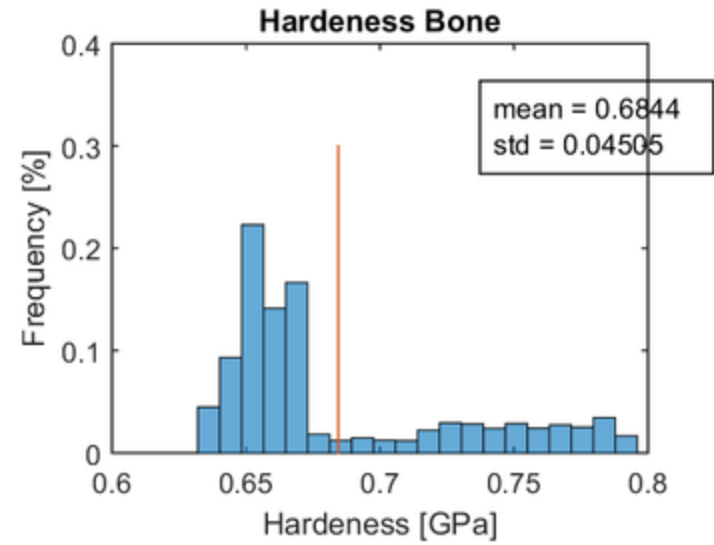
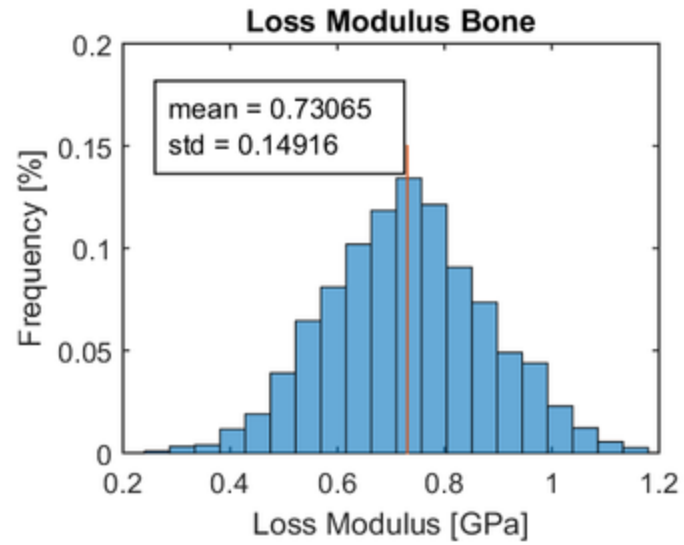
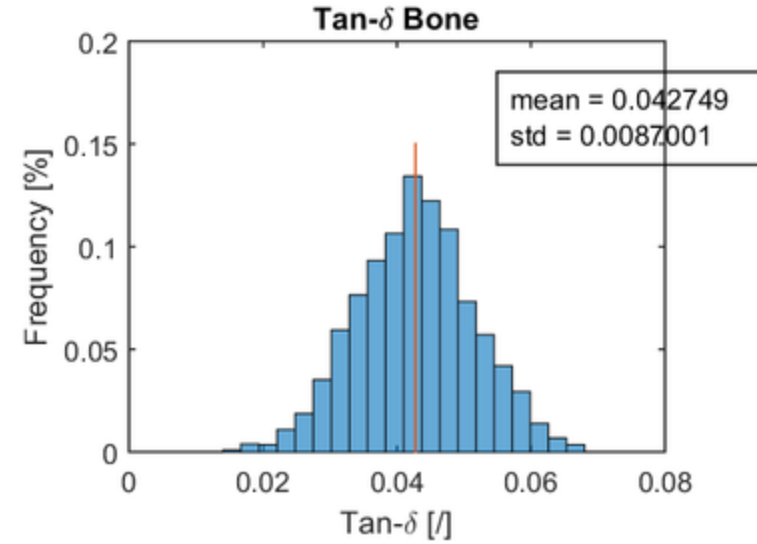
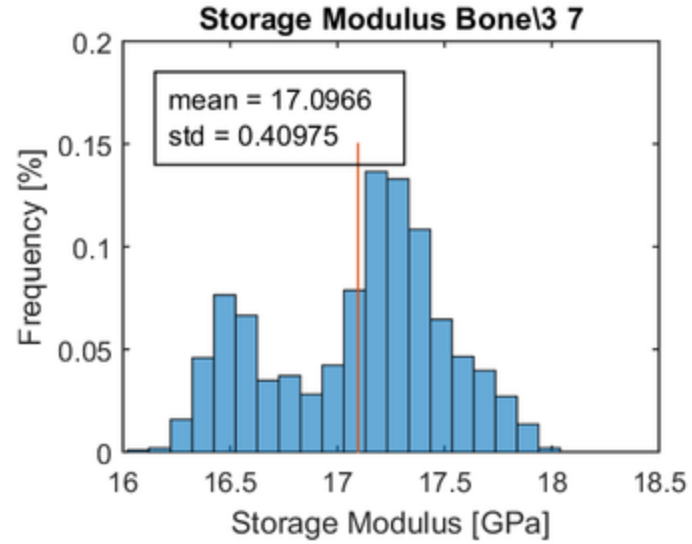
Bone C Point 5



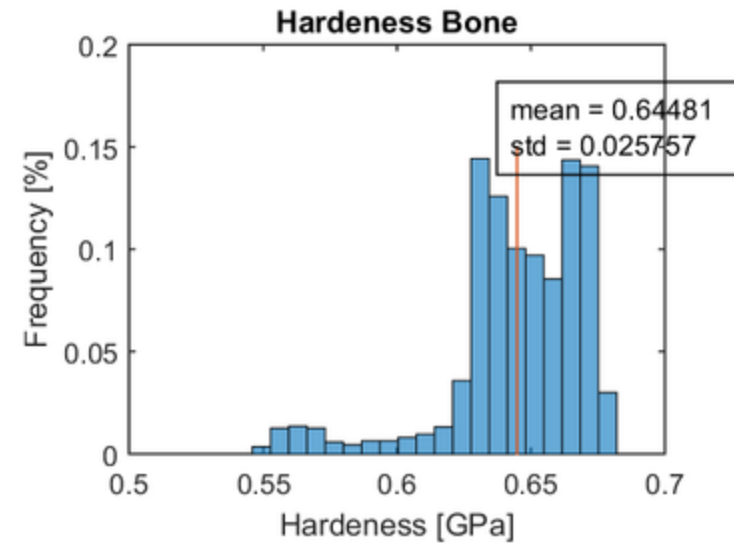
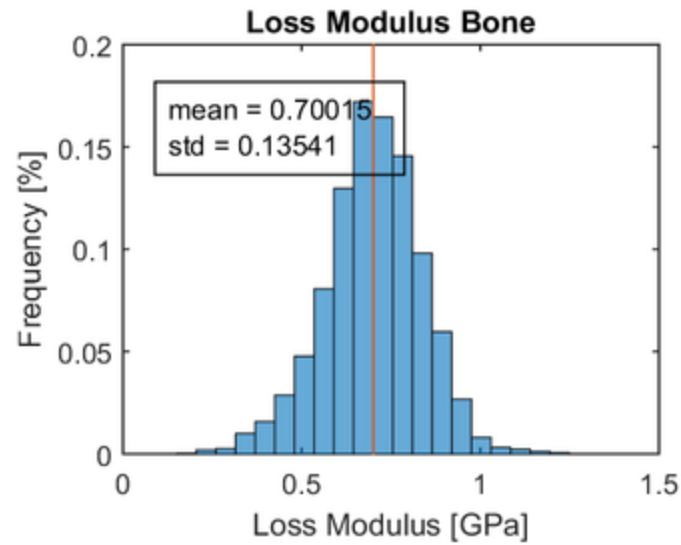
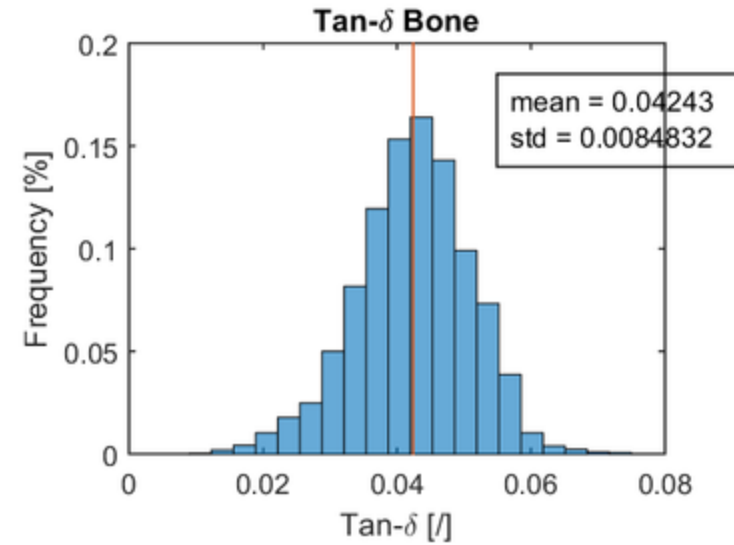
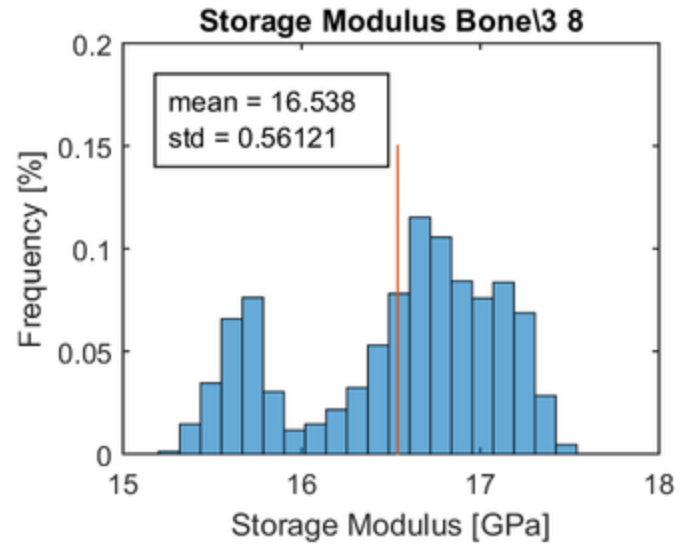
Bone C Point 6



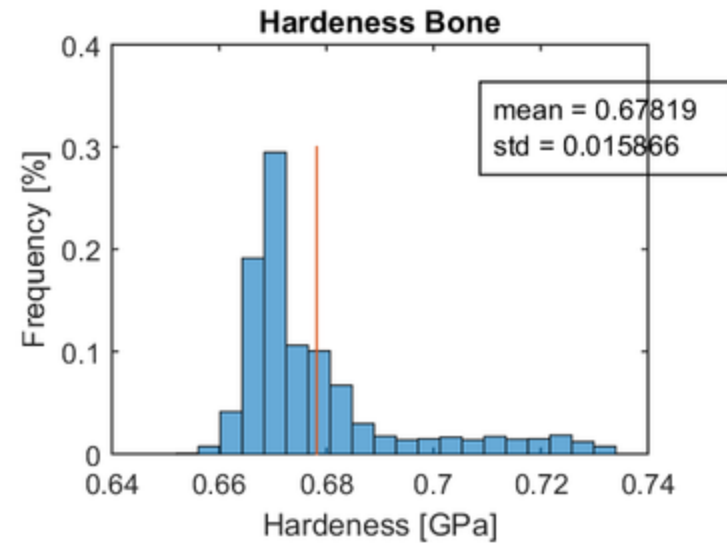
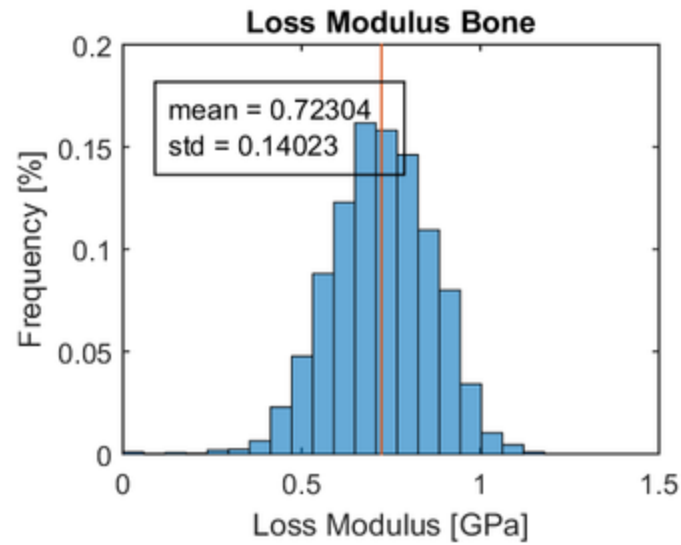
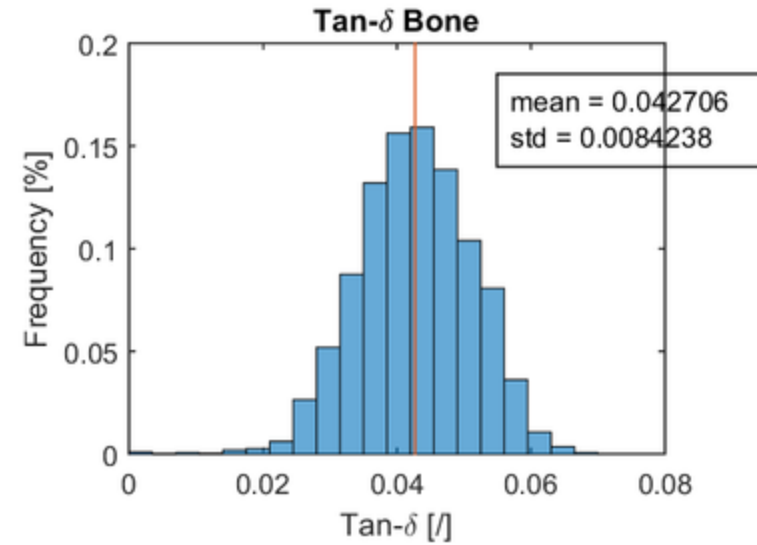
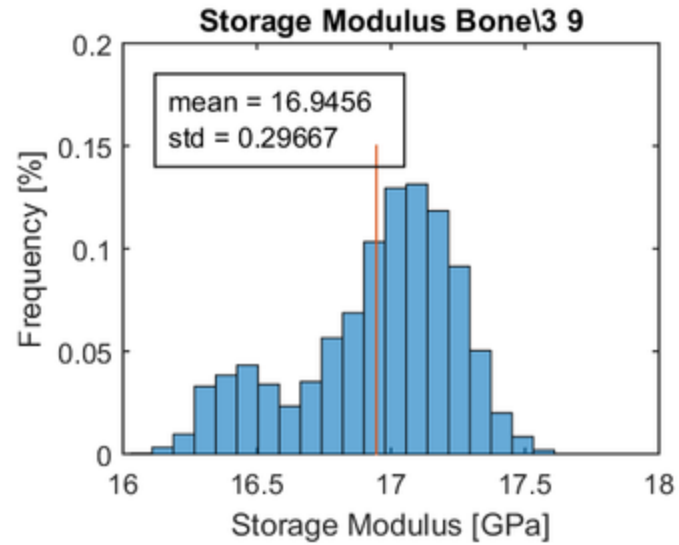
Bone C Point 7



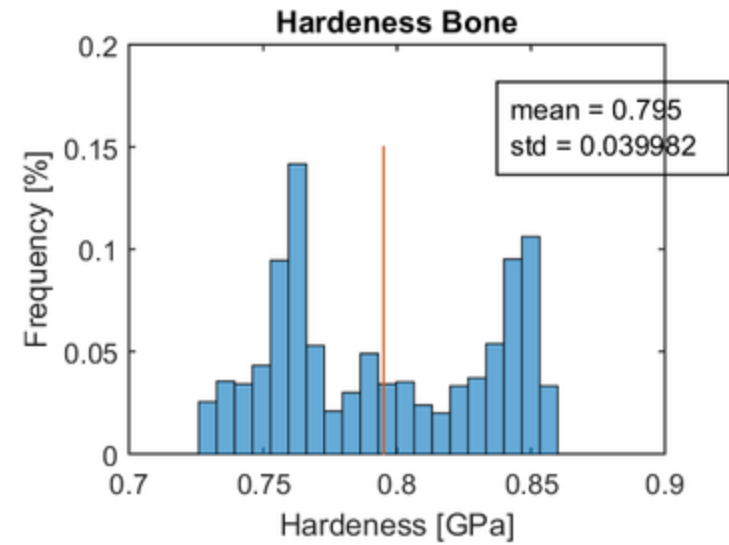
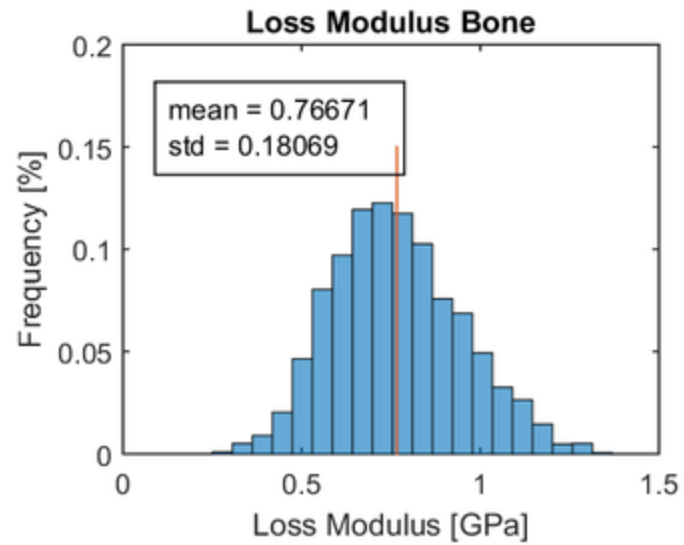
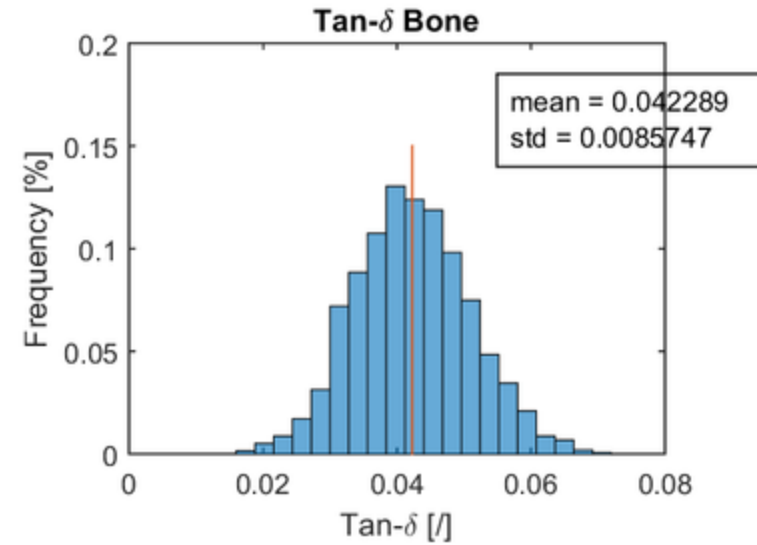
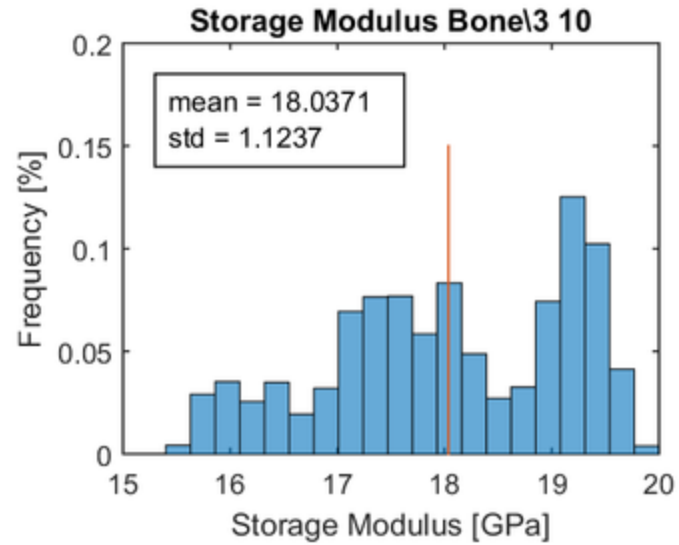
Bone C Point 8



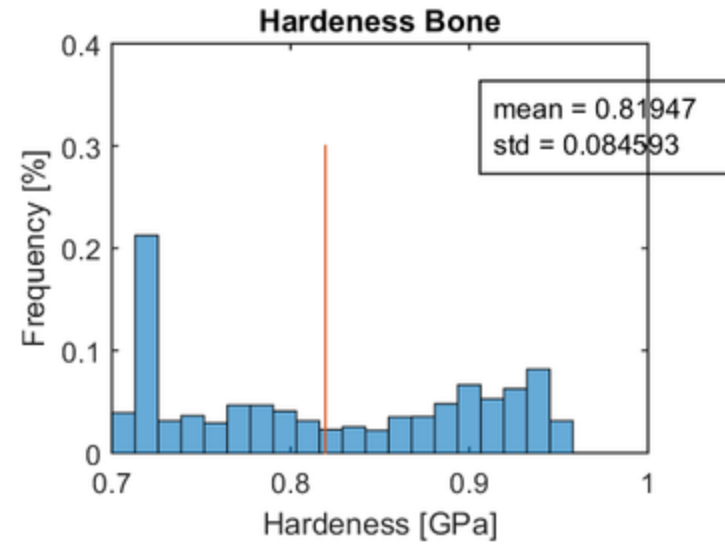
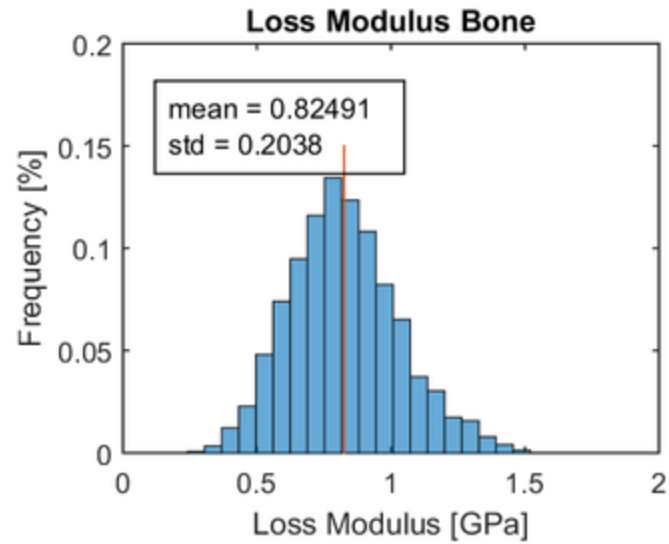
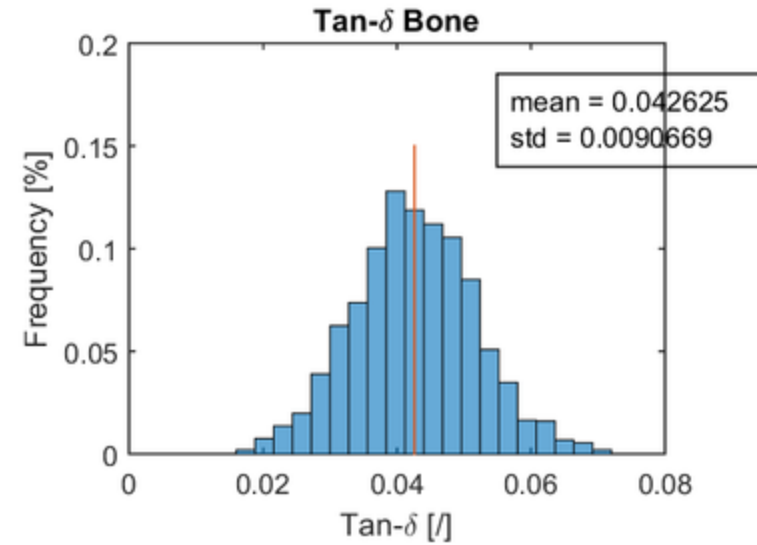
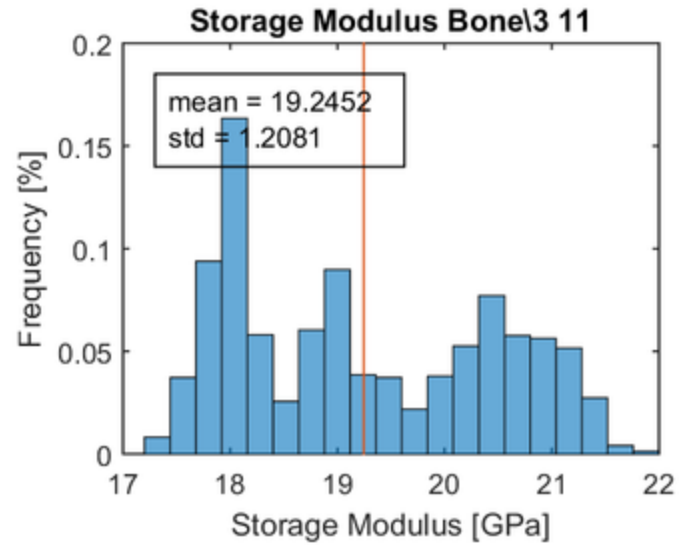
Bone C Point 9



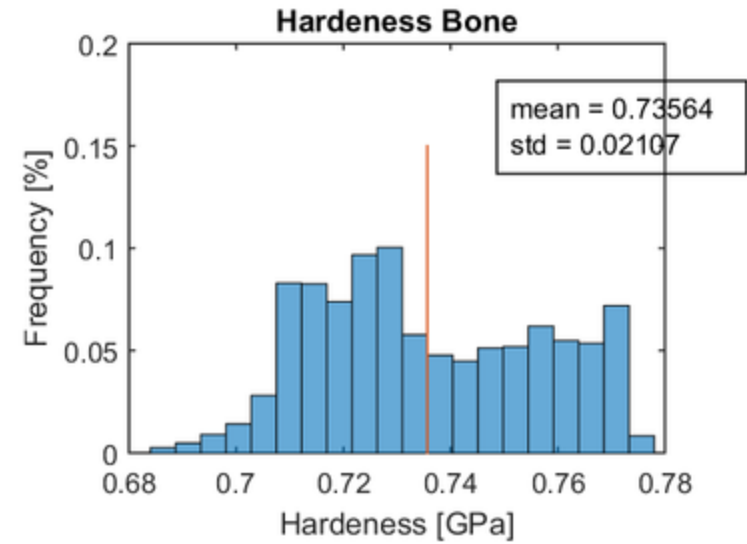
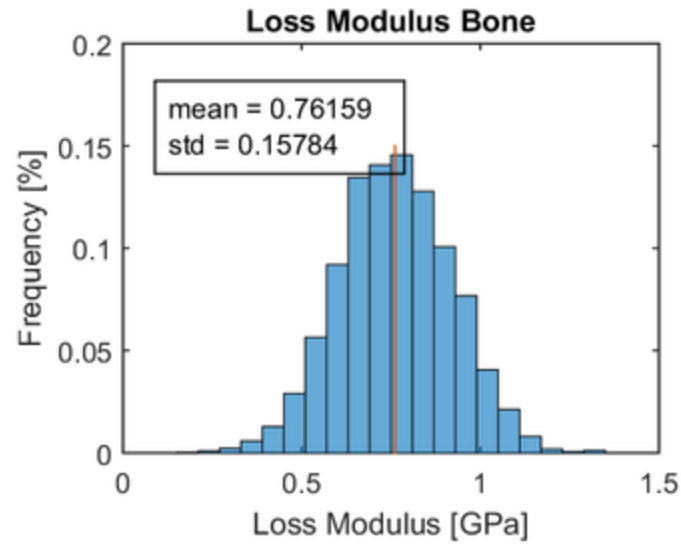
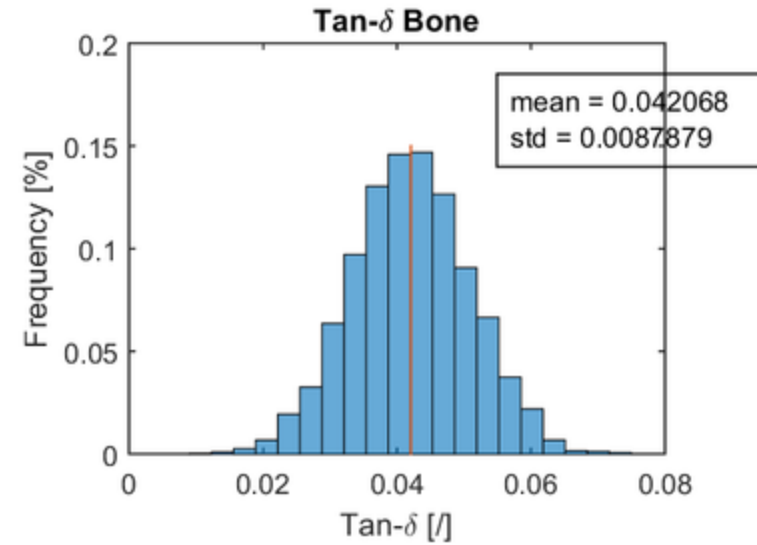
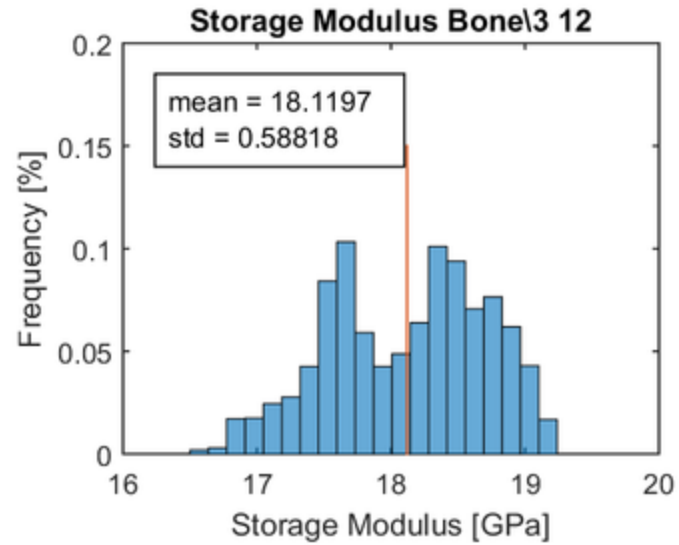
Bone C Point 10



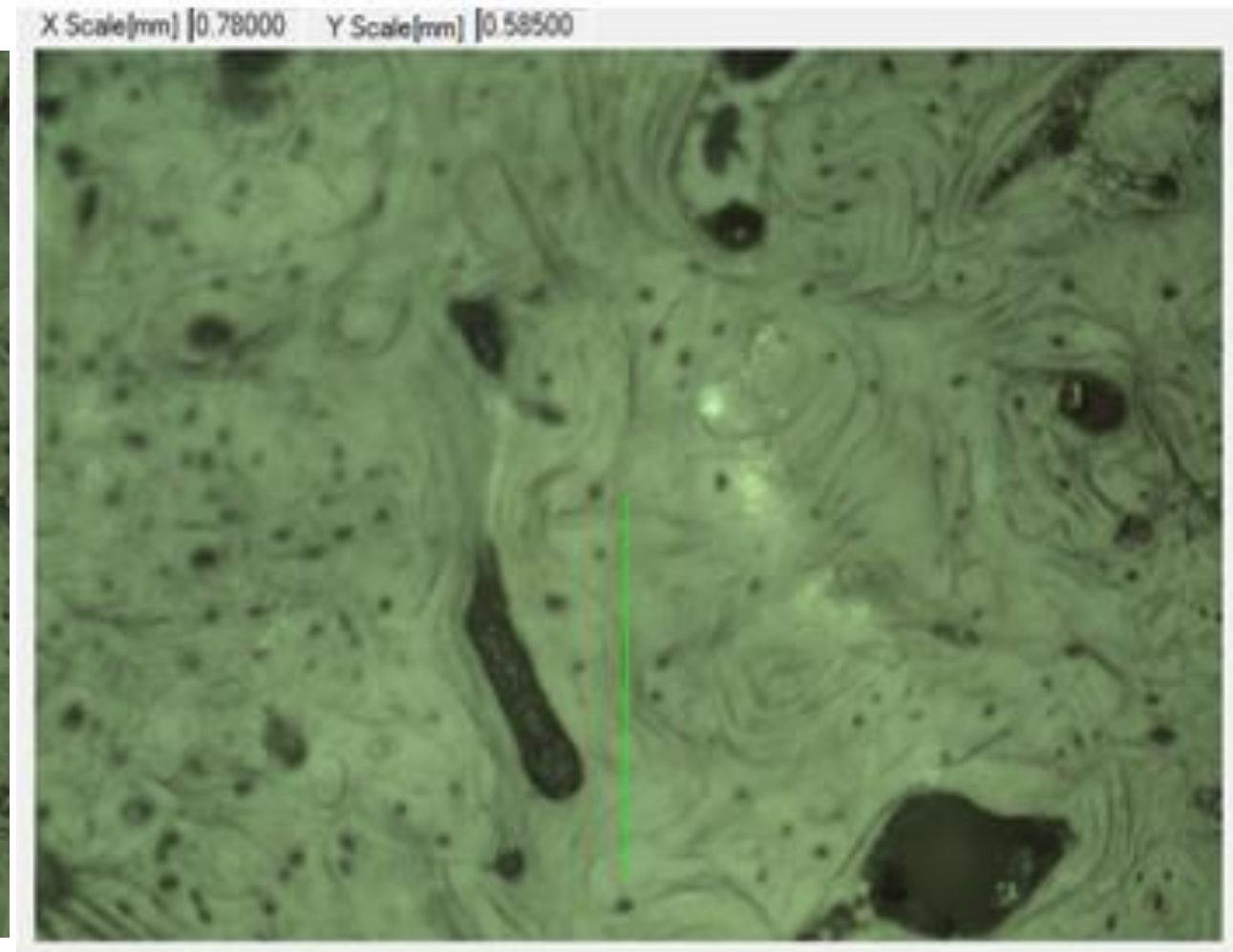
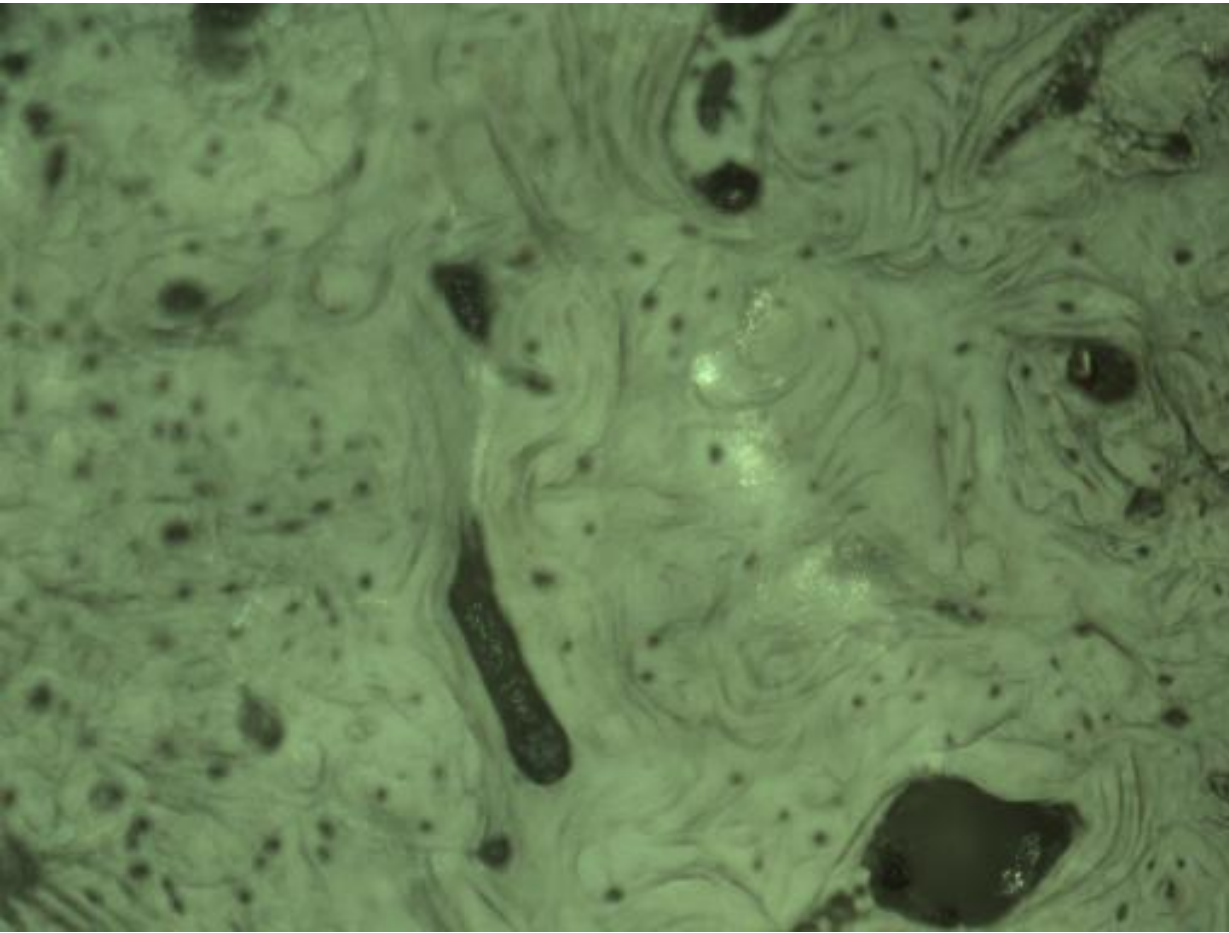
Bone C Point 11



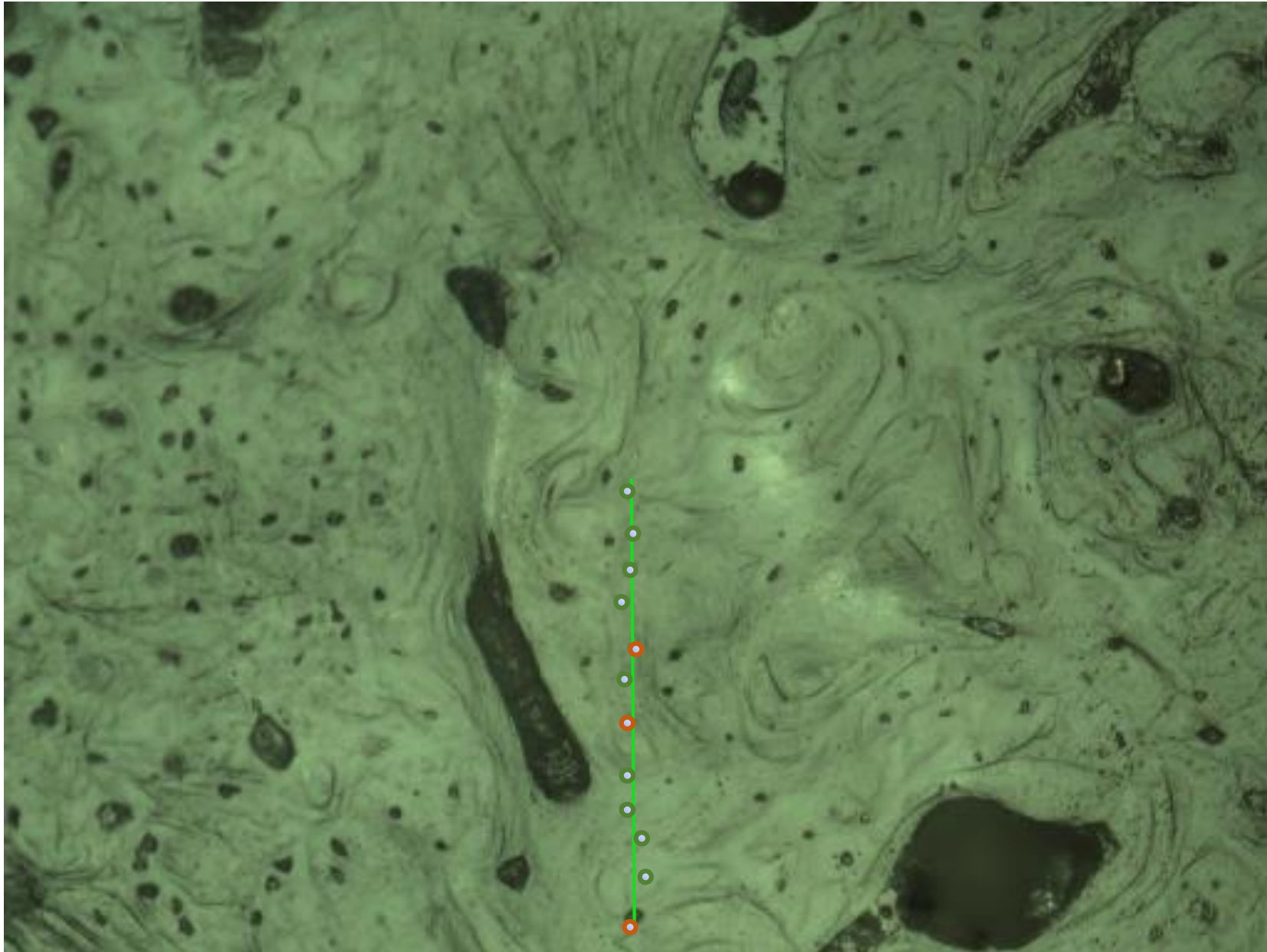
Bone C Point 12

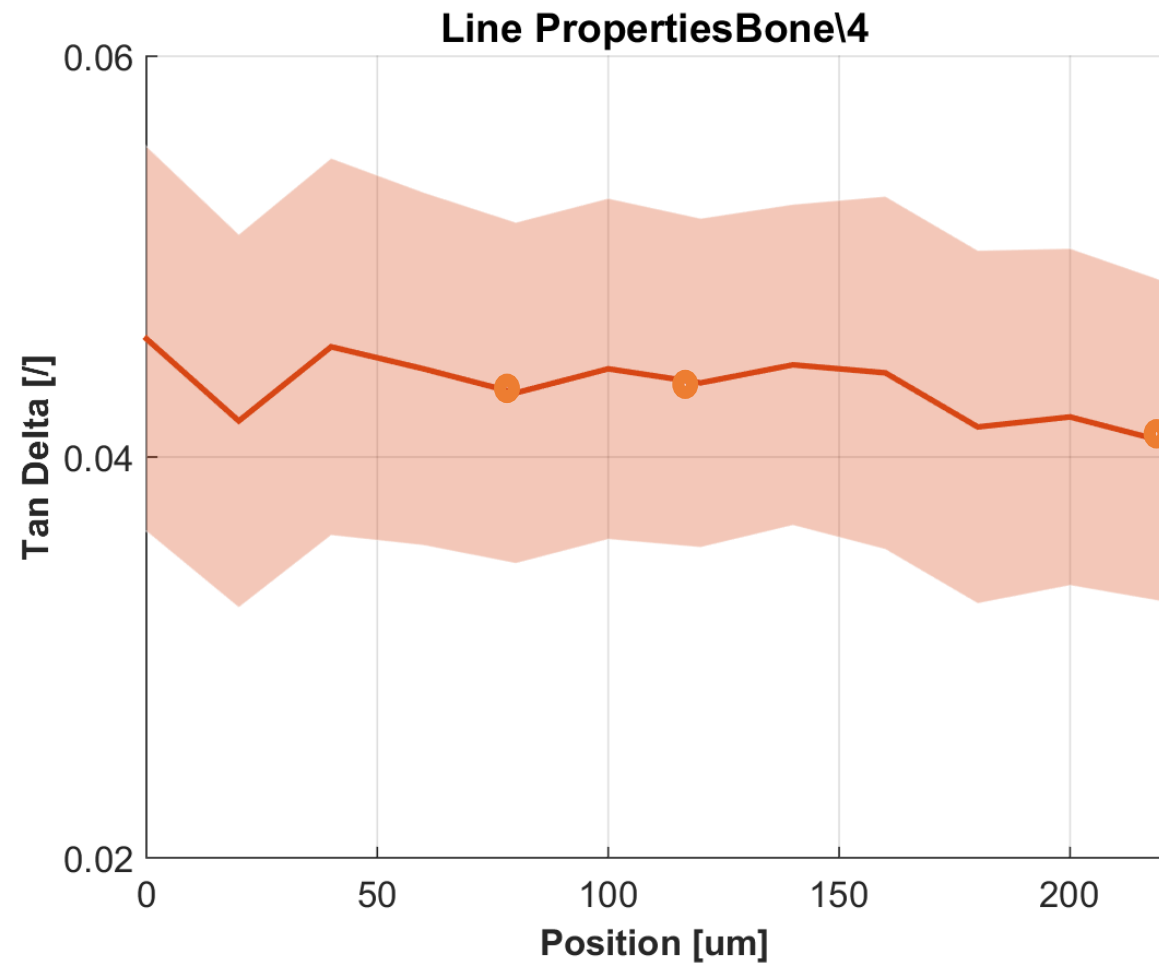
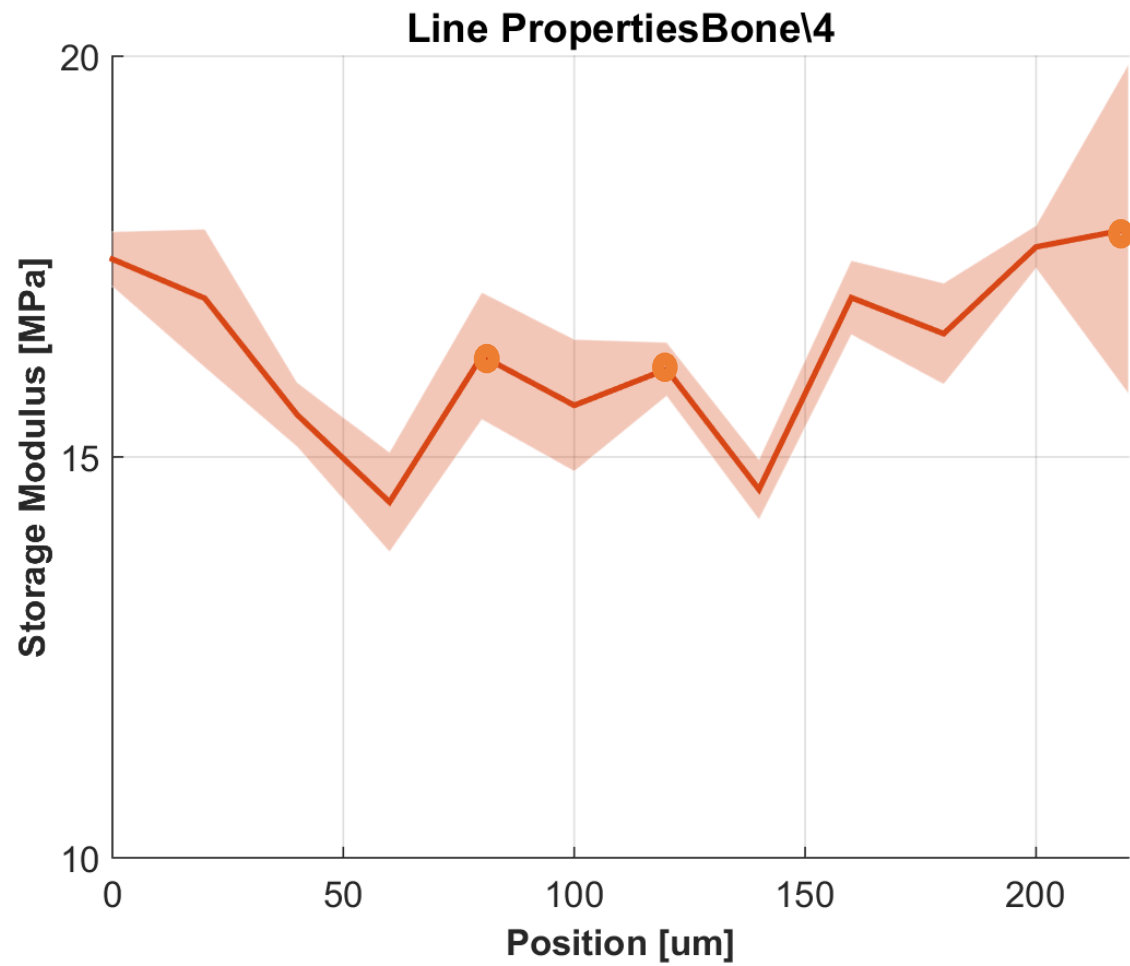


D. Bone D2 12 points $\Delta=20\mu\text{m}$ roughness Good/OK

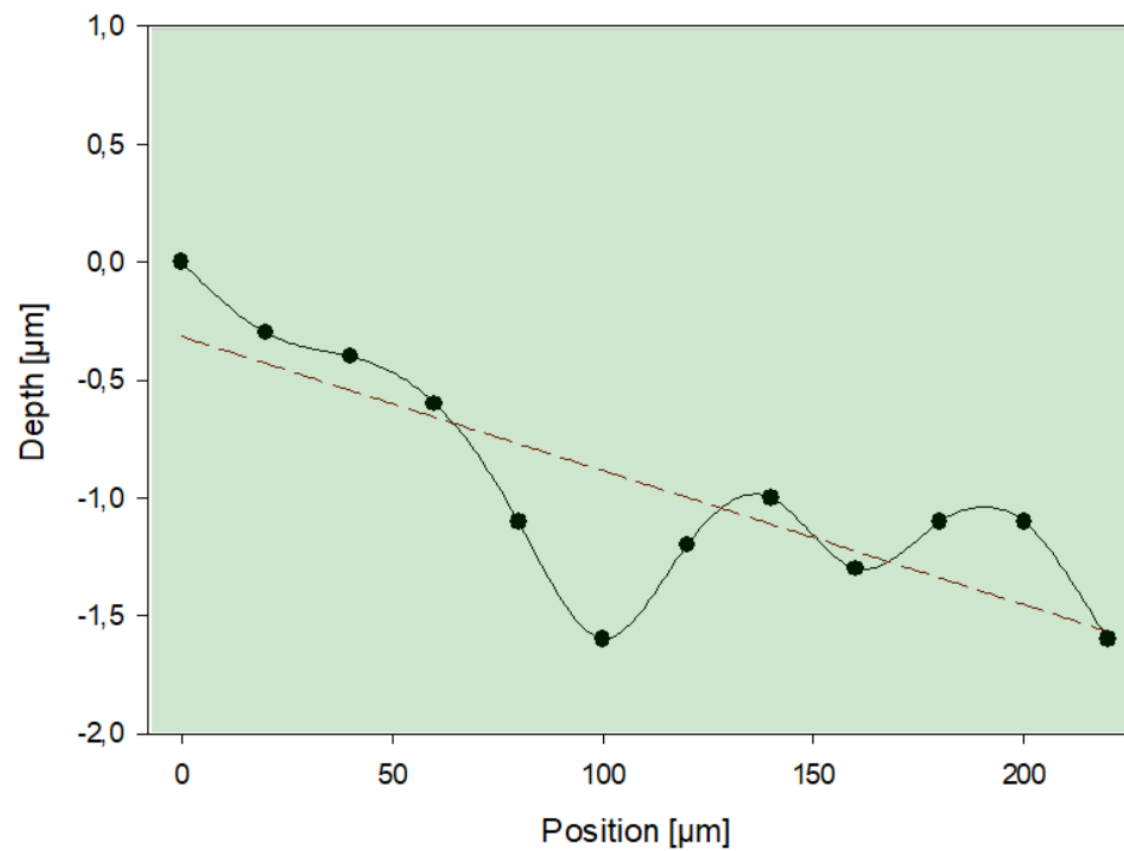


D. Bone D2 12 points $\Delta=20\mu\text{m}$ roughness Good/OK

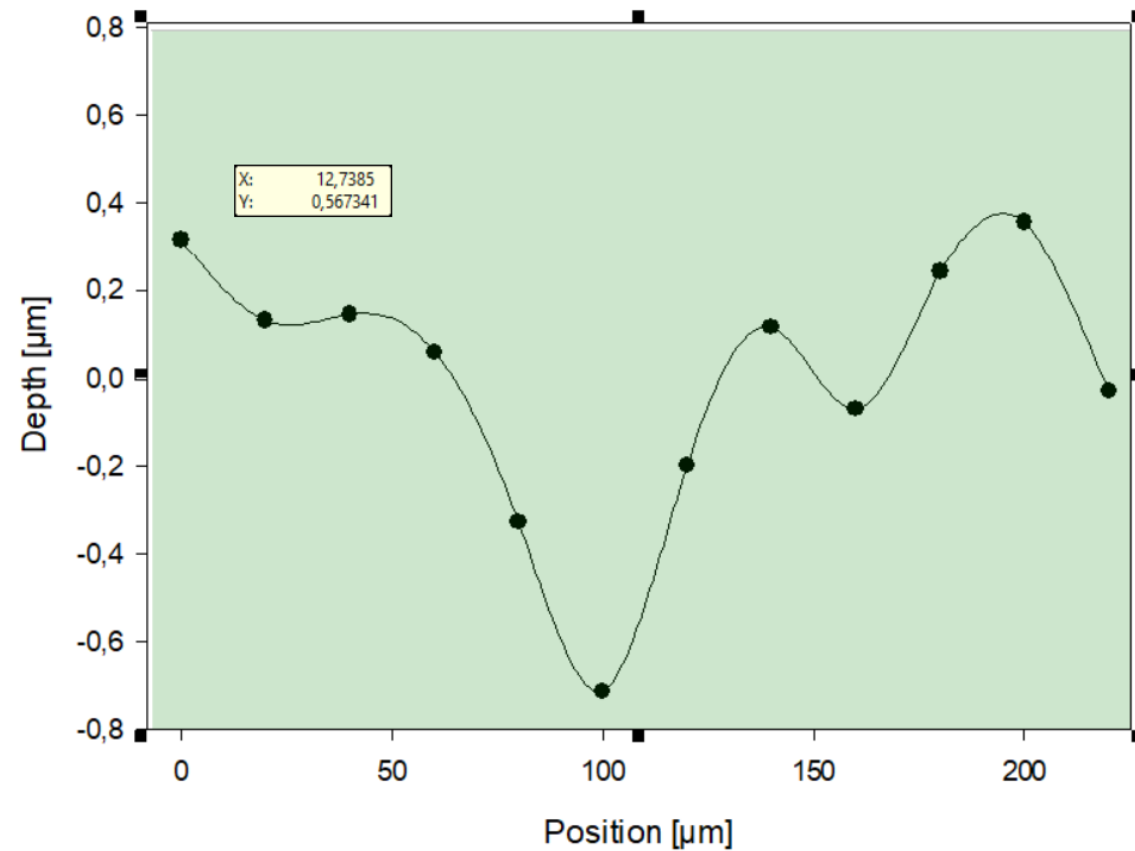




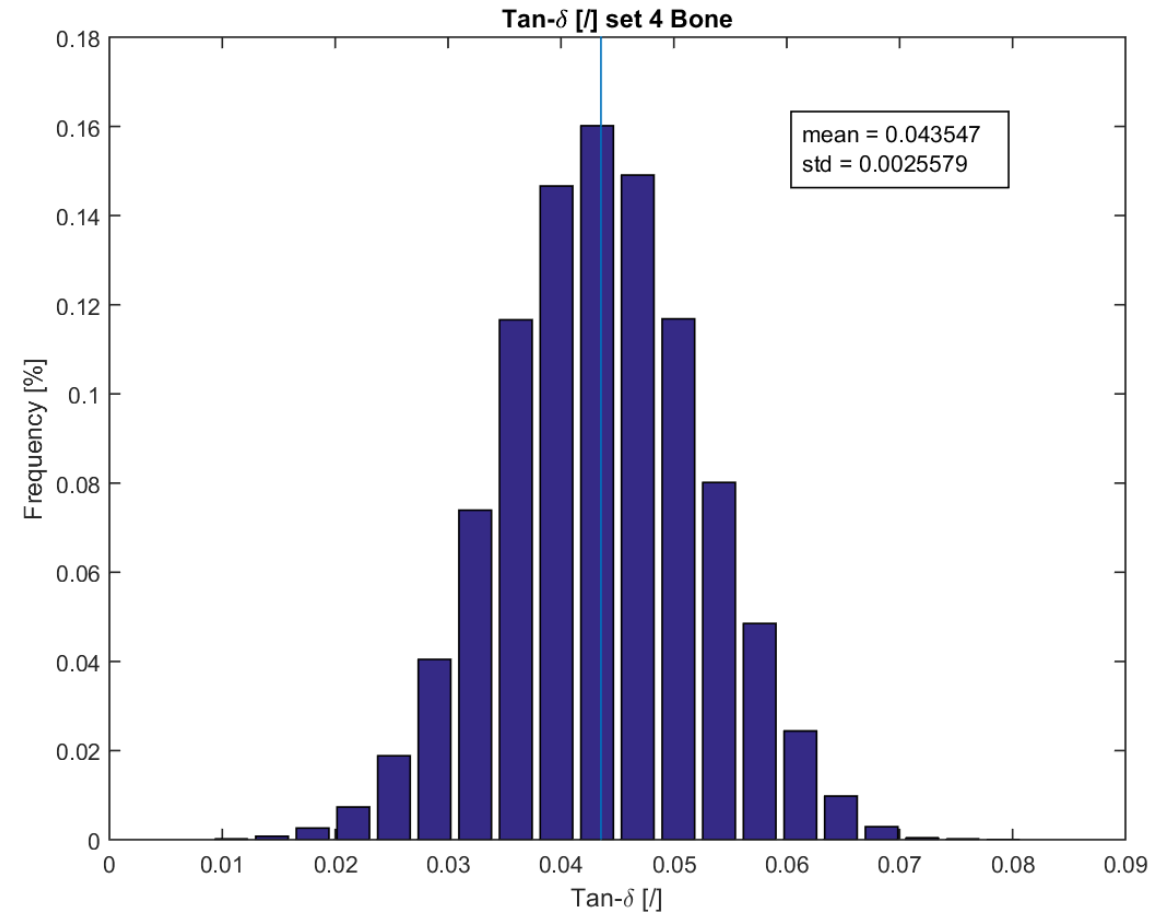
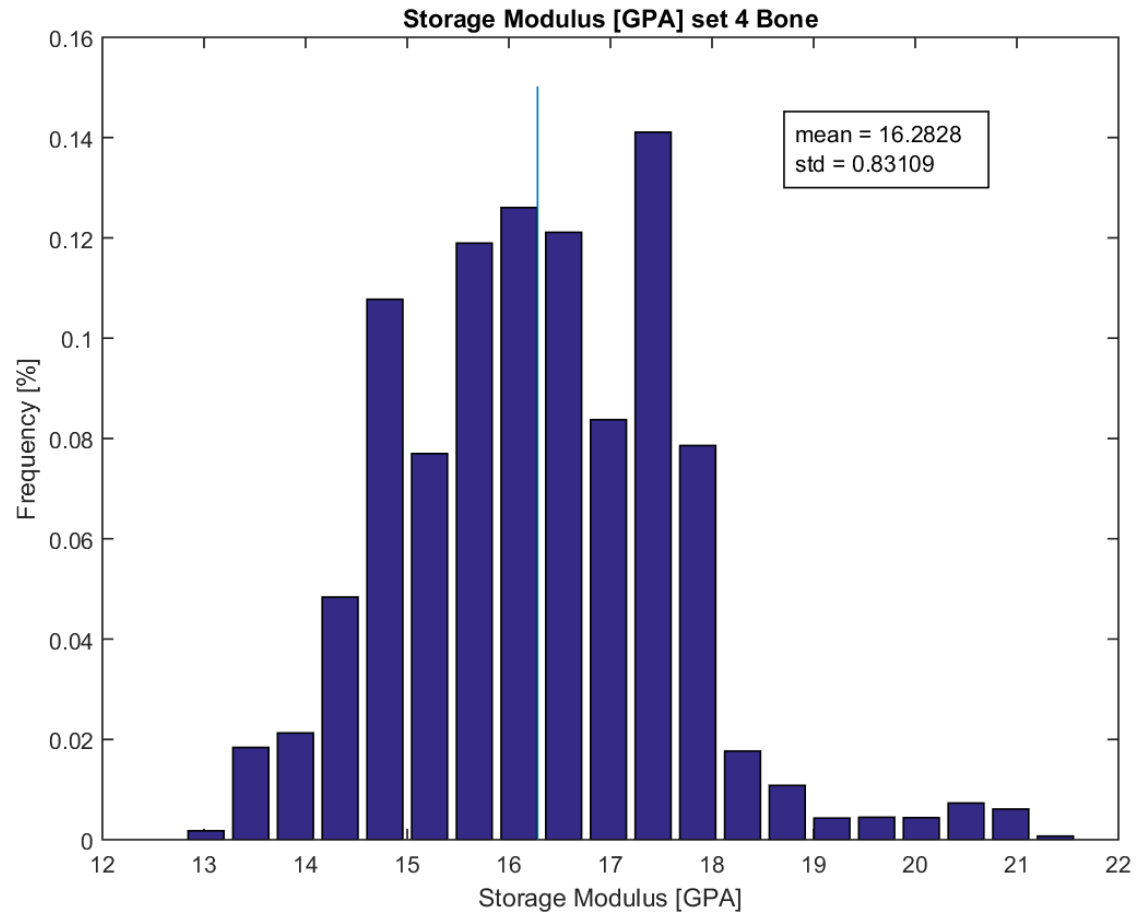
BoneD



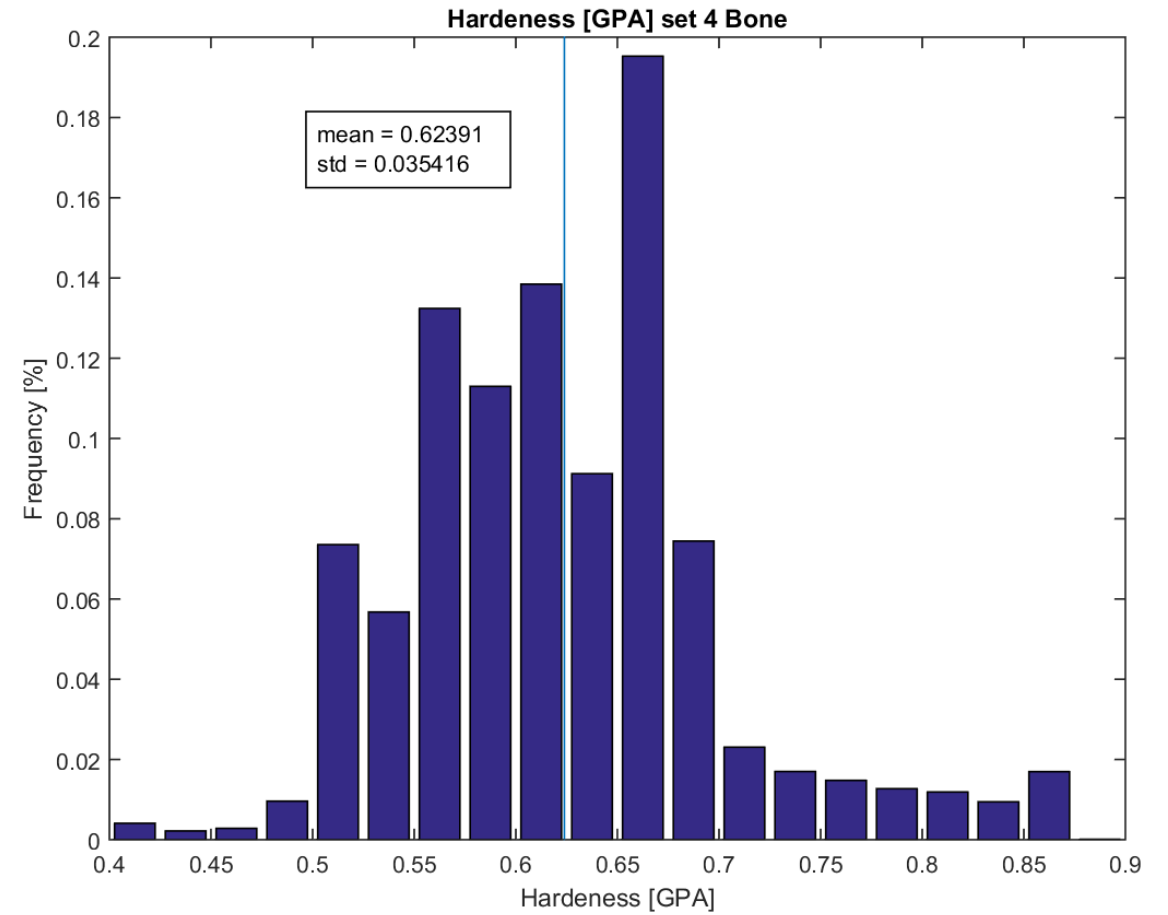
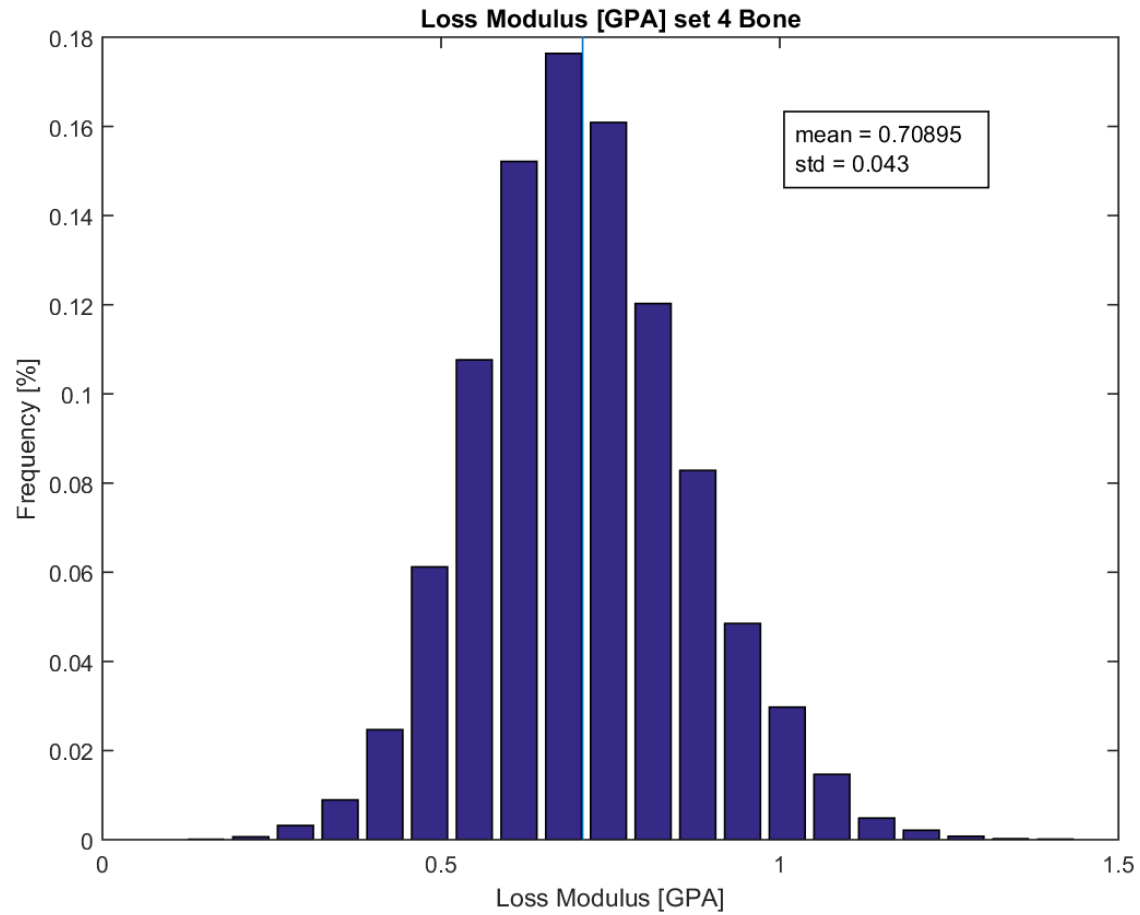
BoneD w/o tilde

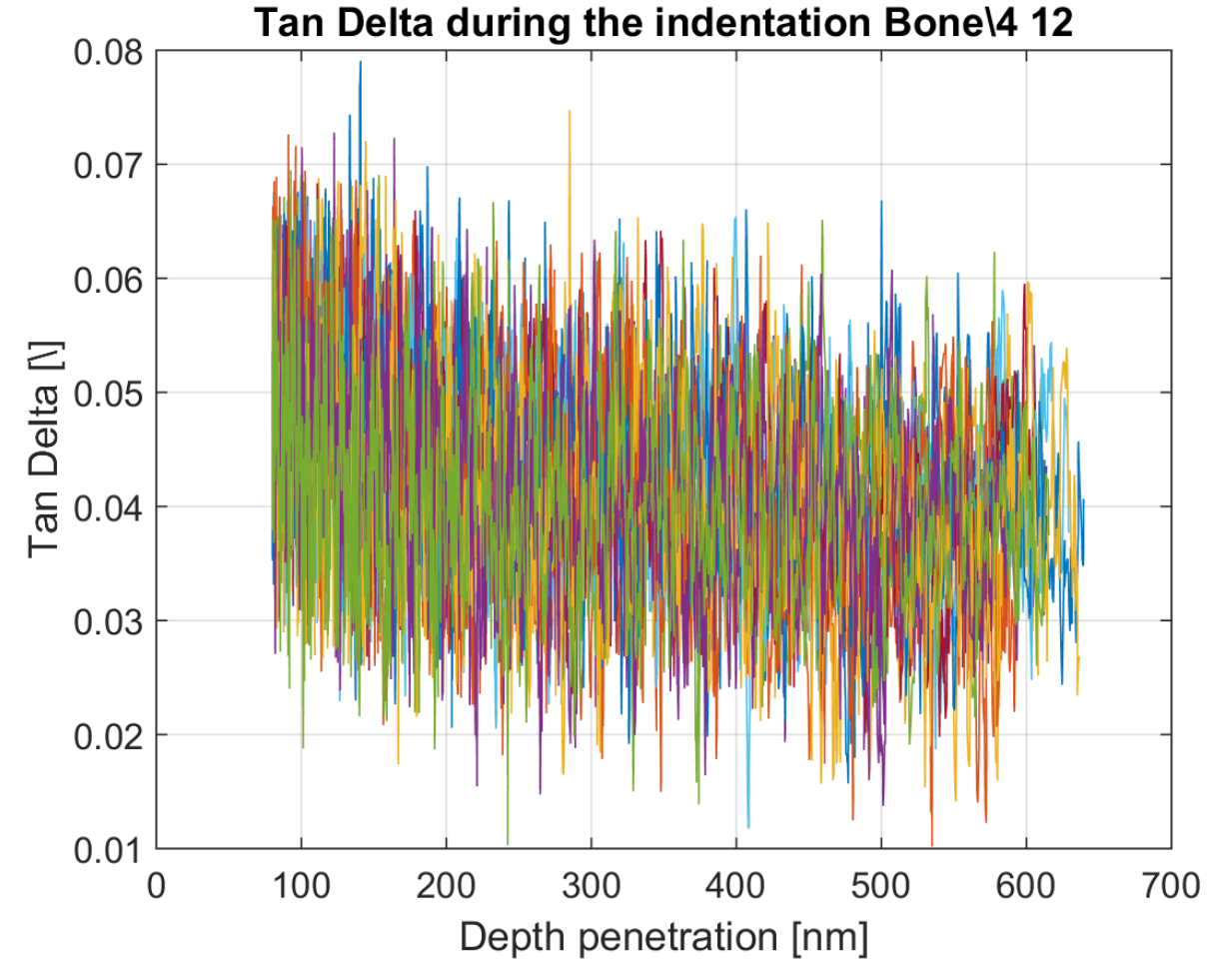
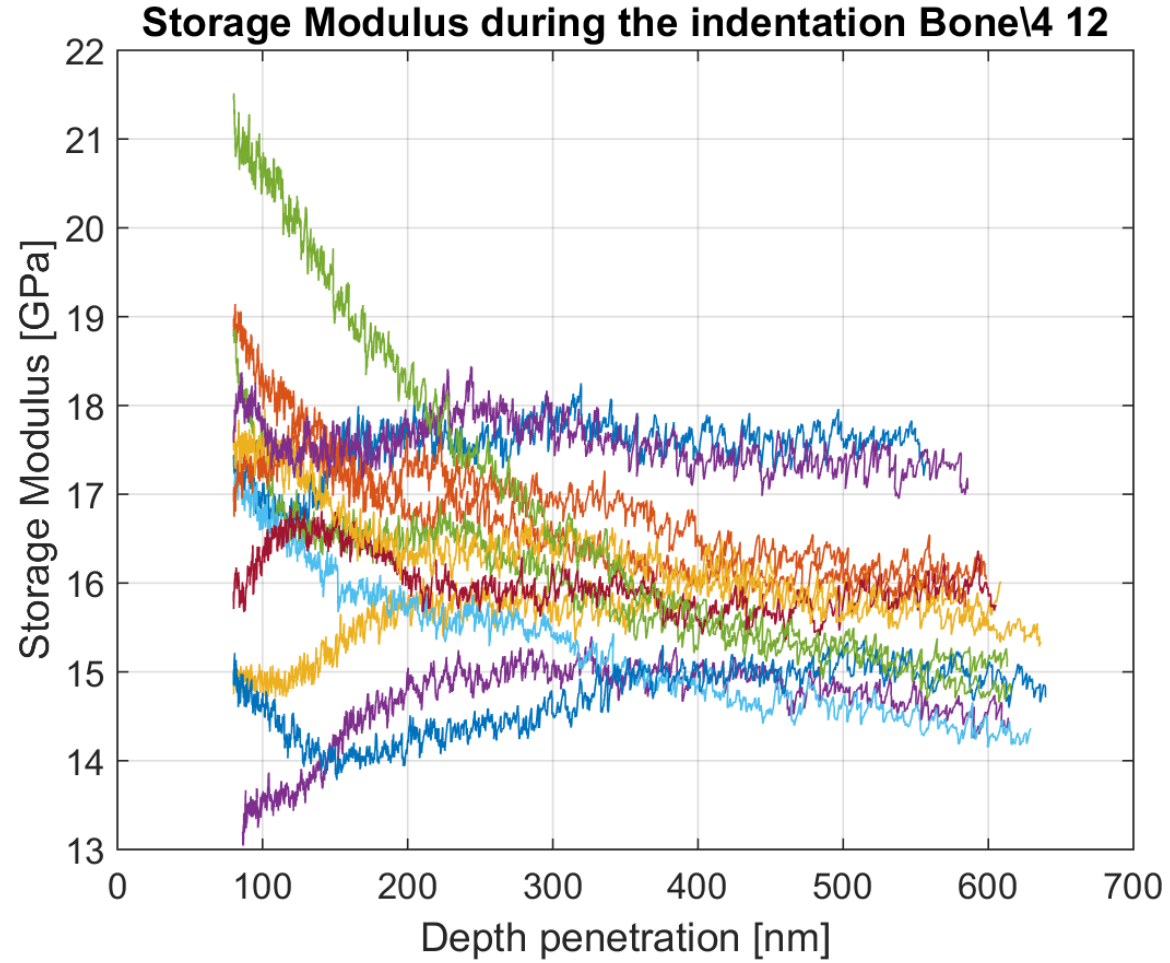


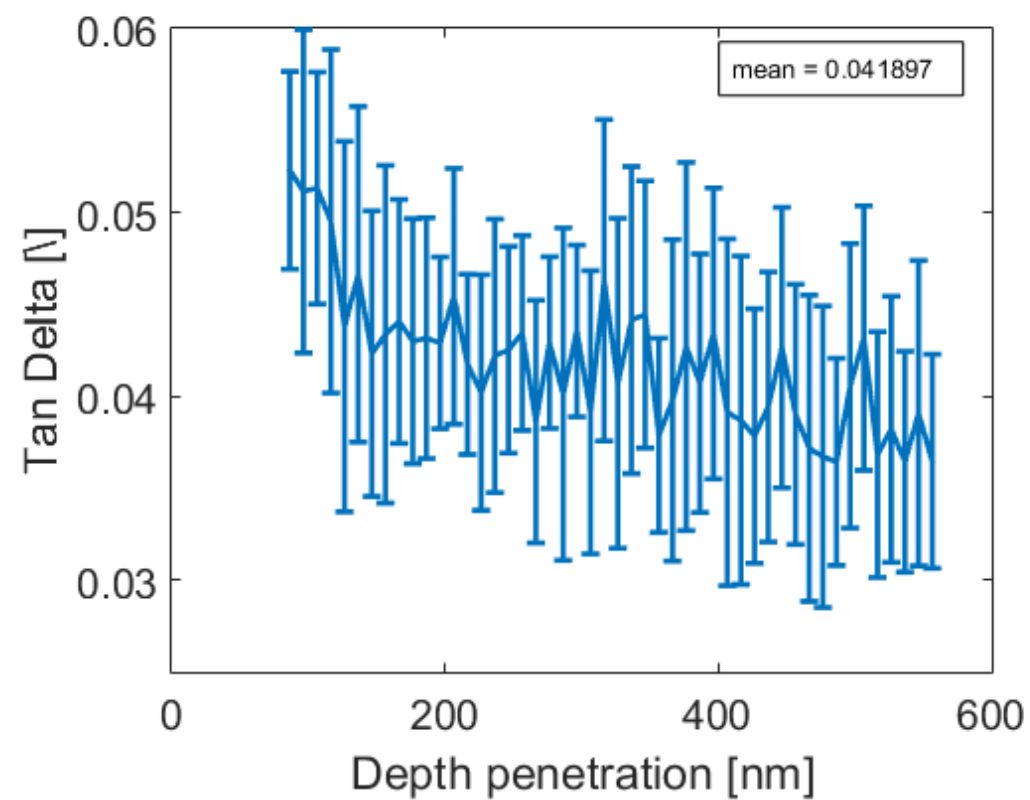
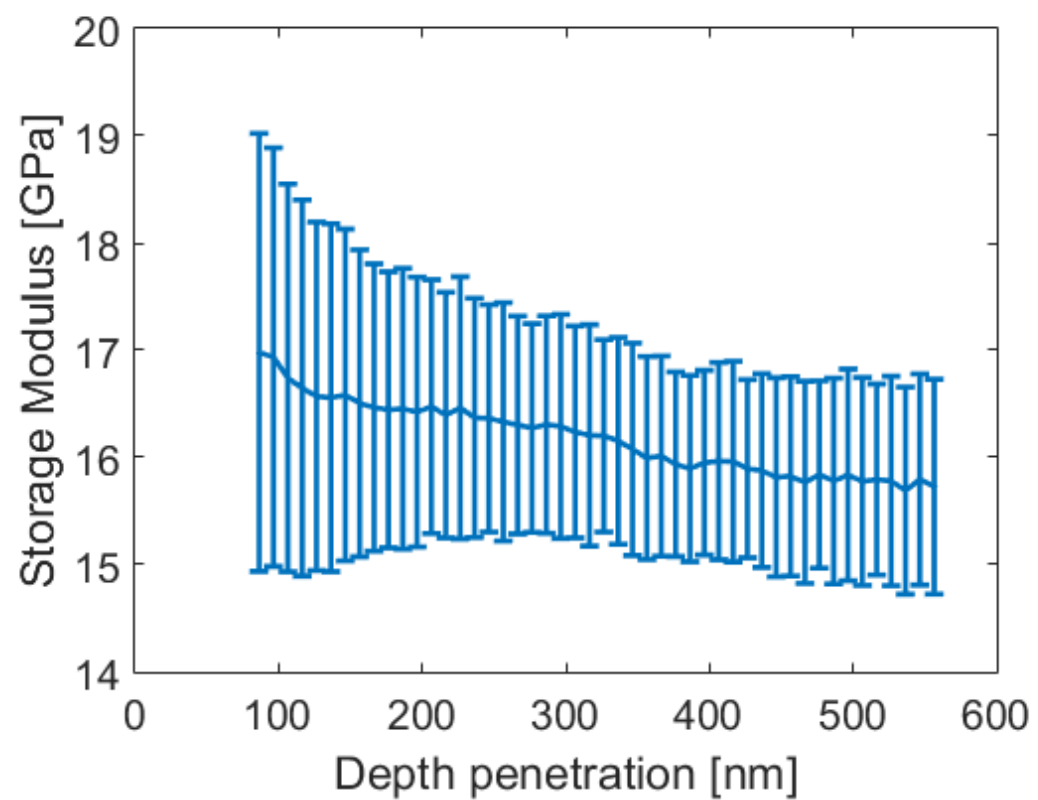
D. Complet



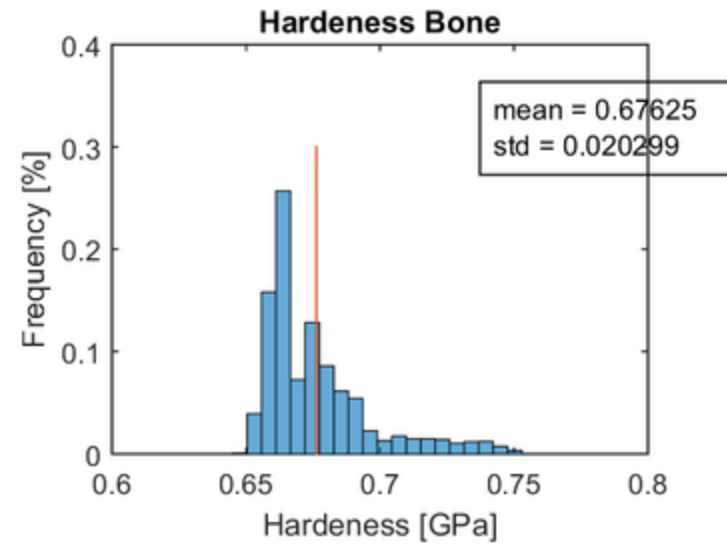
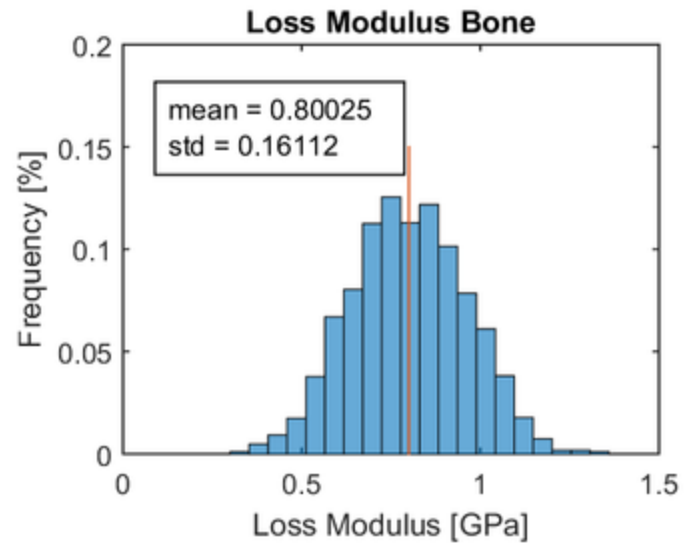
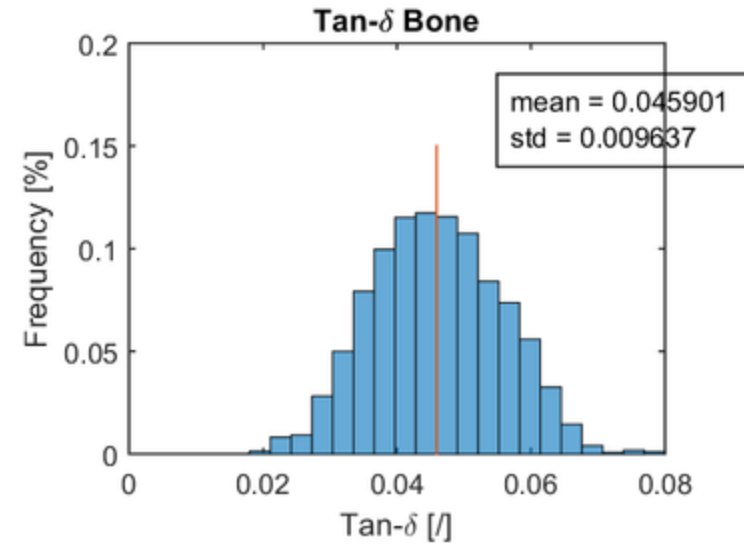
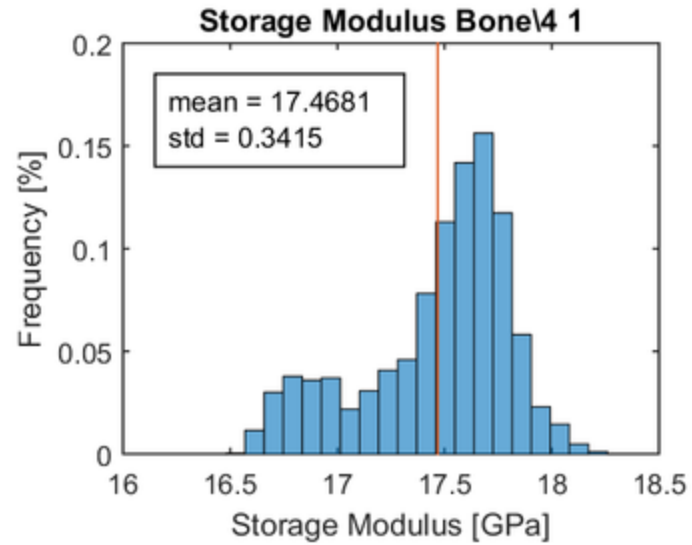
D. Complet



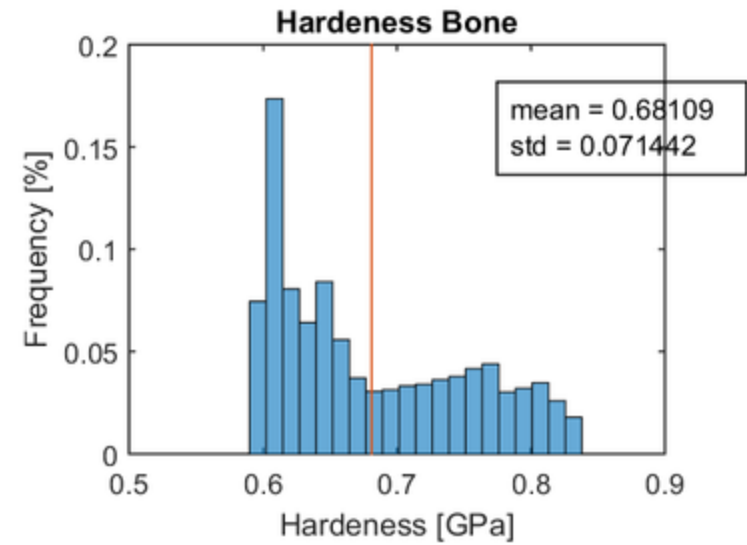
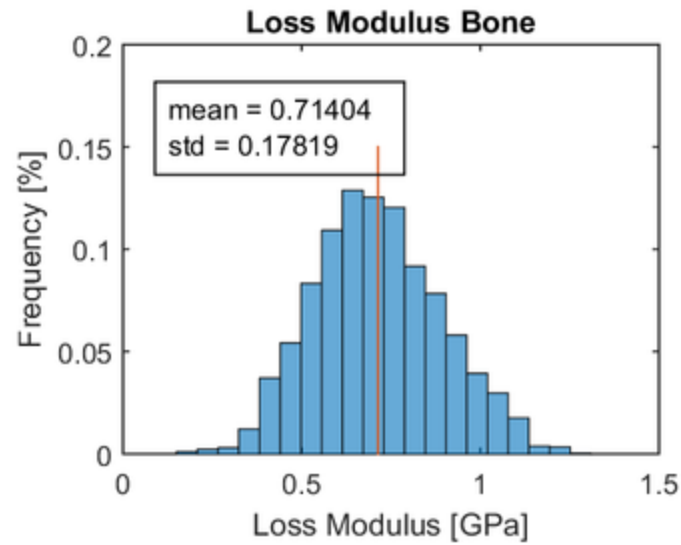
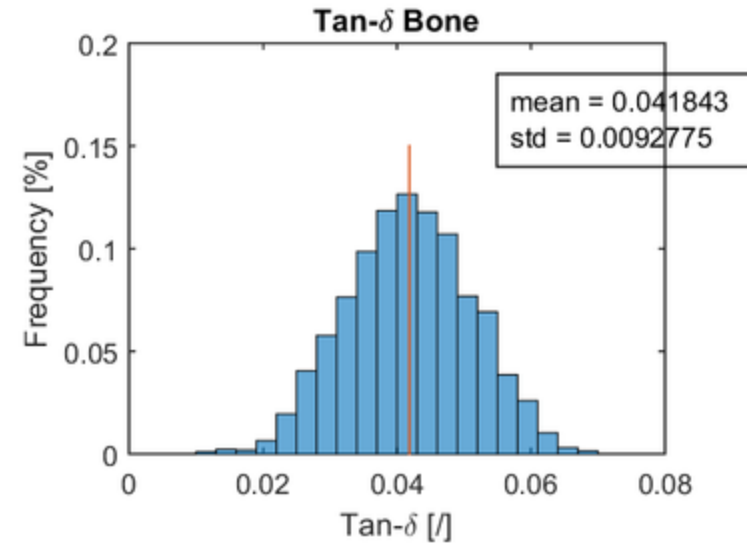
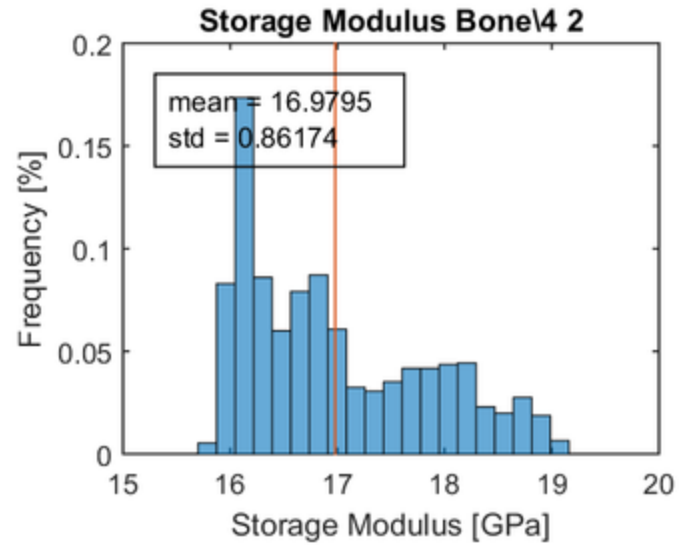




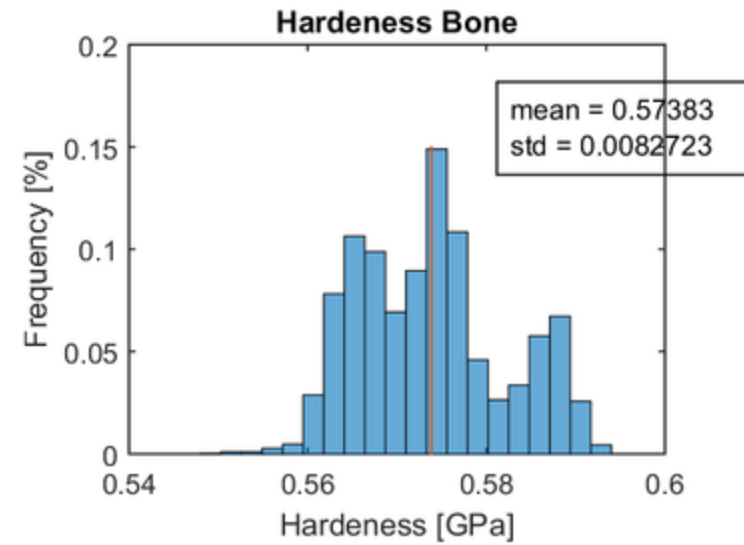
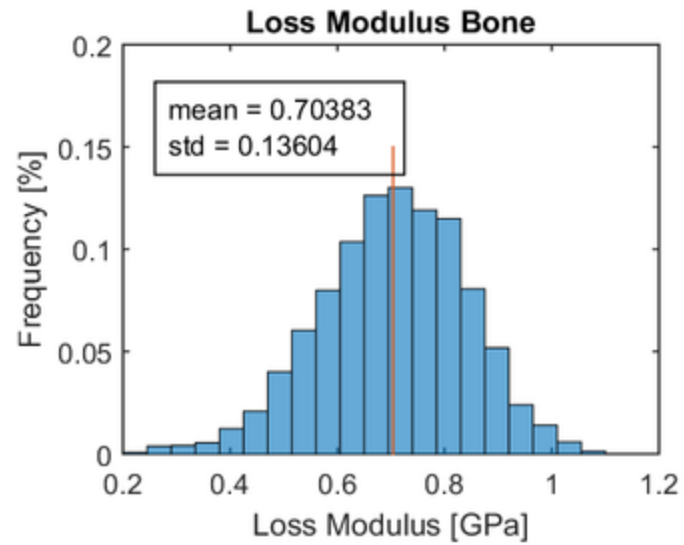
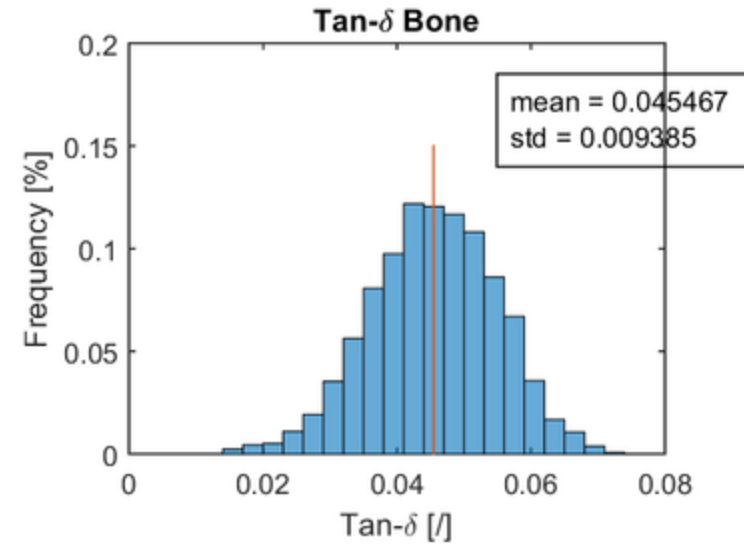
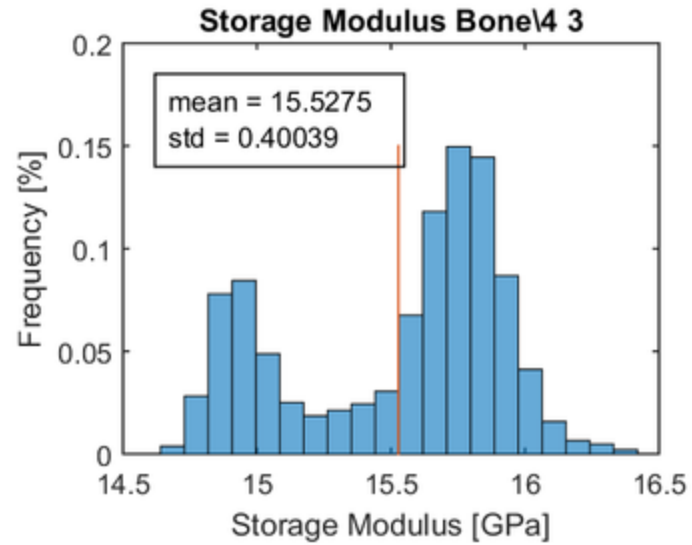
Bone D Point 1



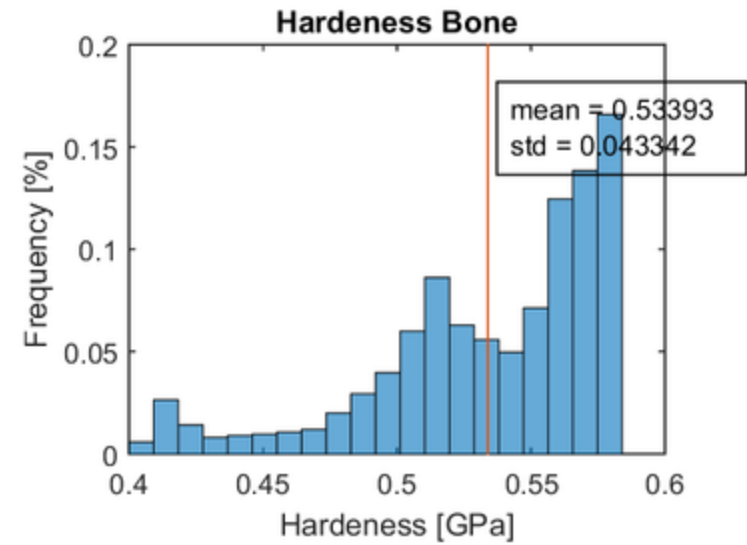
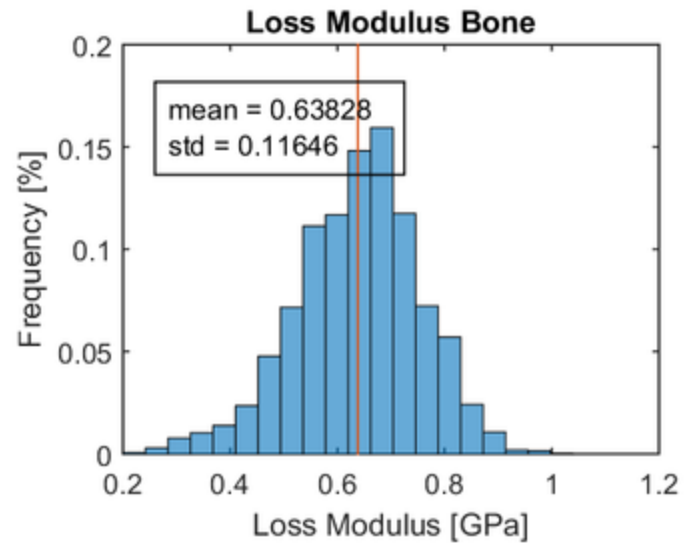
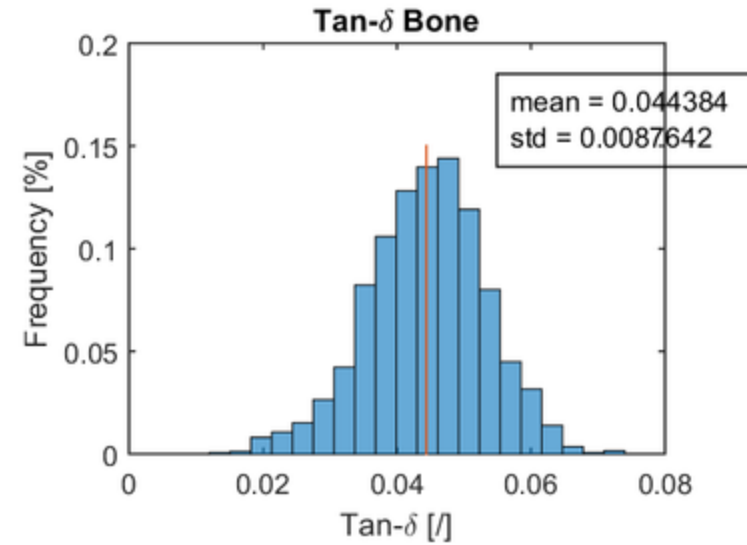
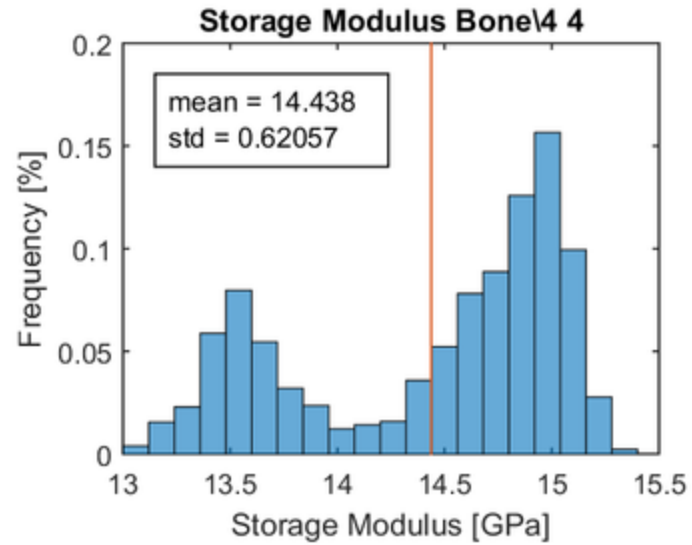
Bone D Point 2



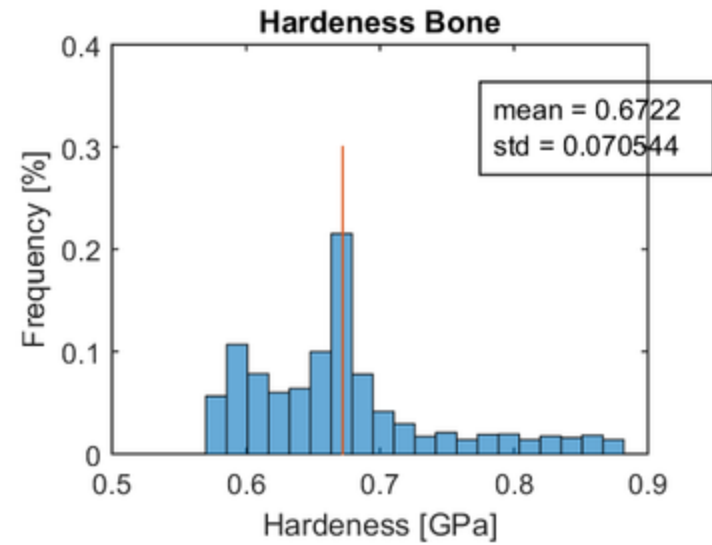
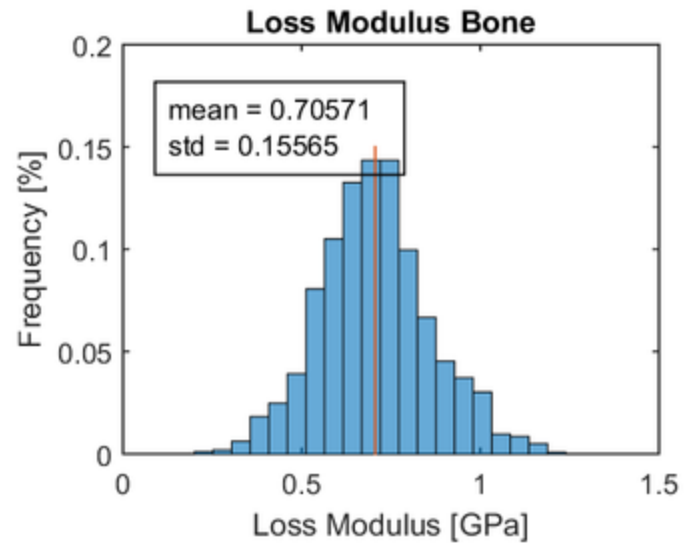
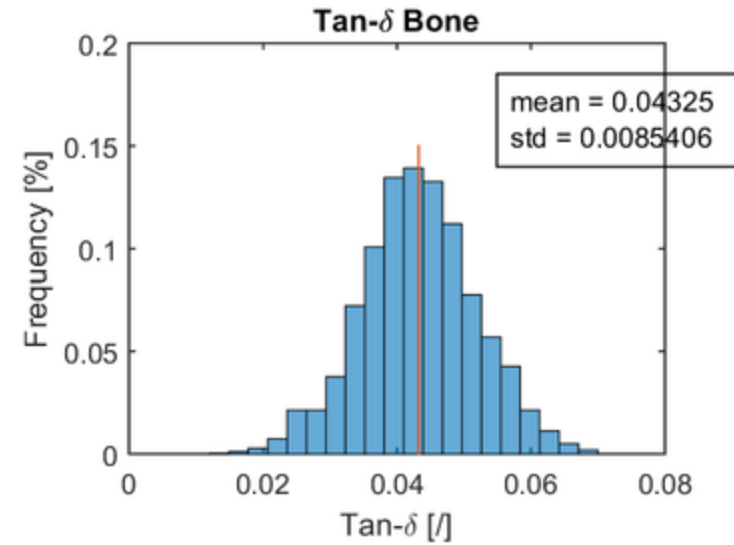
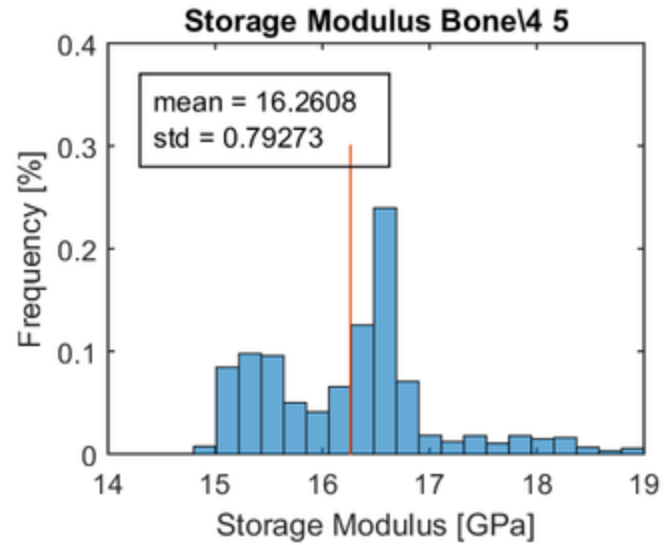
Bone D Point 3



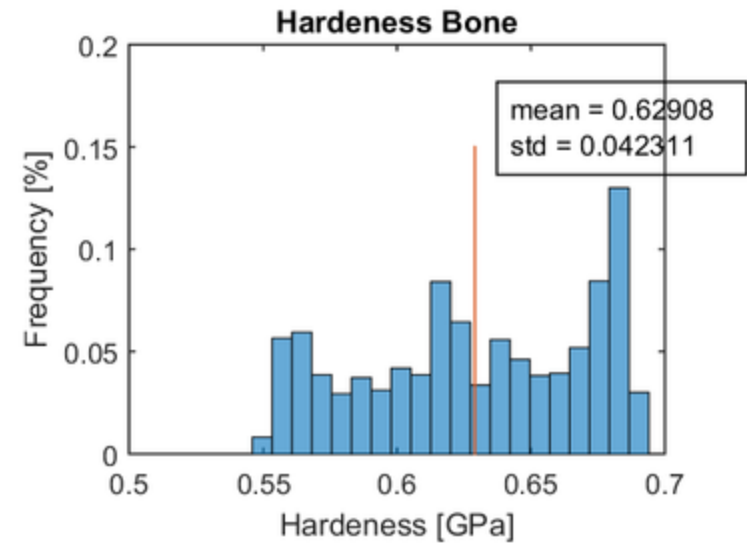
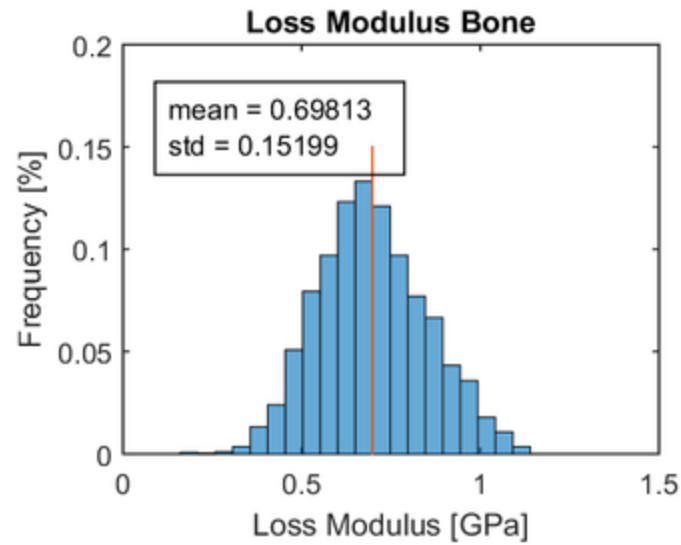
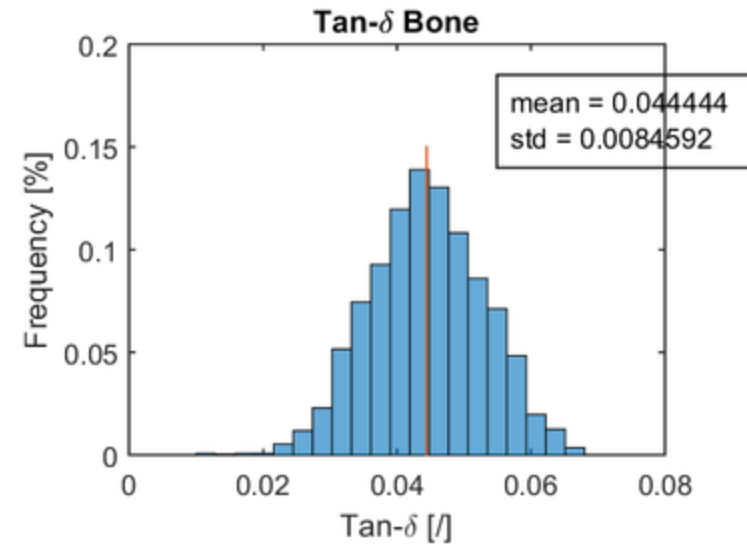
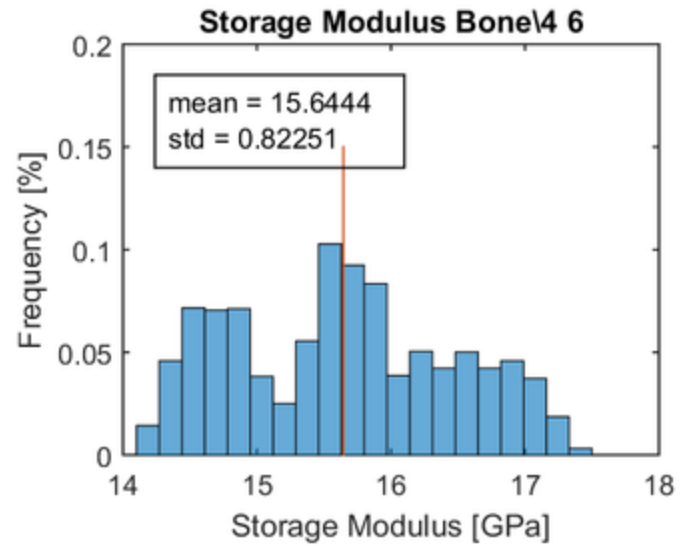
Bone D Point 4



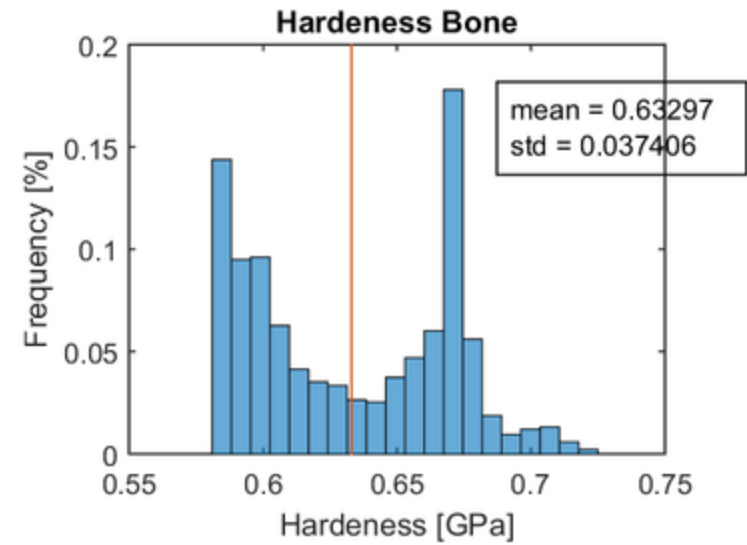
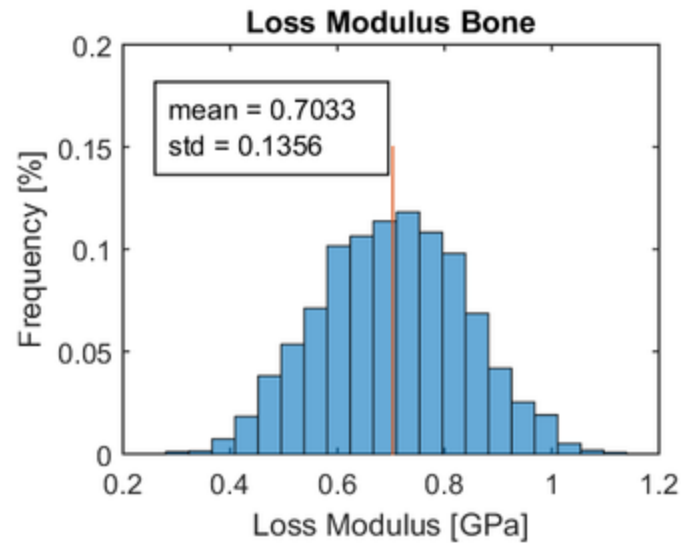
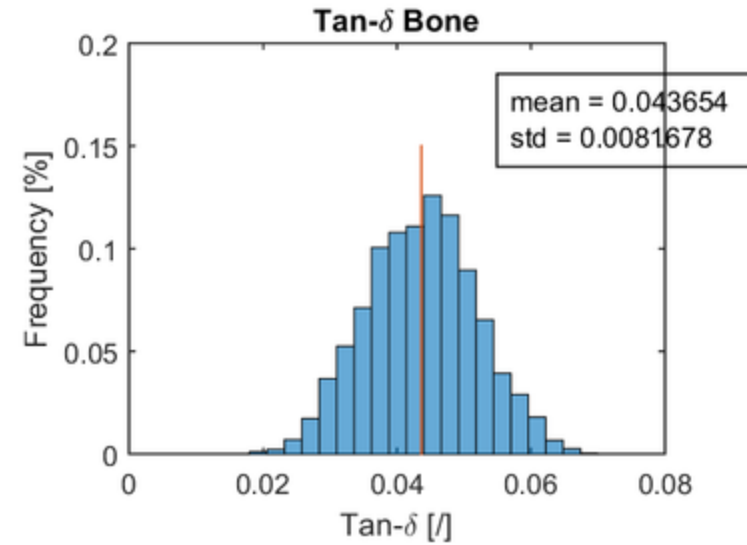
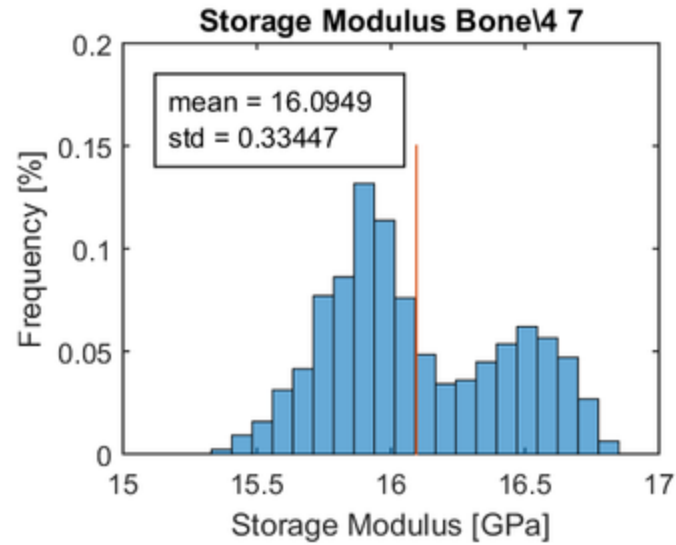
Bone D Point 5



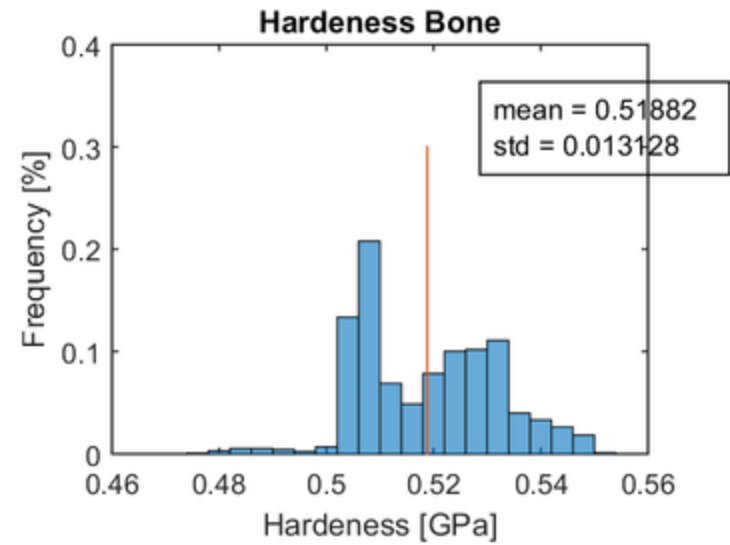
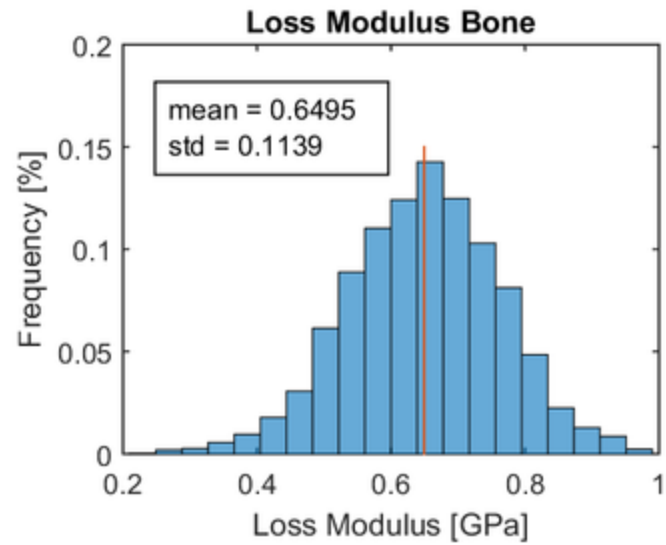
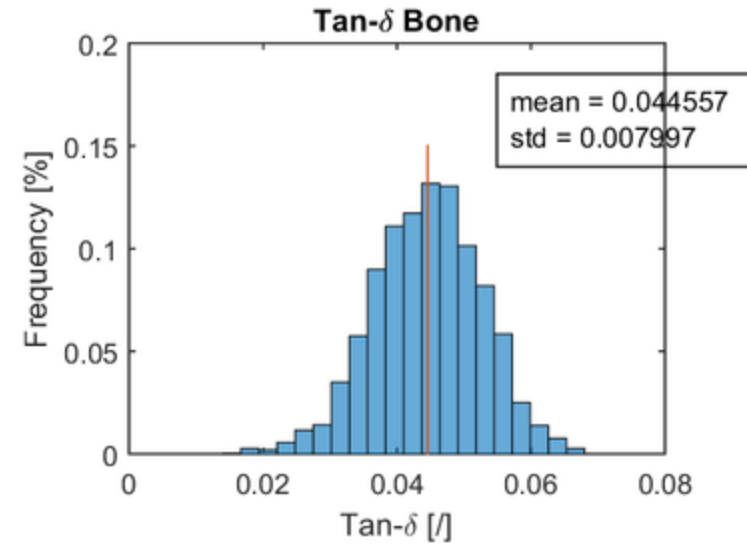
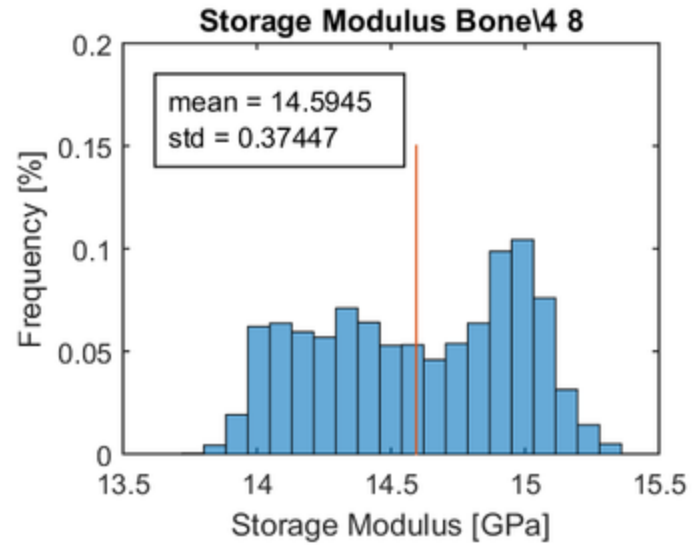
Bone D Point 6



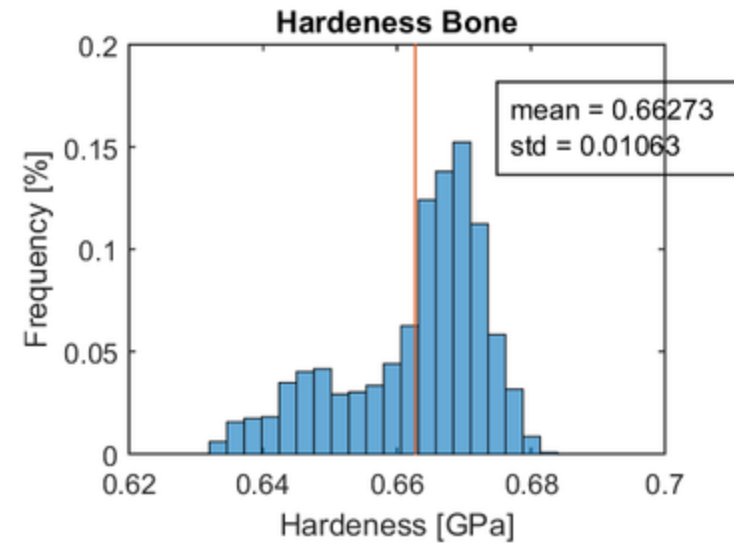
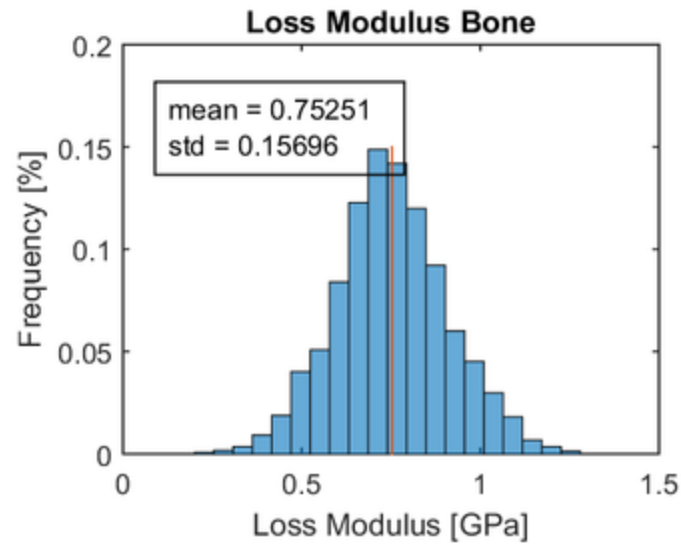
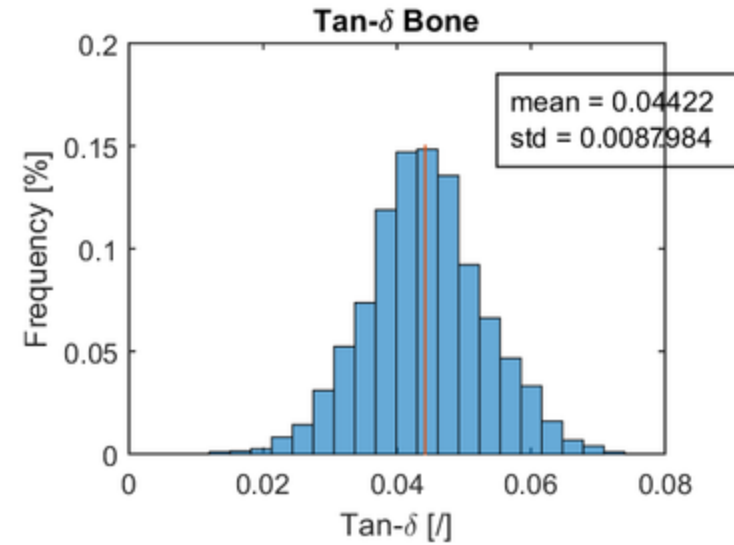
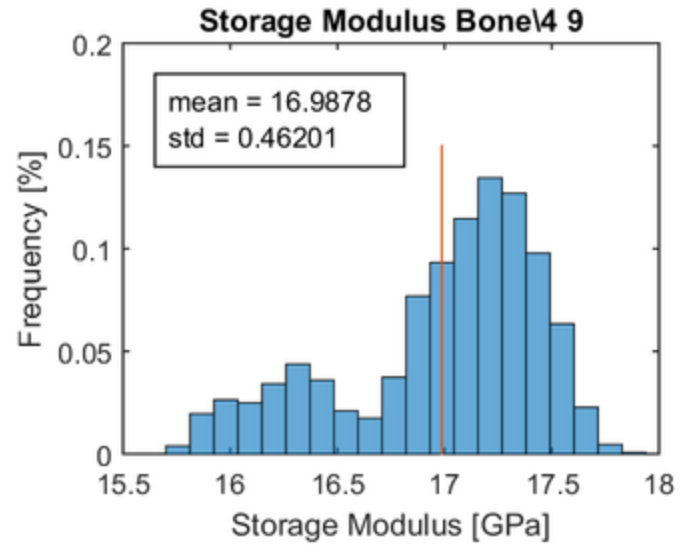
Bone D Point 7



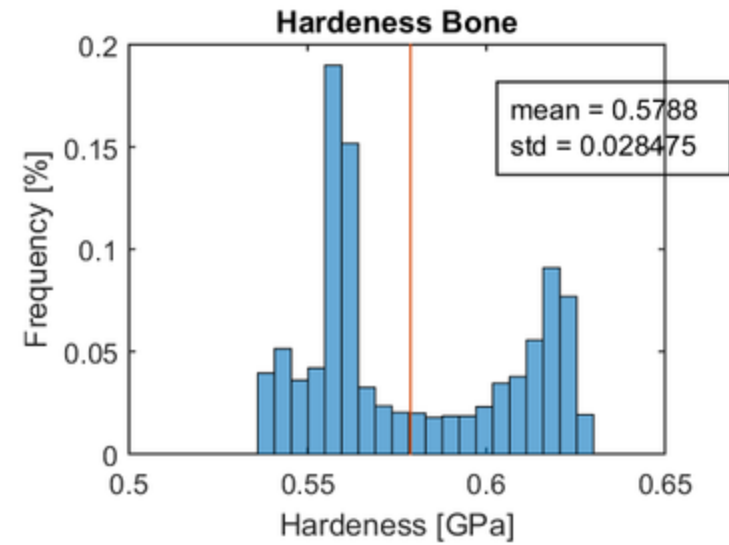
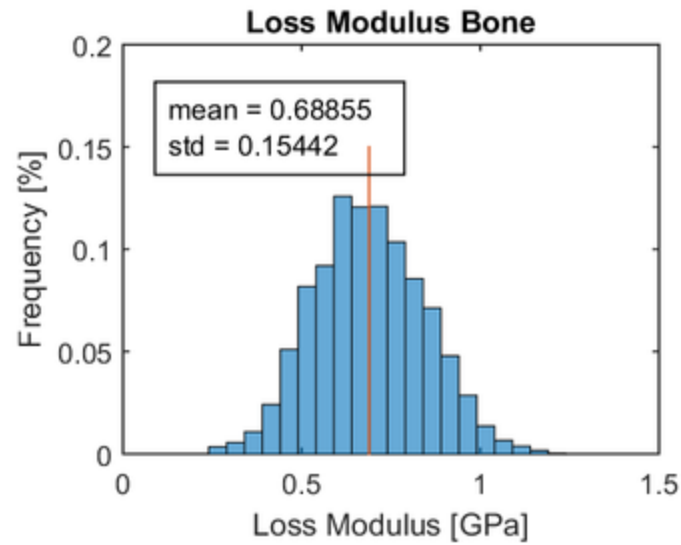
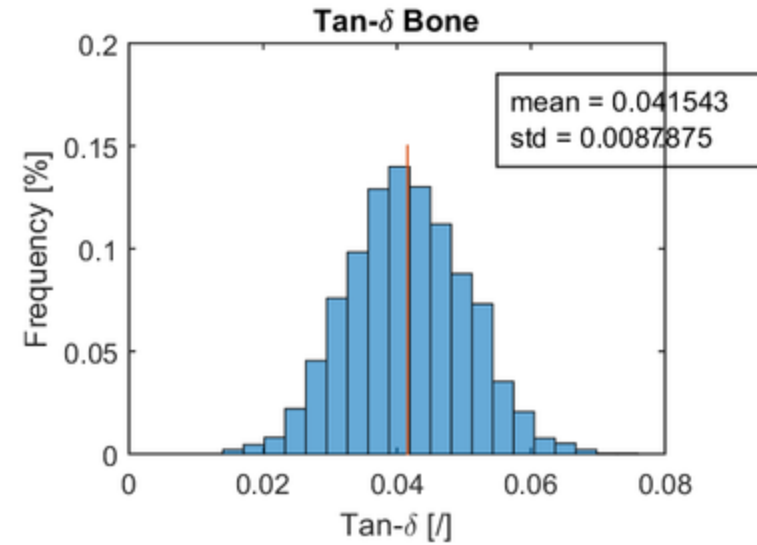
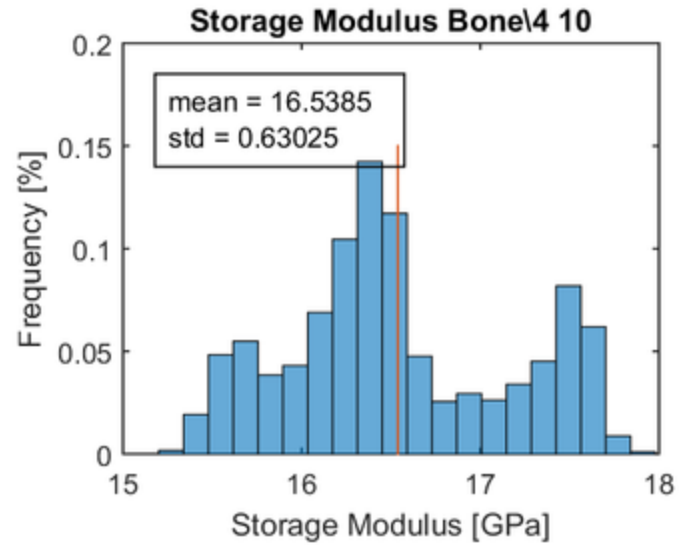
Bone D Point 8



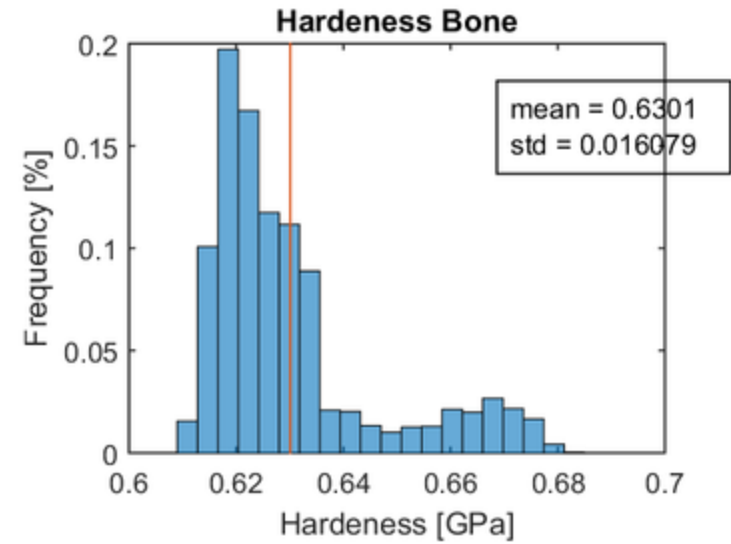
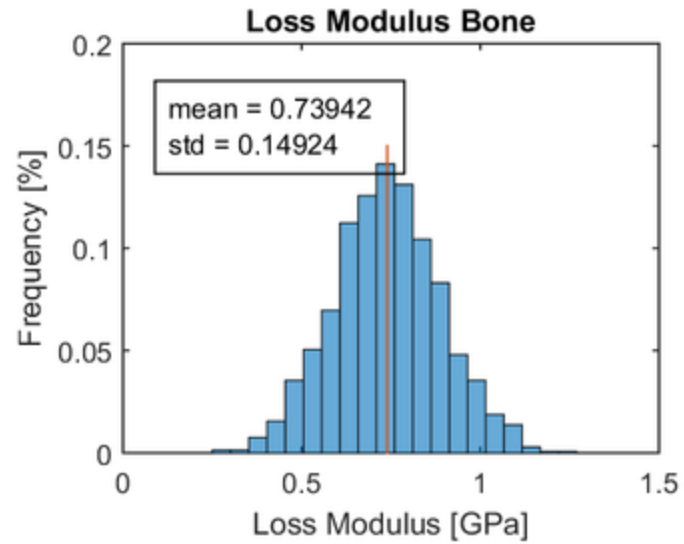
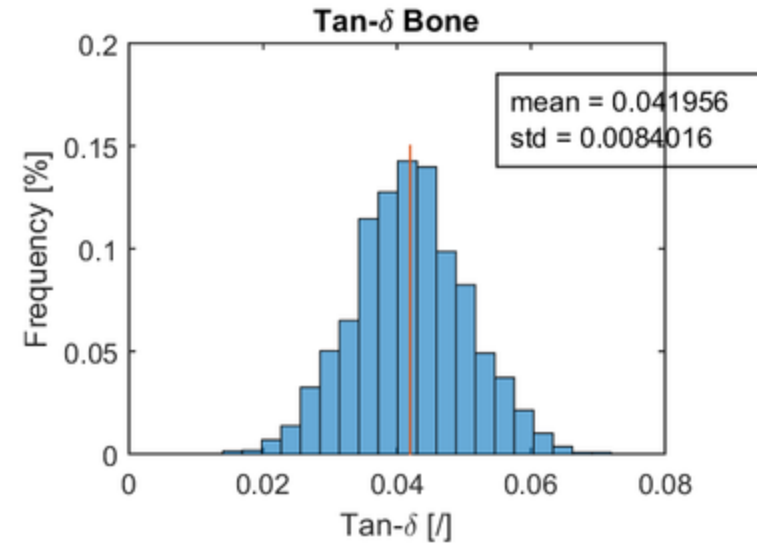
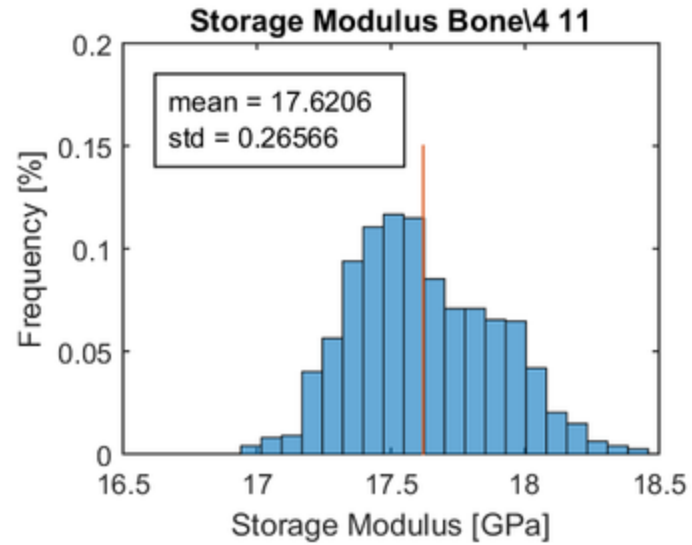
Bone D Point 9



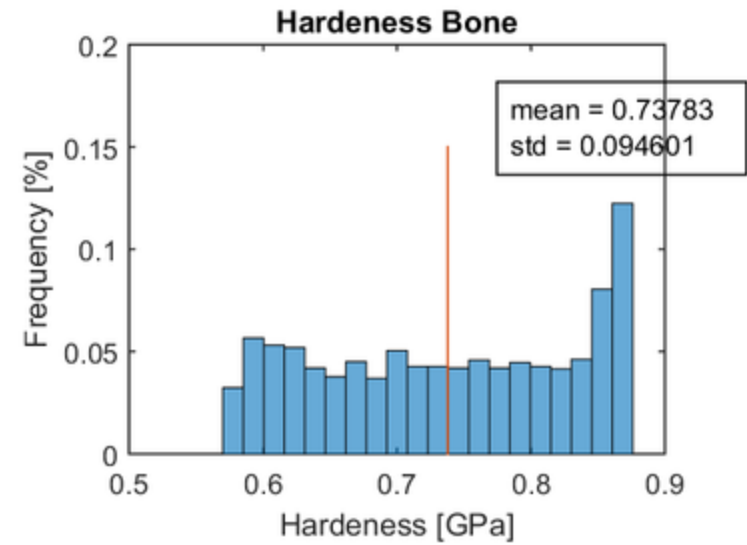
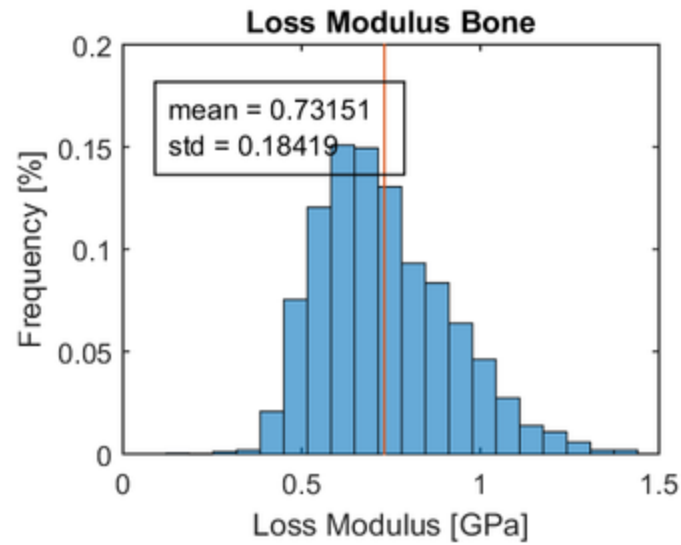
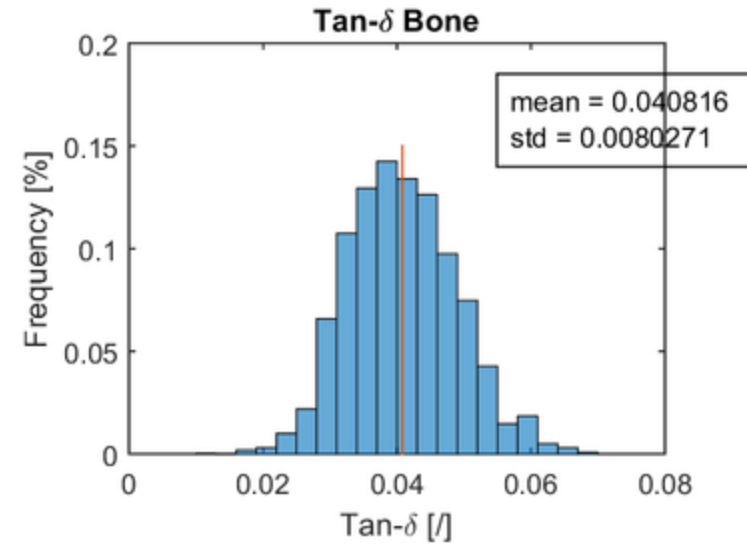
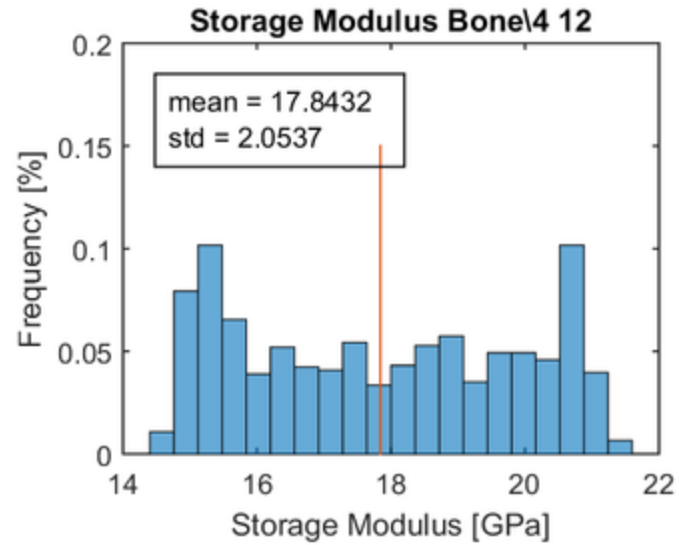
Bone D Point 10



Bone D Point 11

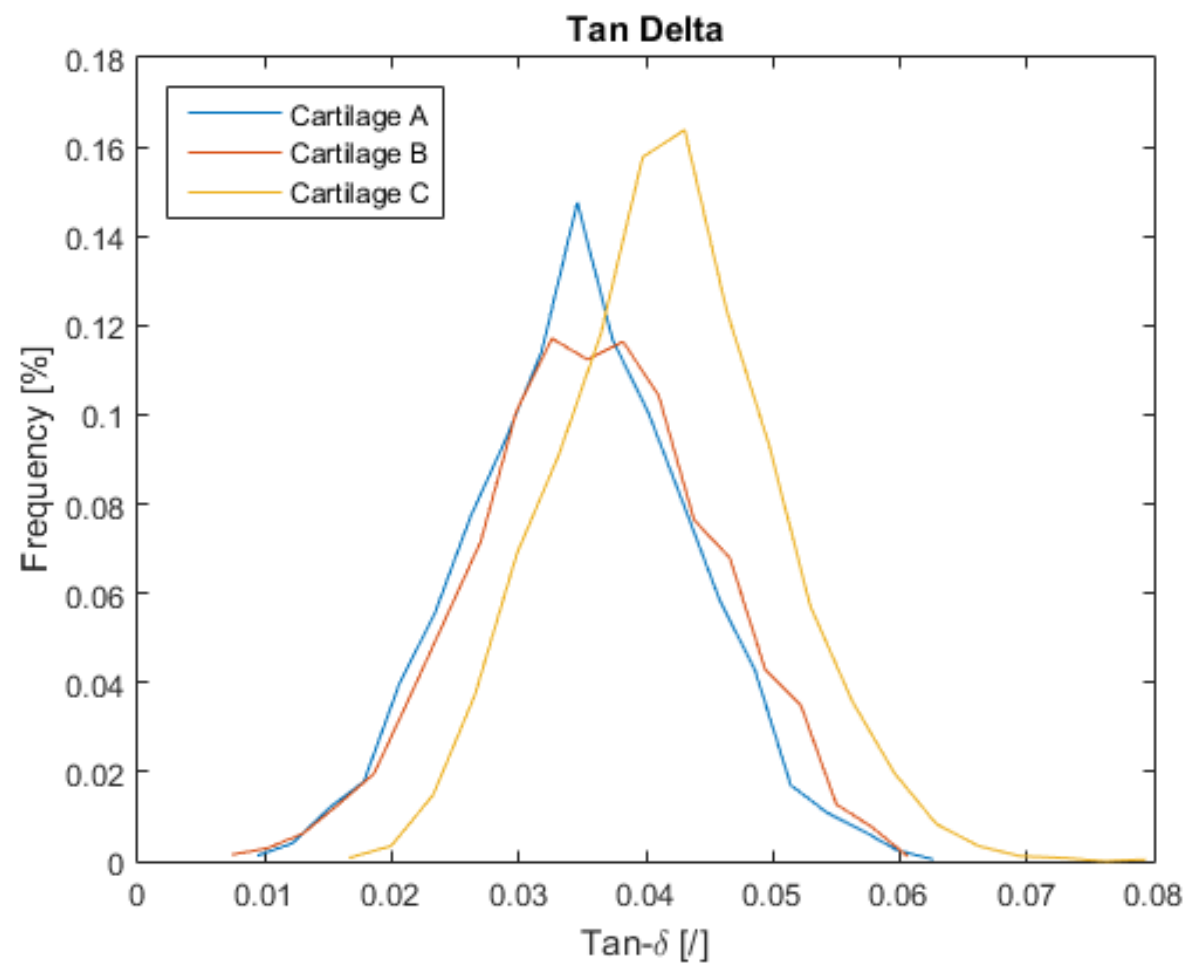
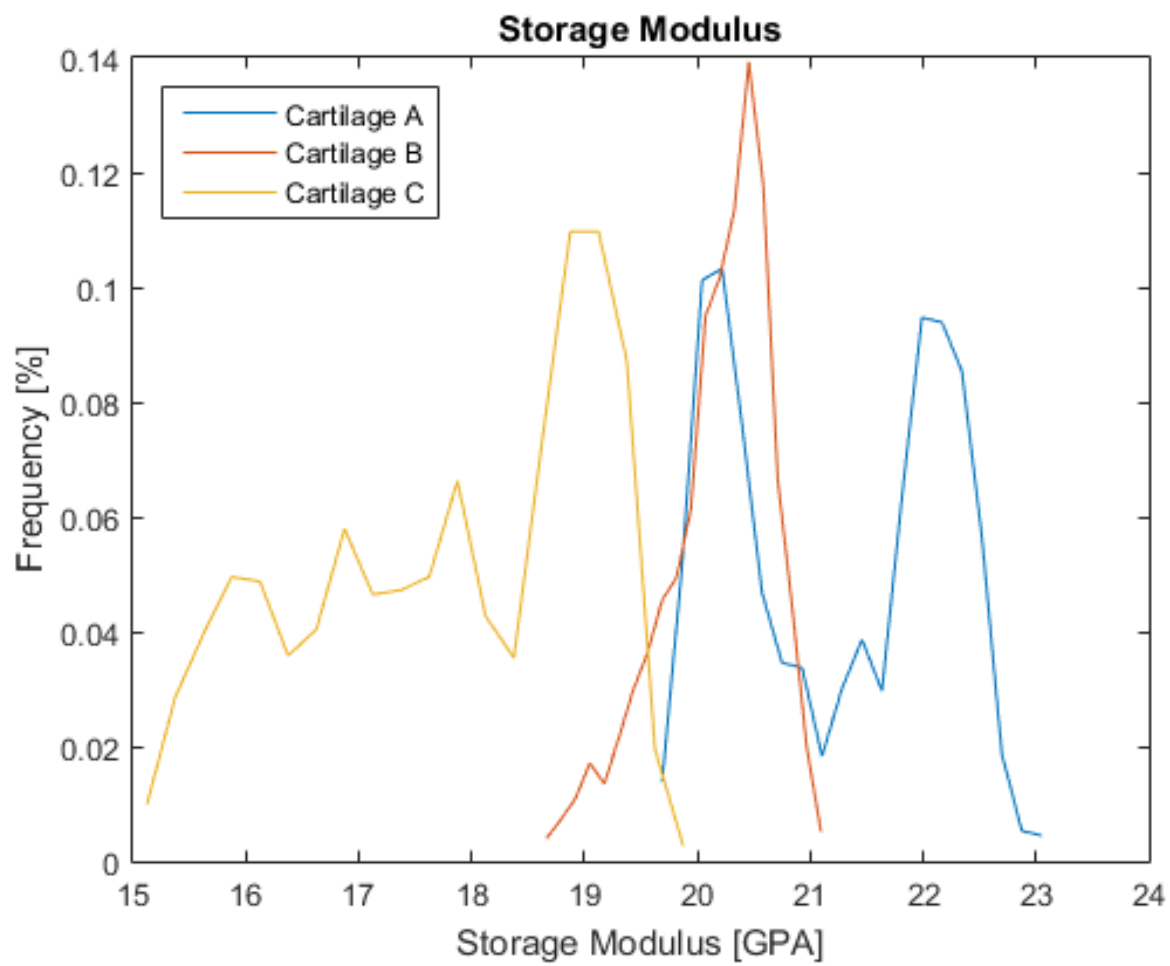


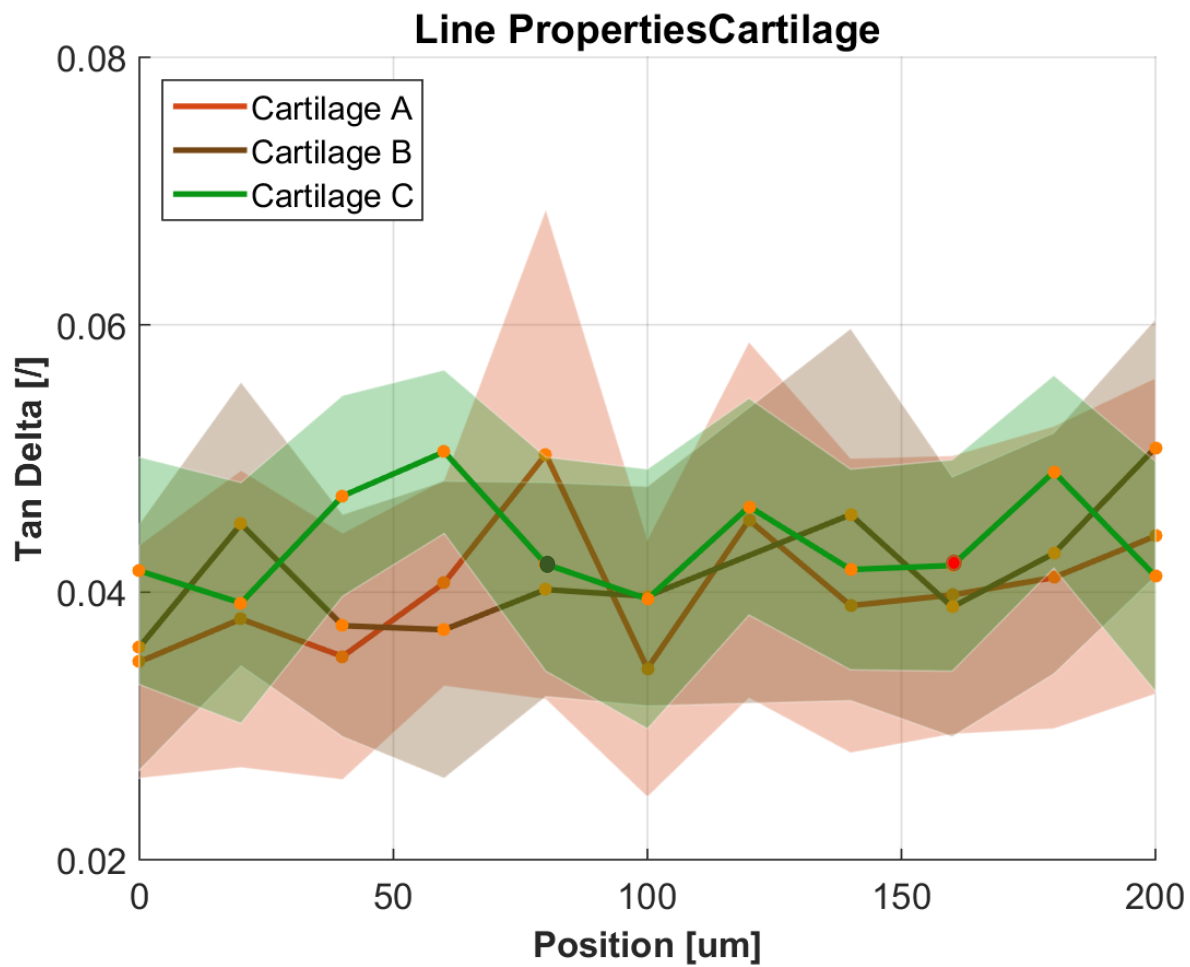
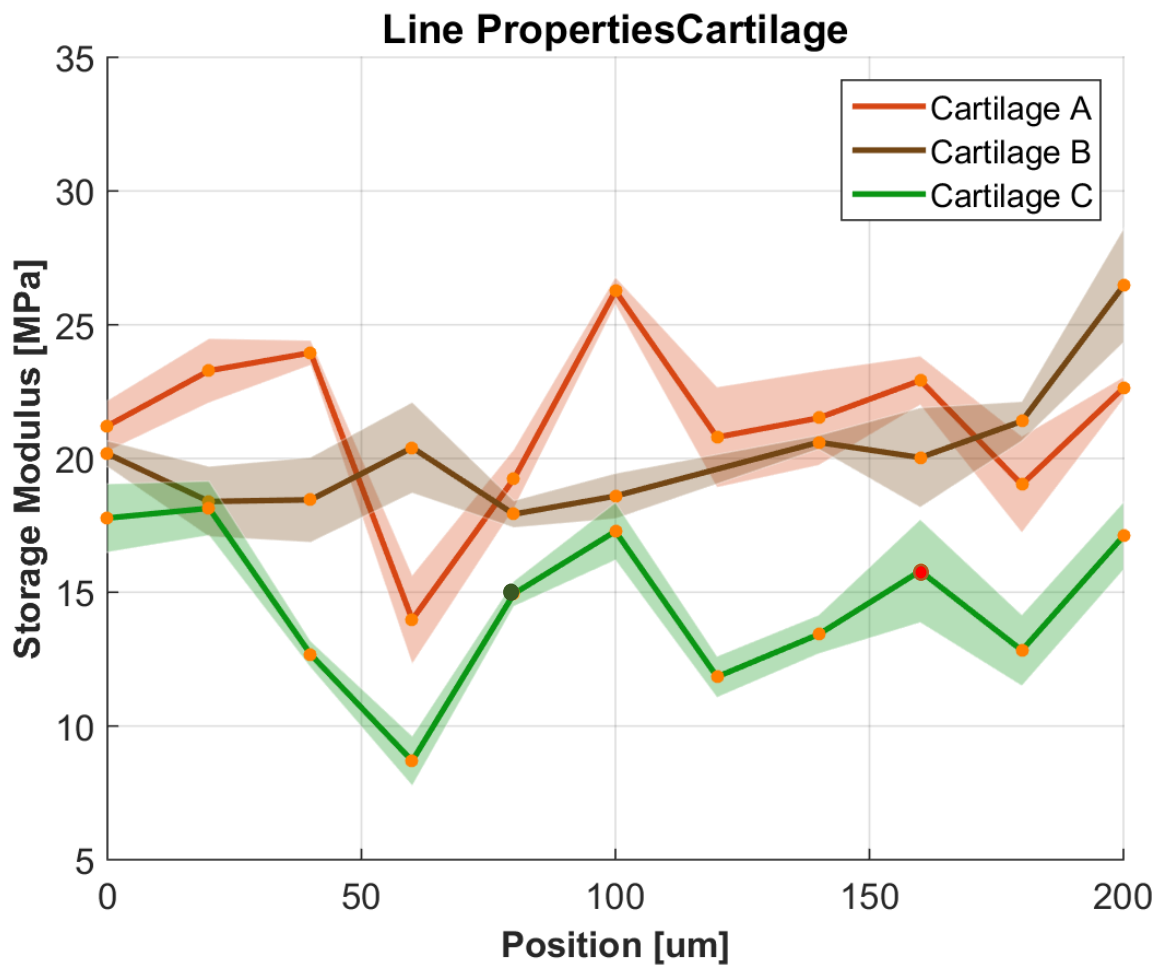
Bone D Point 12



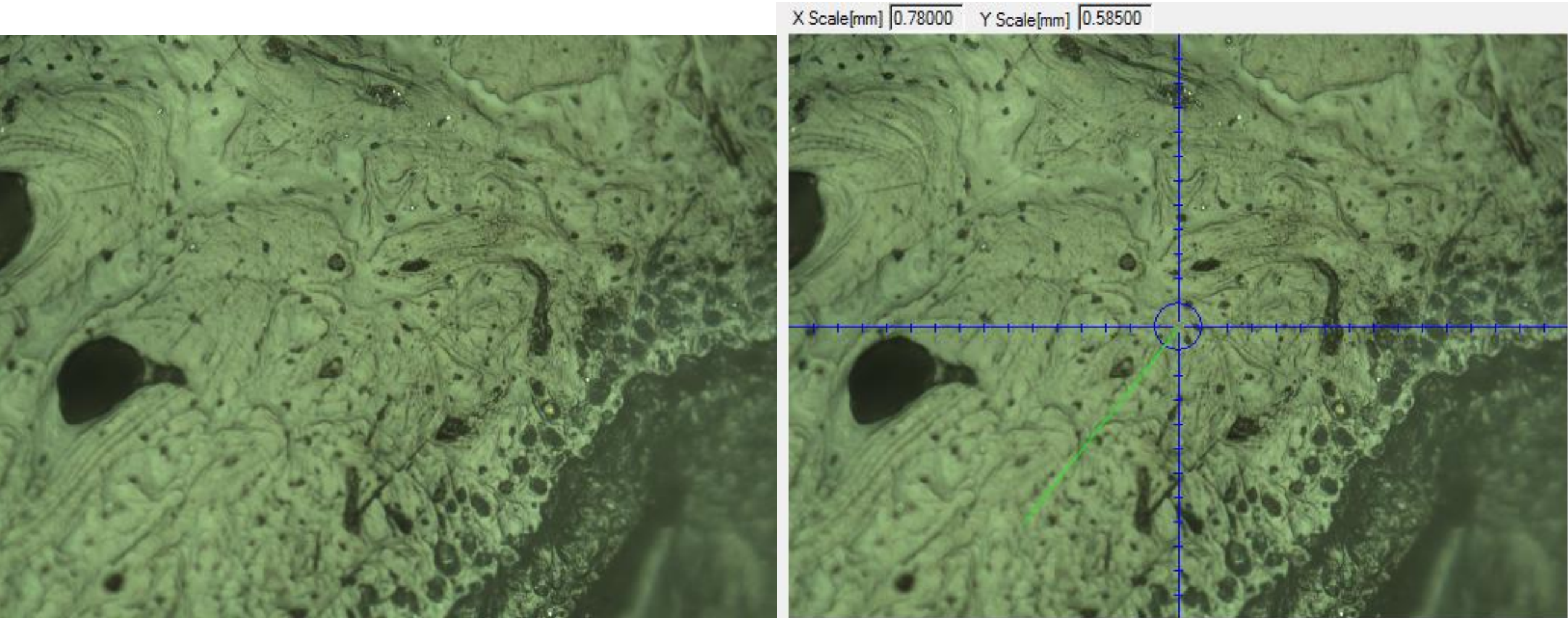
Cartilage

- A. D1 roughness OK
- B. D1 roughness OK
- C. D2 roughness OK

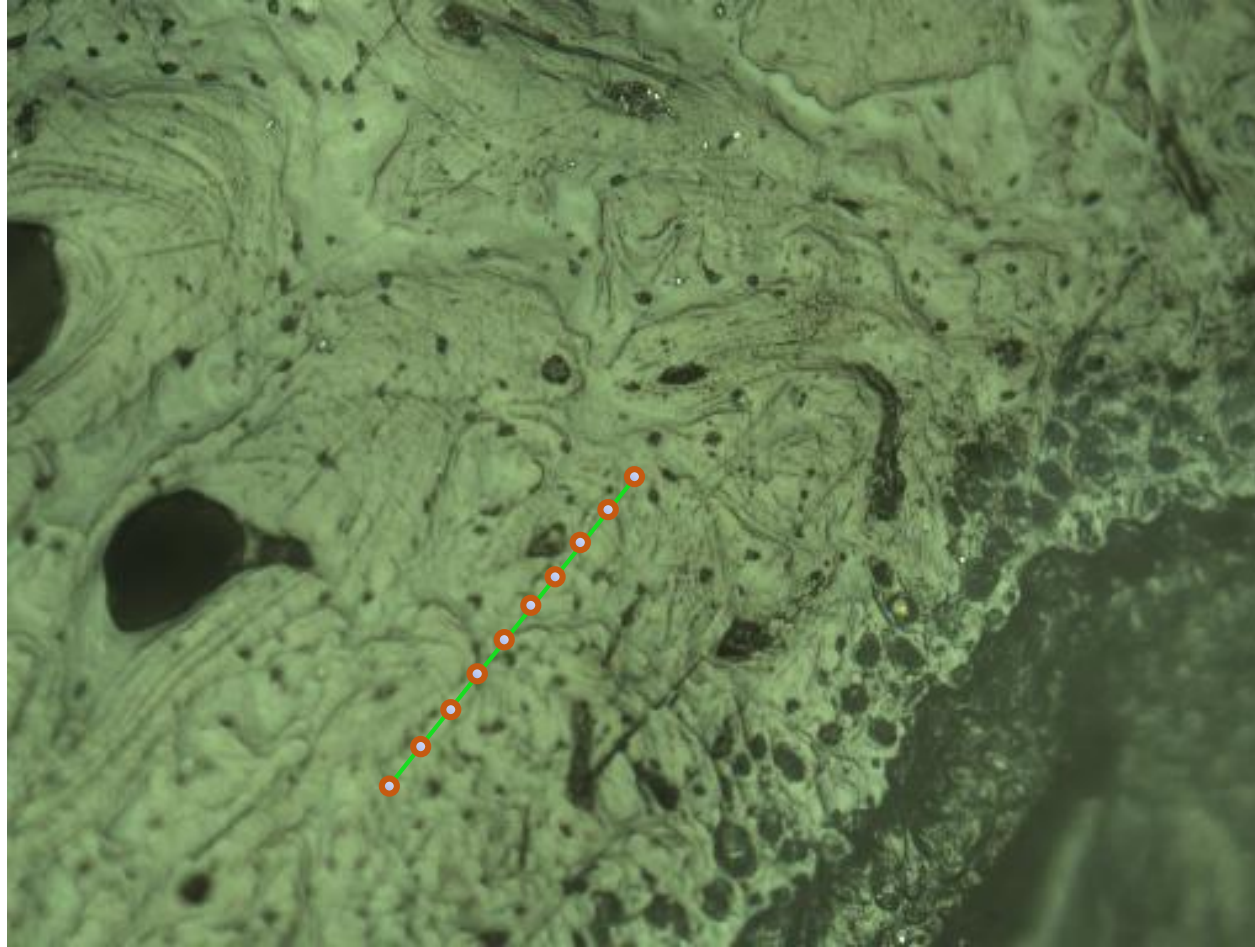


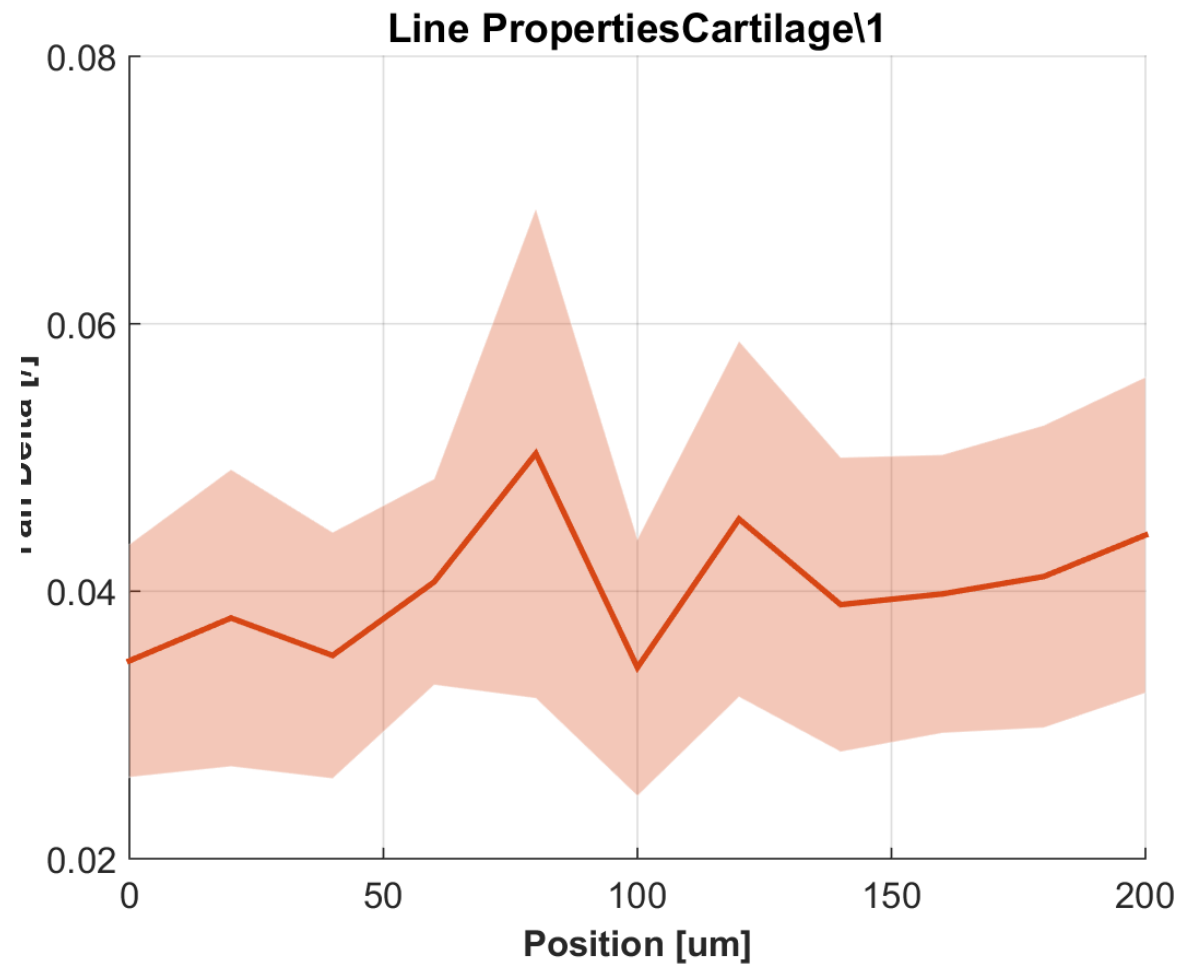
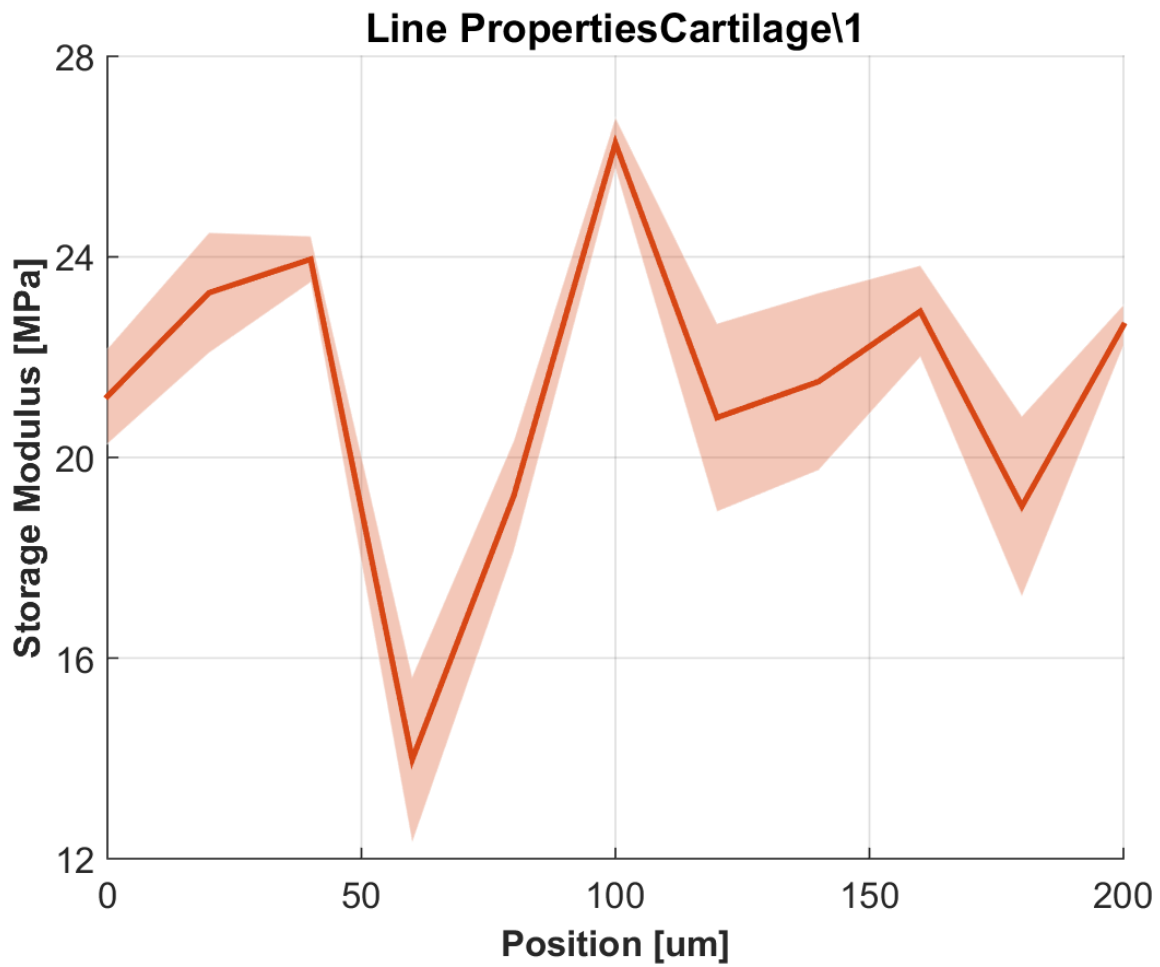


A. Cartilage D1 11 points $\Delta=20\mu\text{m}$ roughness ok



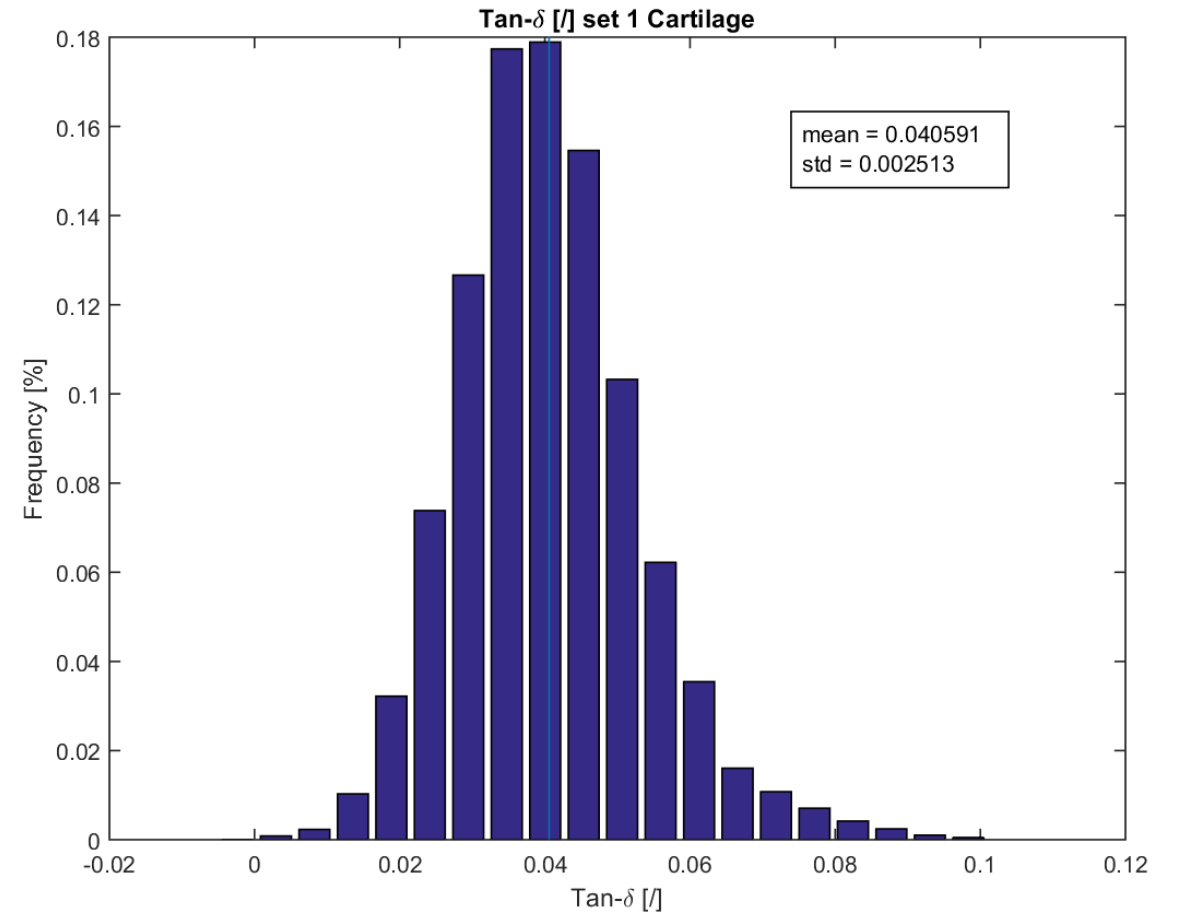
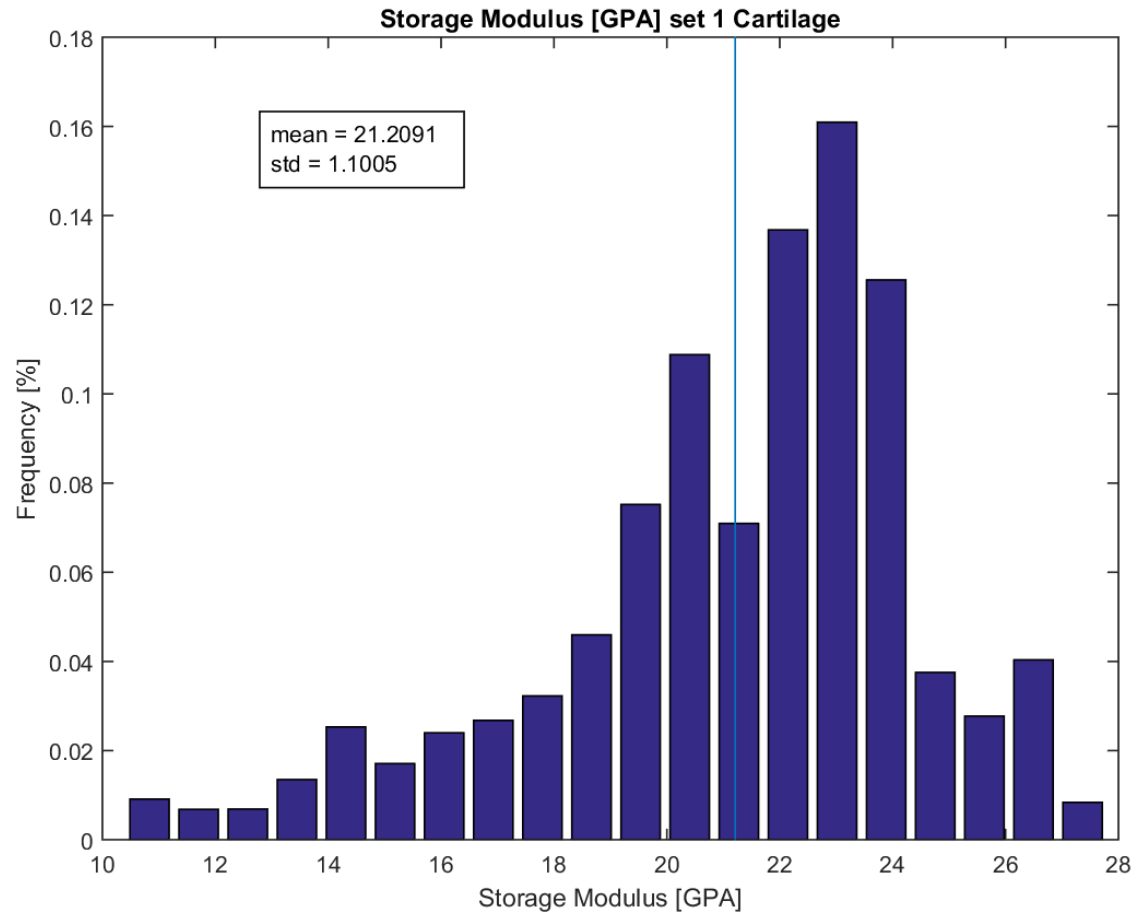
A. Cartilage D1 11 points $\Delta=20\mu\text{m}$ roughness ok



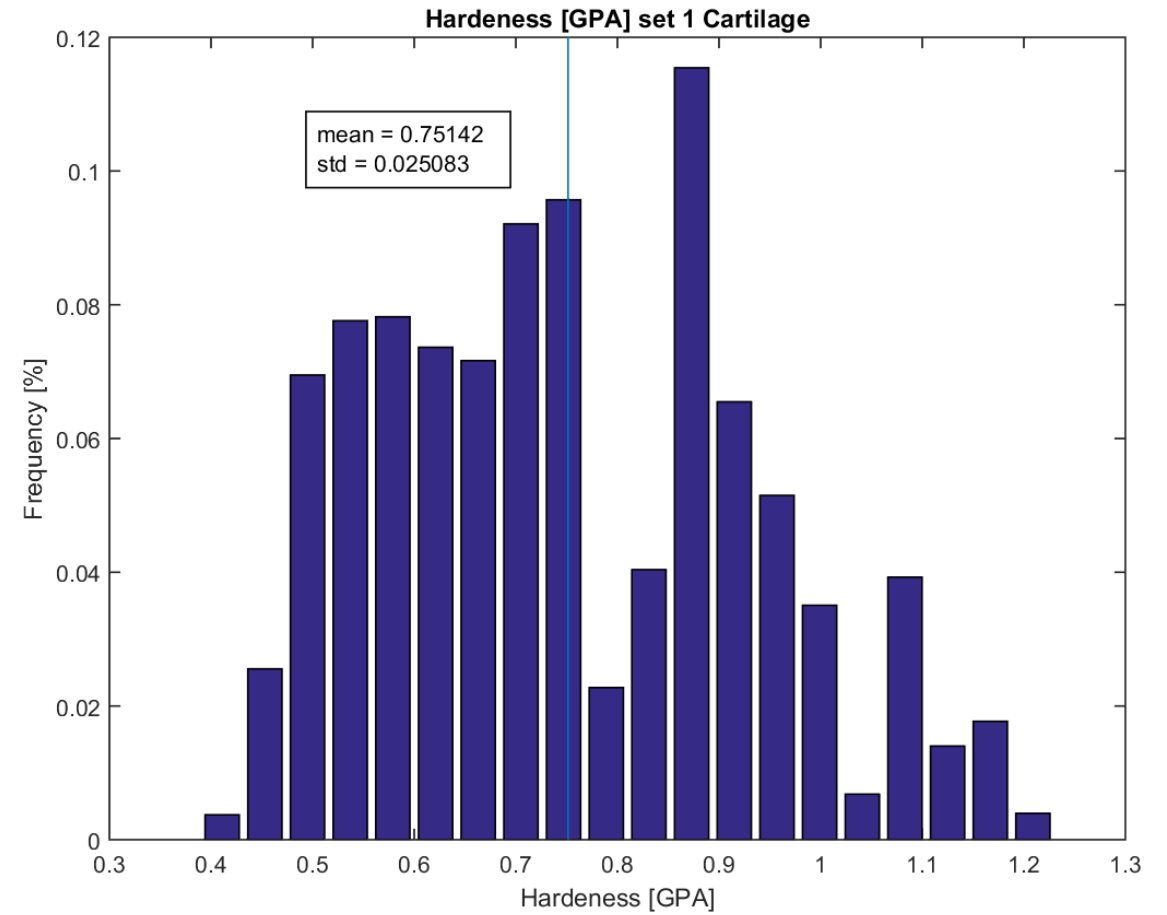
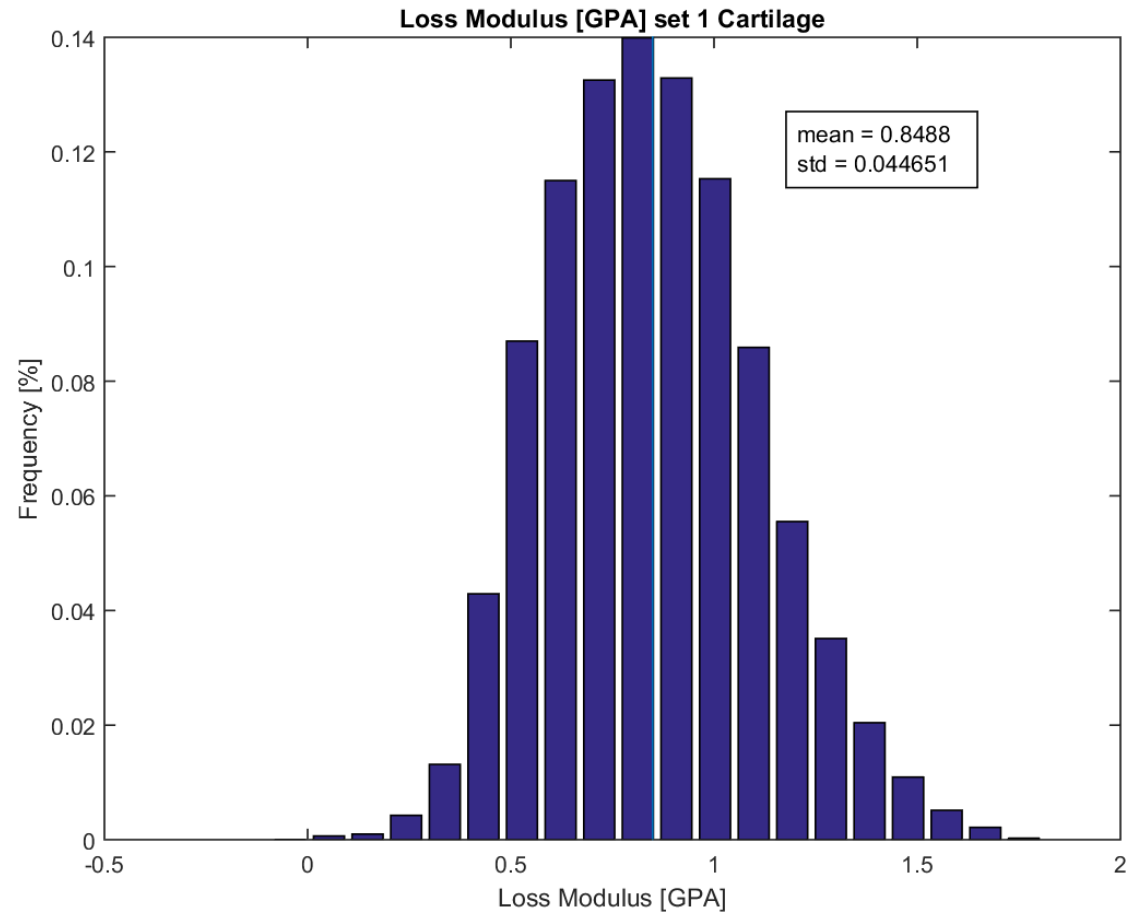


- No depth surface graph

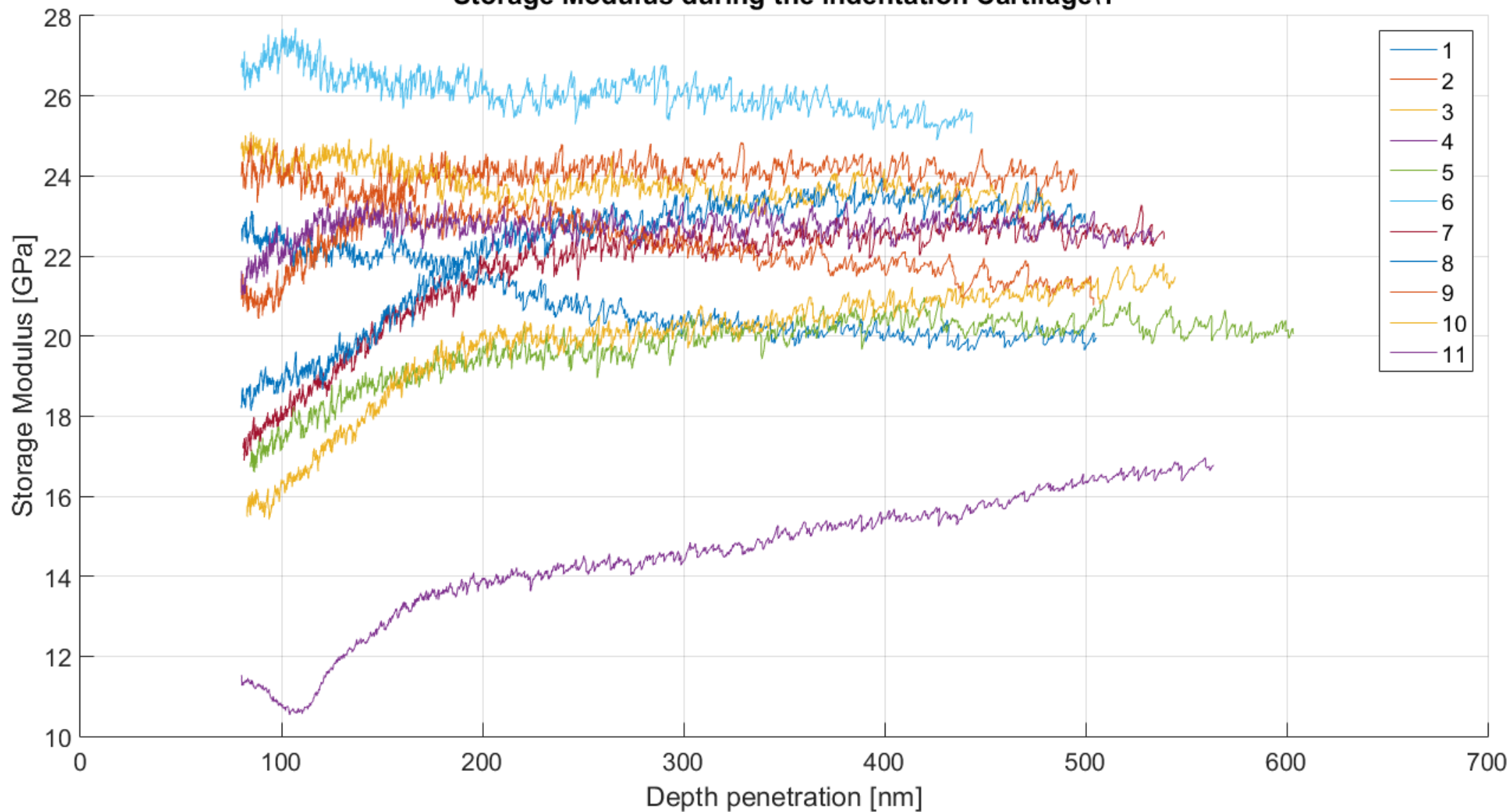
A. Complet

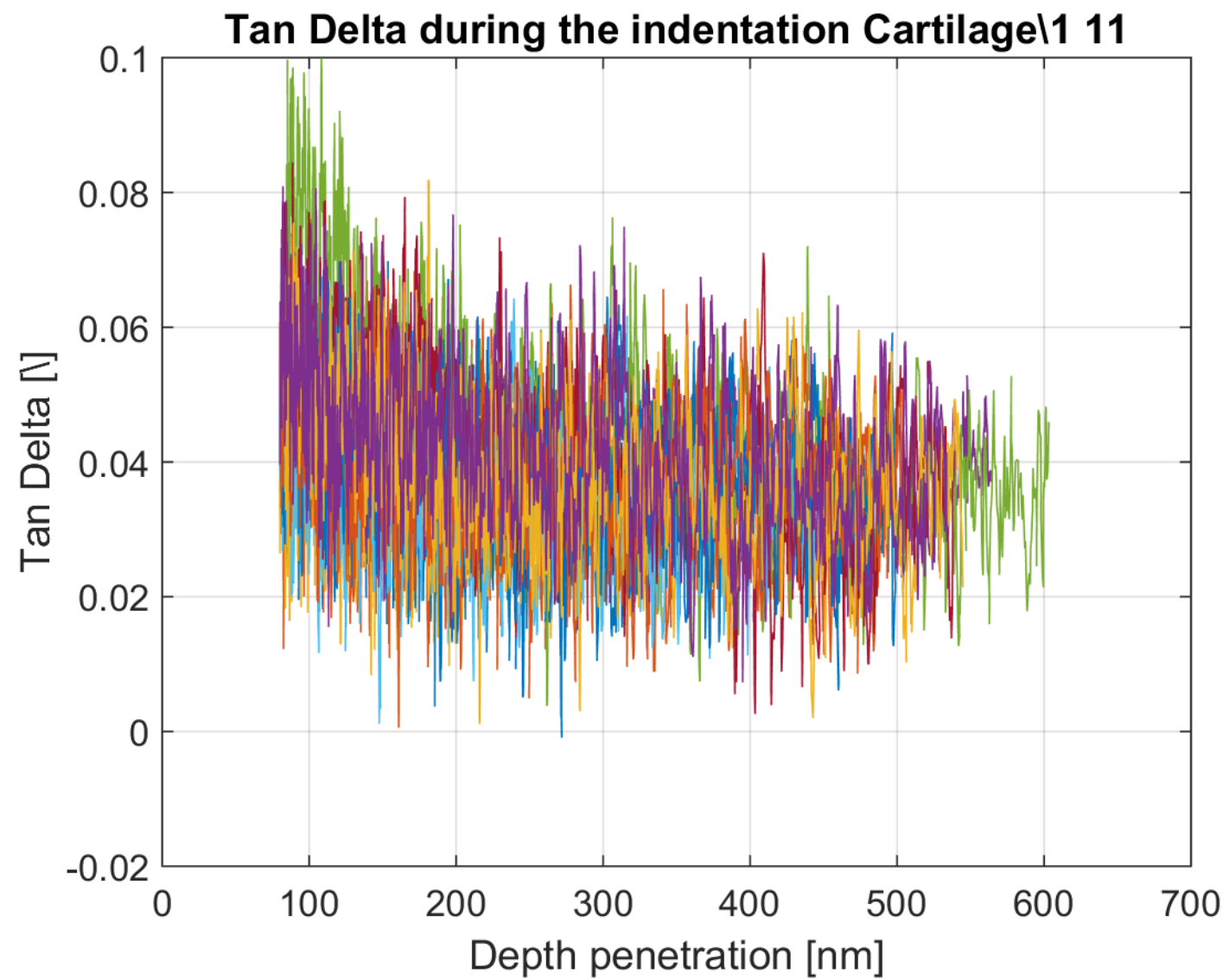


A. Complet

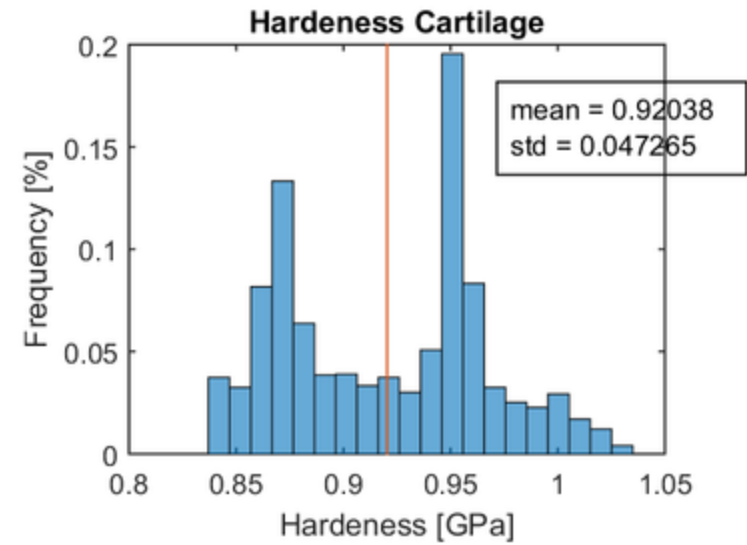
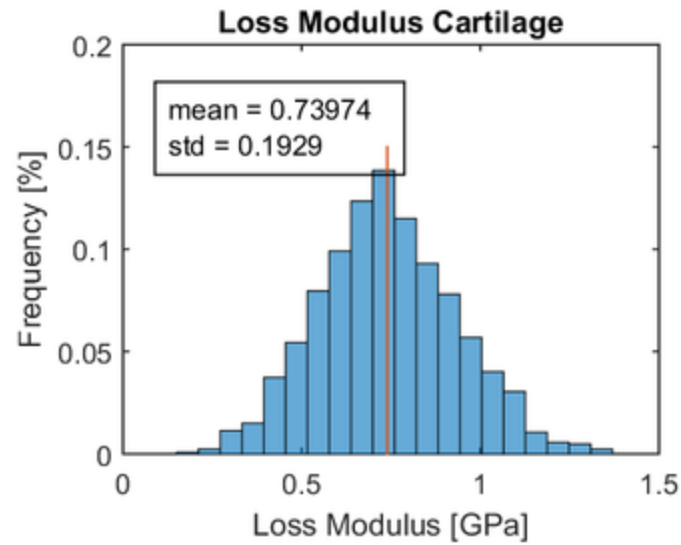
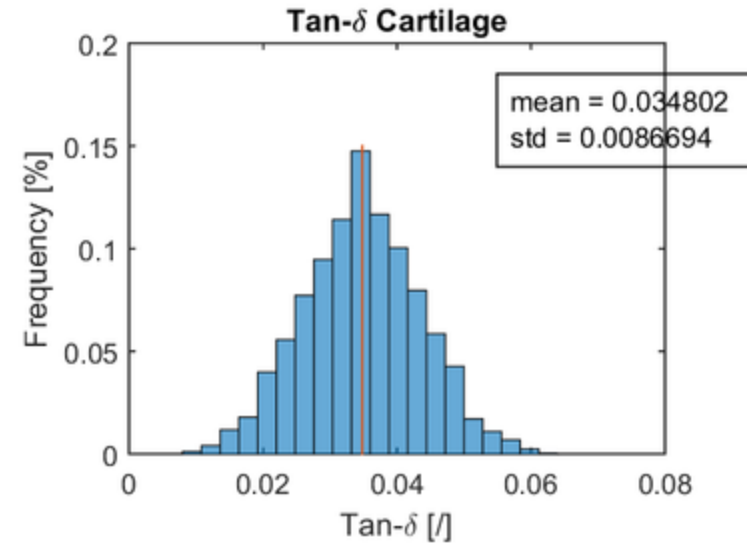
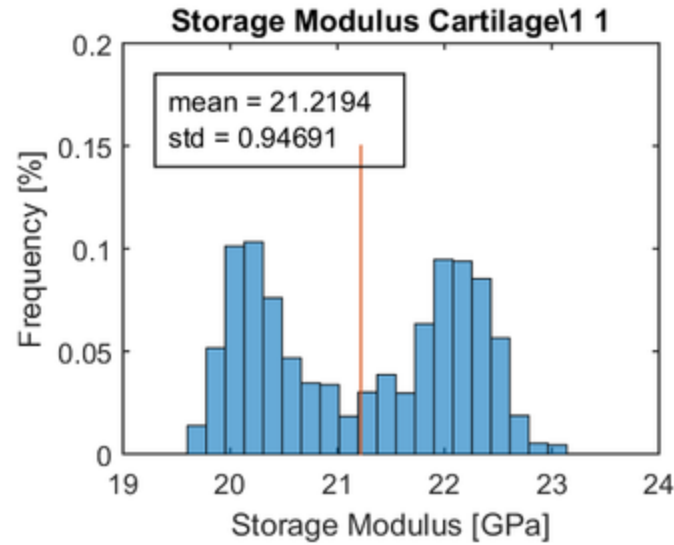


Storage Modulus during the indentation Cartilage\1

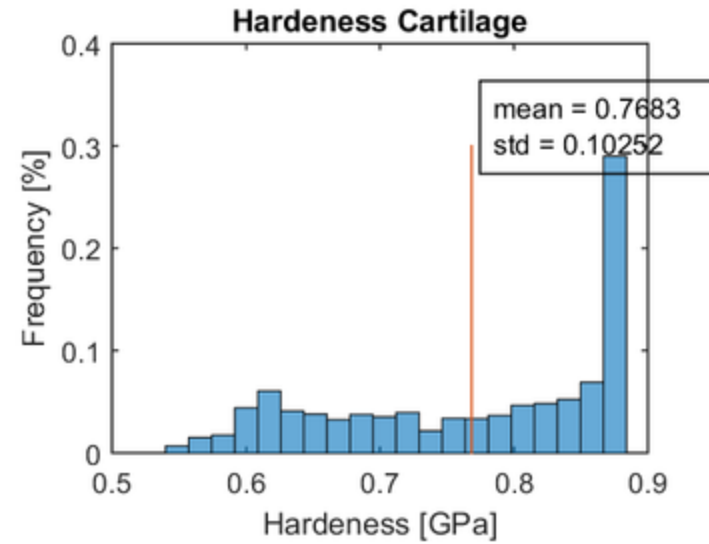
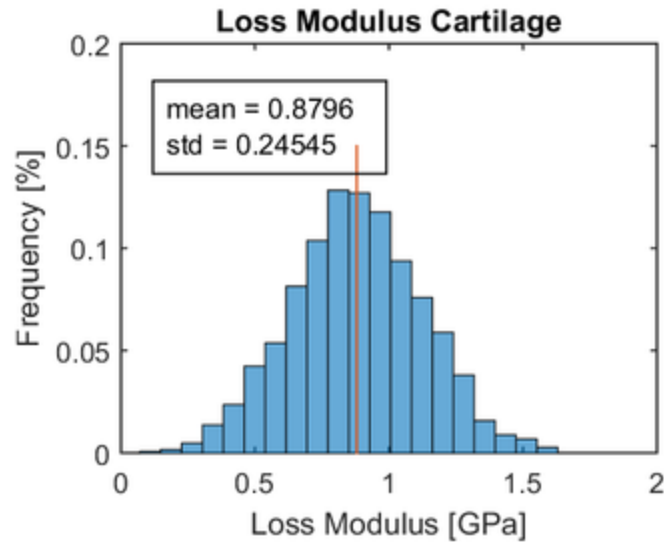
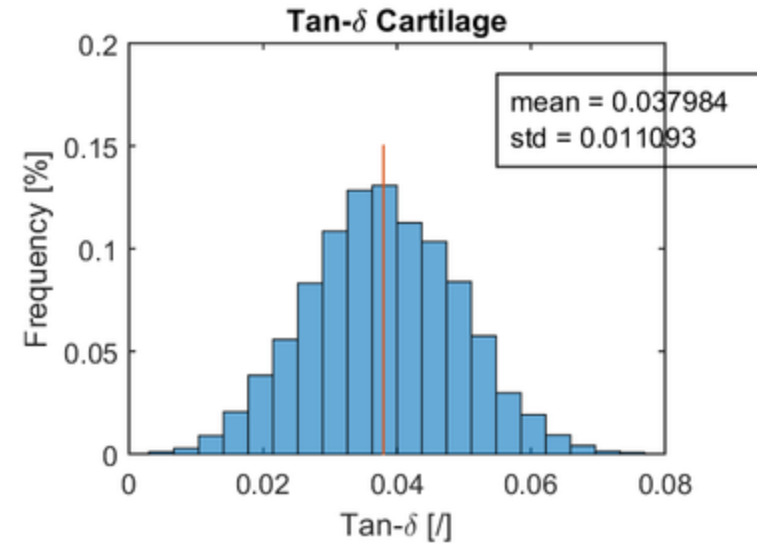
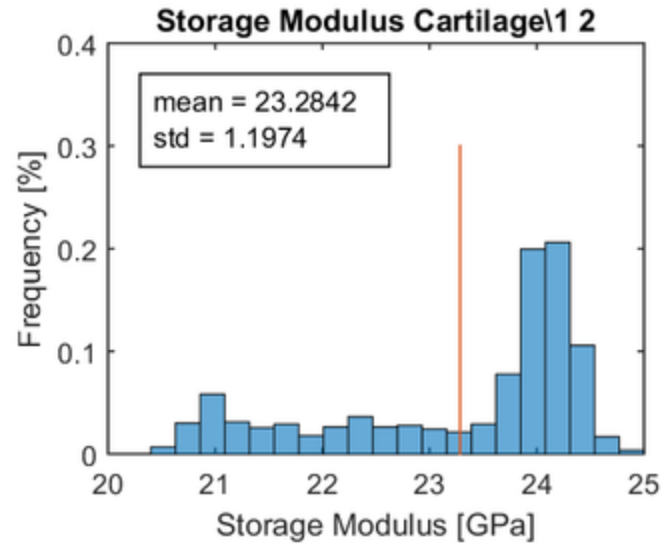




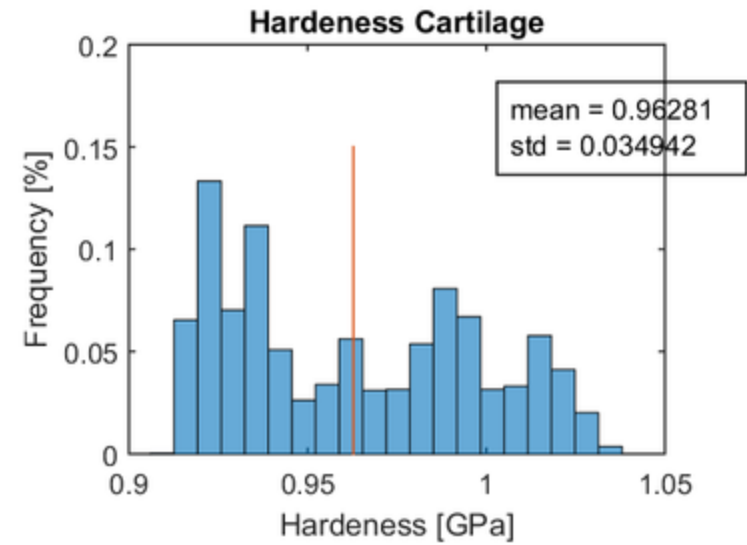
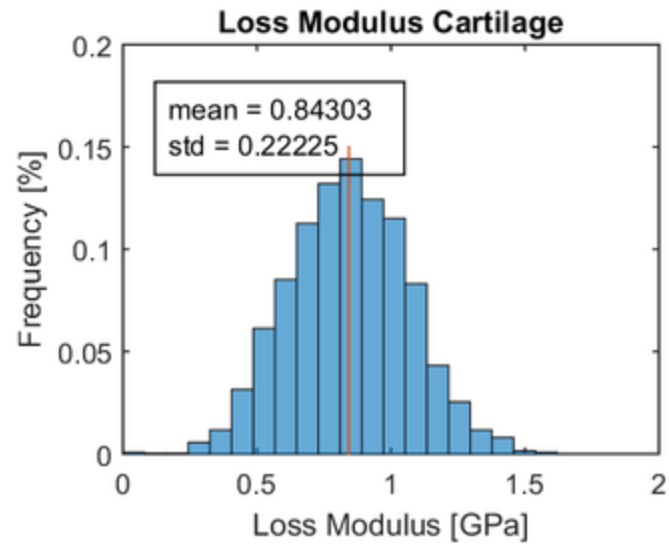
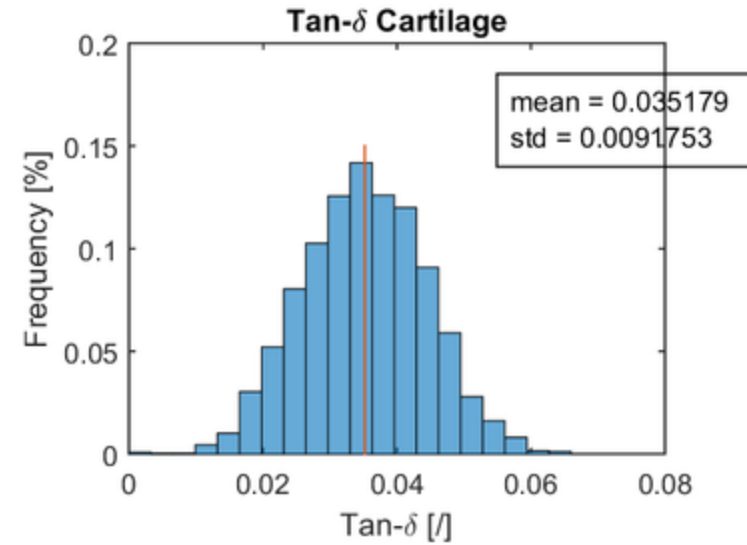
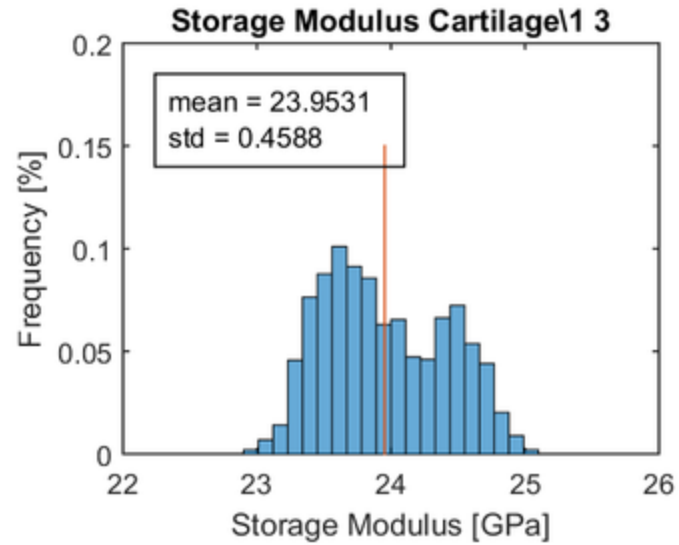
Cartilage A Point 1



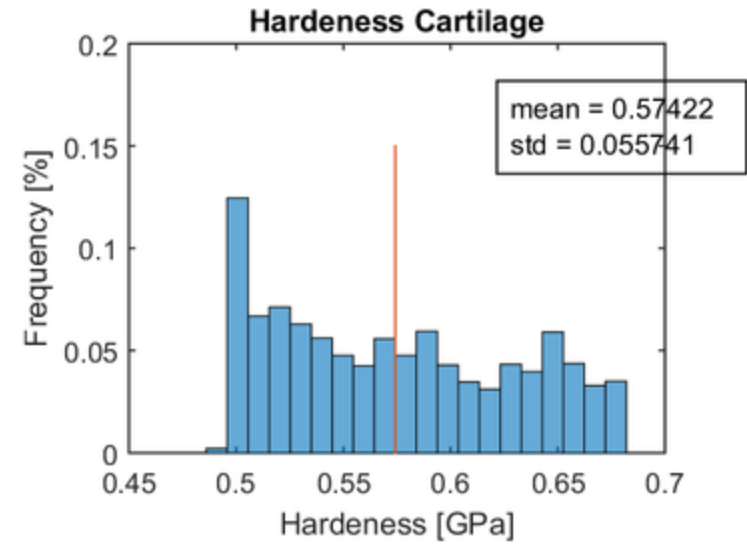
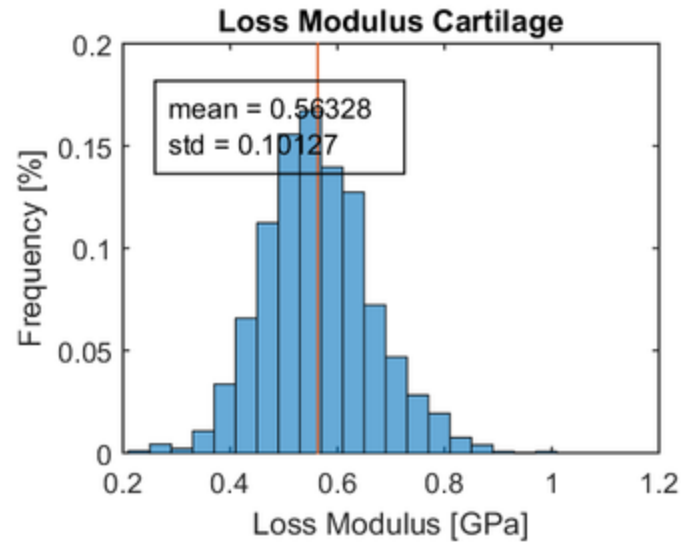
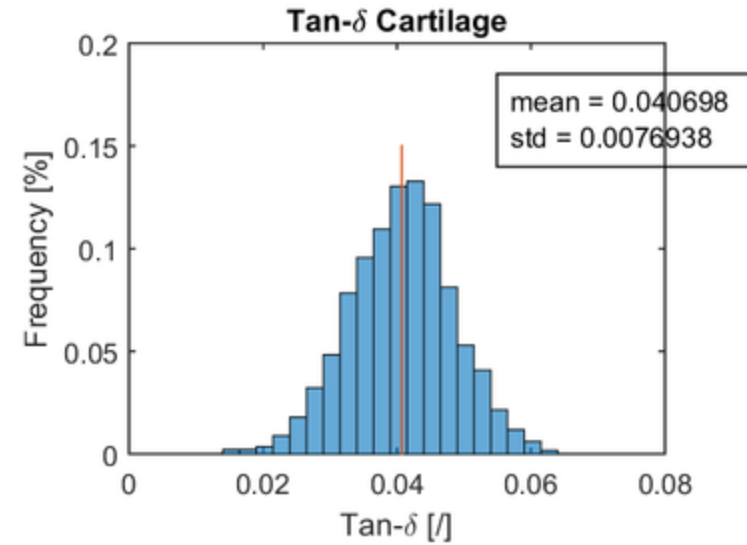
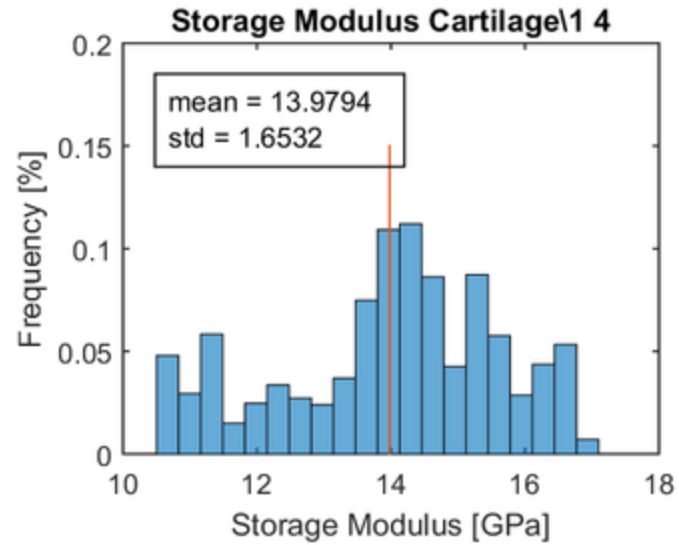
Cartilage A Point 2



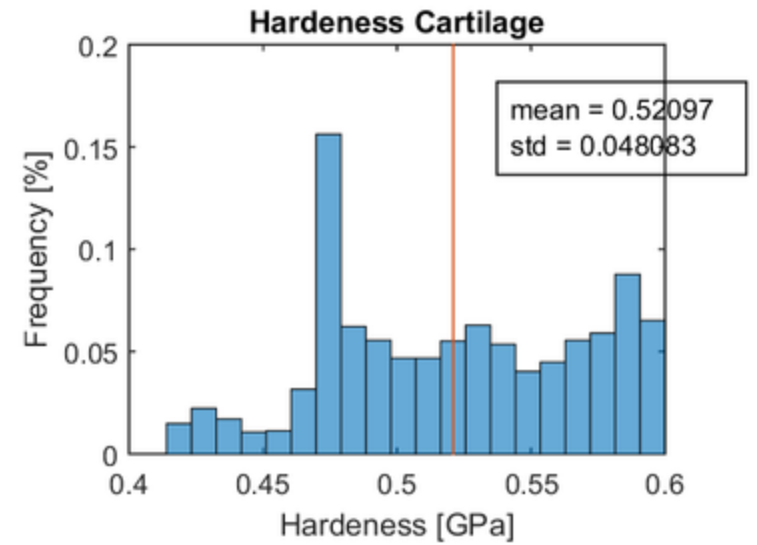
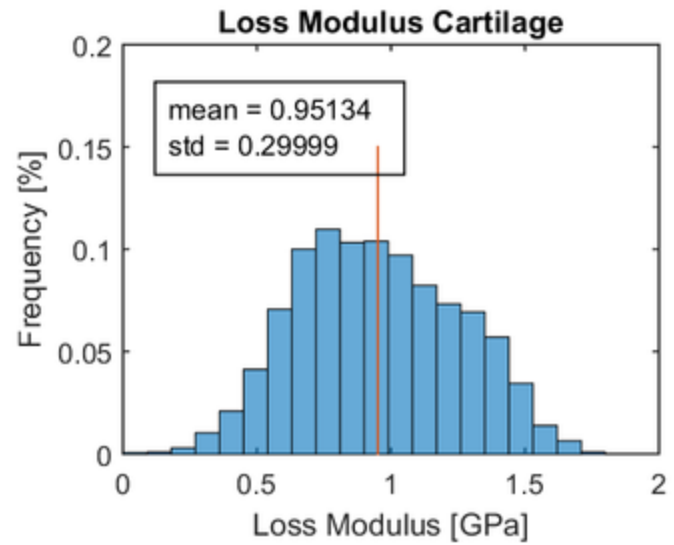
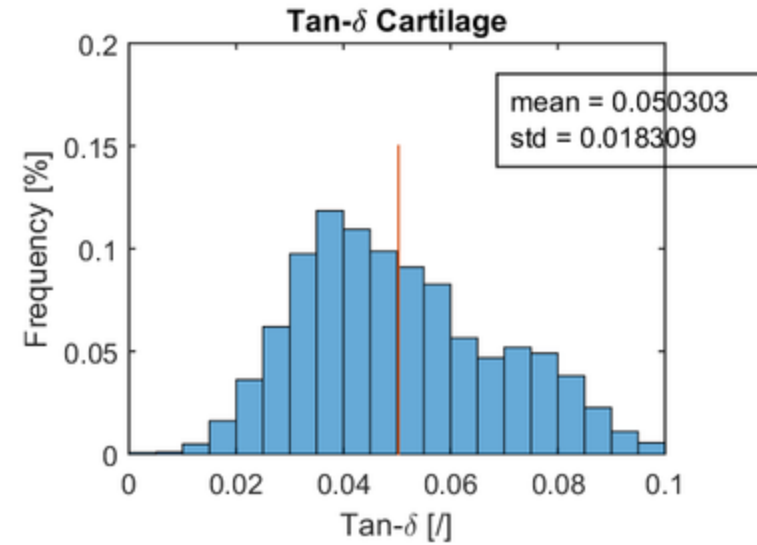
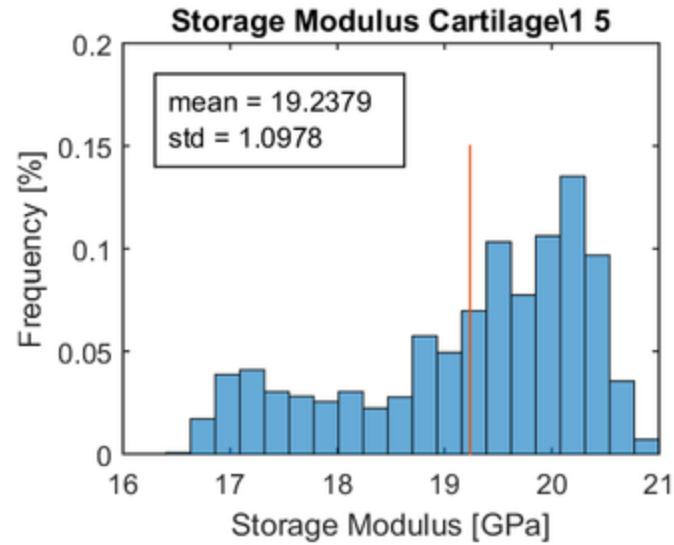
Cartilage A Point 3



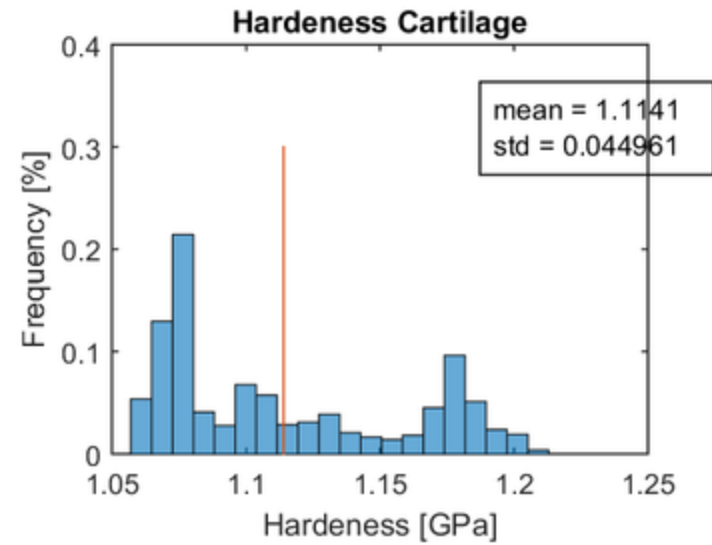
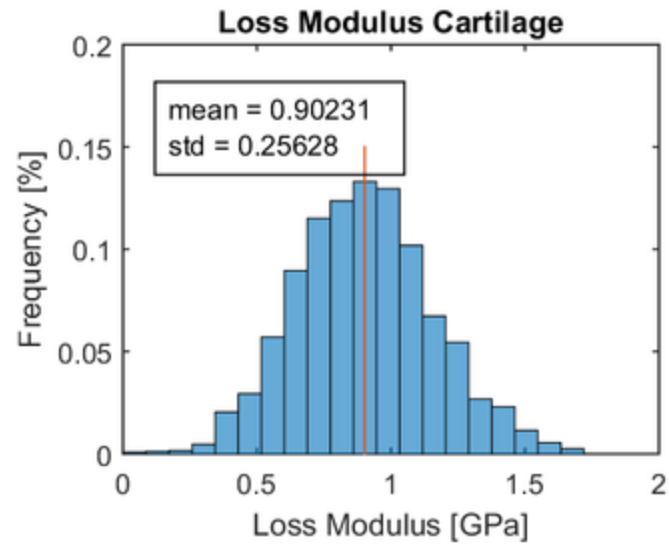
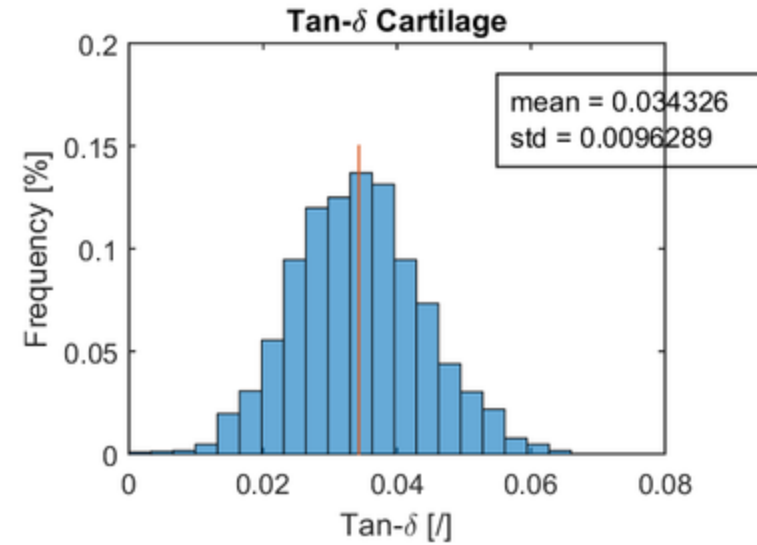
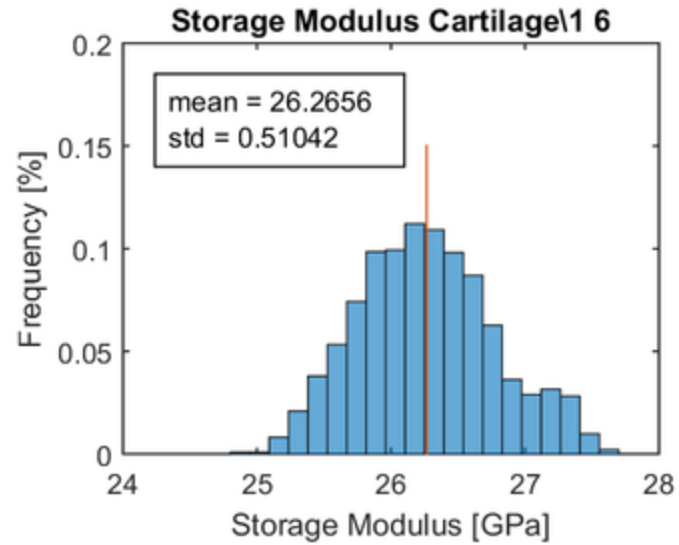
Cartilage A Point 4



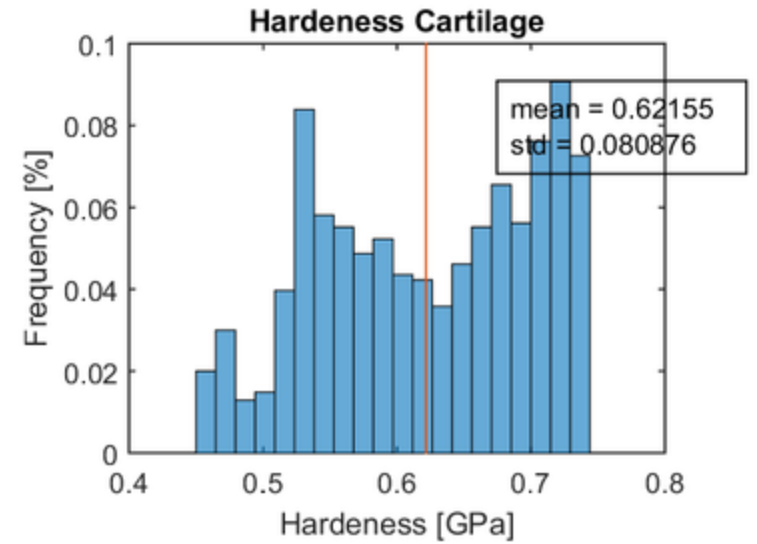
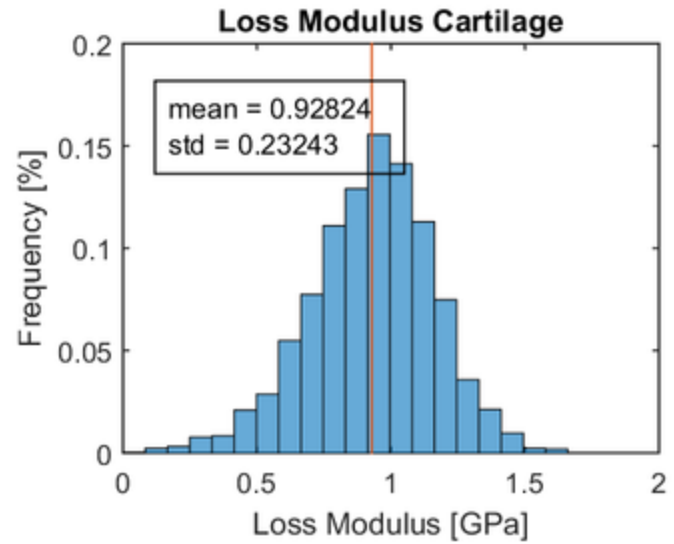
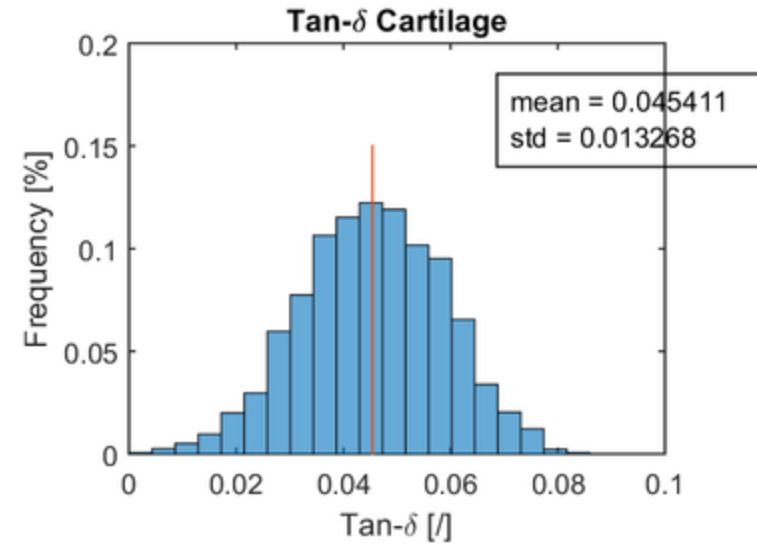
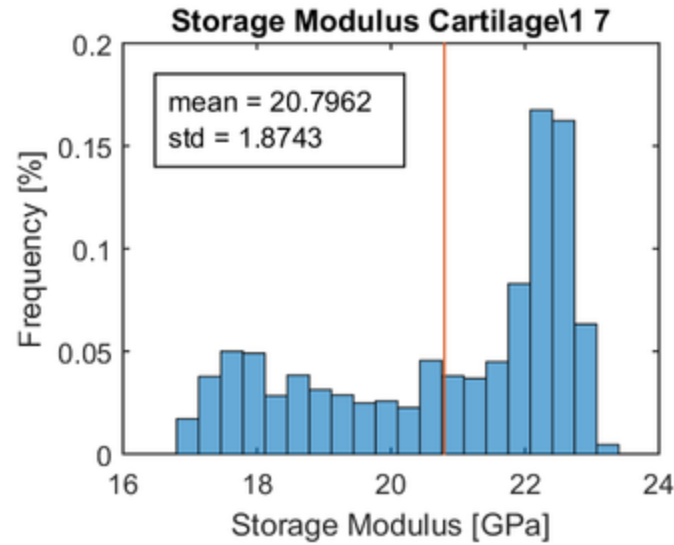
Cartilage A Point 5



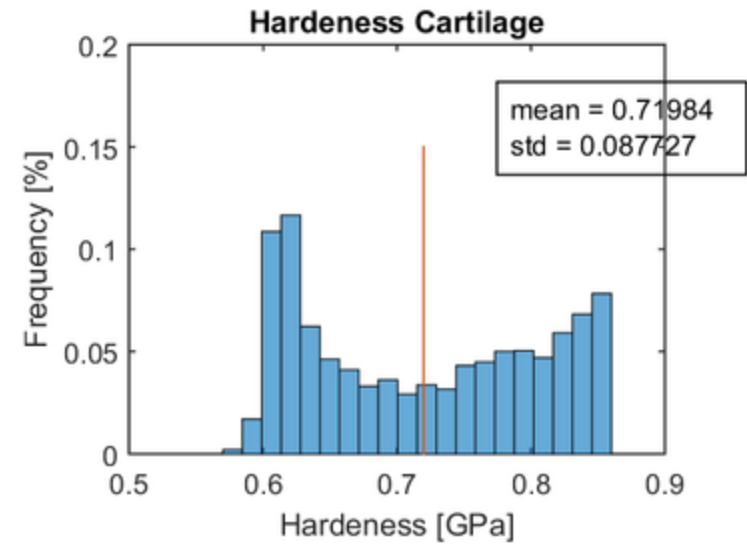
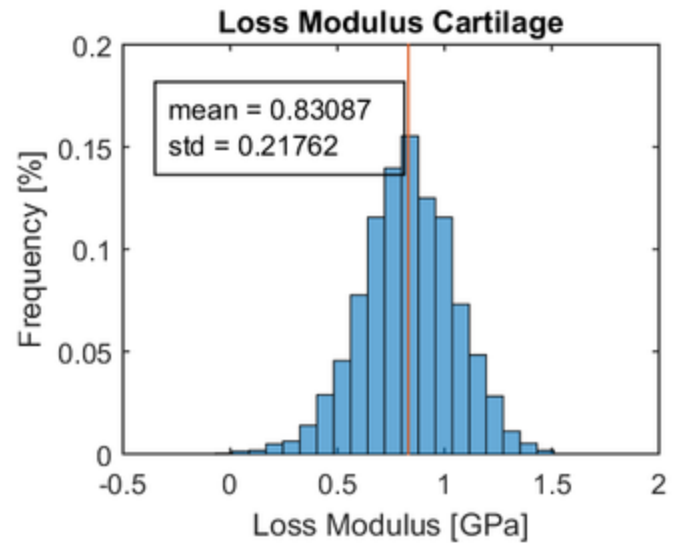
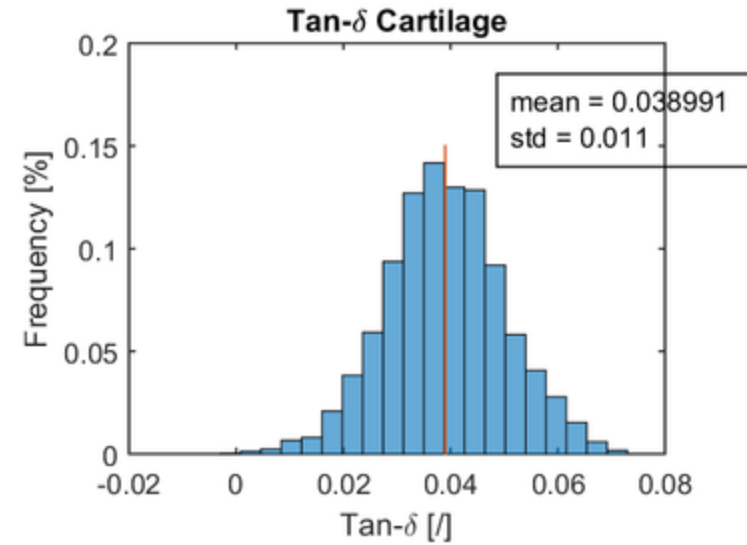
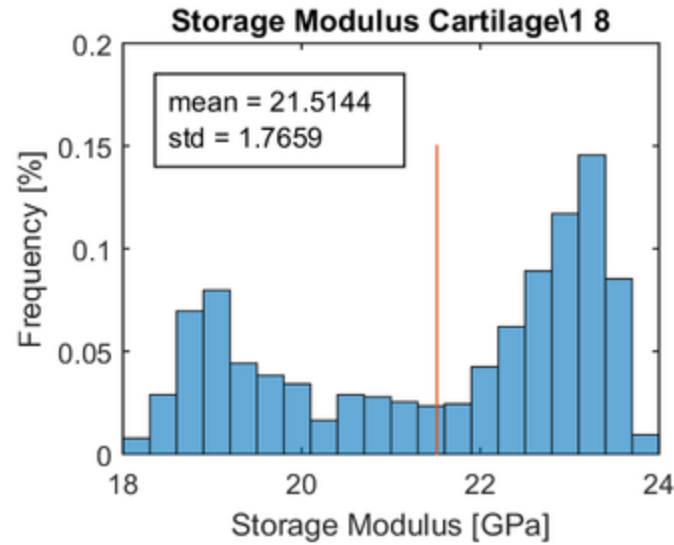
Cartilage A Point 6



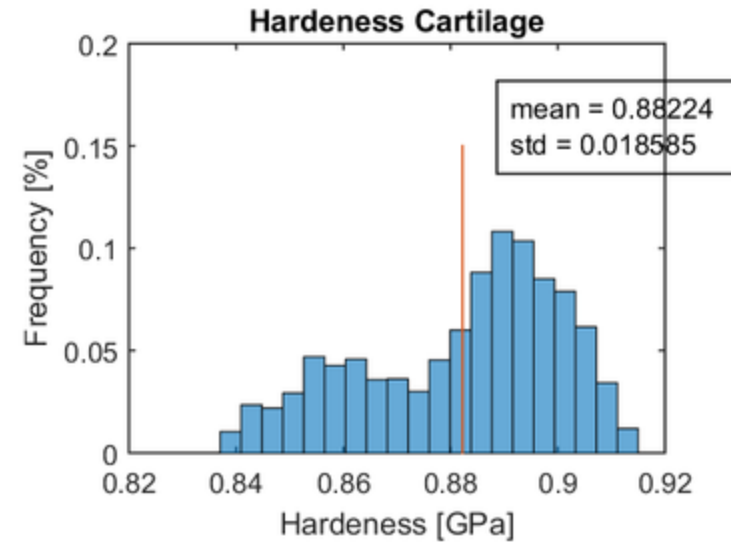
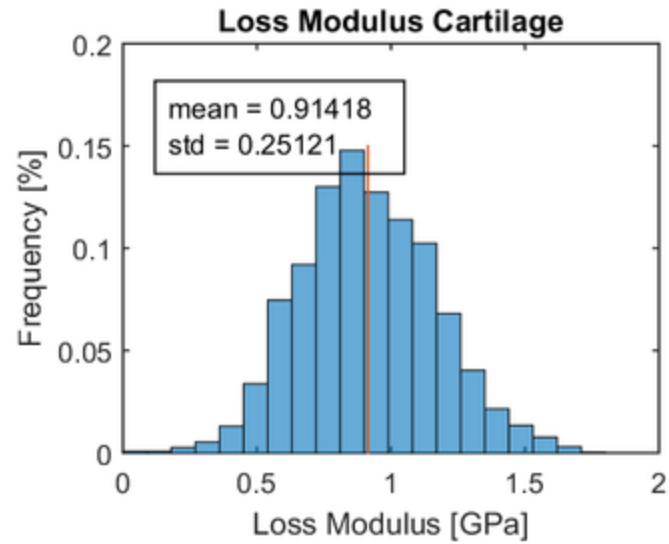
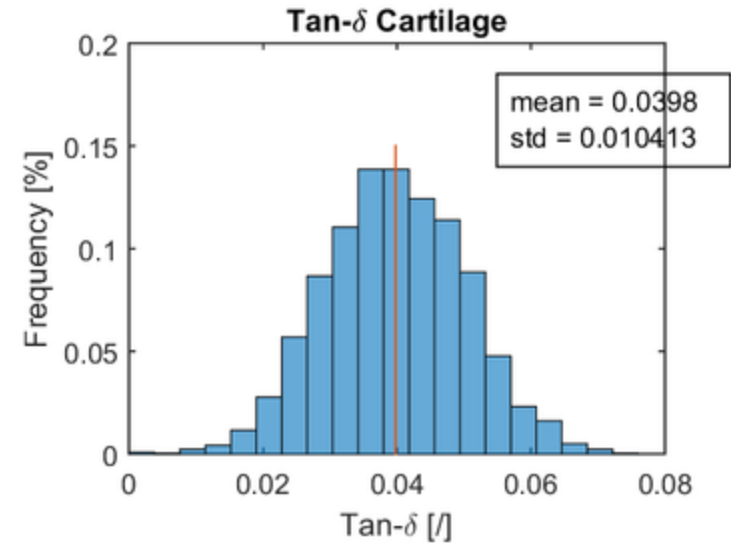
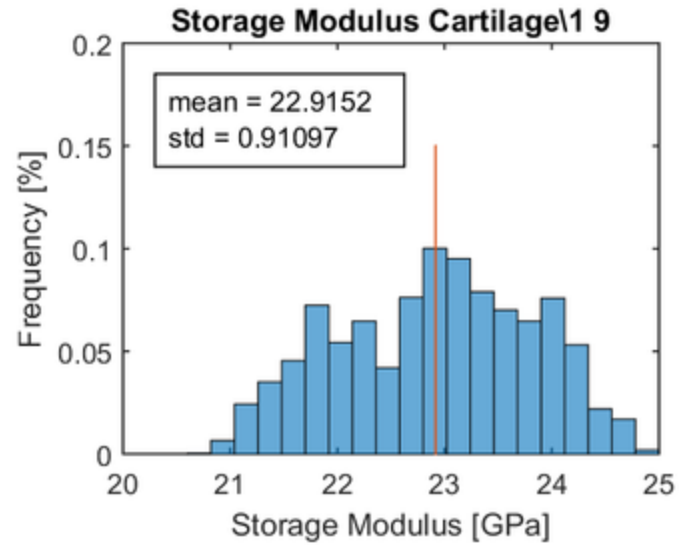
Cartilage A Point 7



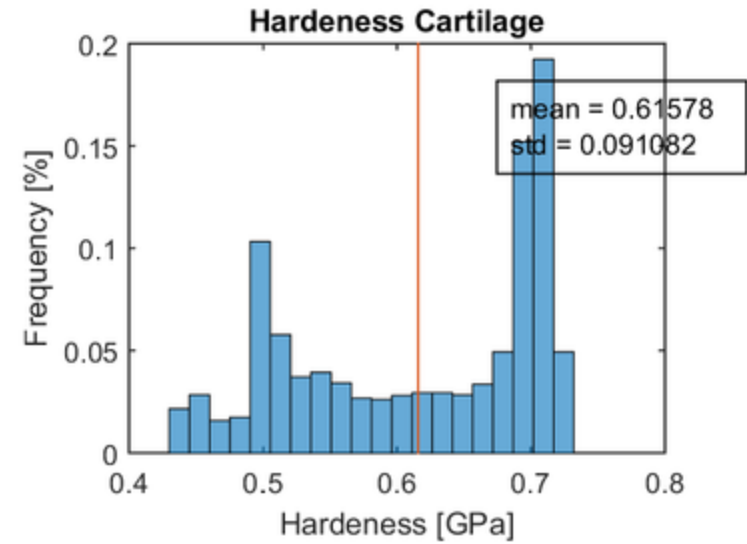
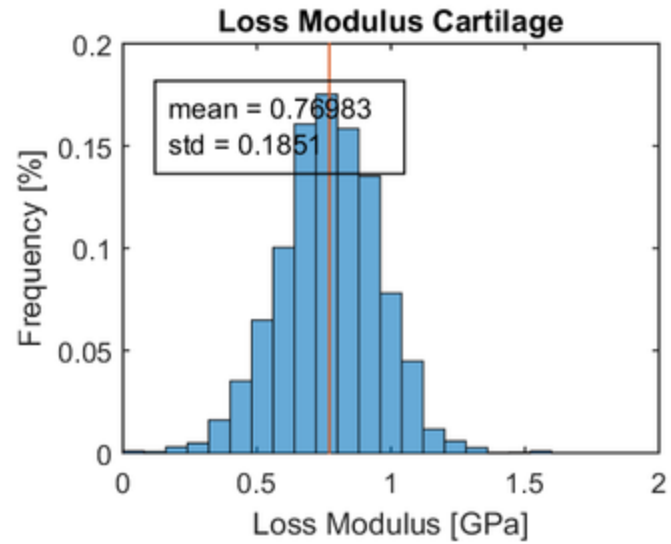
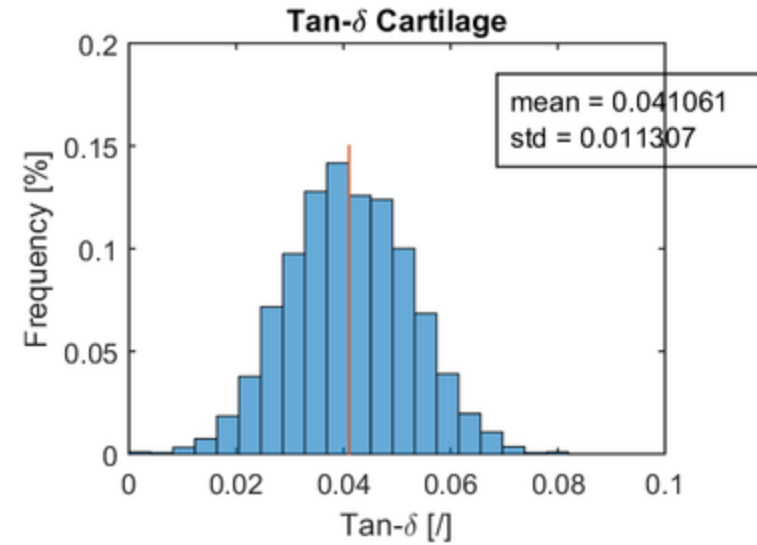
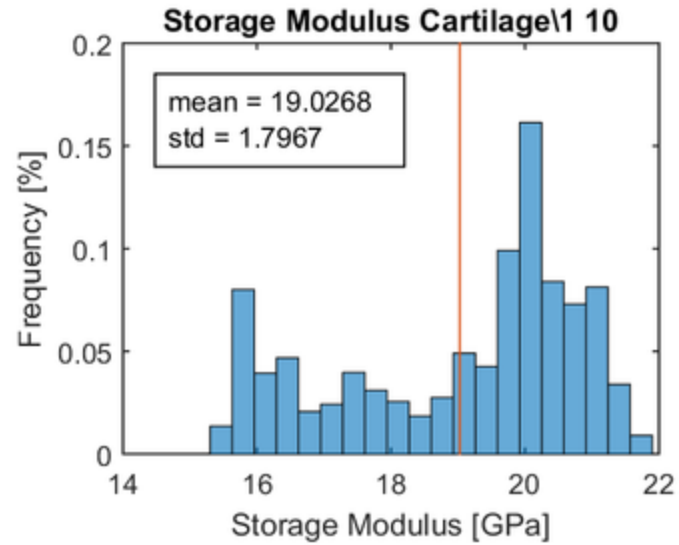
Cartilage A Point 8



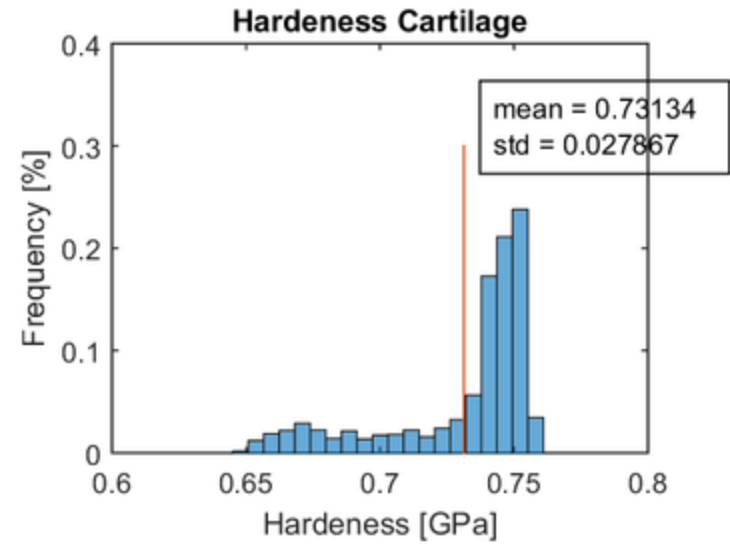
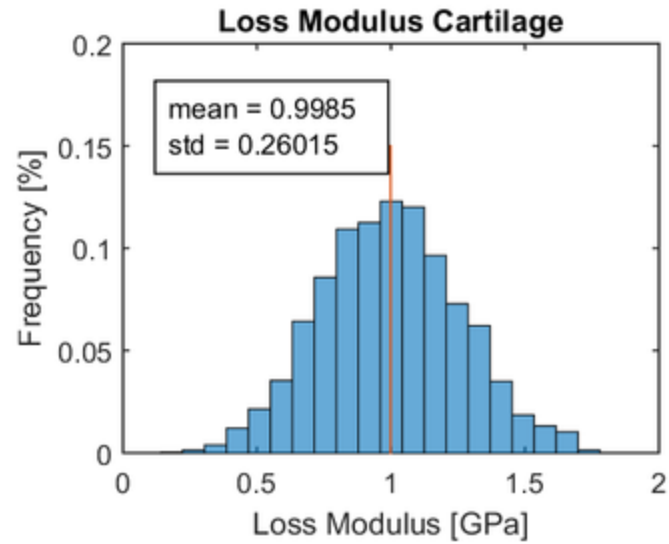
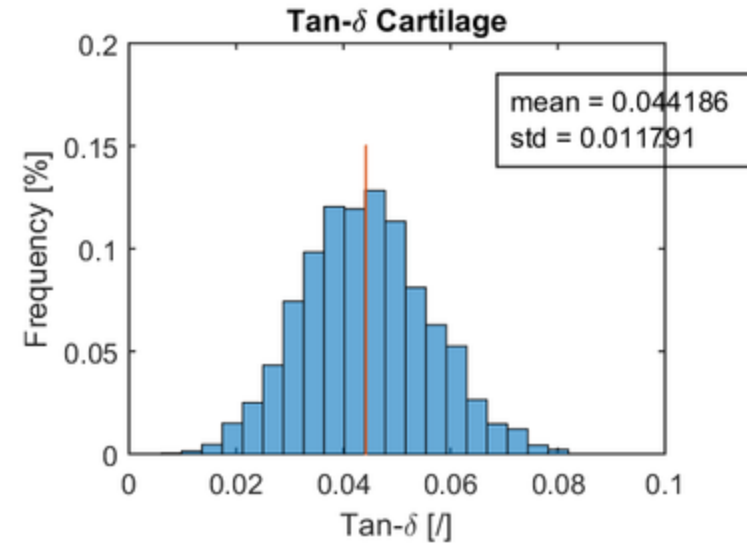
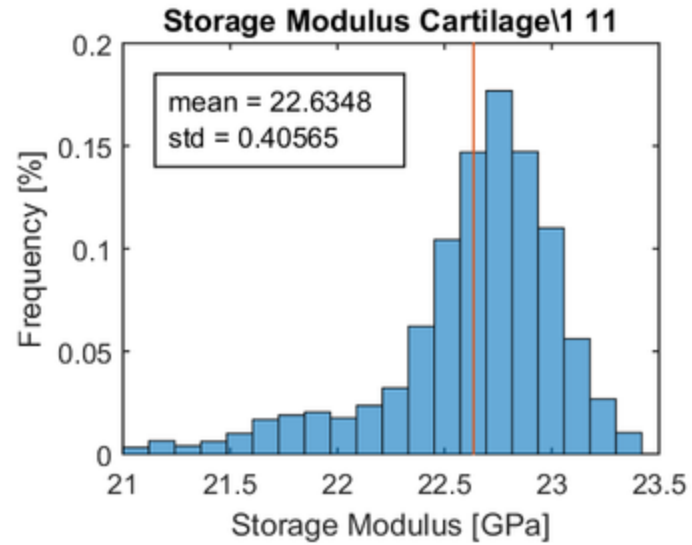
Cartilage A Point 9



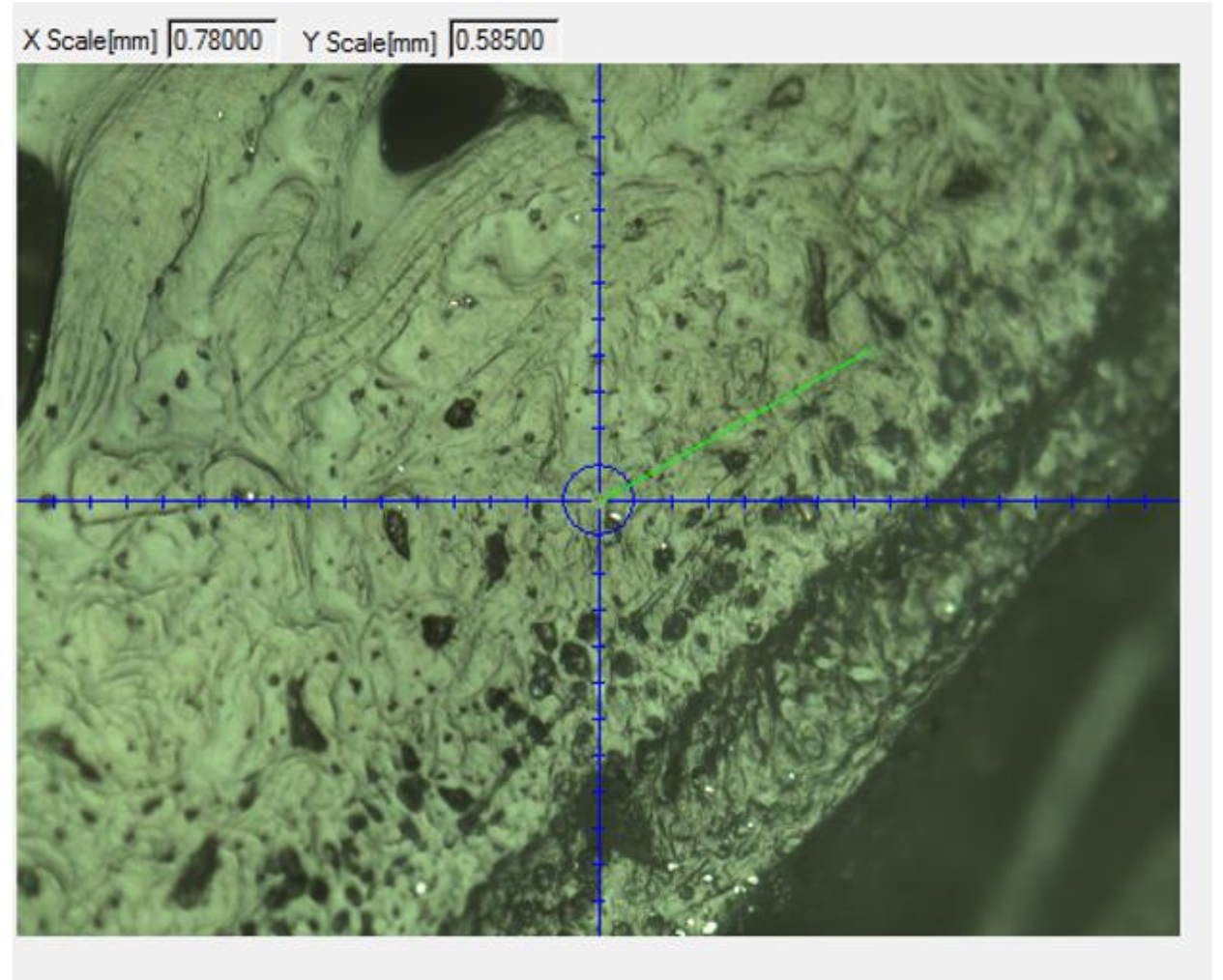
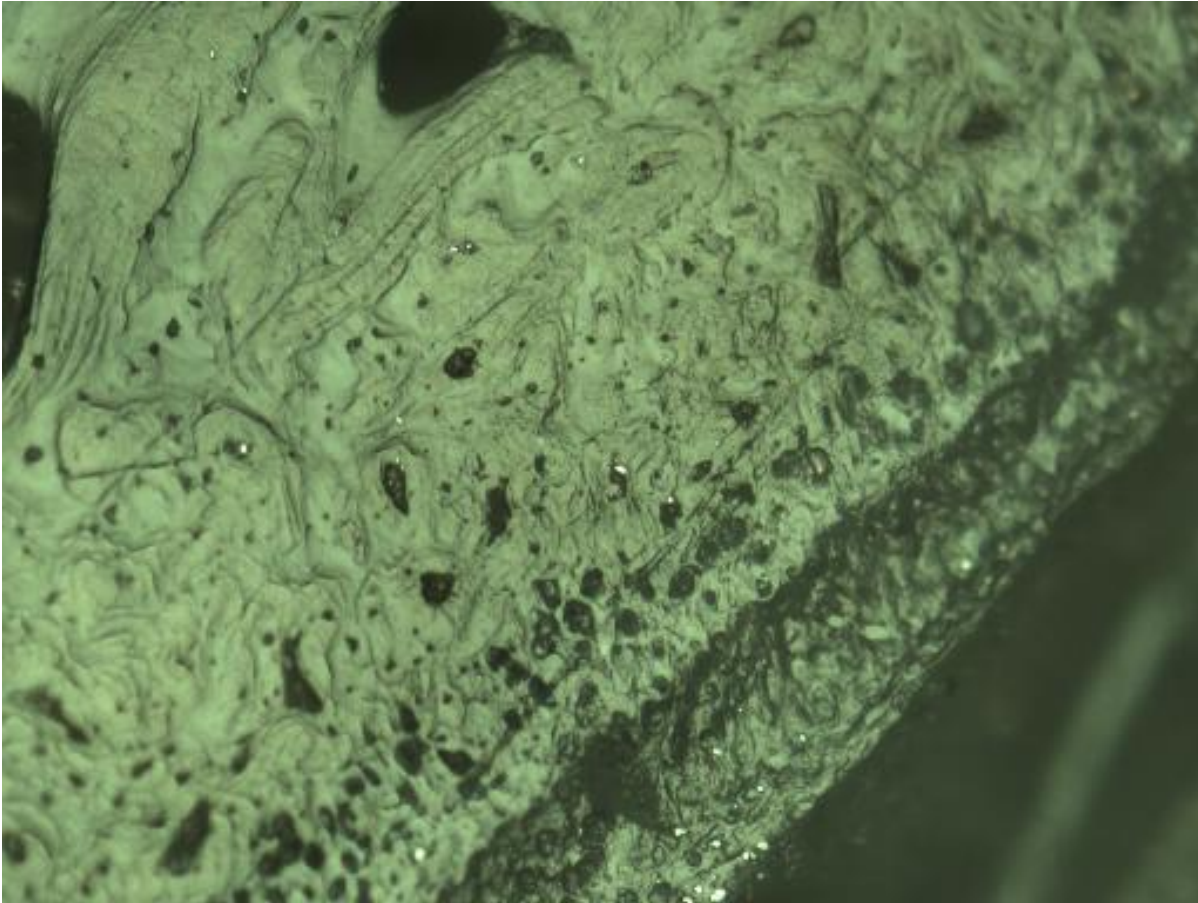
Cartilage A Point 10



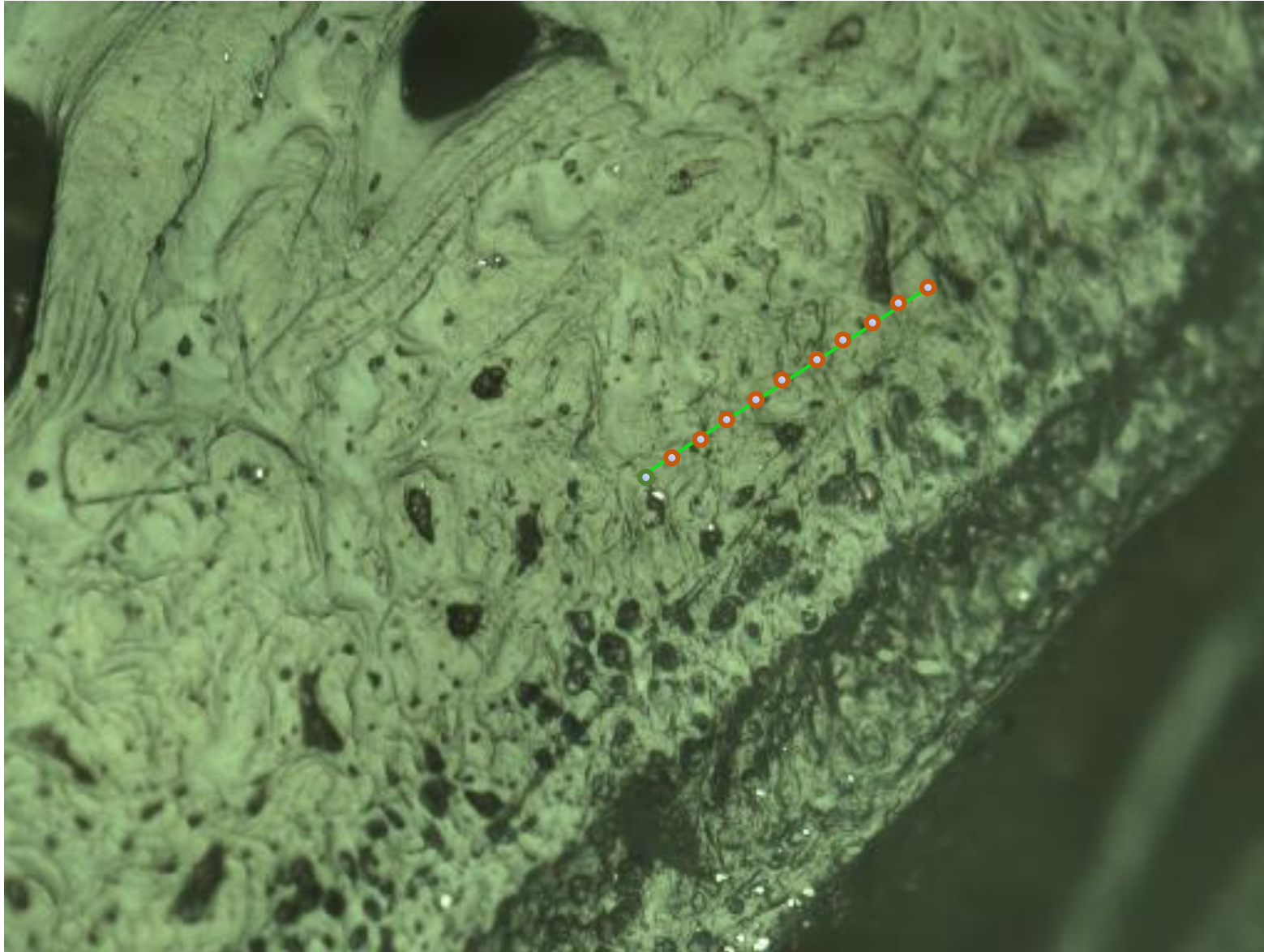
Cartilage A Point 11



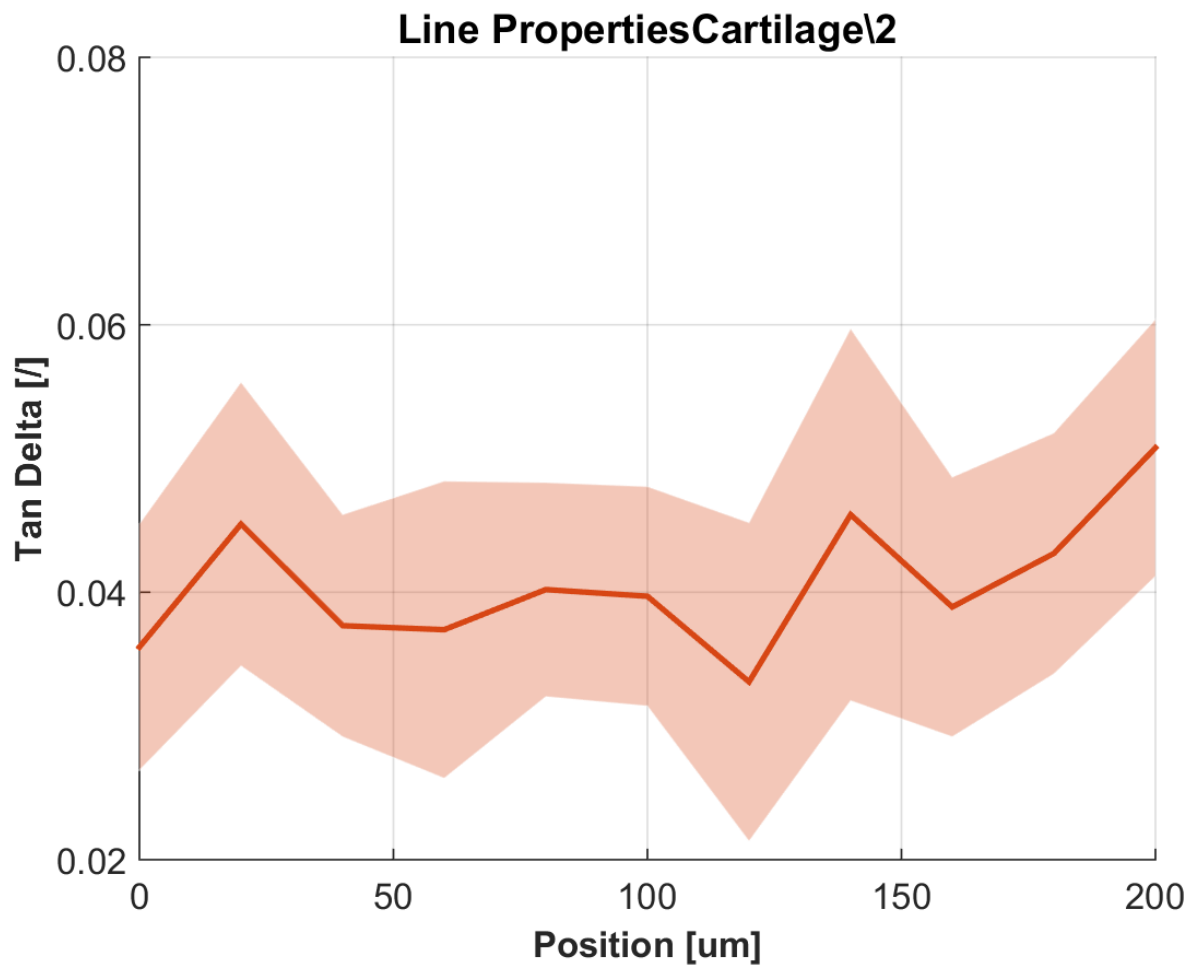
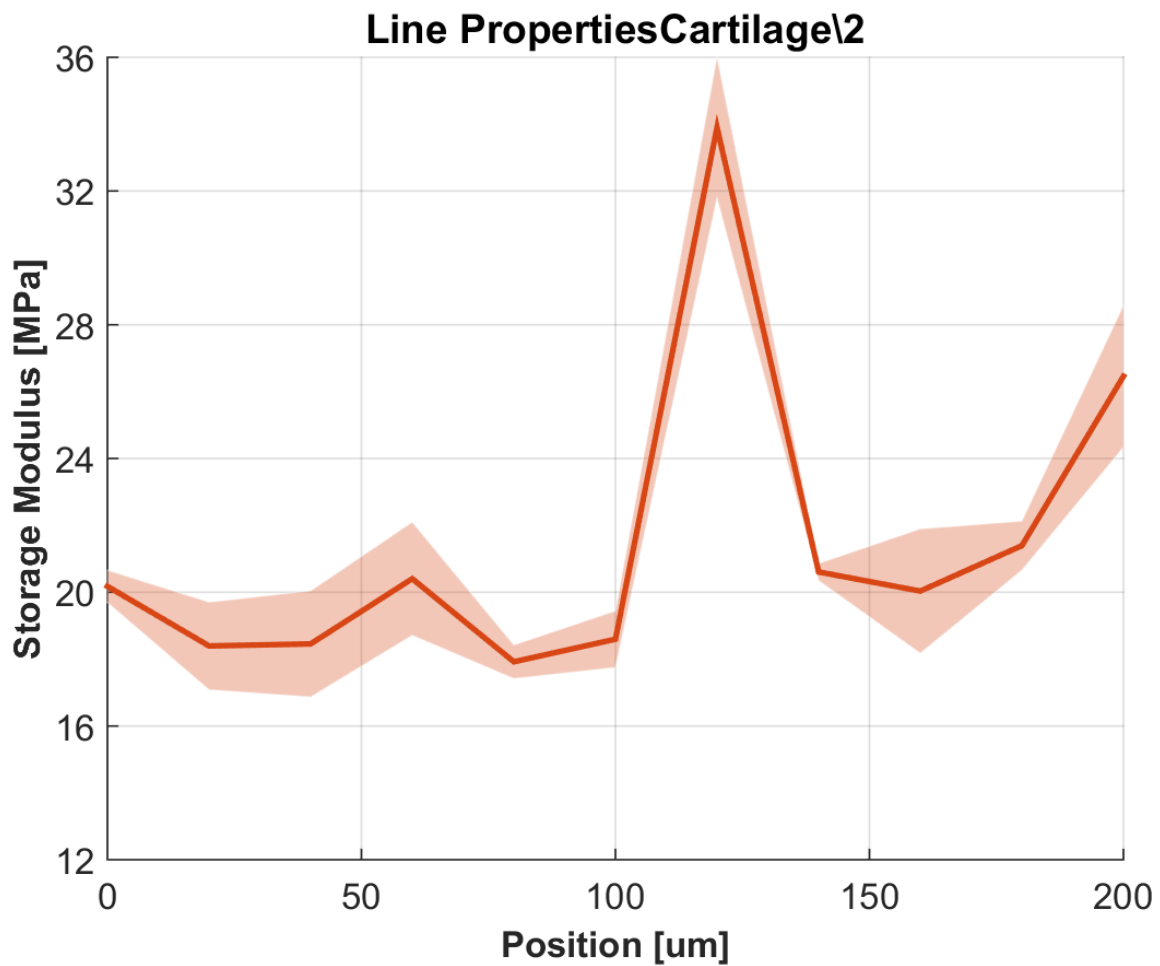
B. Cartilage D1 11 points $\Delta=20\mu\text{m}$ roughness ok



B. Cartilage D1 11 points $\Delta=20\mu\text{m}$ roughness ok

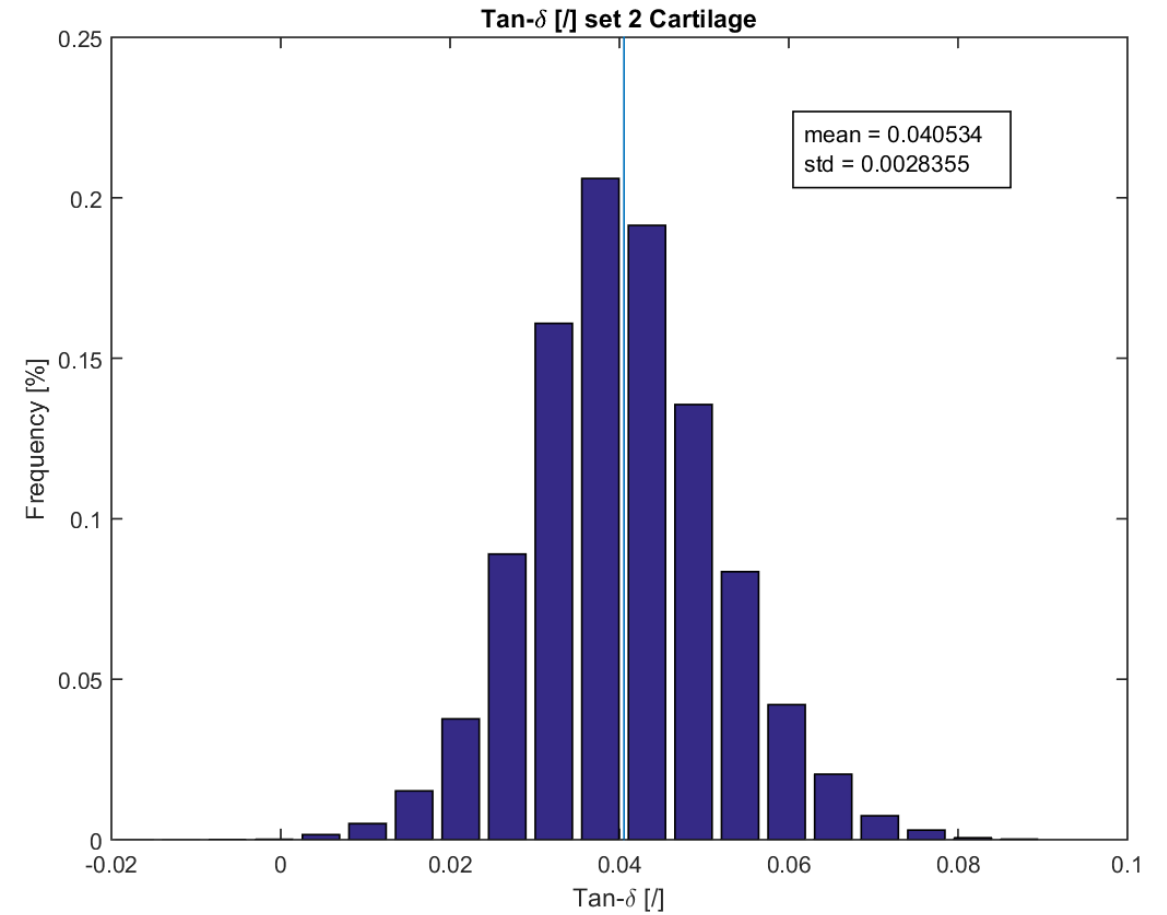
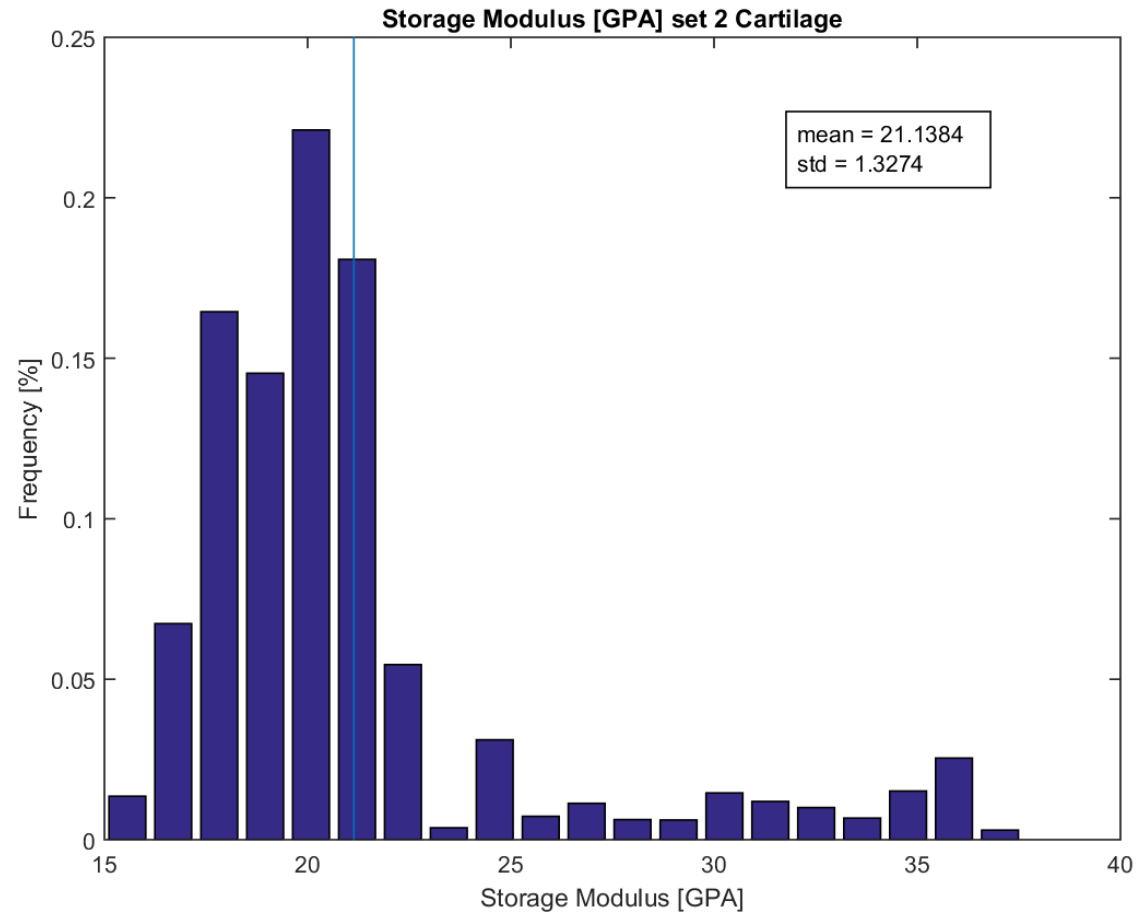


5 and 9 in holes

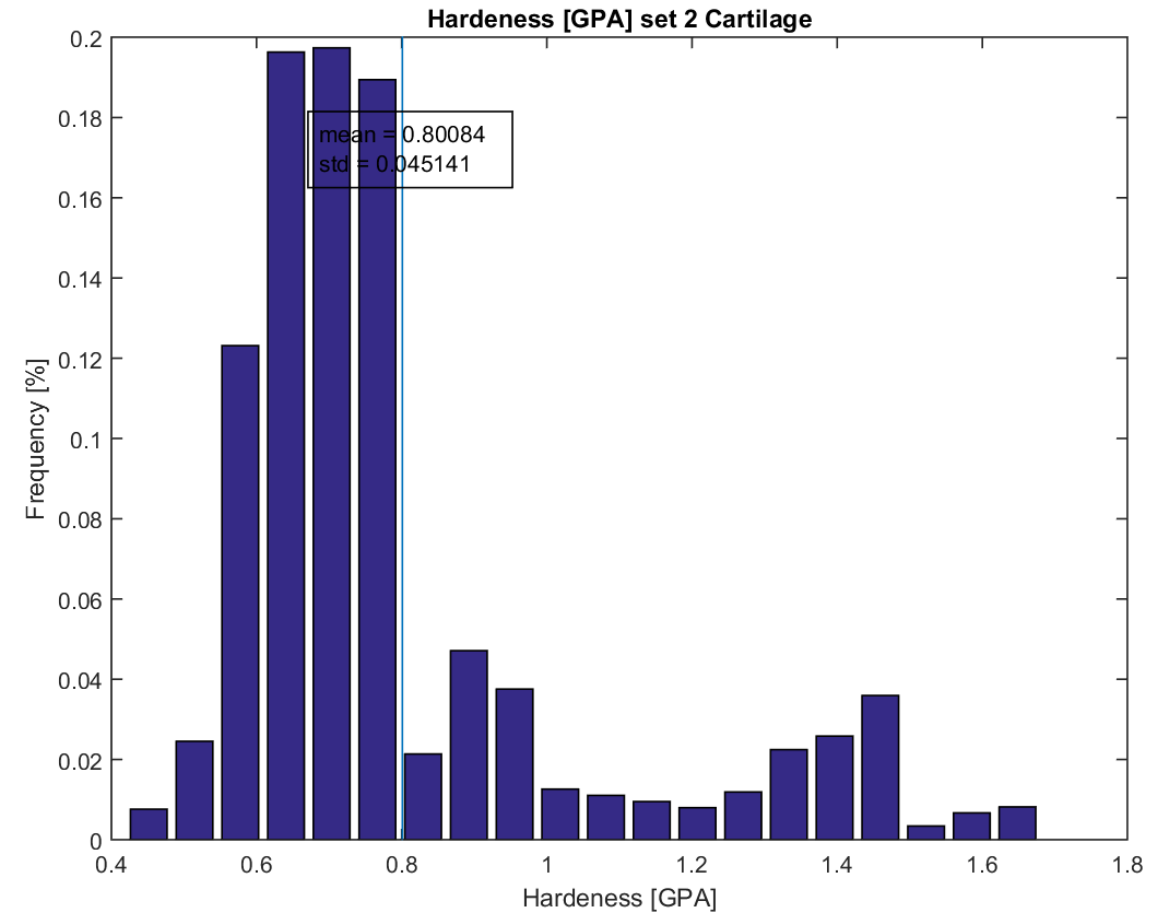
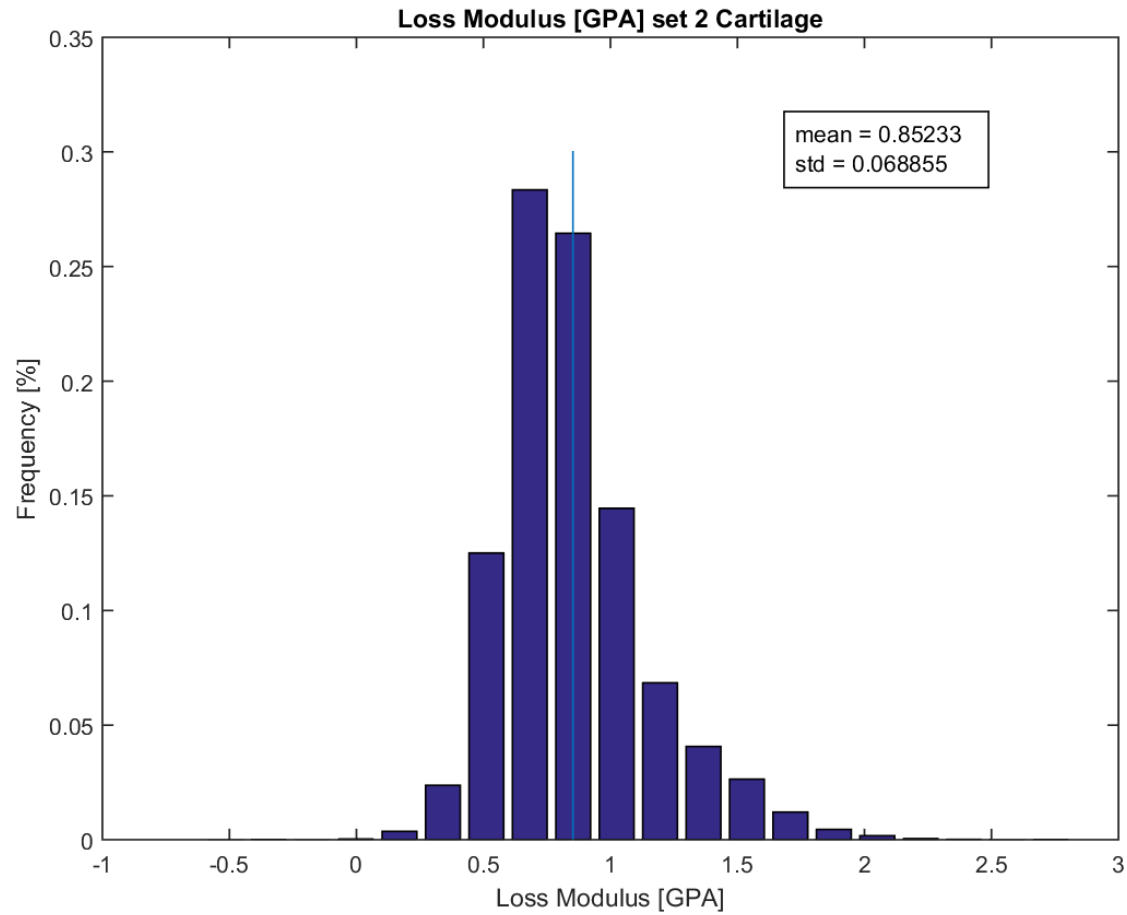


- No depth surface graph

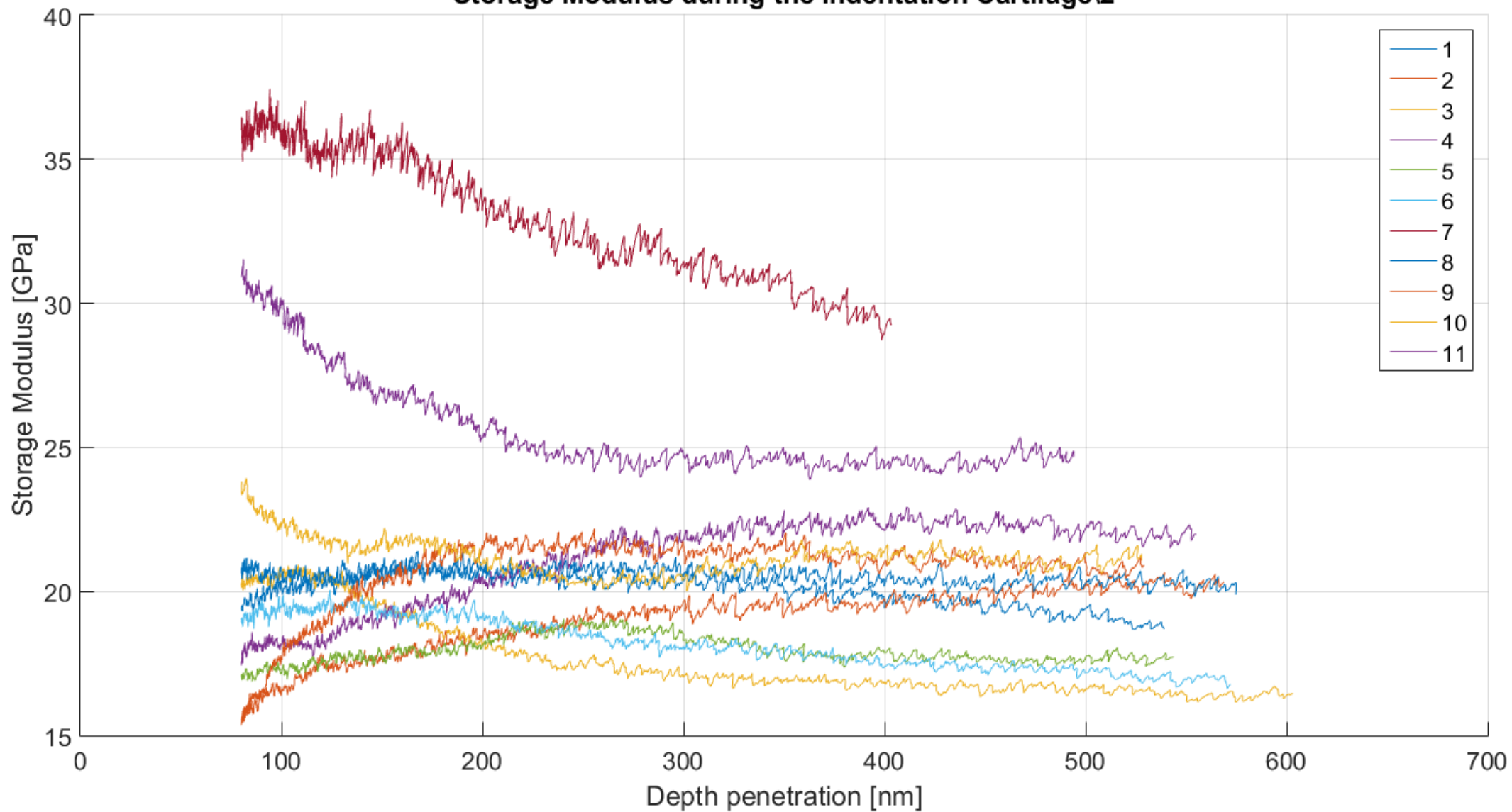
B. Complet

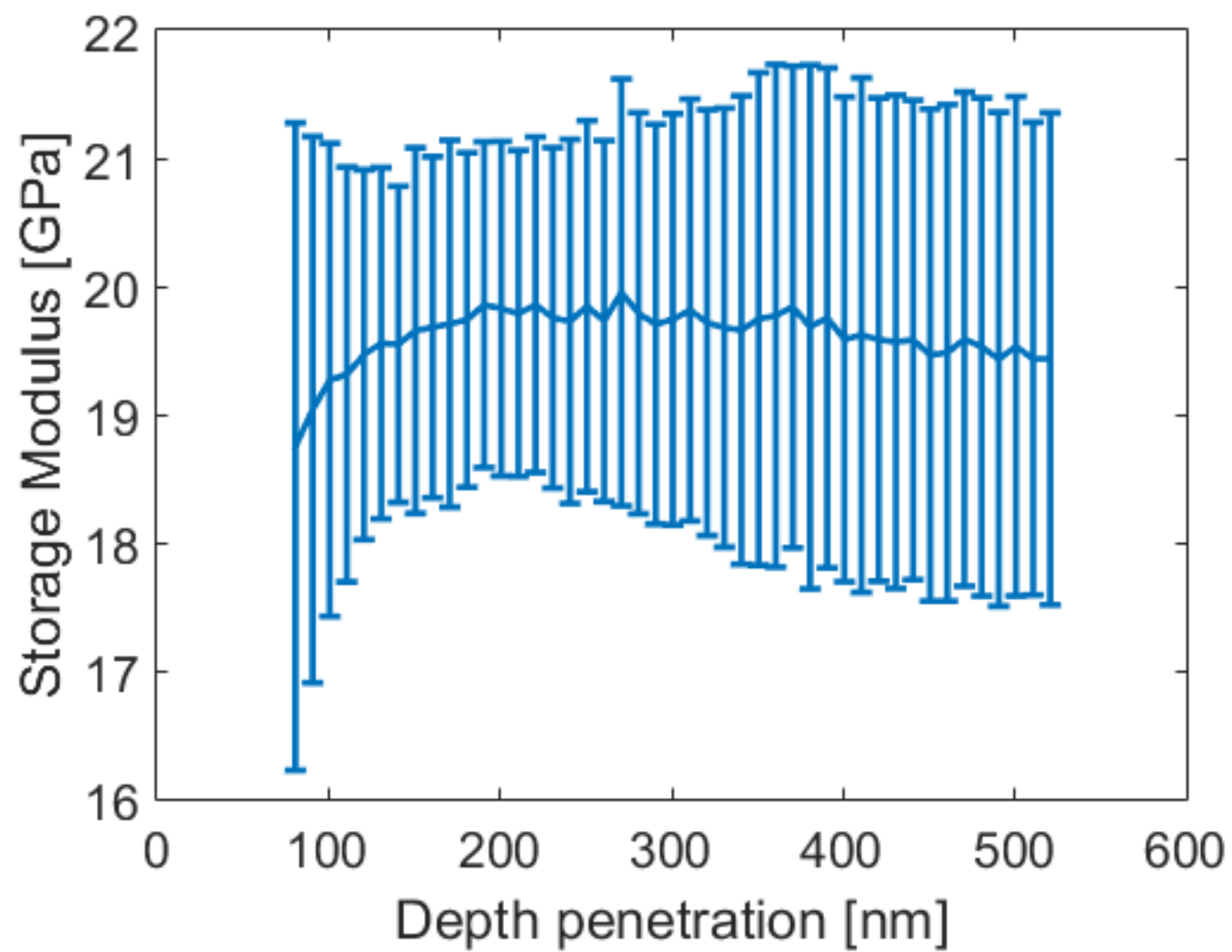


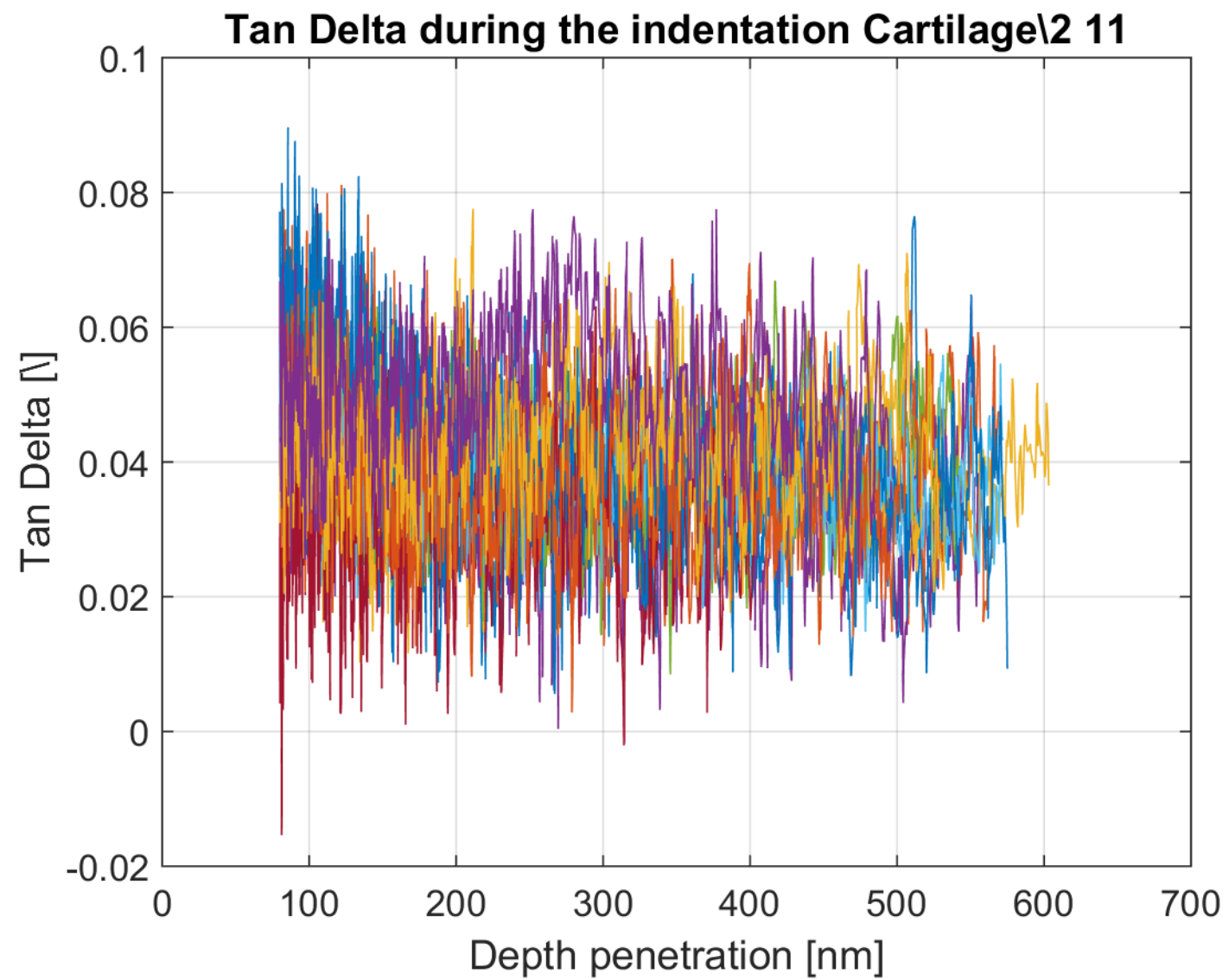
B. Complet

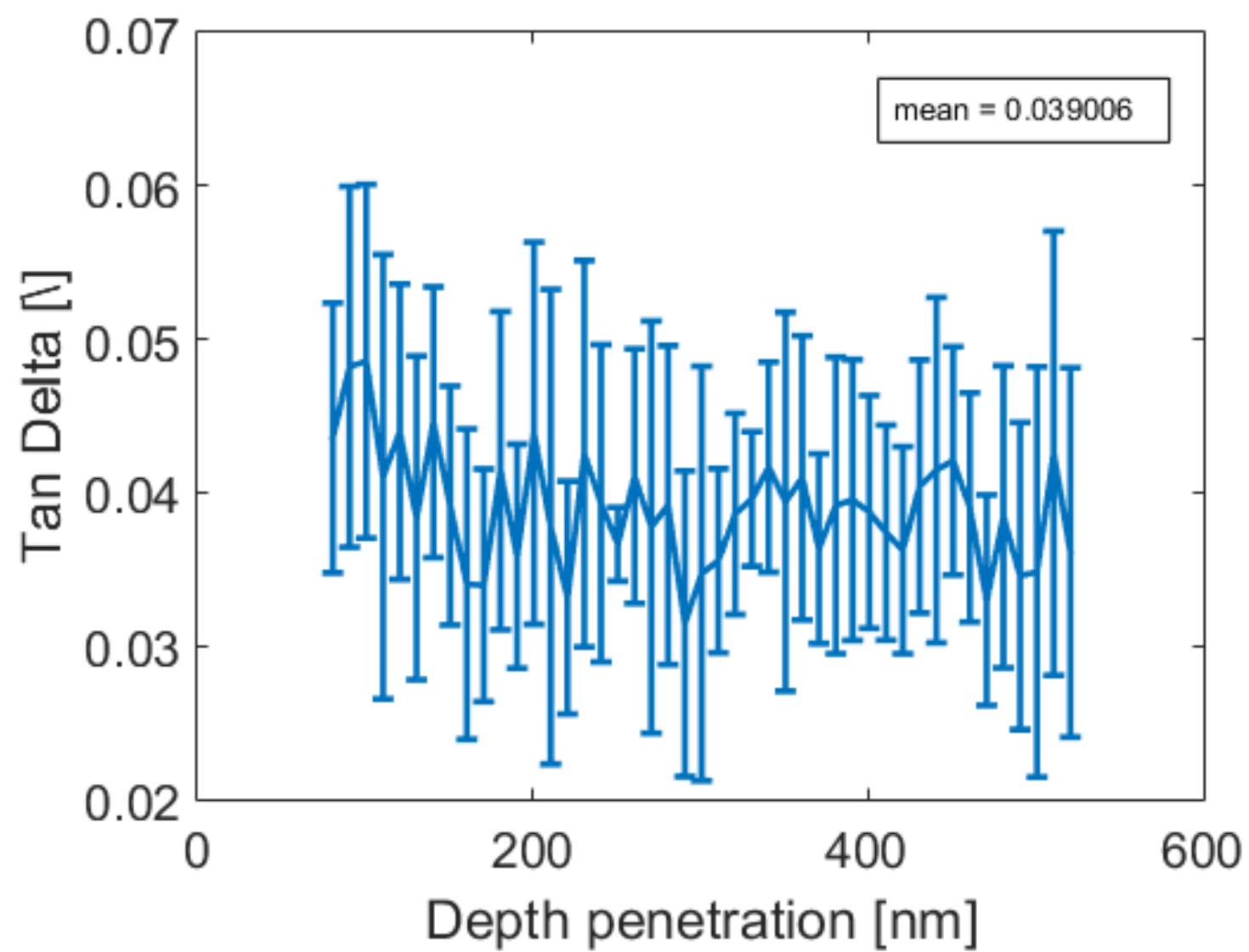


Storage Modulus during the indentation Cartilage\2

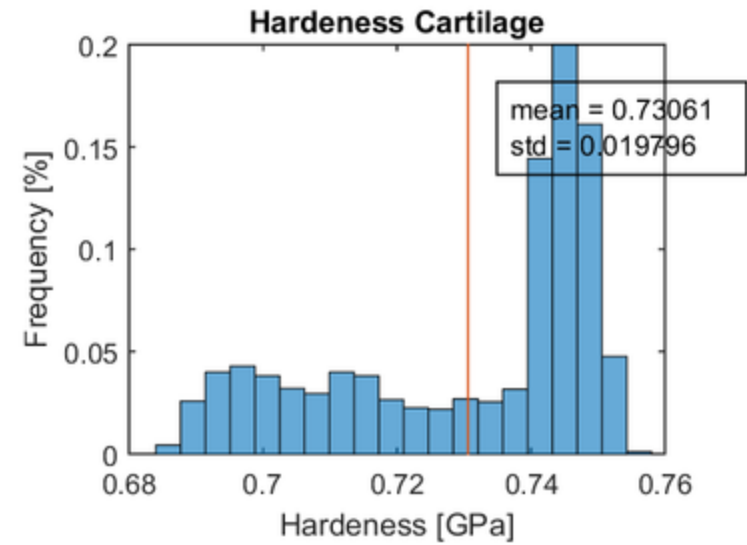
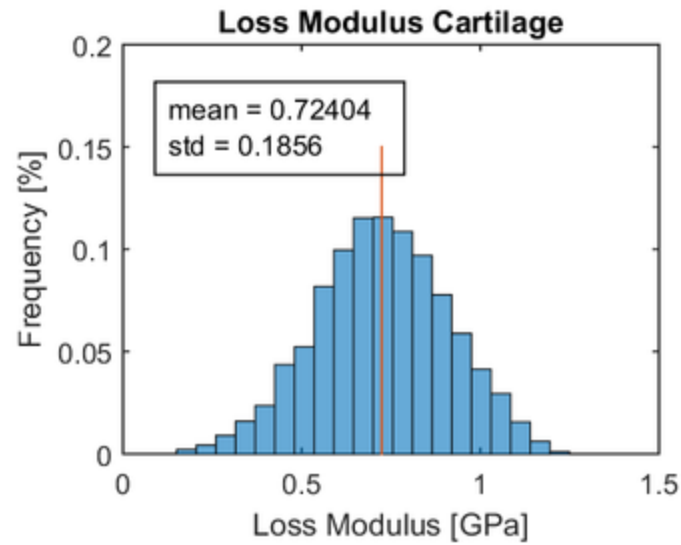
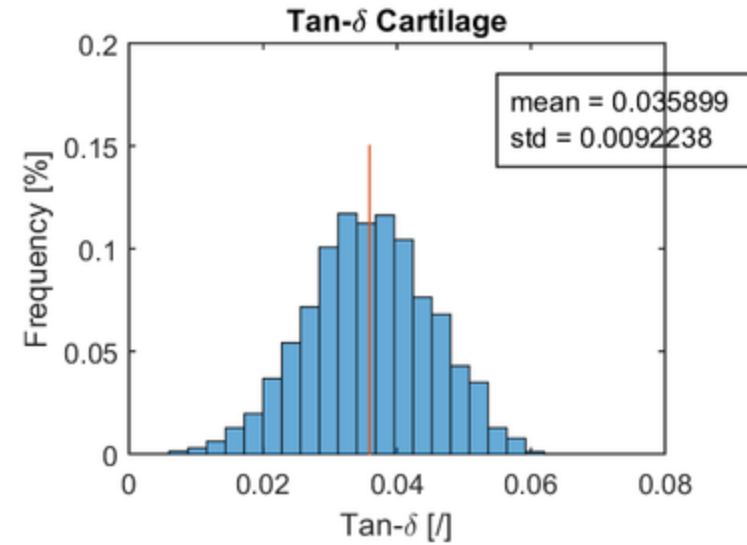
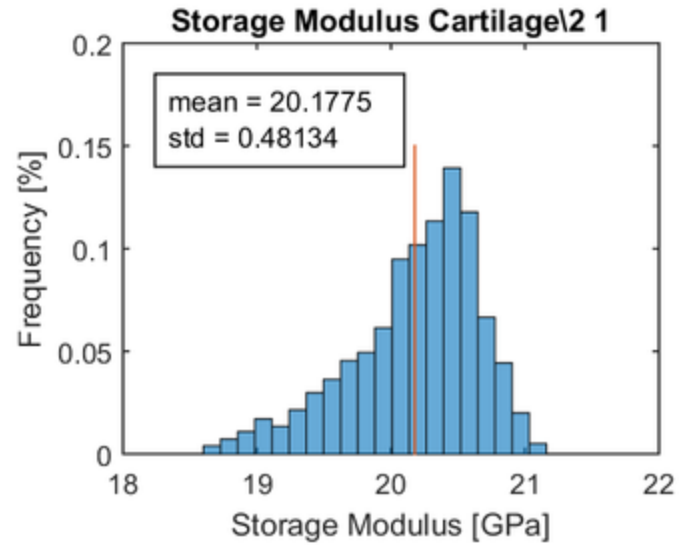




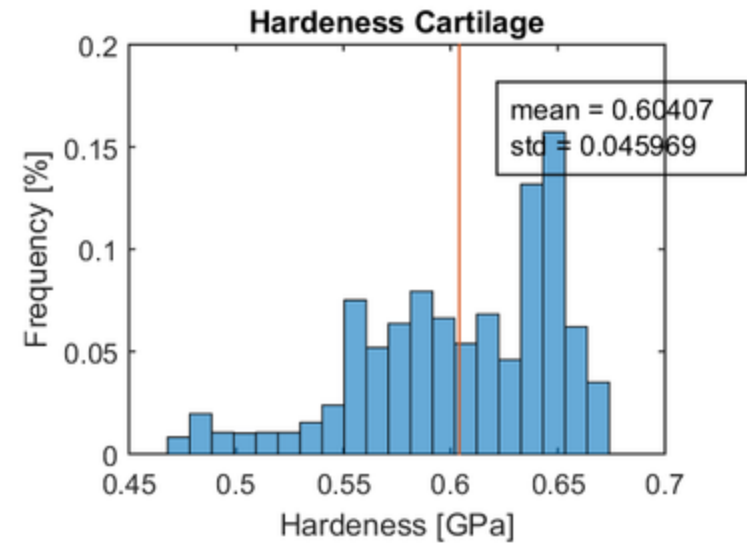
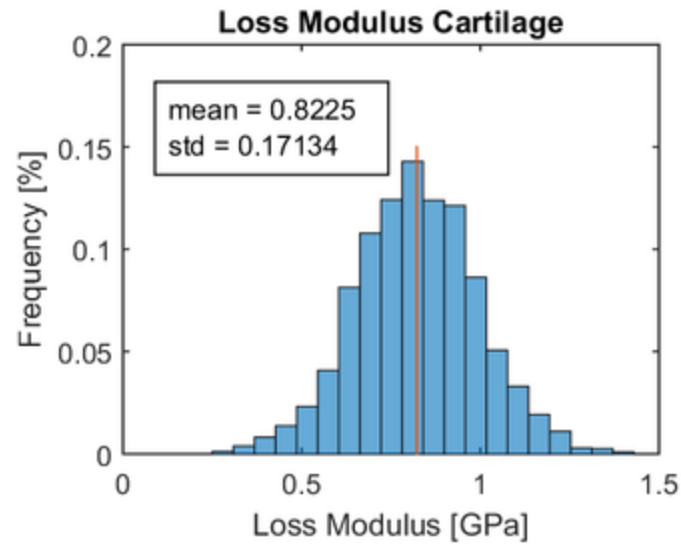
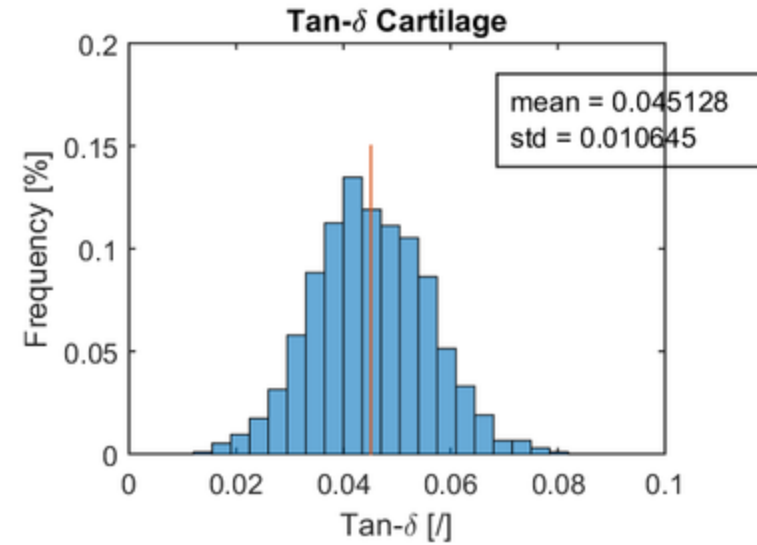
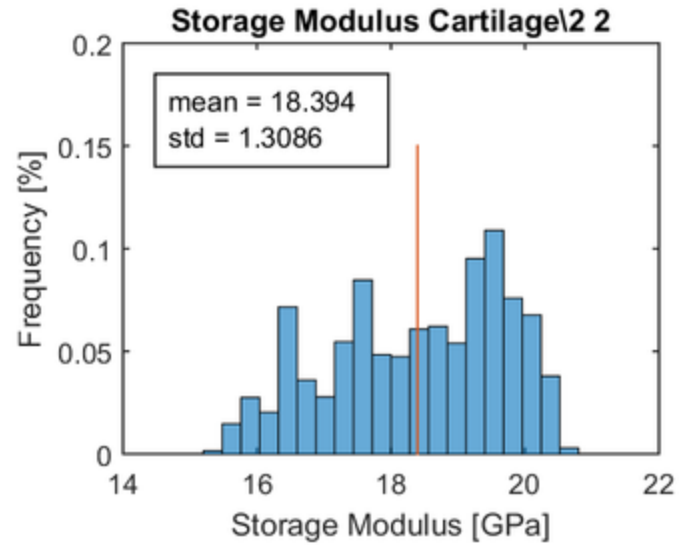




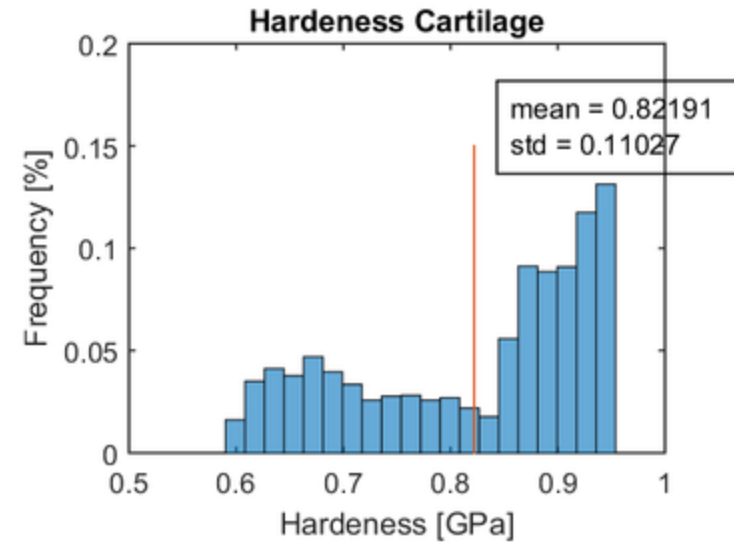
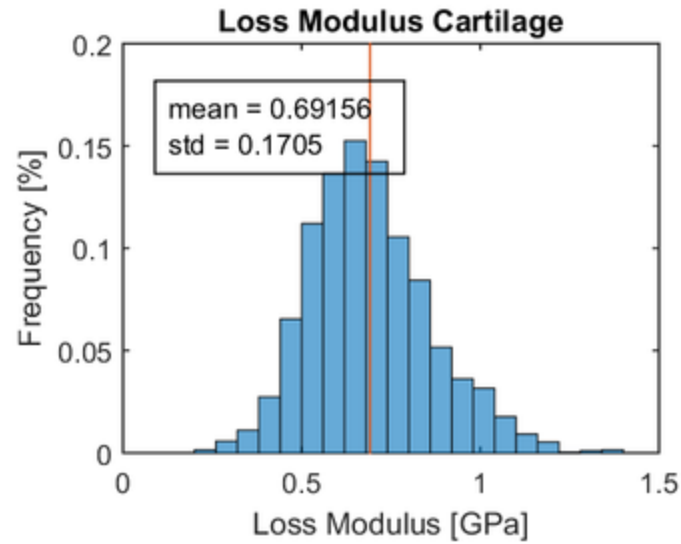
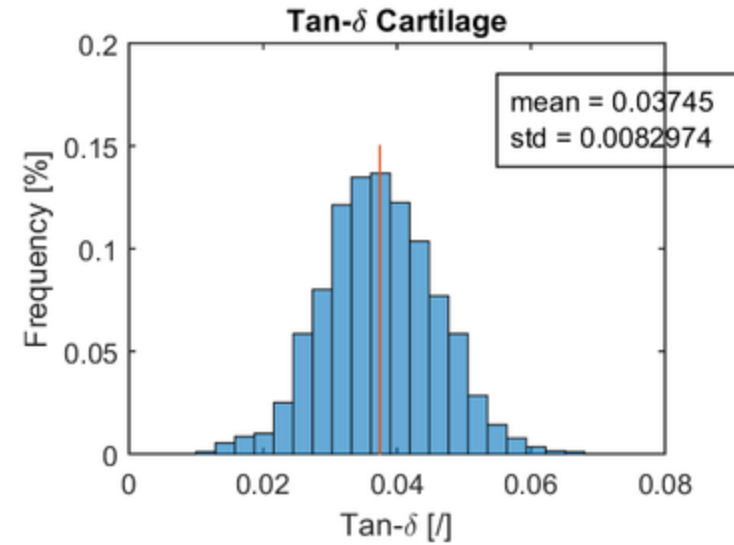
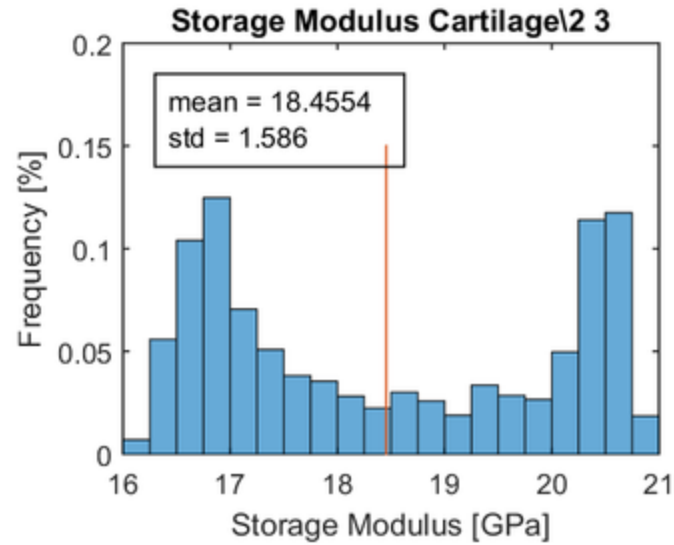
Cartilage B Point 1



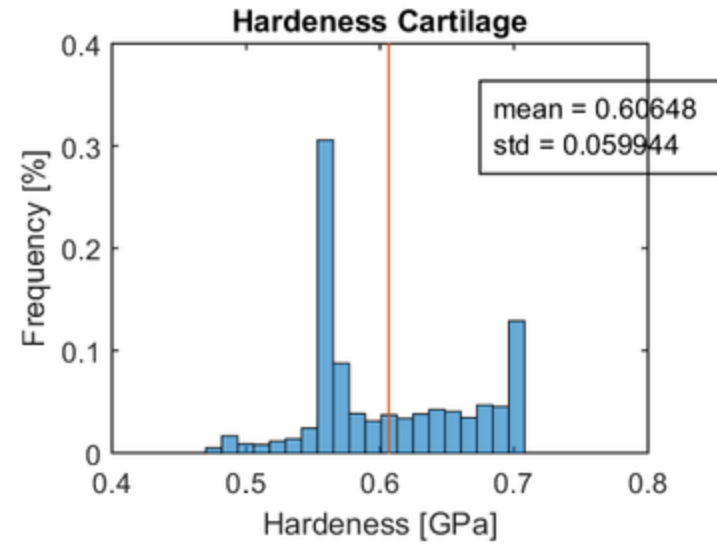
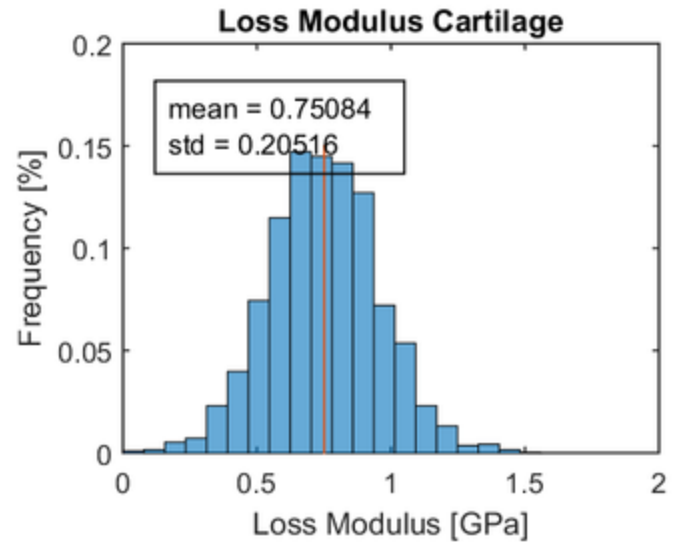
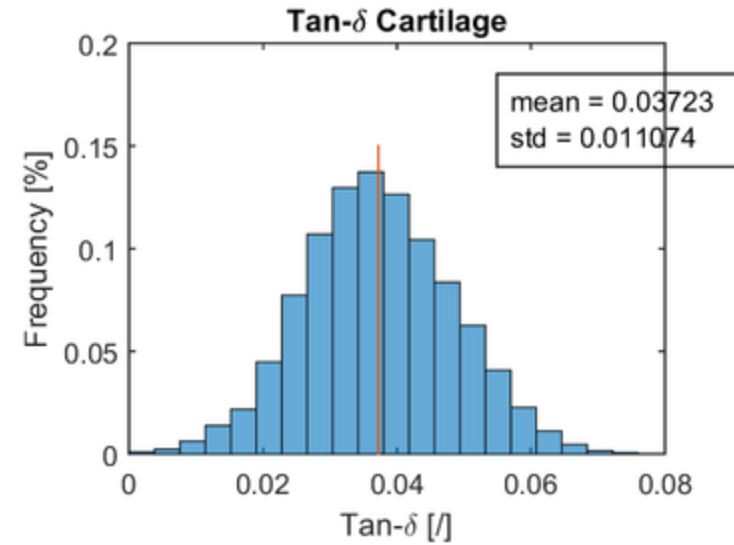
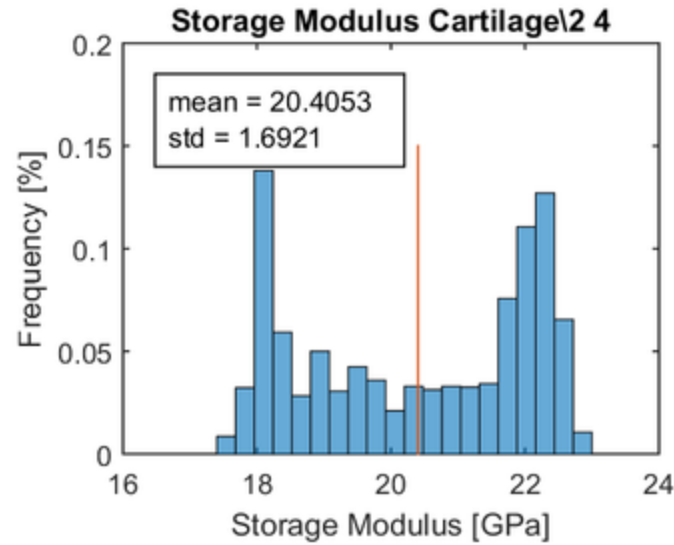
Cartilage B Point 2



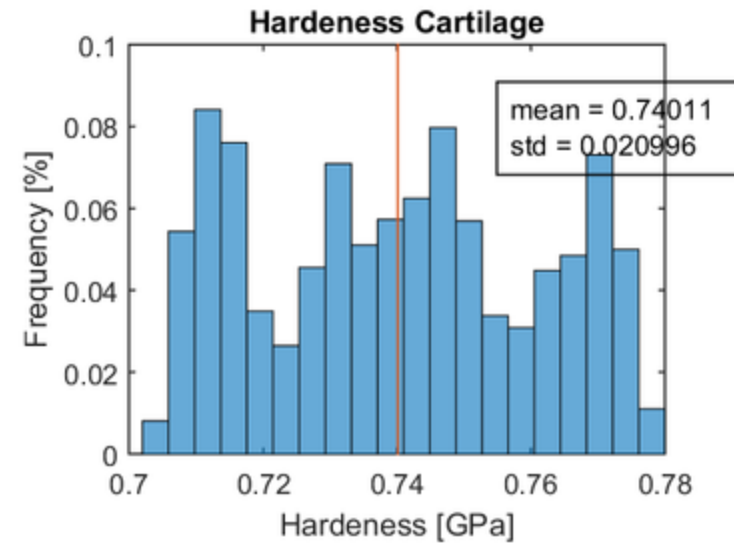
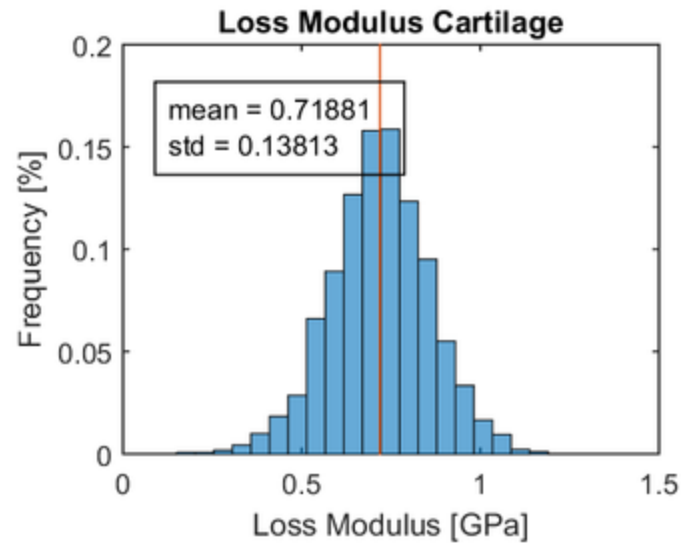
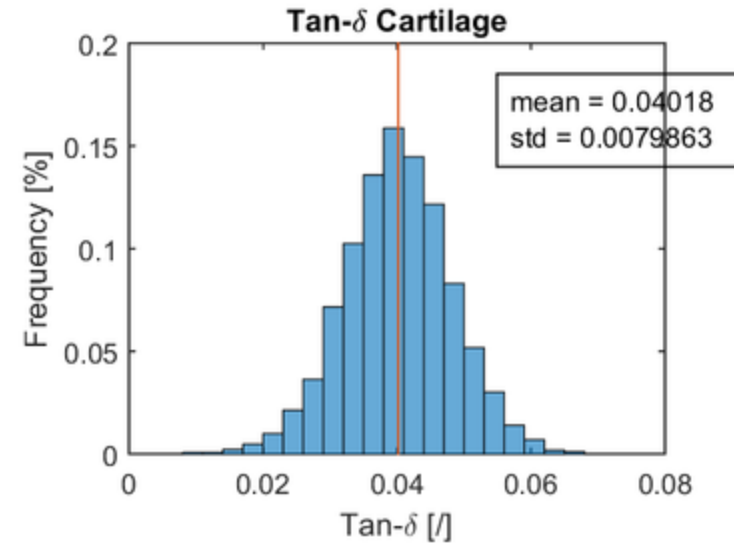
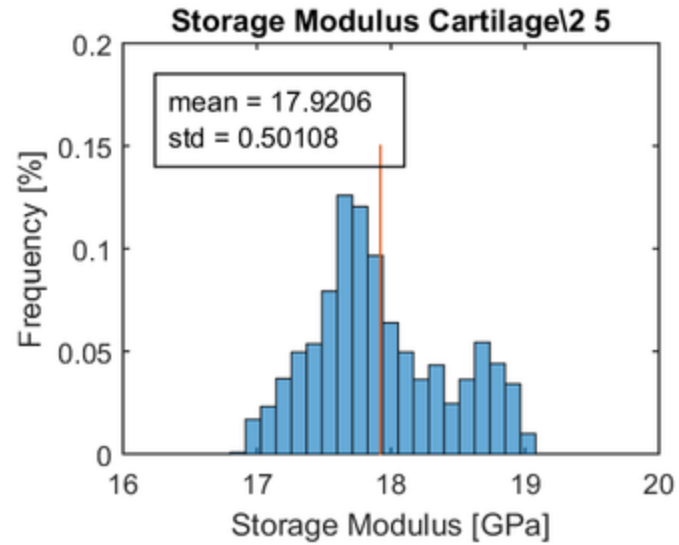
Cartilage B Point 3



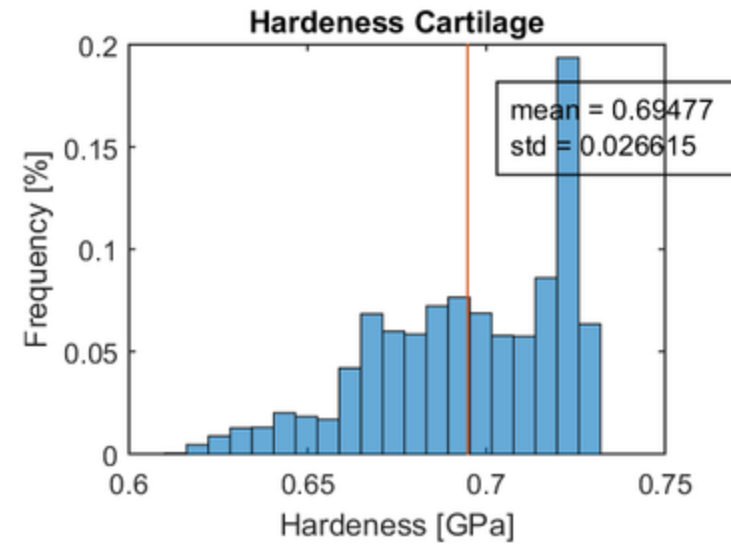
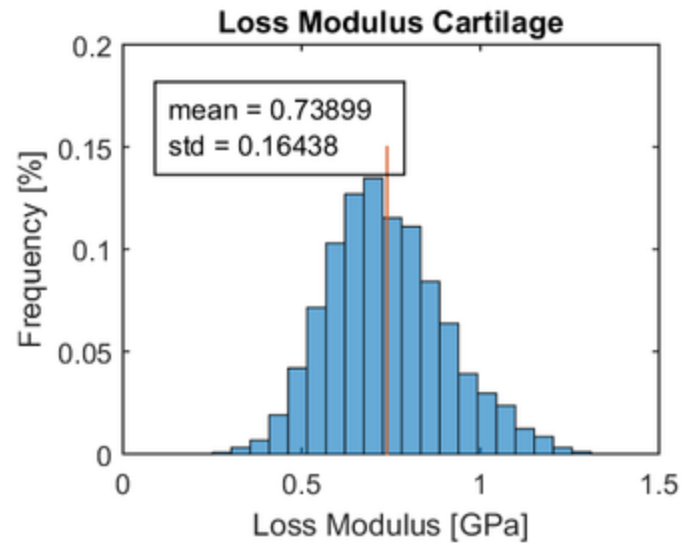
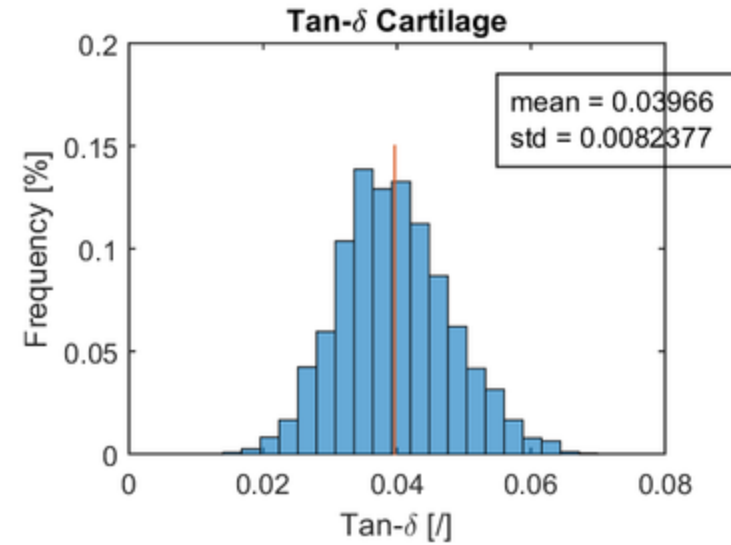
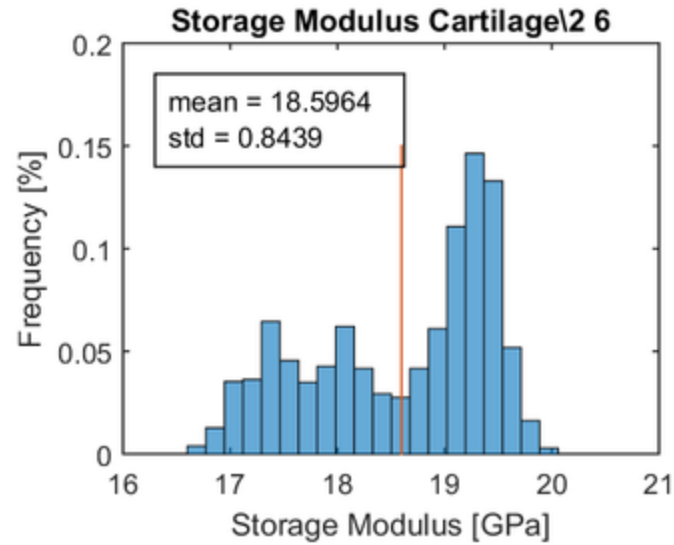
Cartilage B Point 4



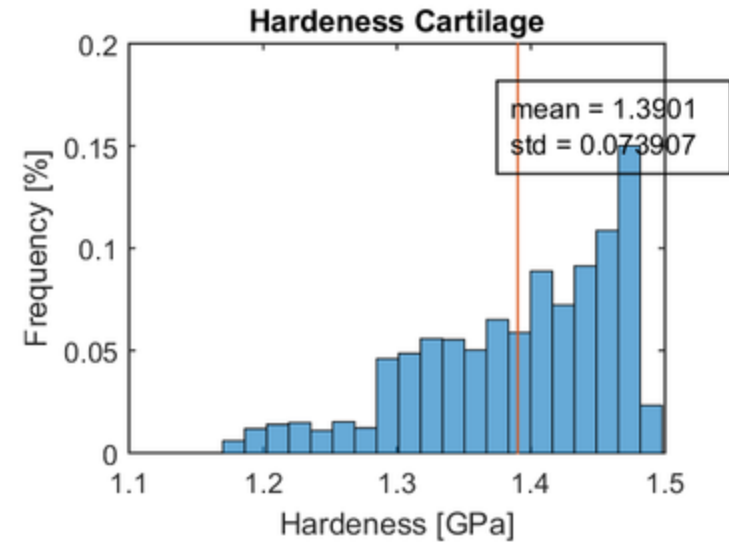
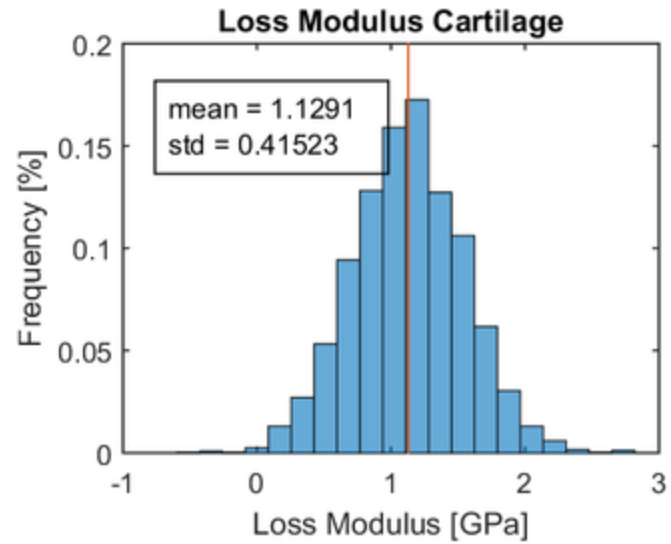
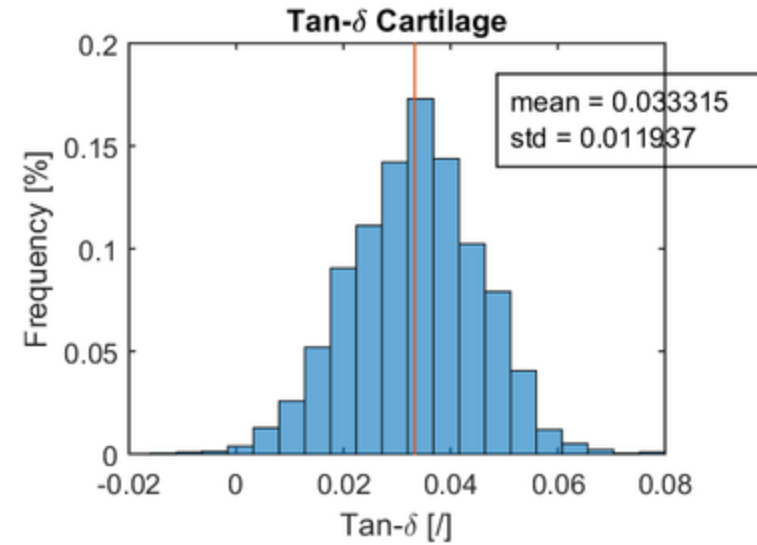
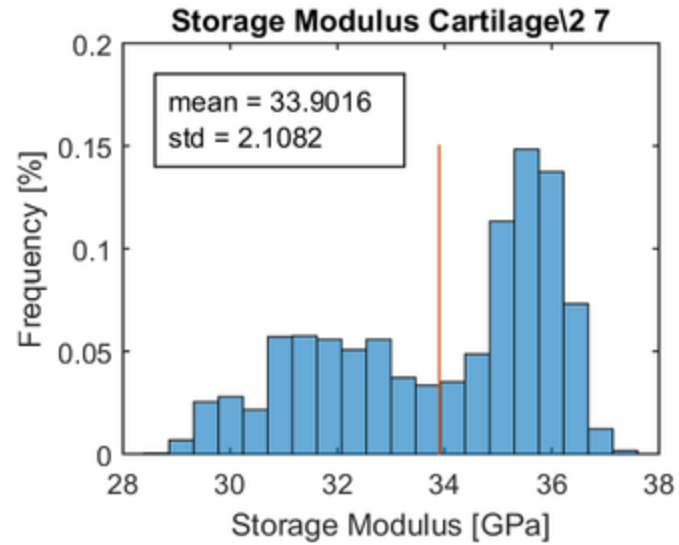
Cartilage B Point 5



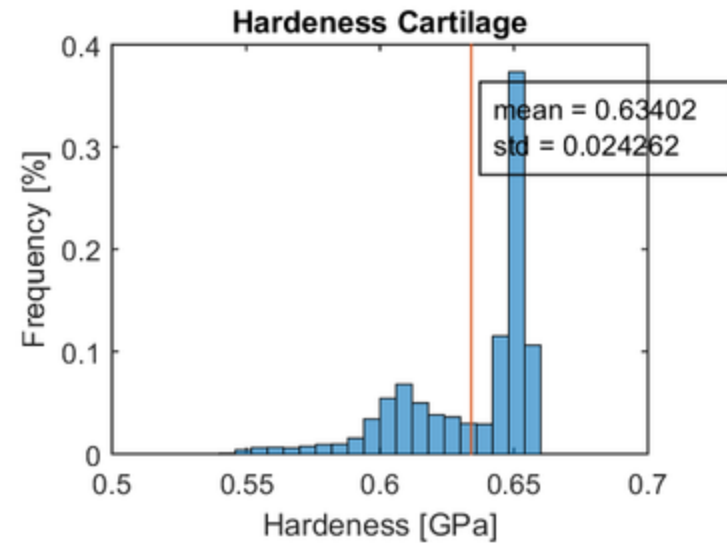
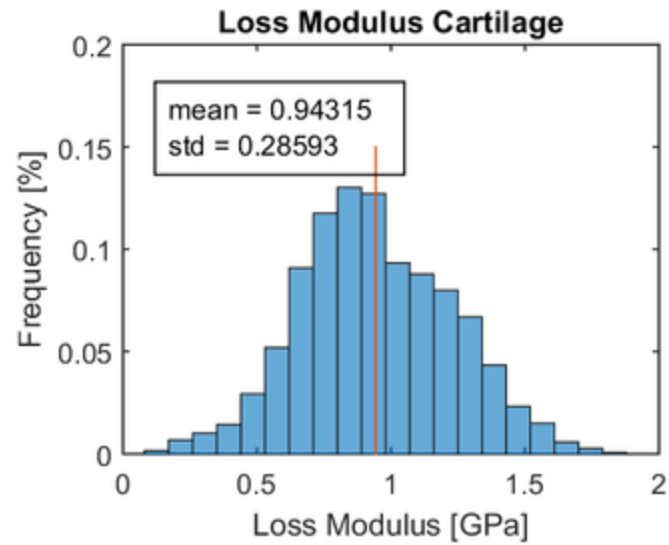
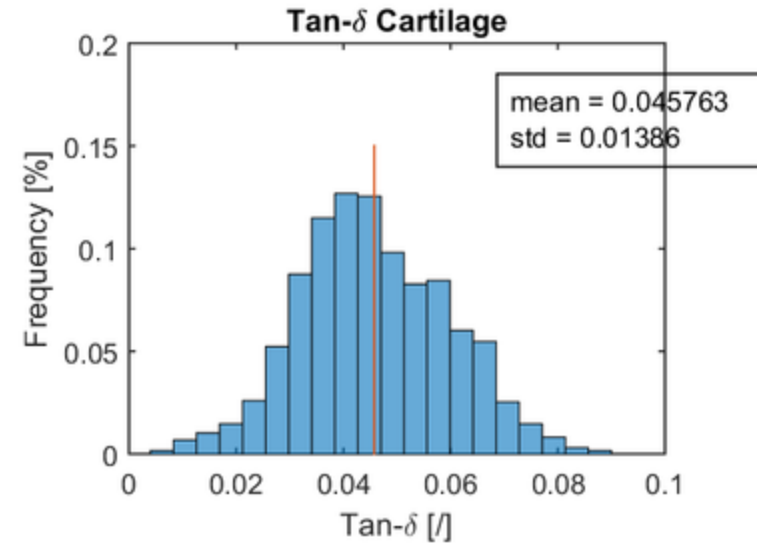
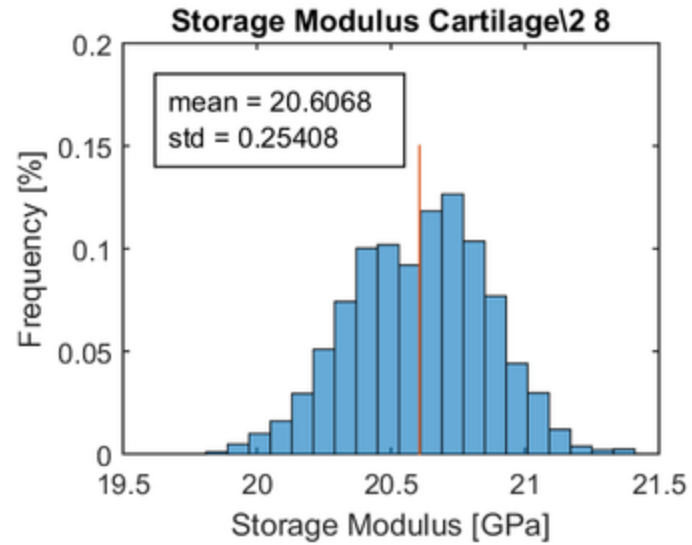
Cartilage B Point 6



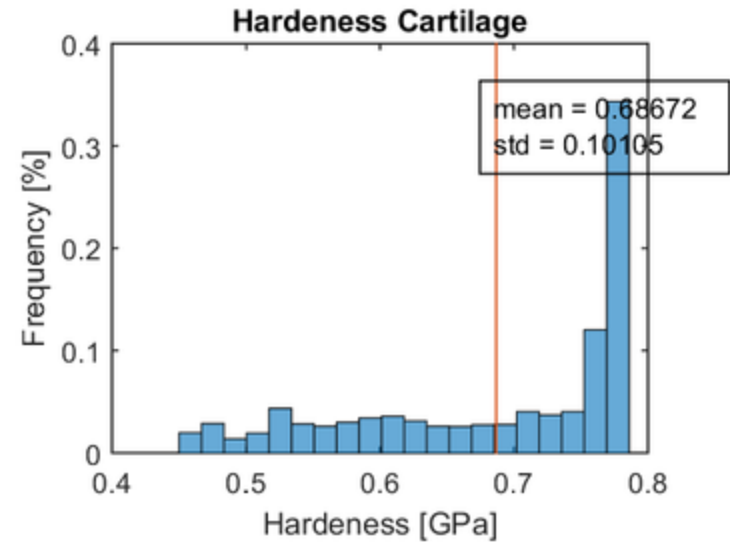
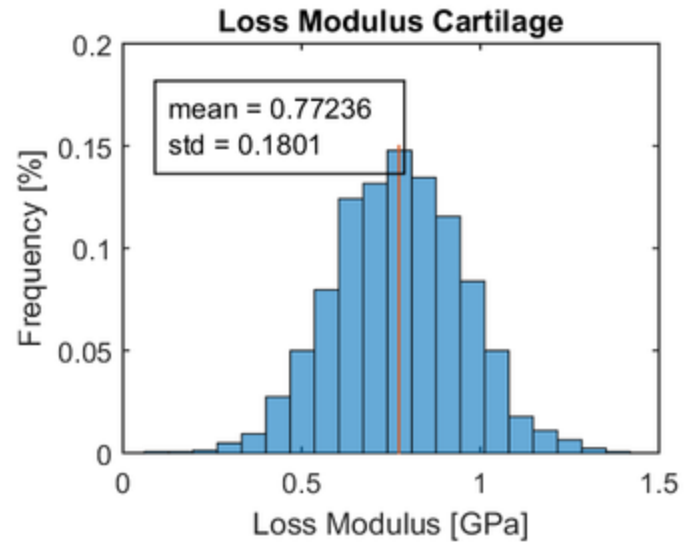
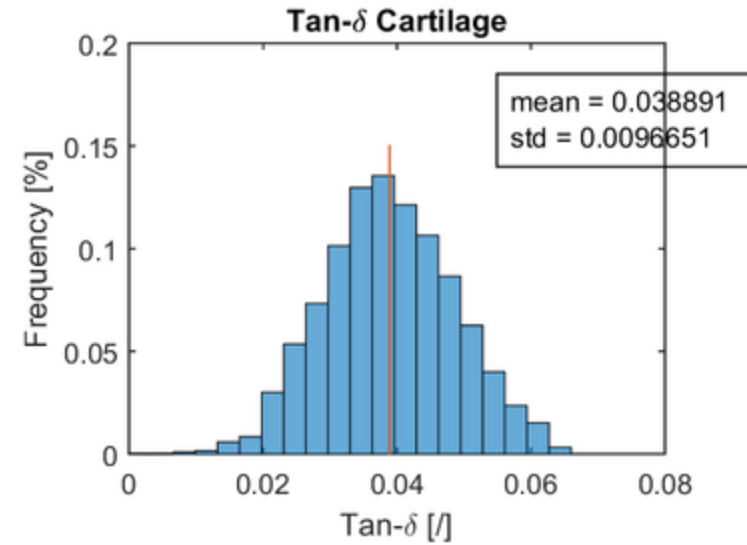
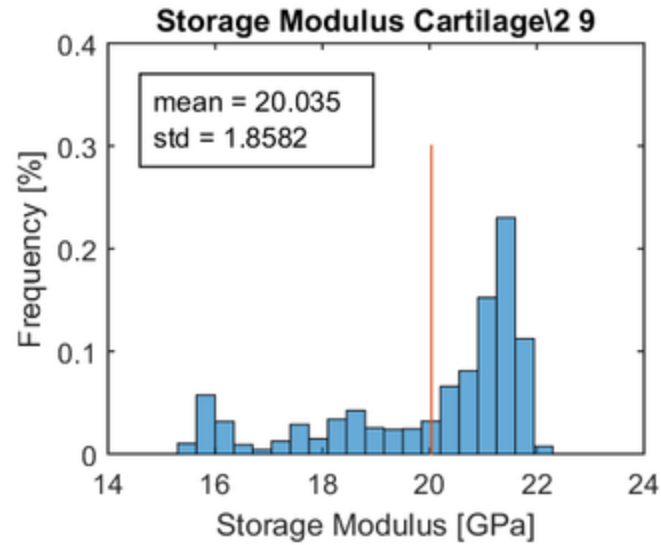
Cartilage B Point 7



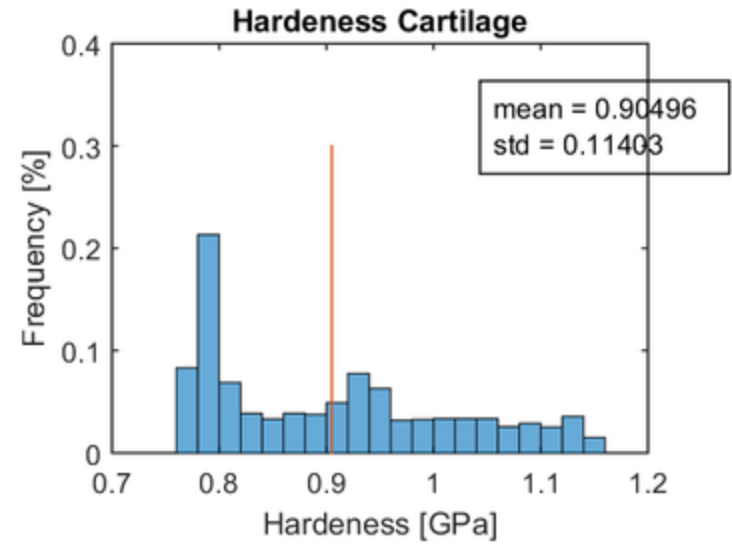
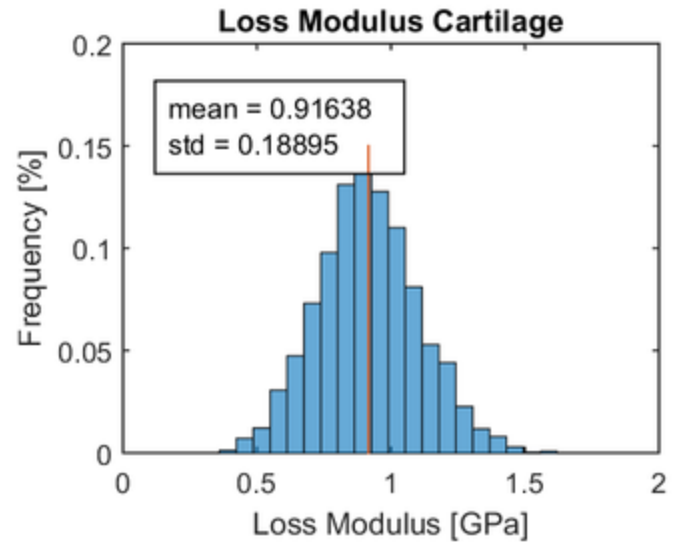
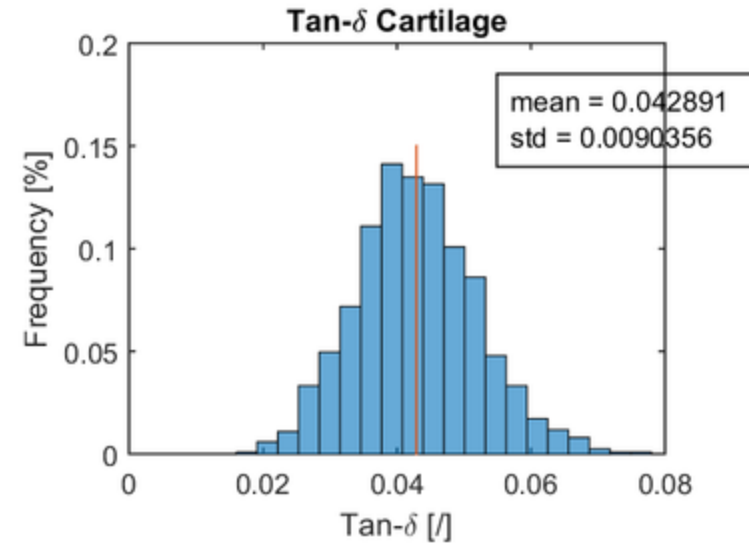
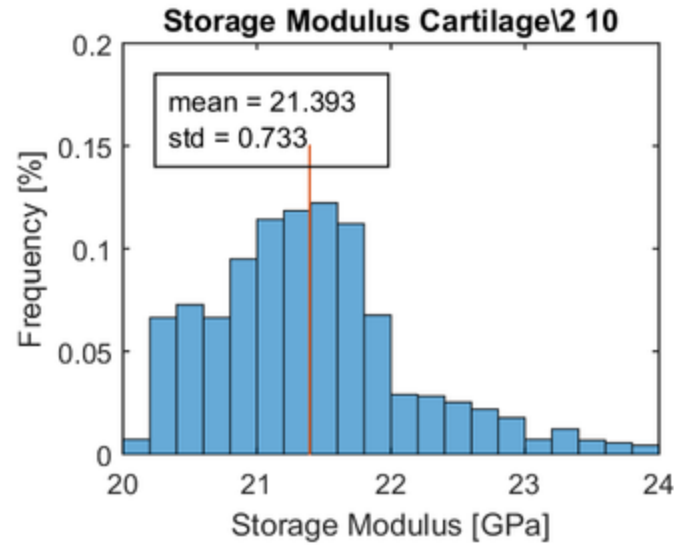
Cartilage B Point 8



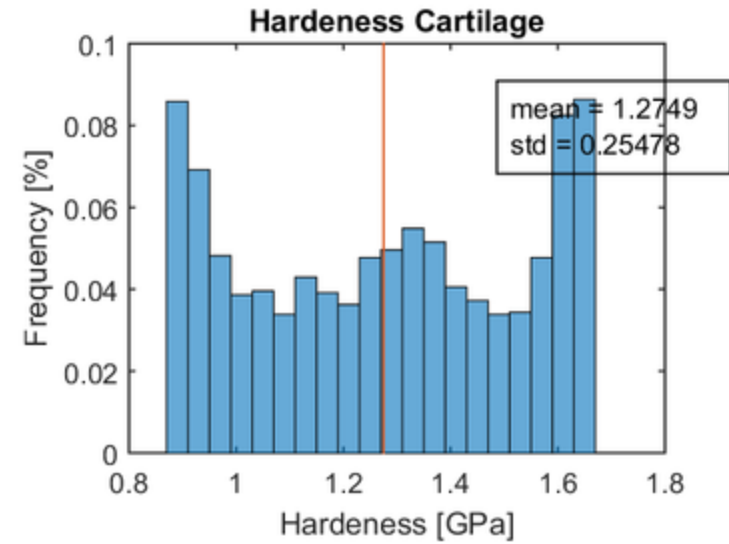
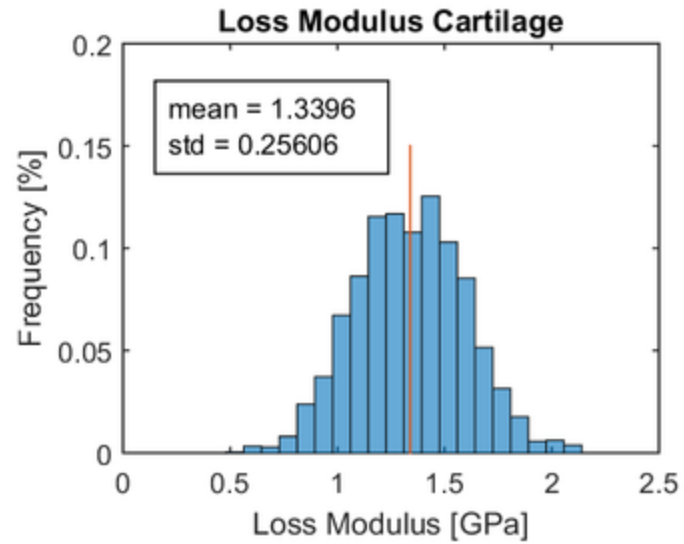
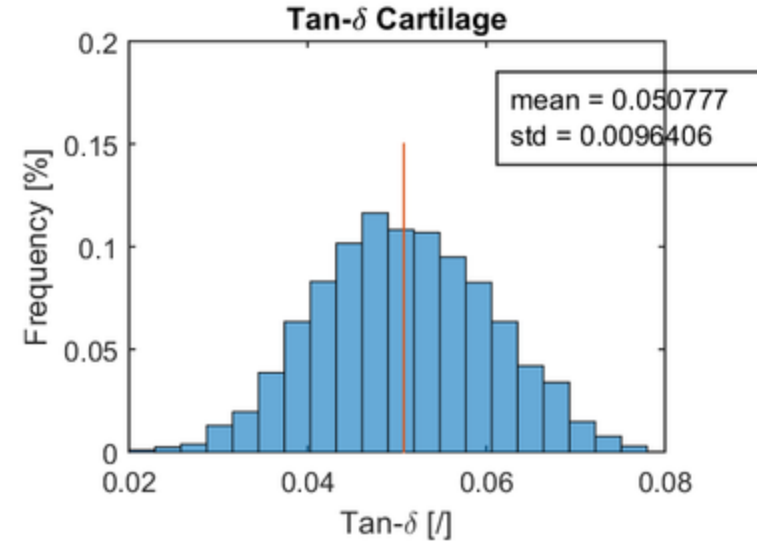
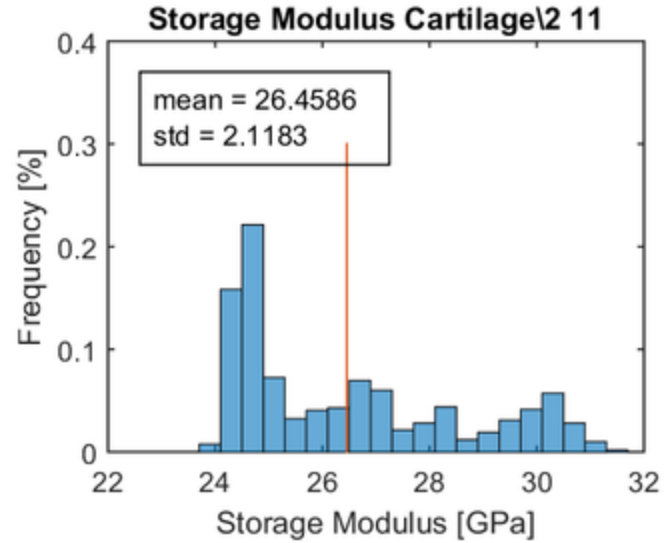
Cartilage B Point 9



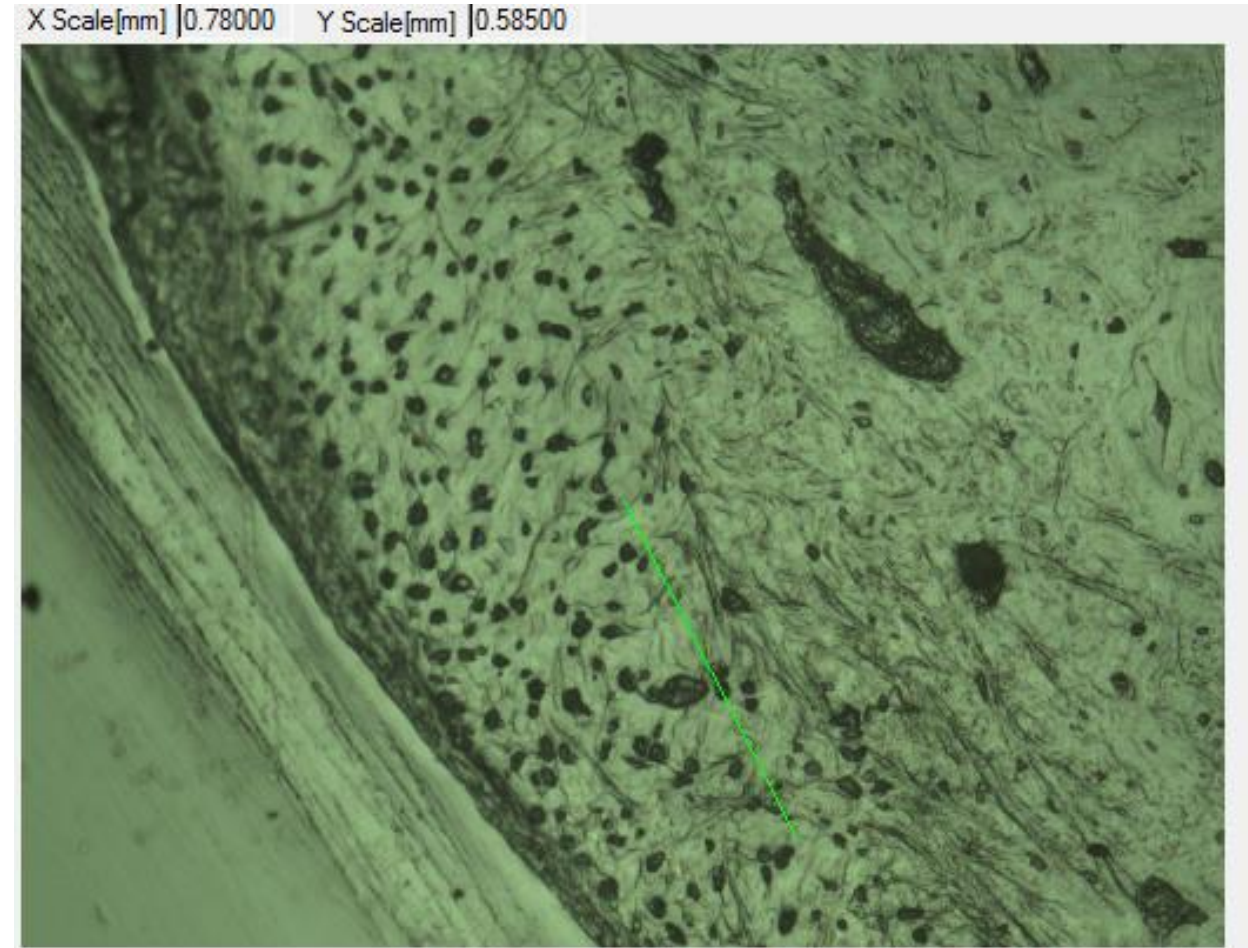
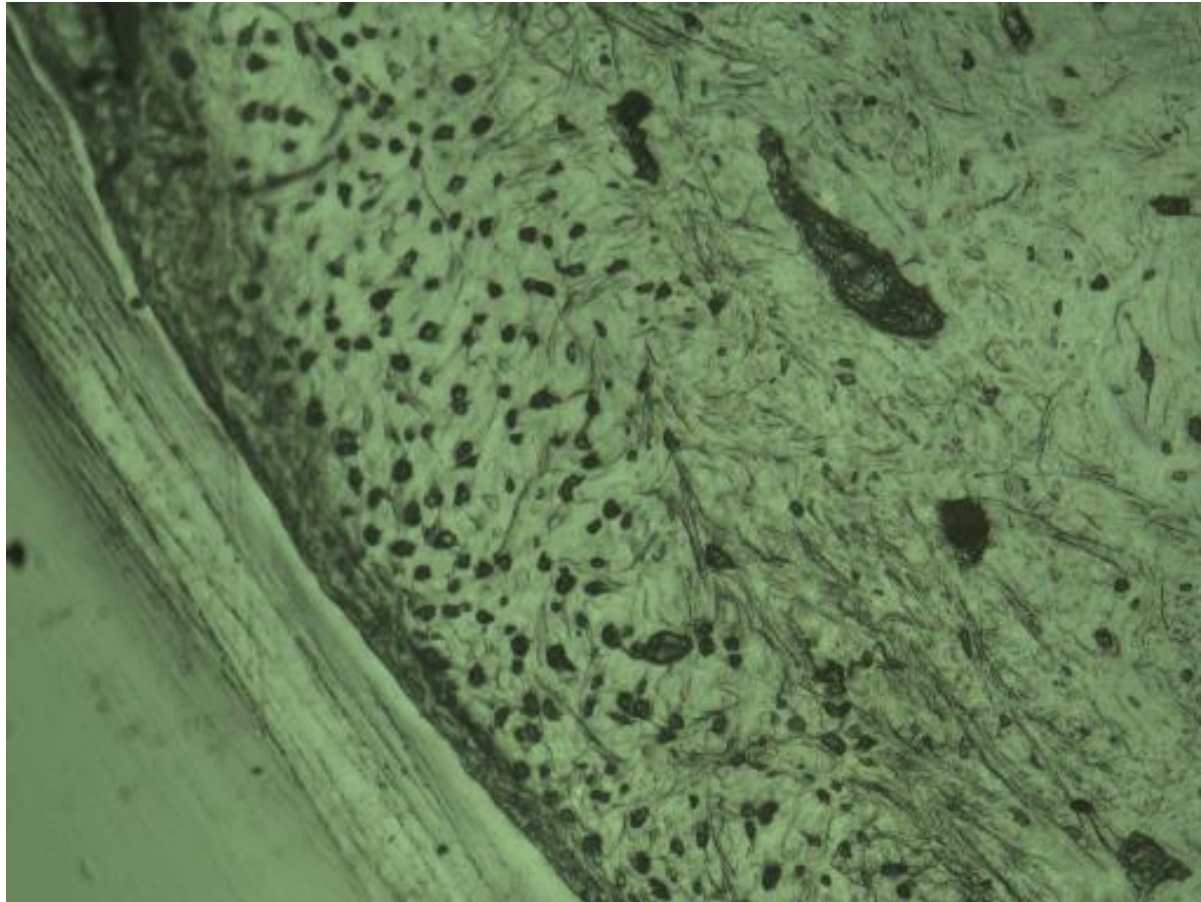
Cartilage B Point 10



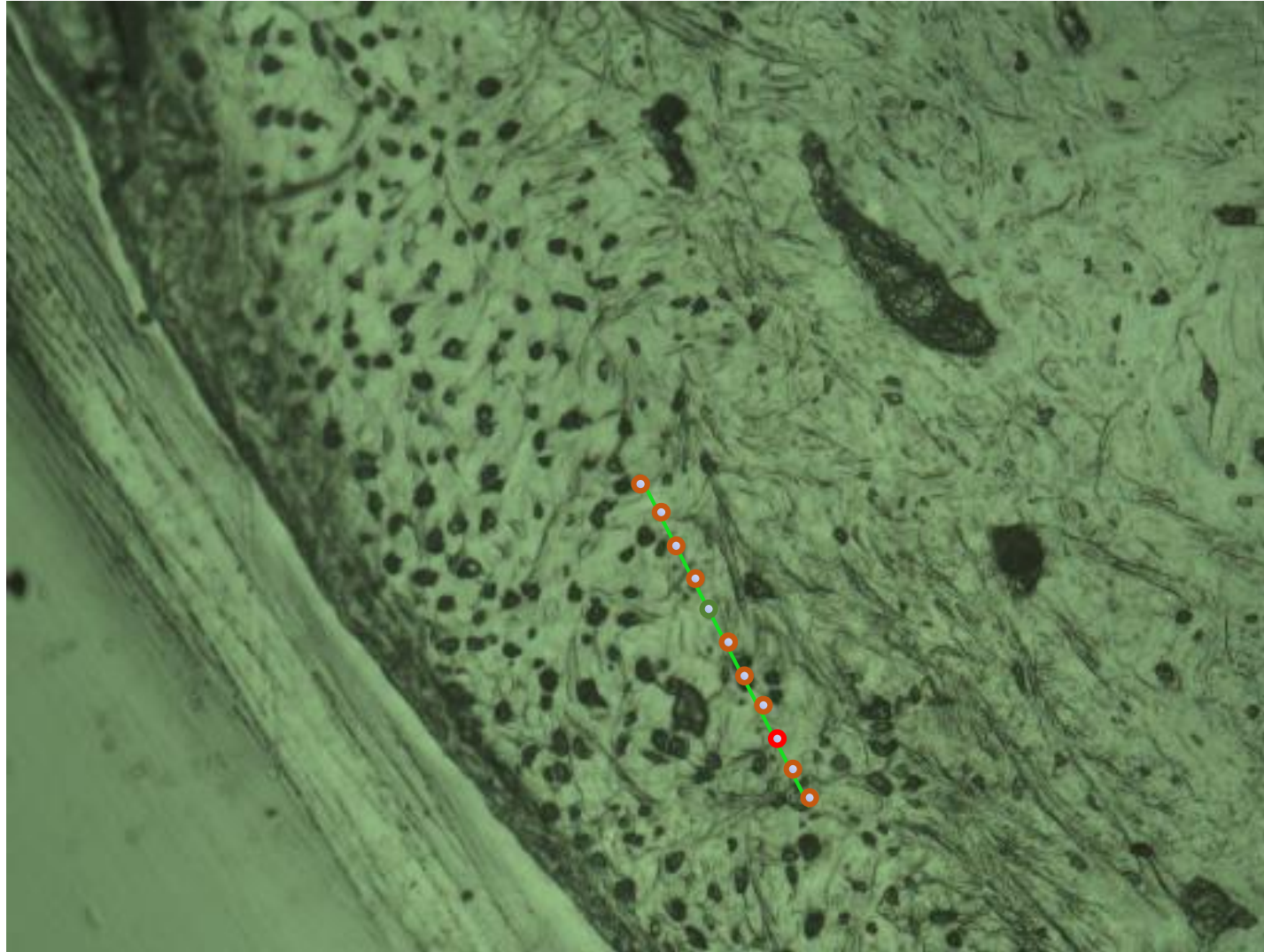
Cartilage B Point 11



C. Cartilage D2 11 points $\Delta=20\mu\text{m}$ roughness ok

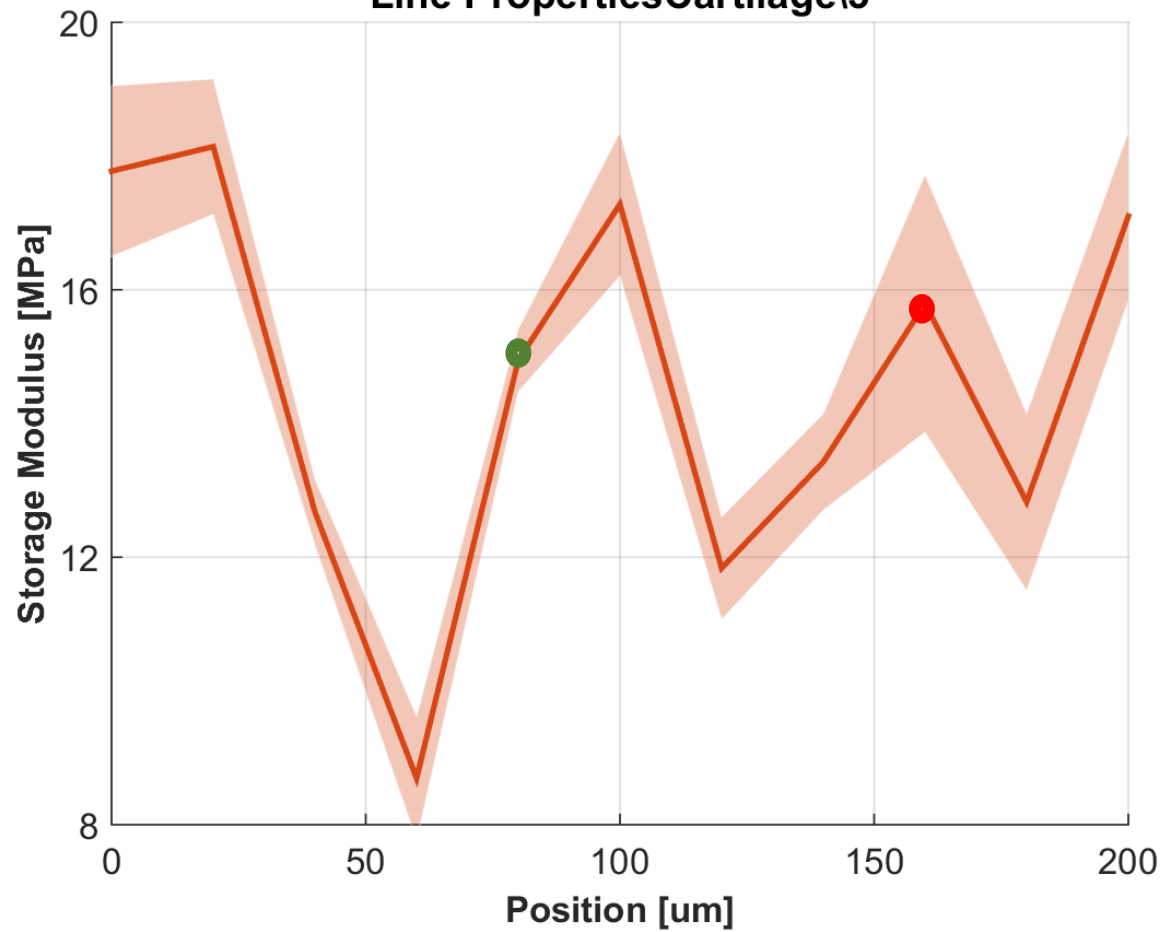


C. Cartilage D2 2a 11 points $\Delta=20\mu\text{m}$ roughness ok

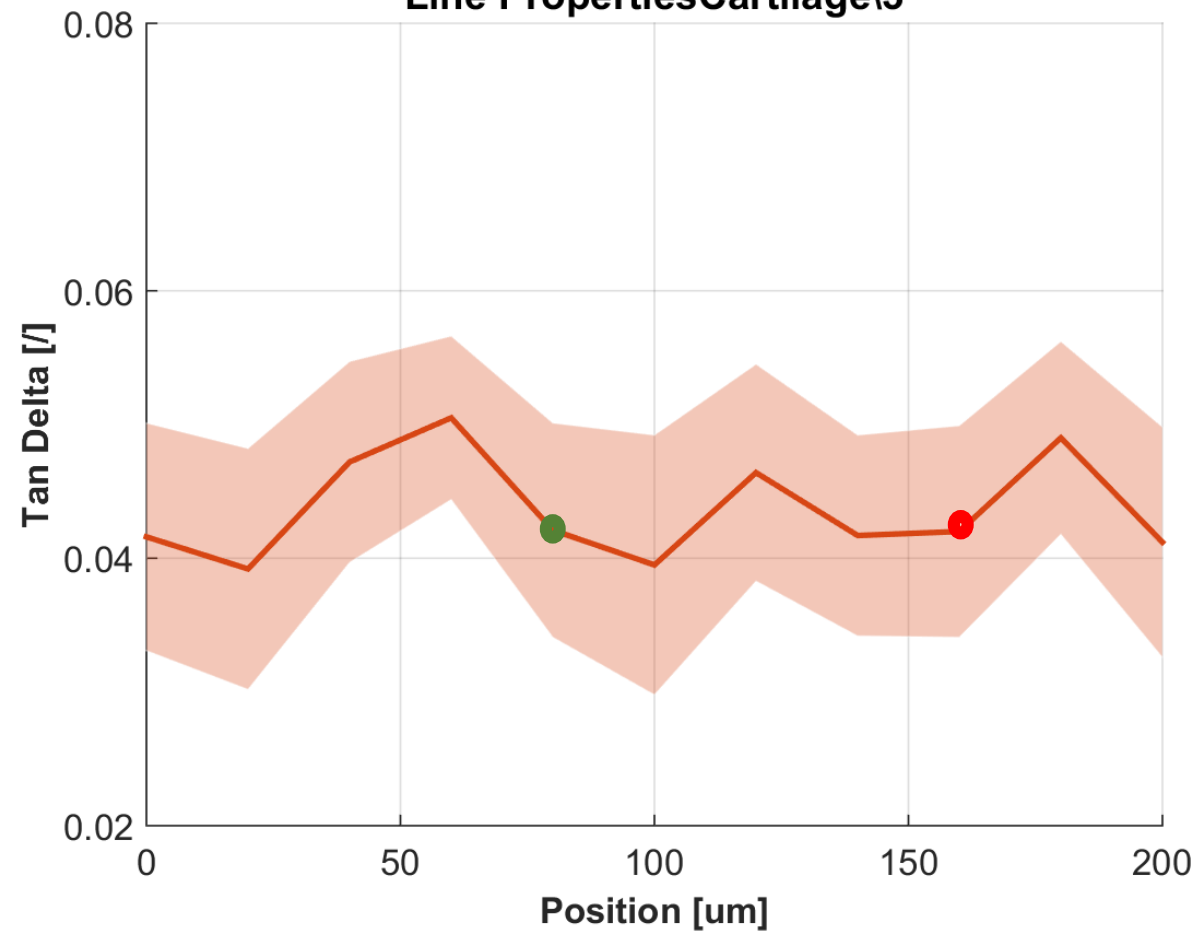


7 in hole

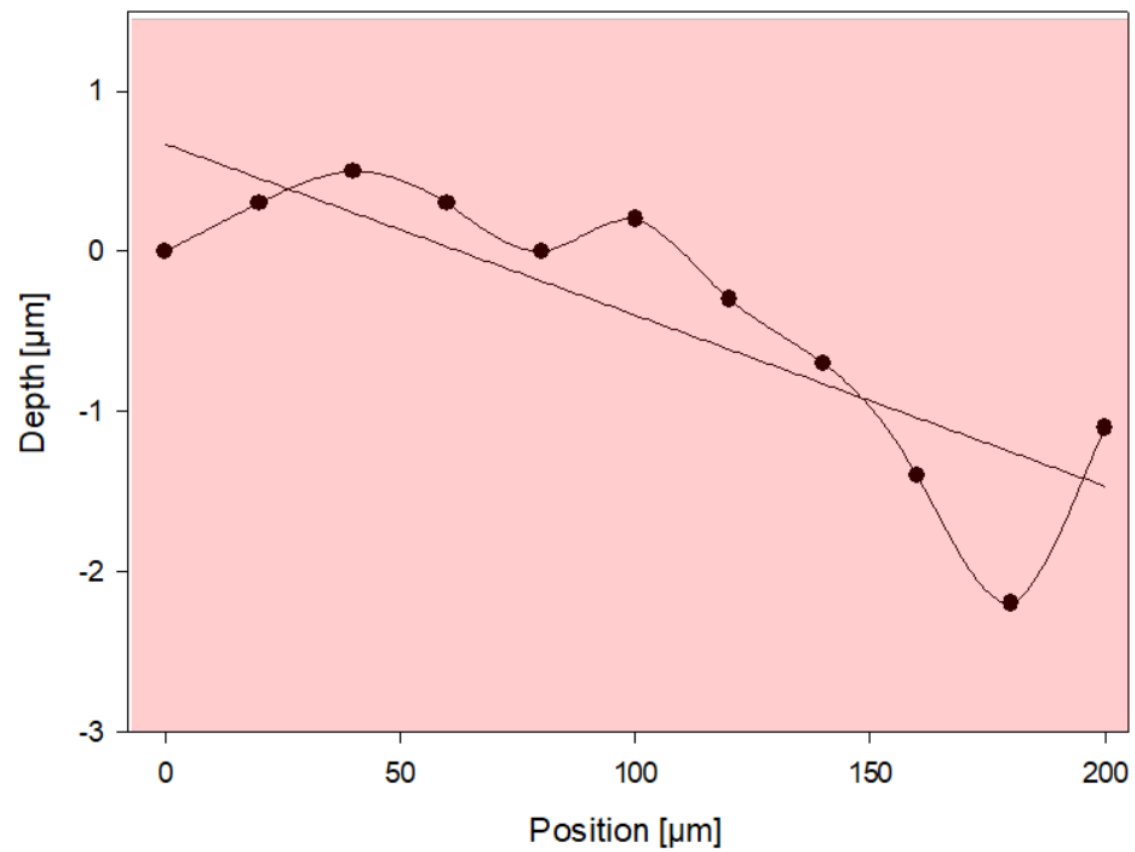
Line PropertiesCartilage\3



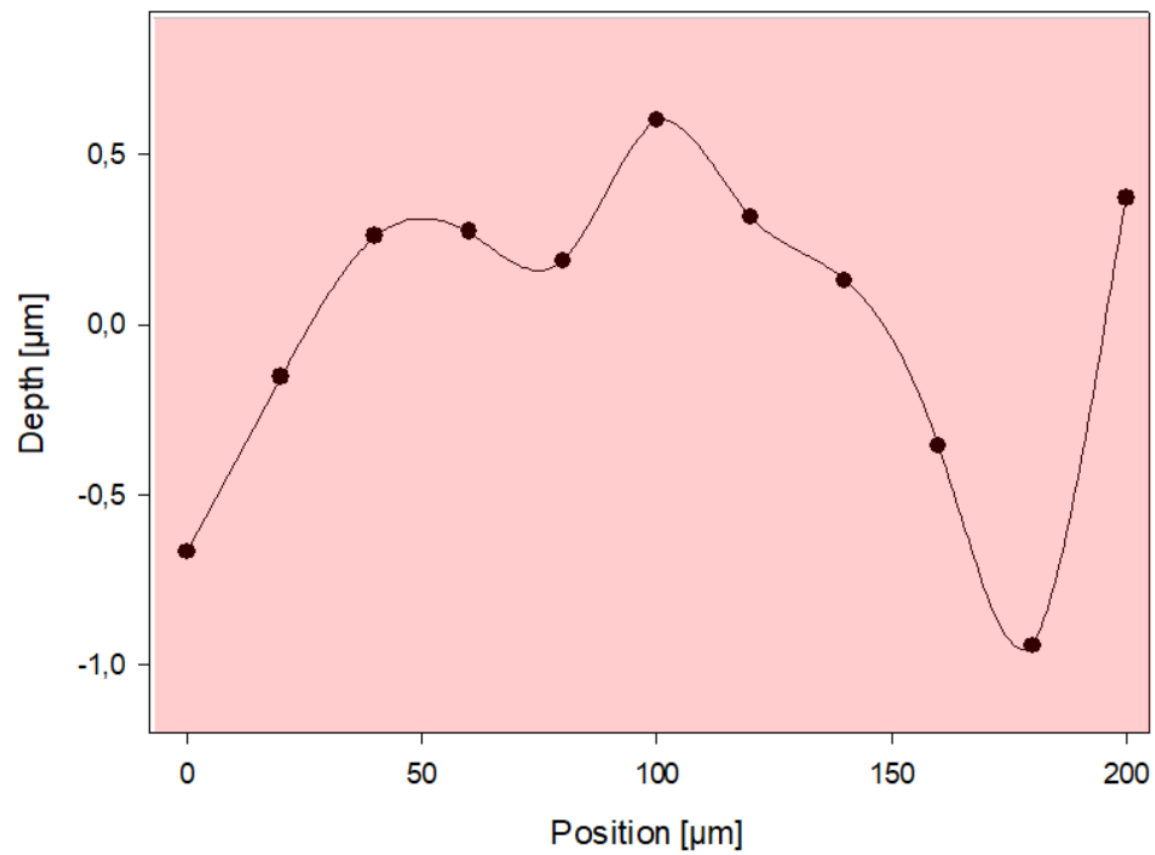
Line PropertiesCartilage\3



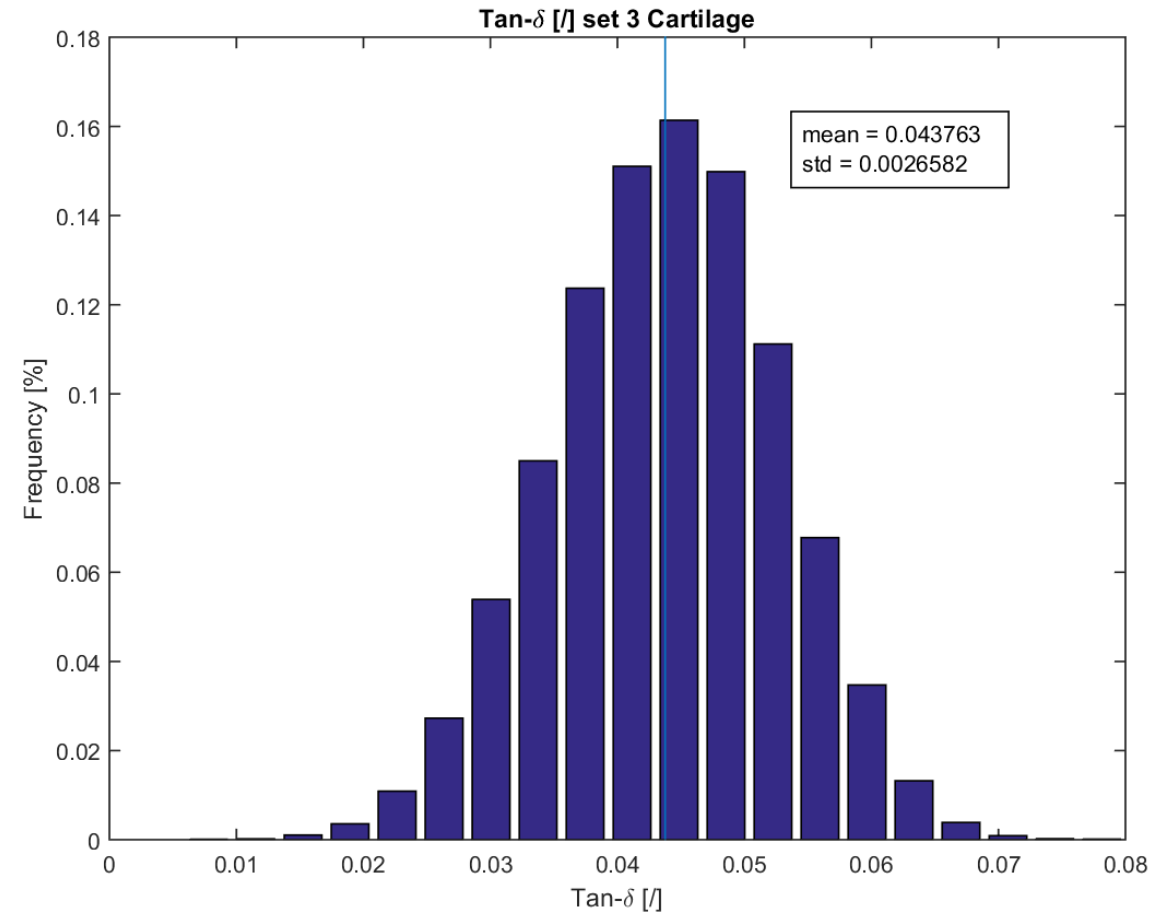
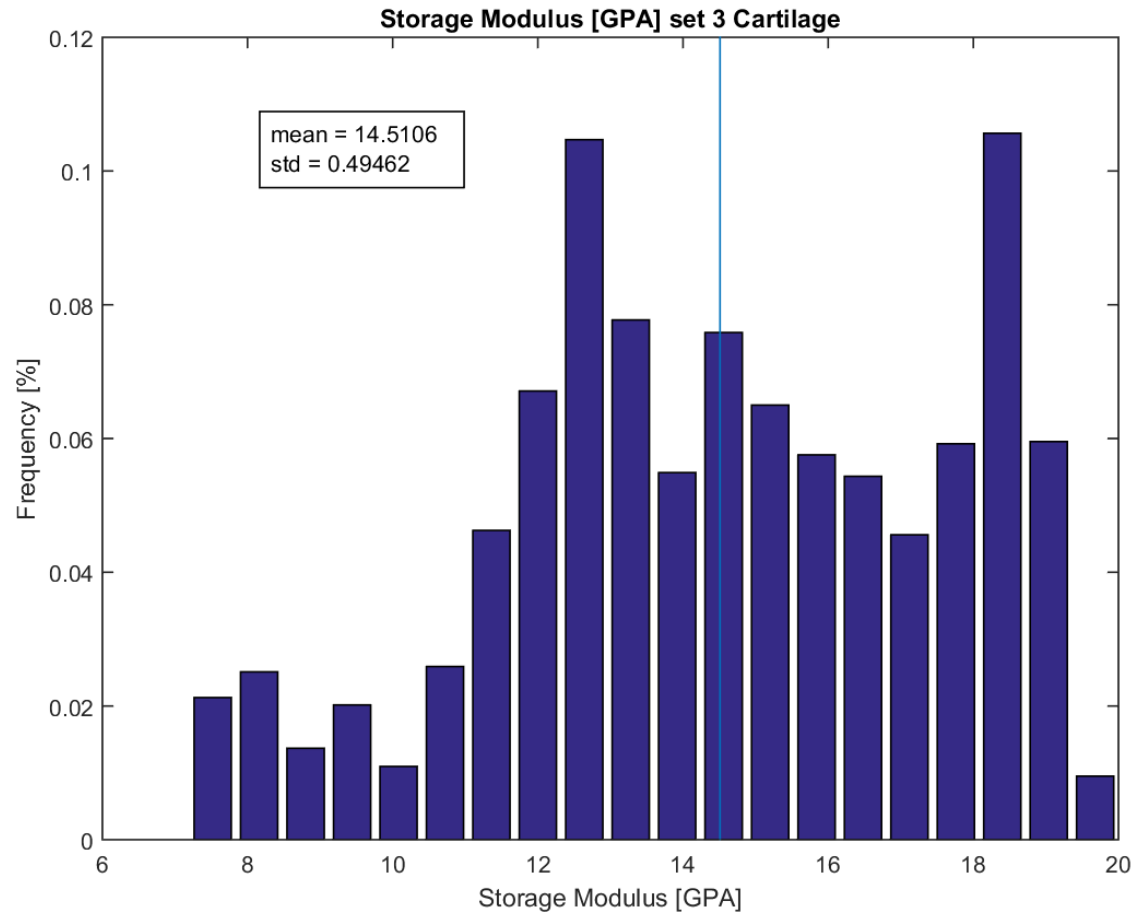
CartC



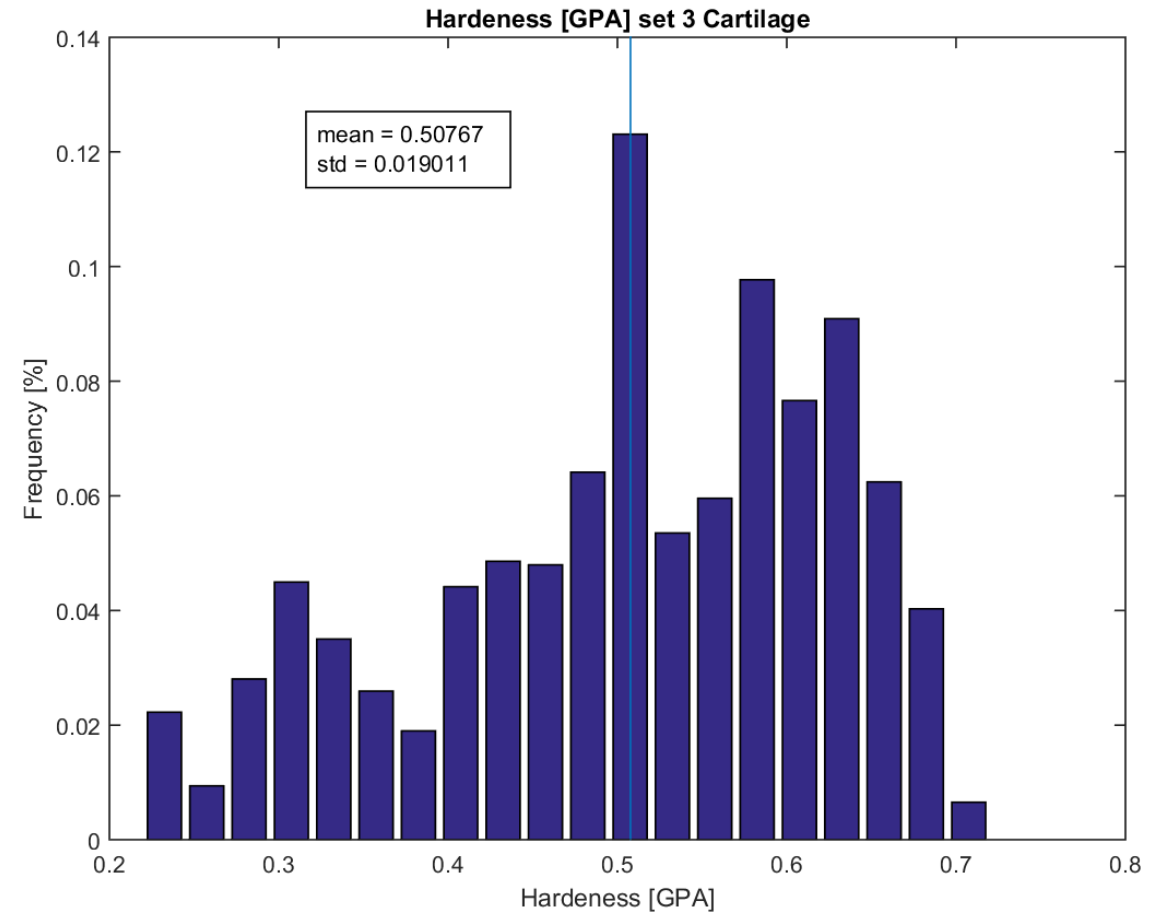
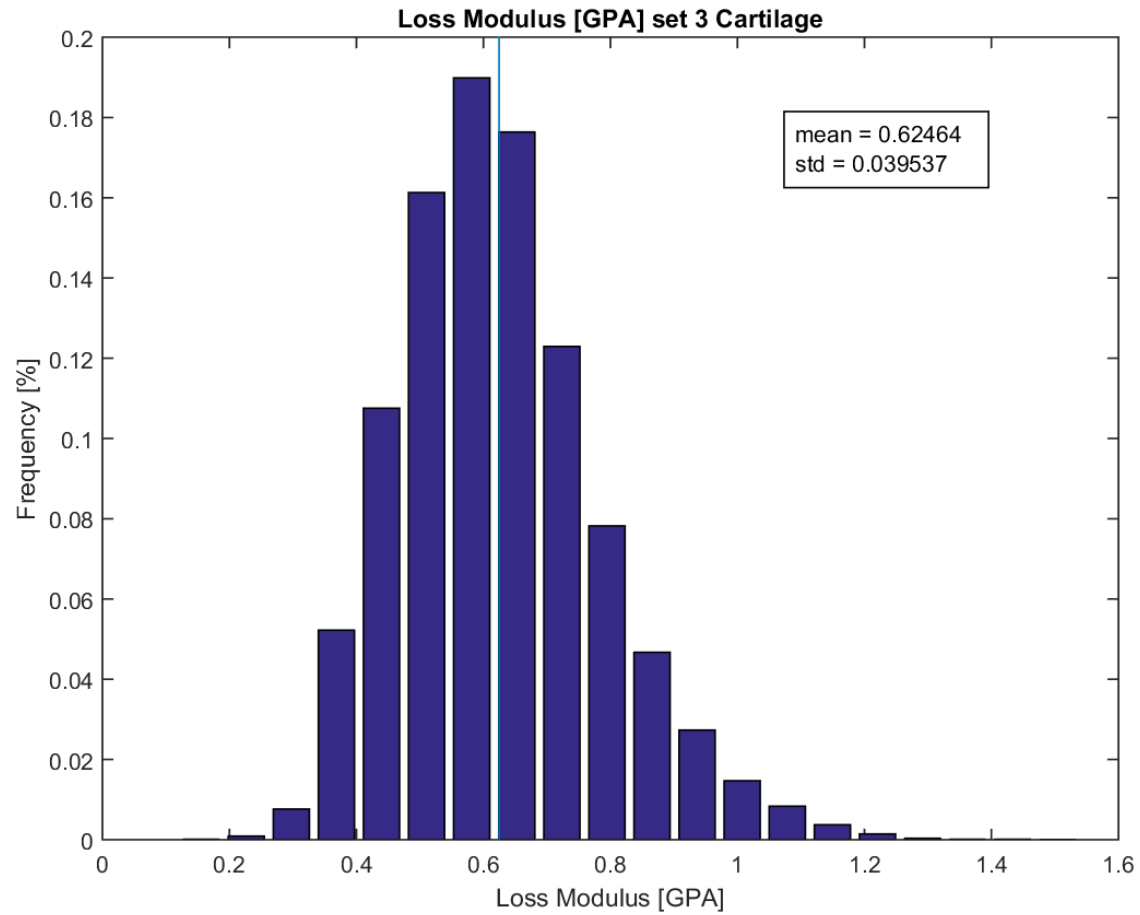
CartC w/o tilde



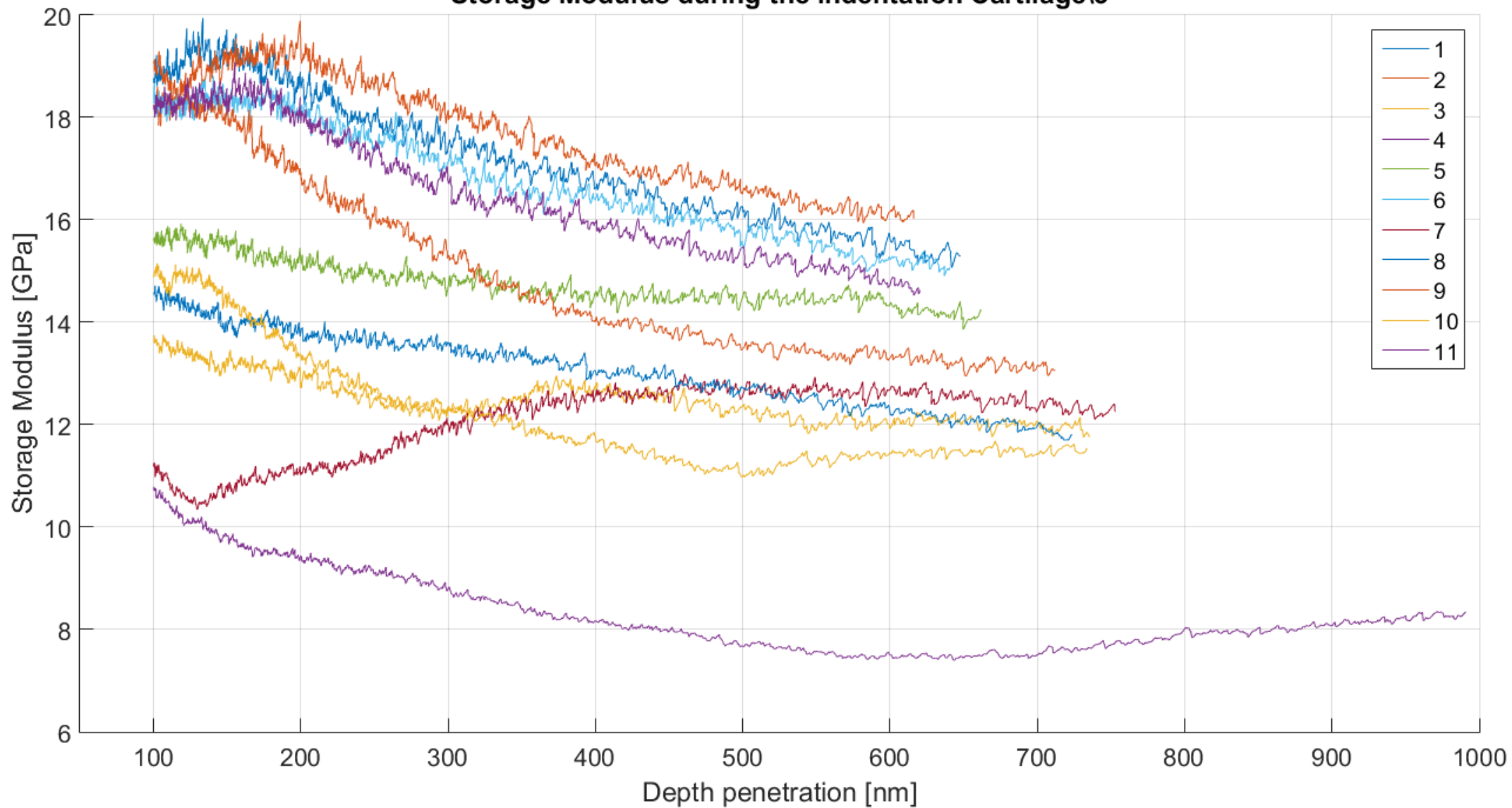
C. Complet

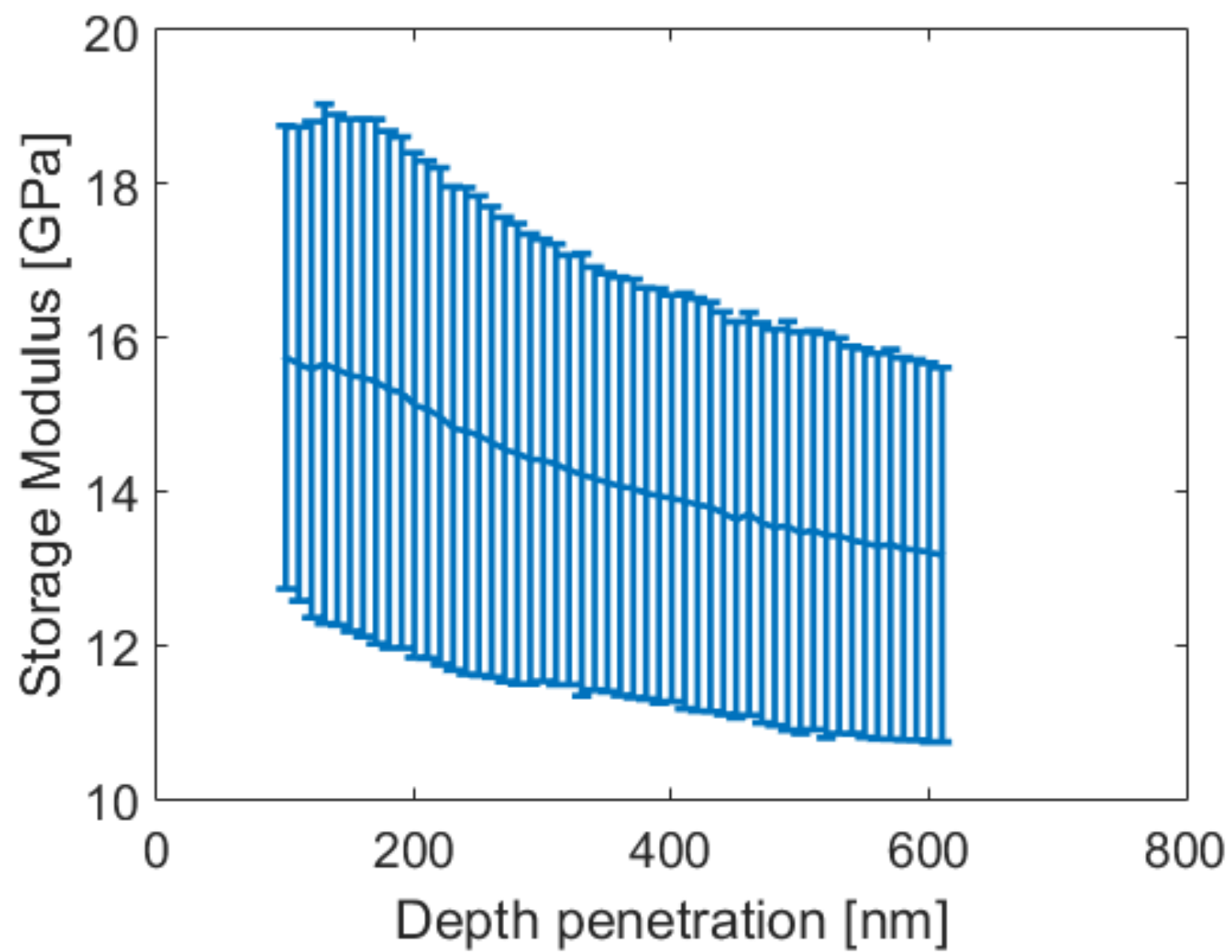


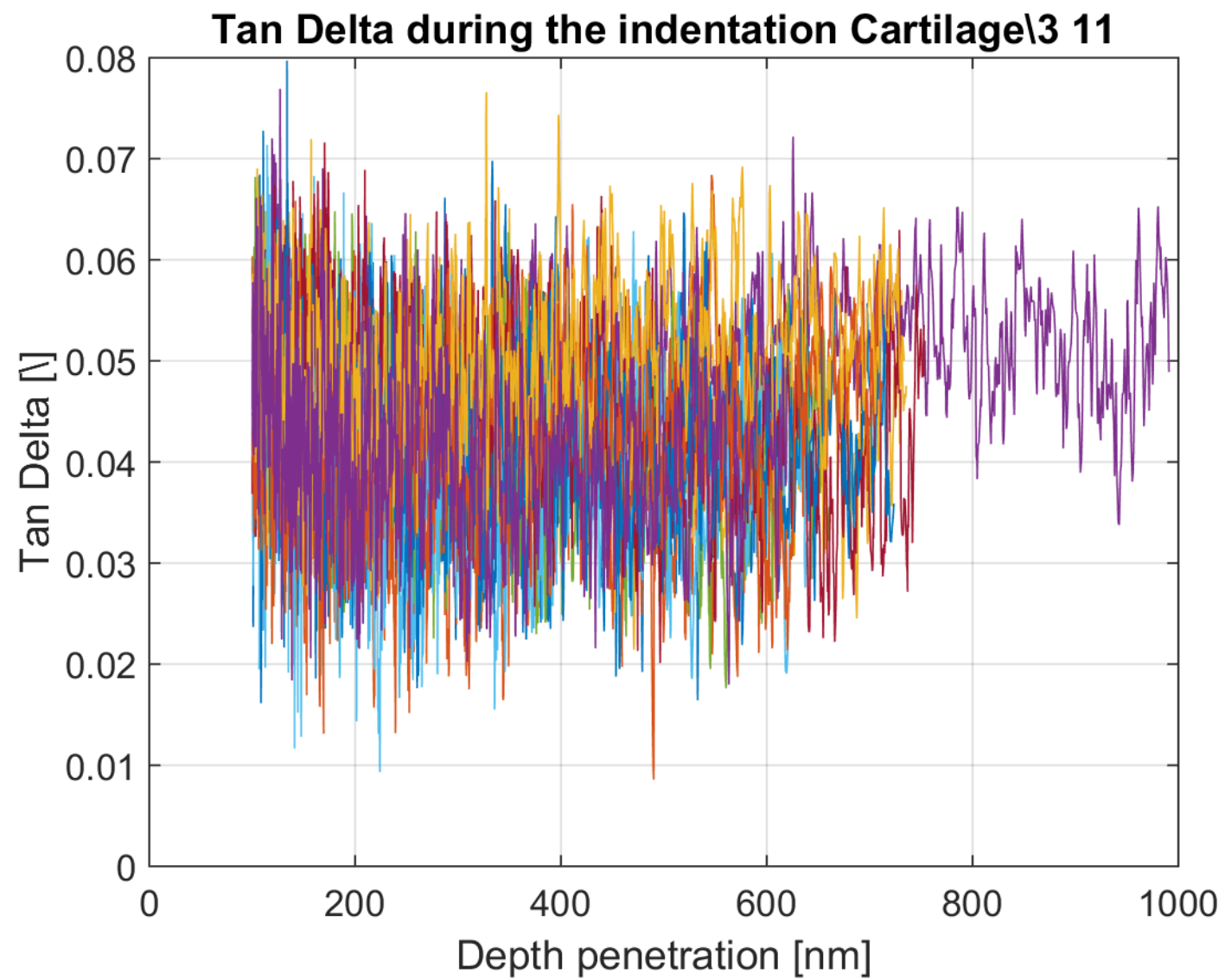
C. Complet

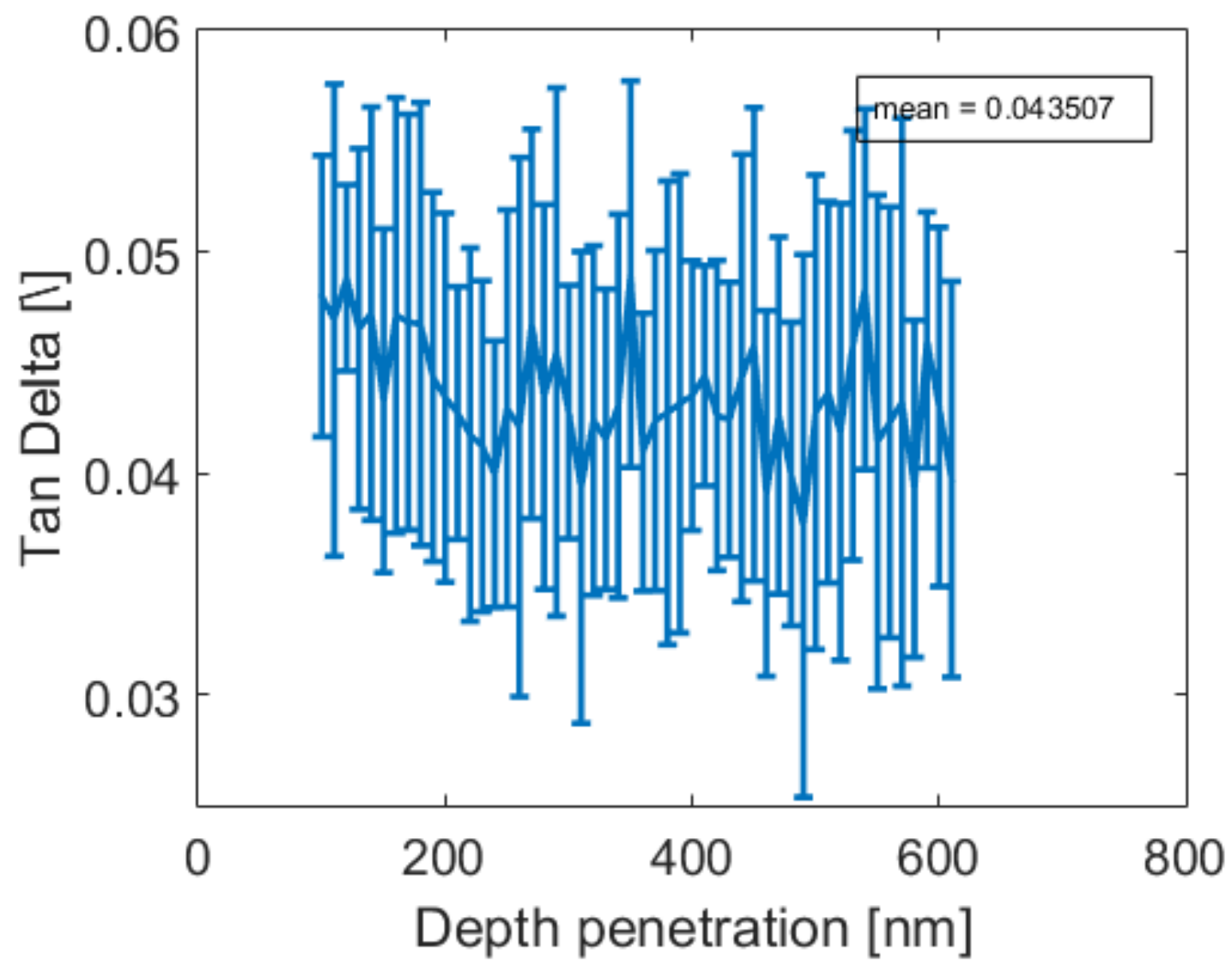


Storage Modulus during the indentation Cartilage\3

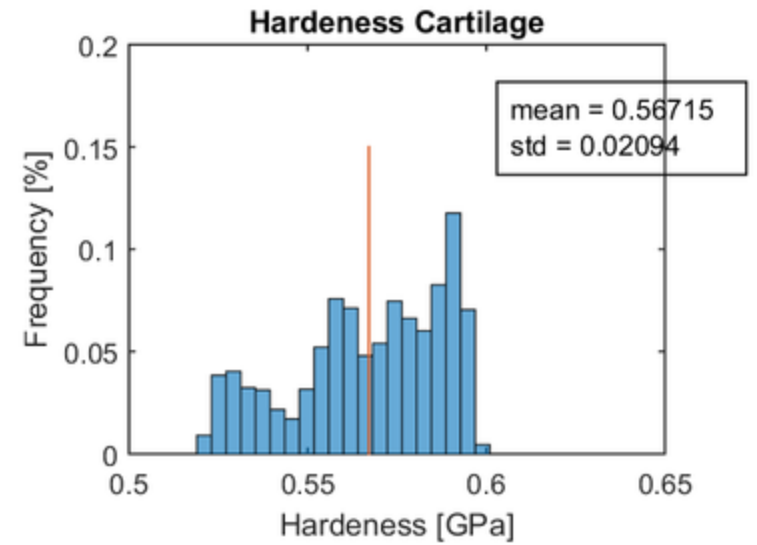
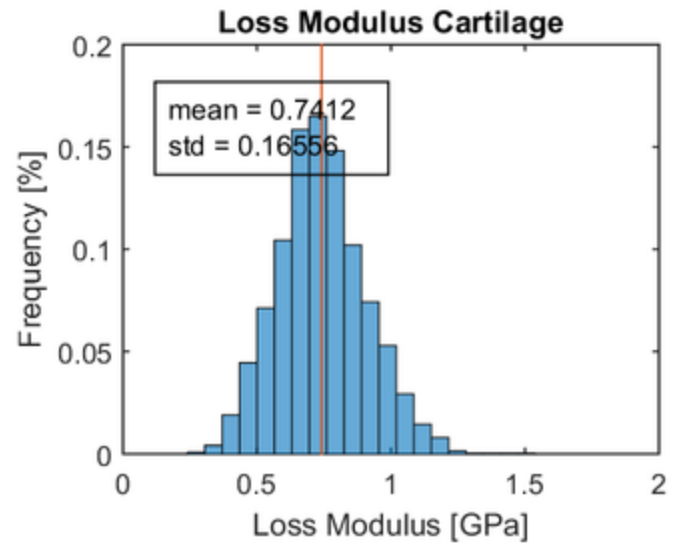
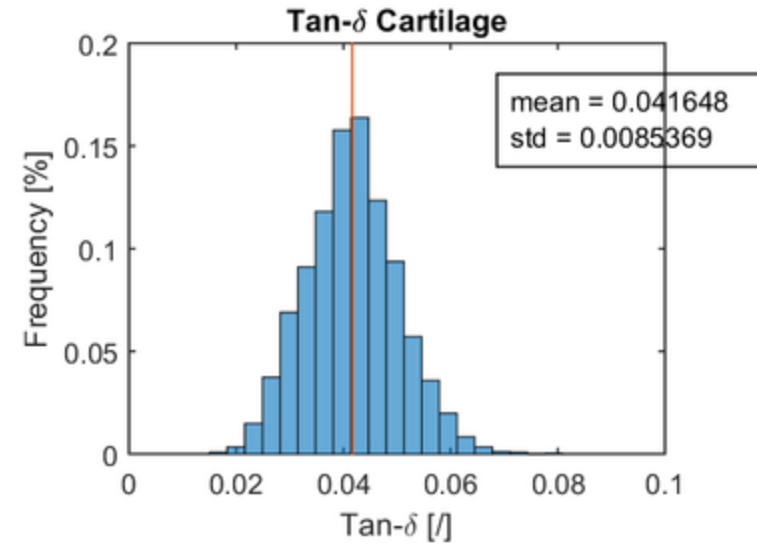
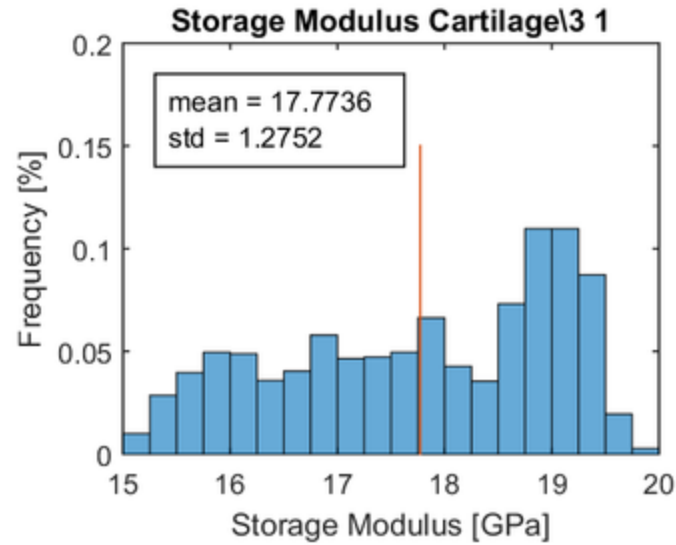




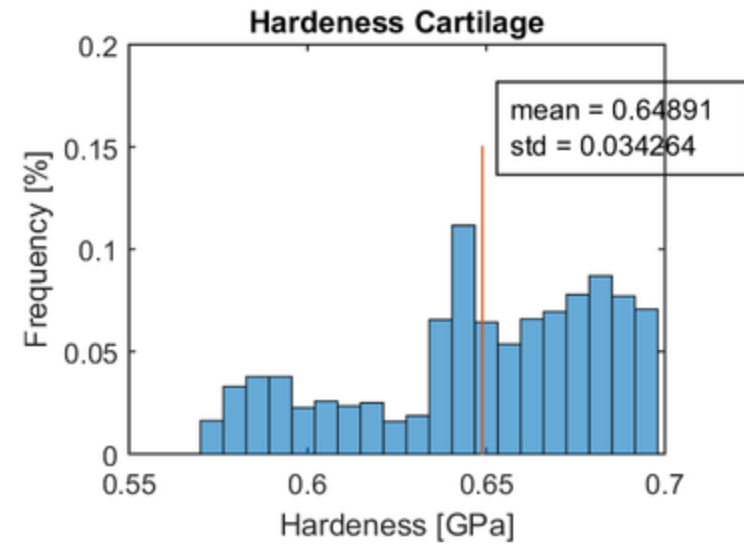
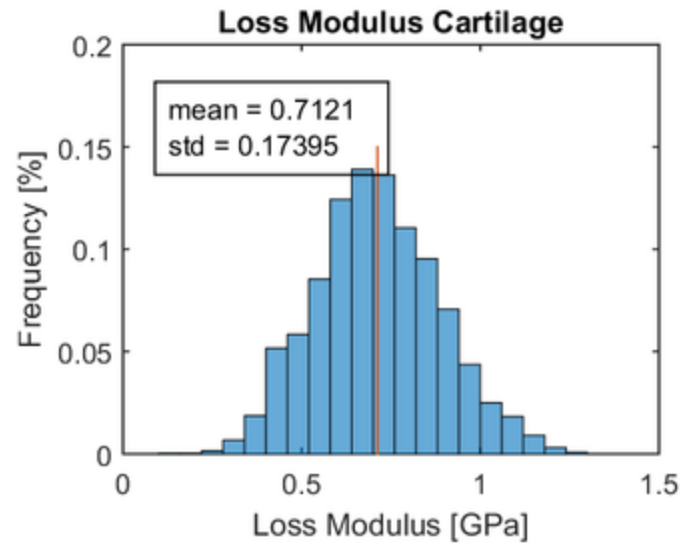
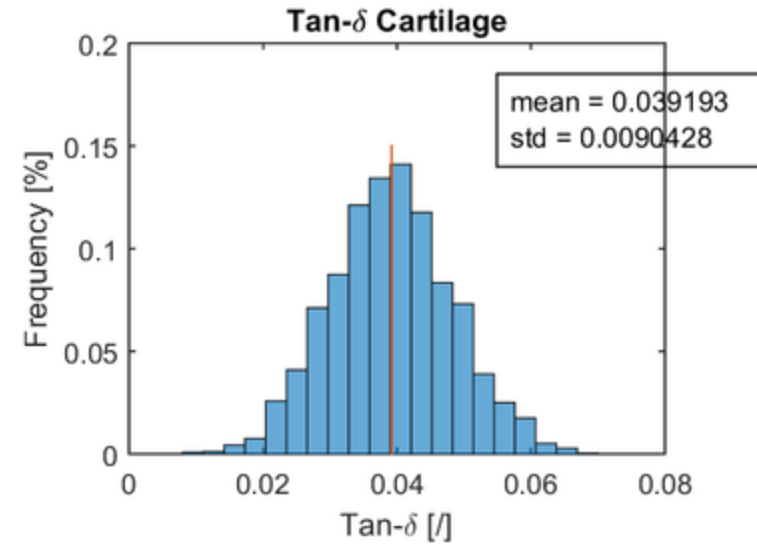
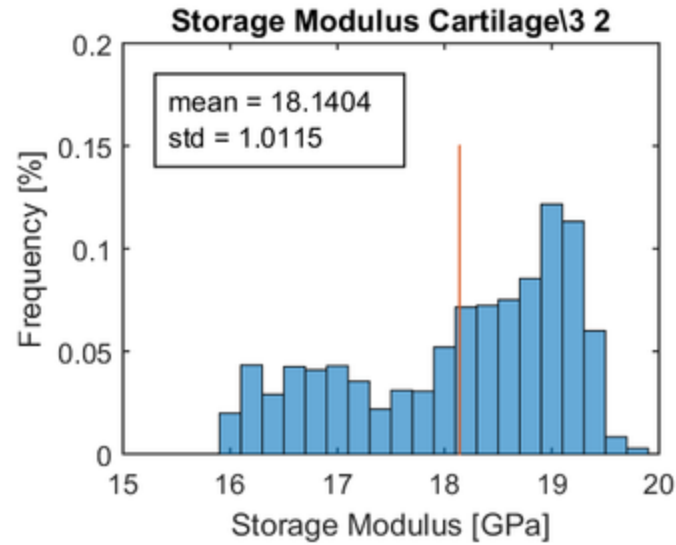




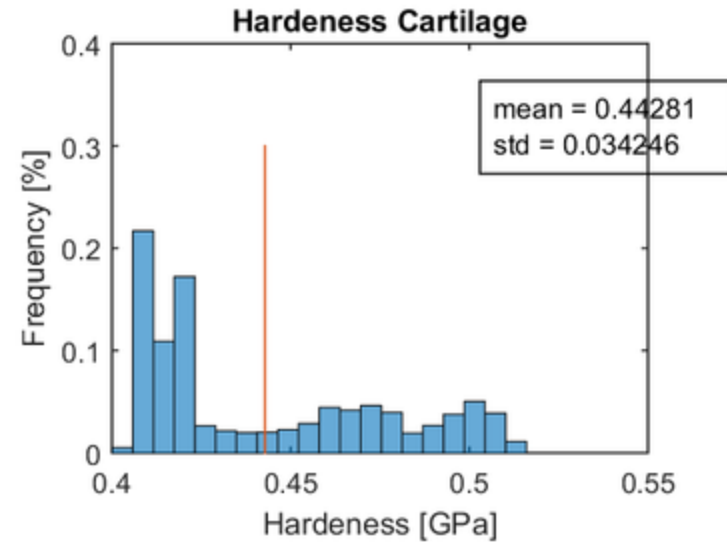
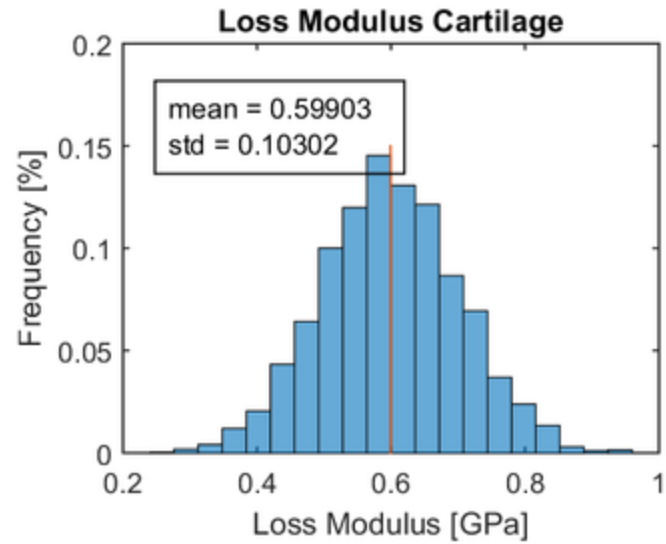
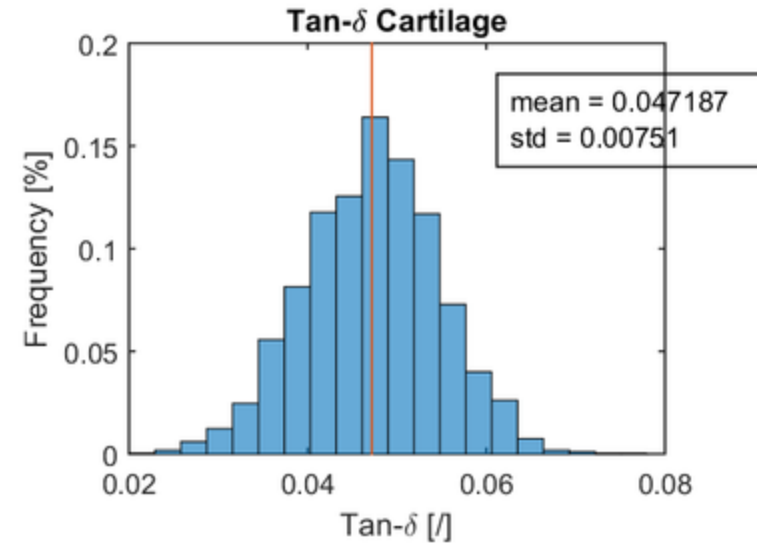
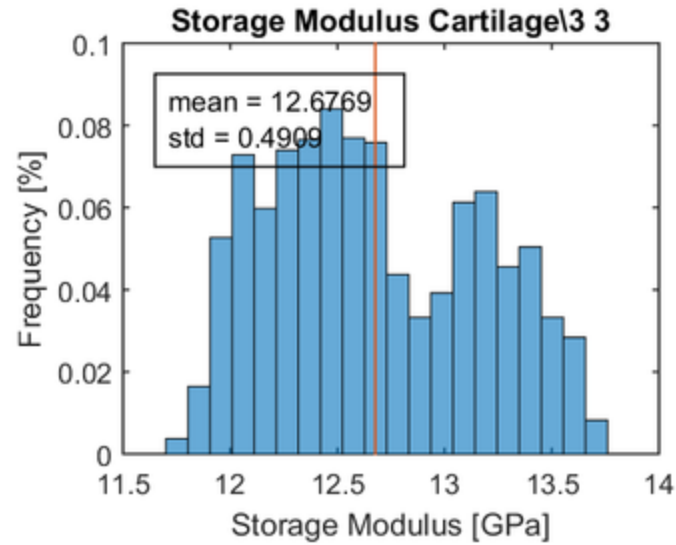
Cartilage C Point 1



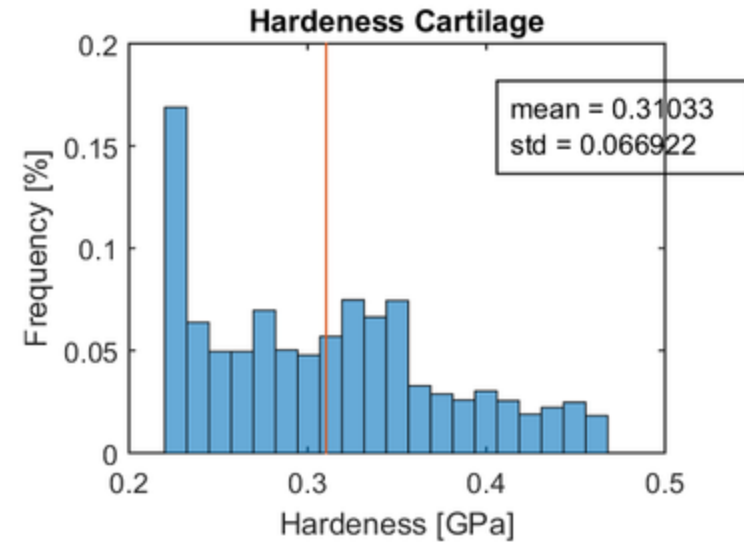
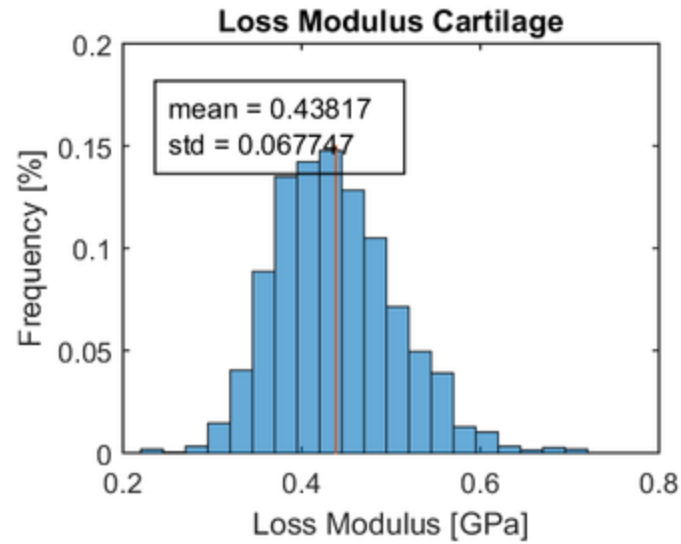
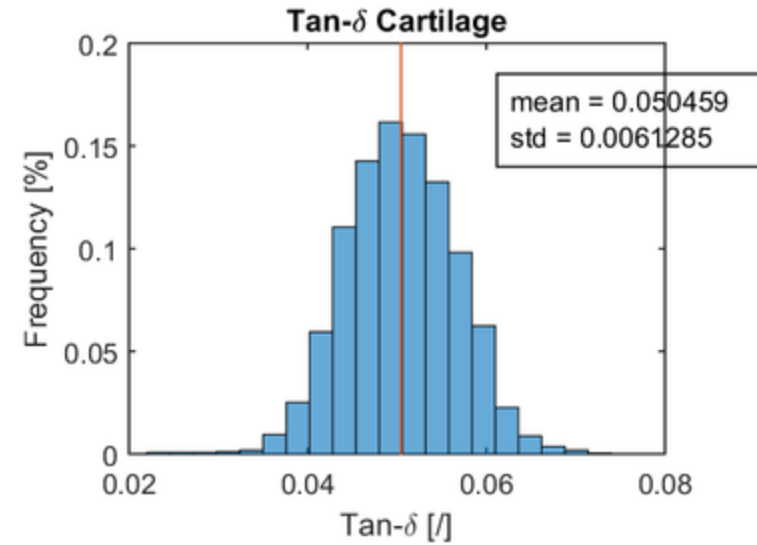
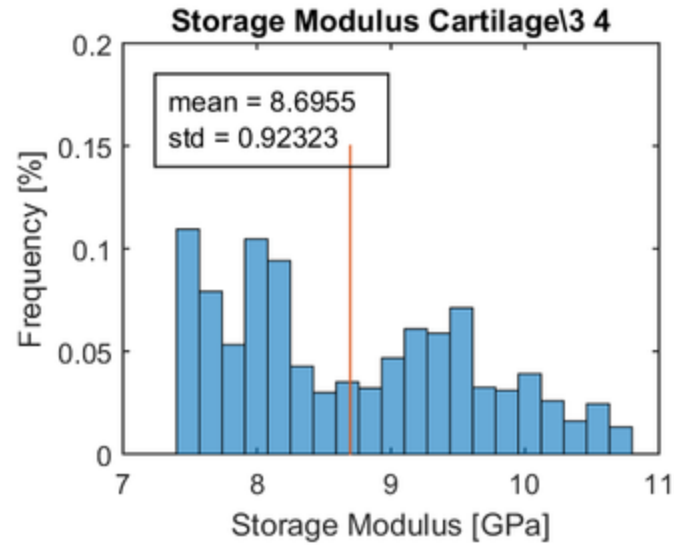
Cartilage C Point 2



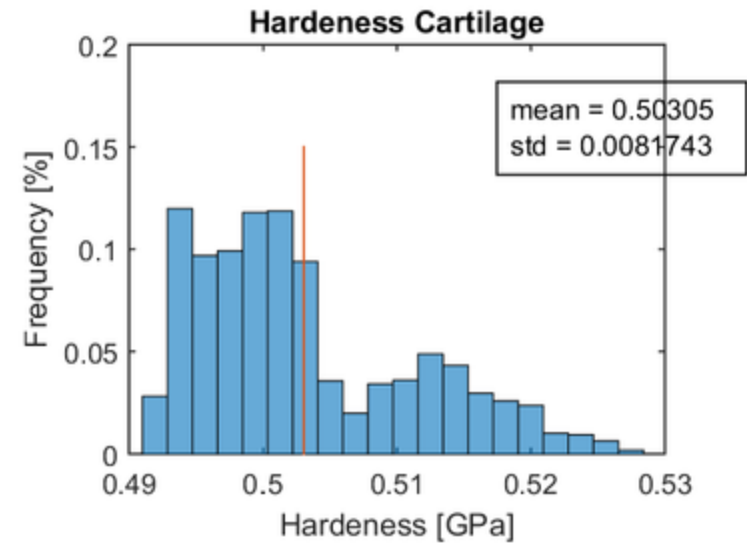
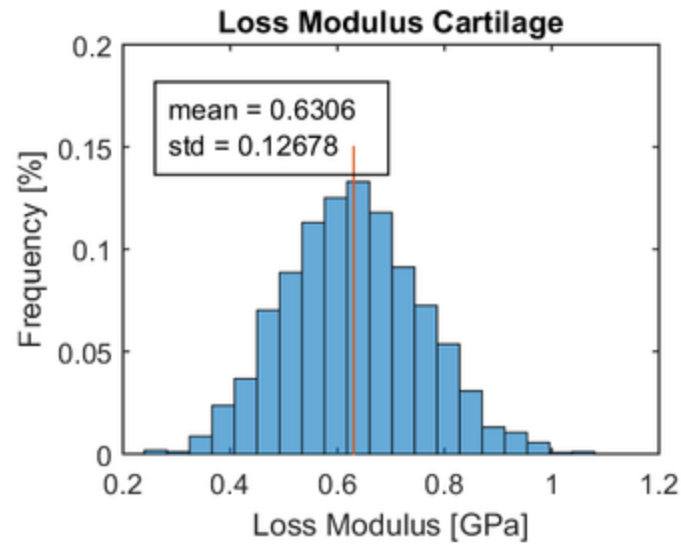
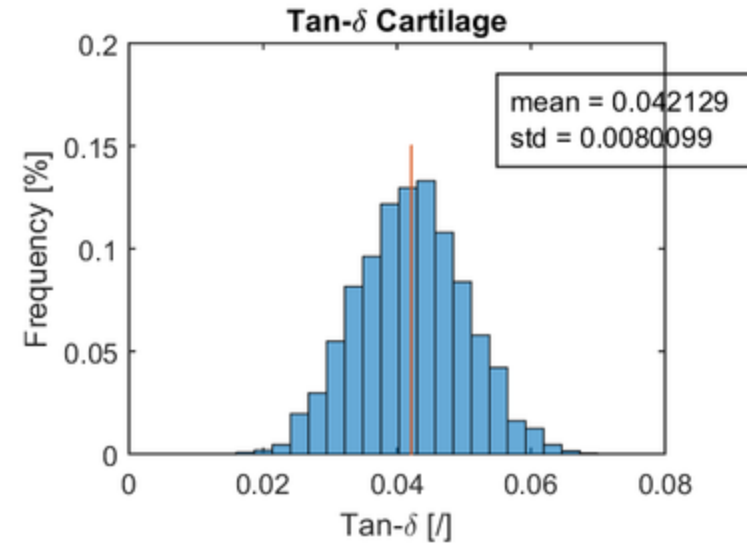
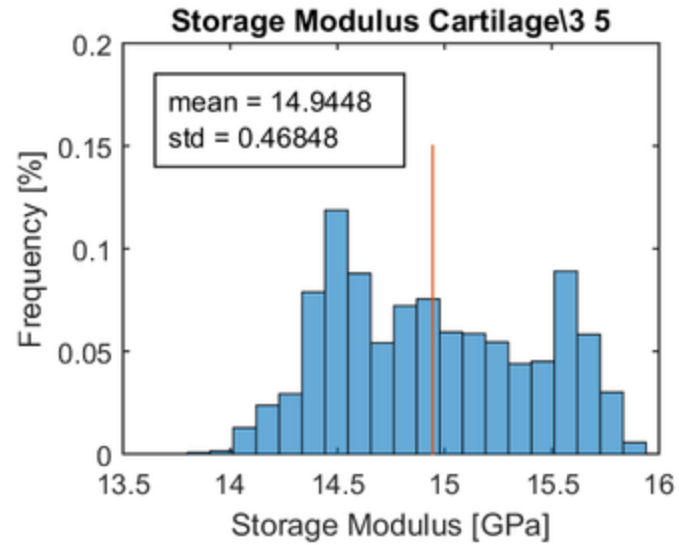
Cartilage C Point 3



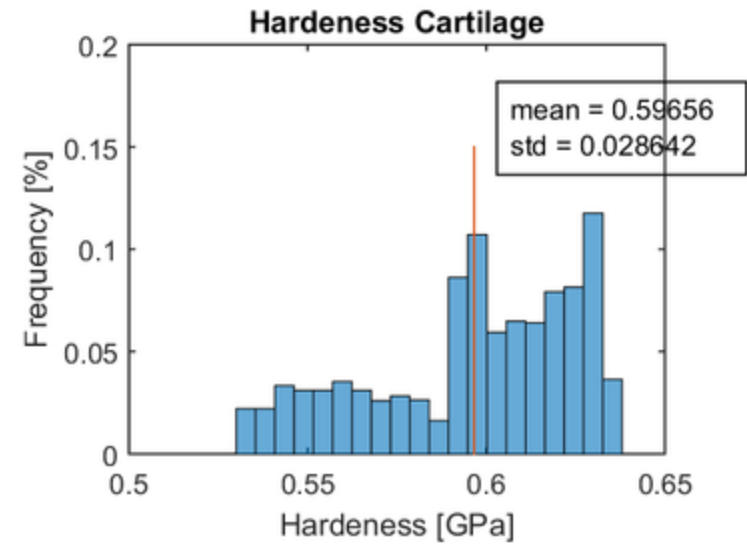
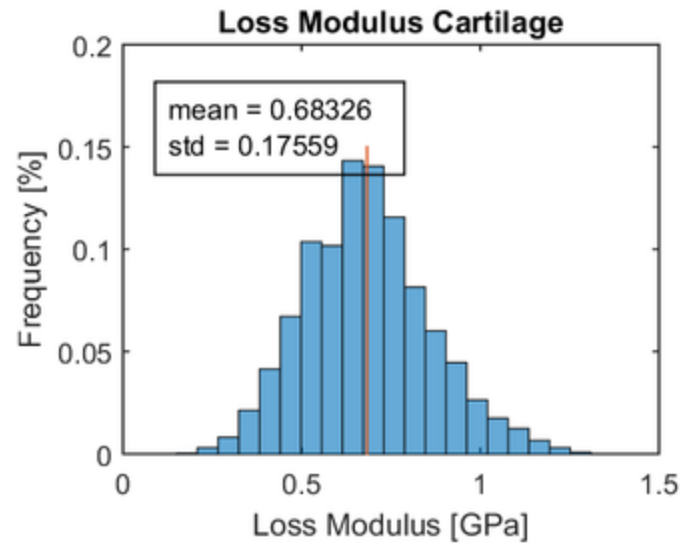
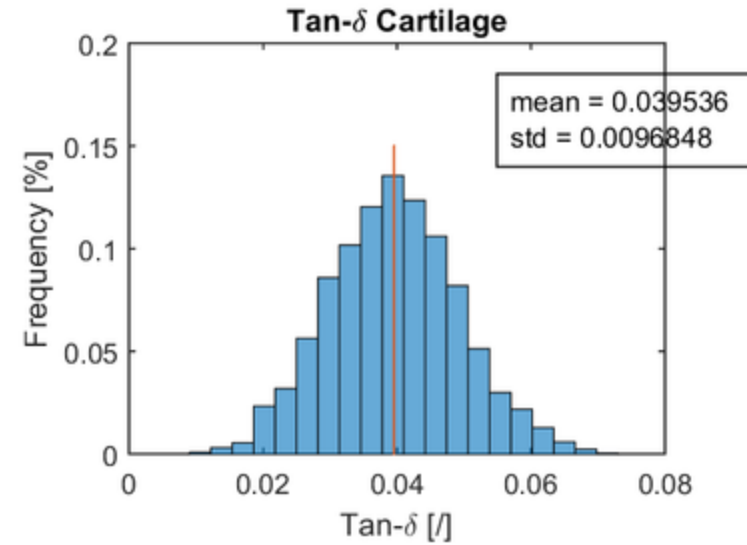
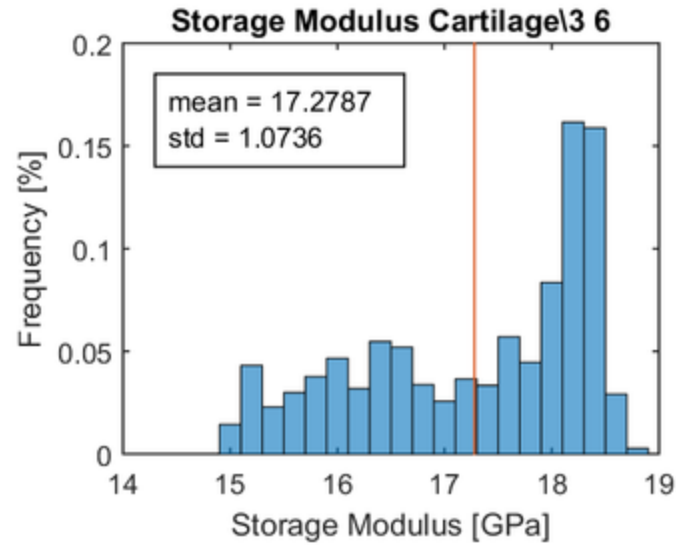
Cartilage C Point 4



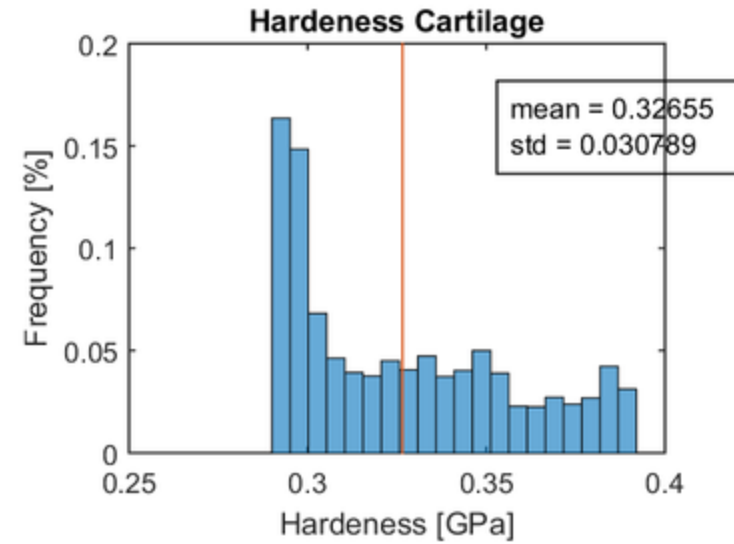
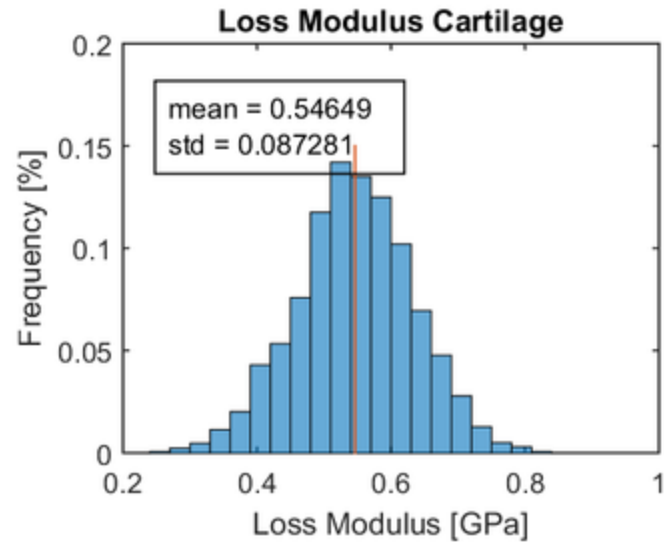
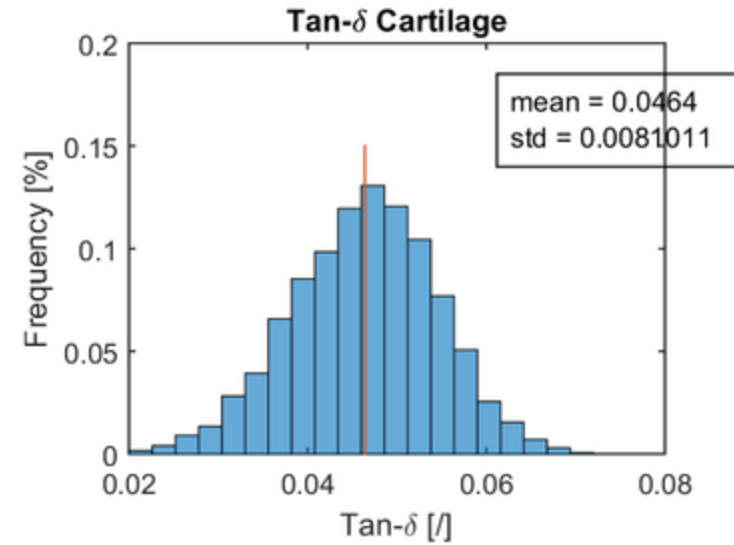
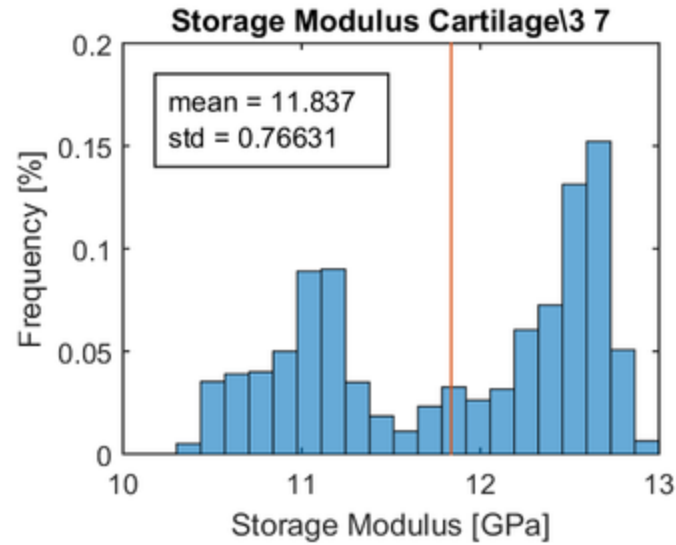
Cartilage C Point 5



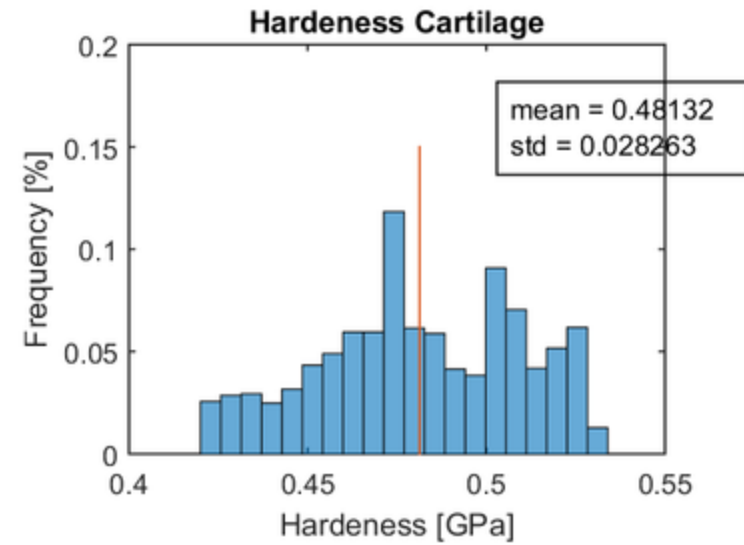
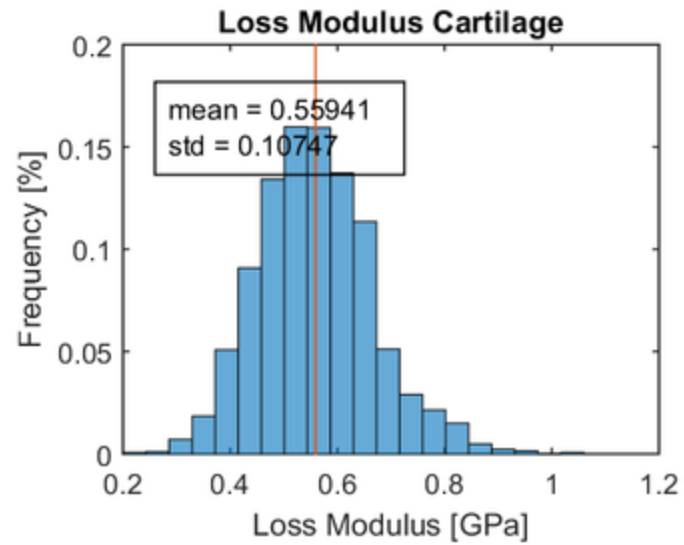
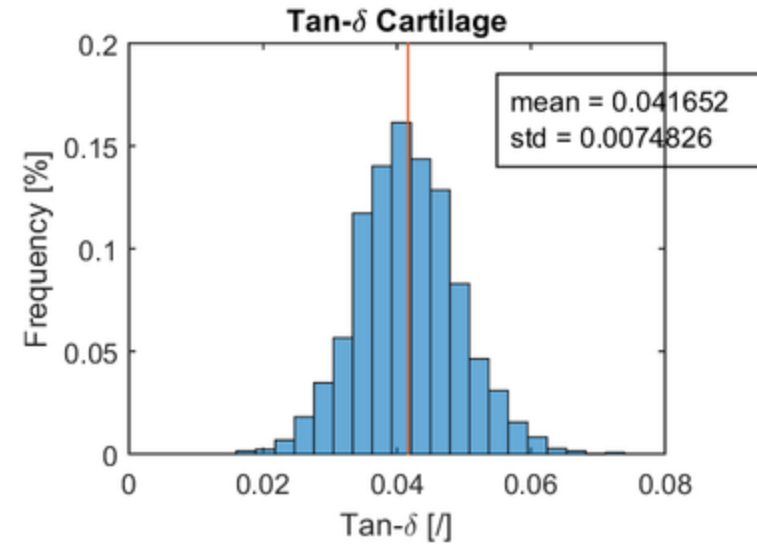
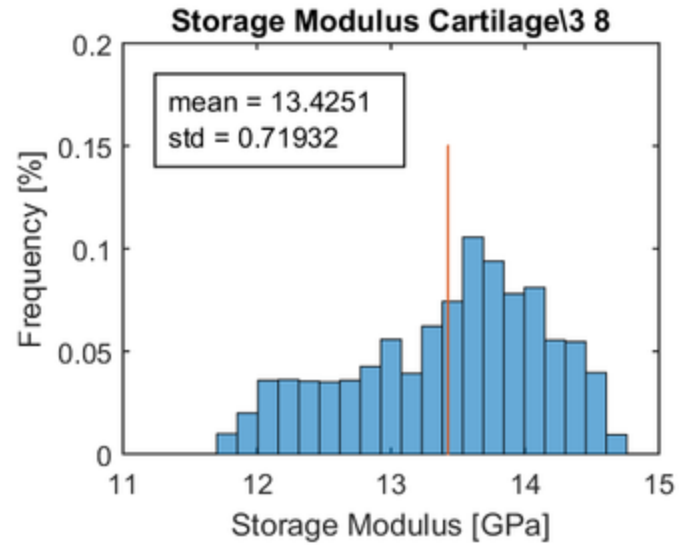
Cartilage C Point 6



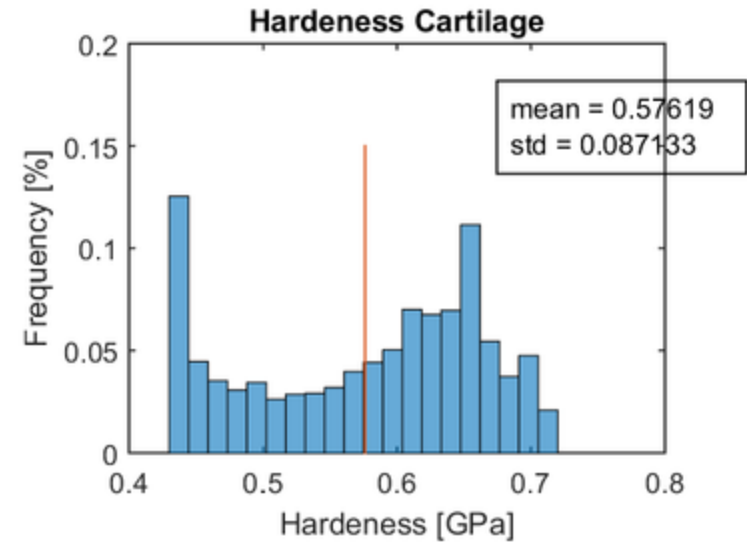
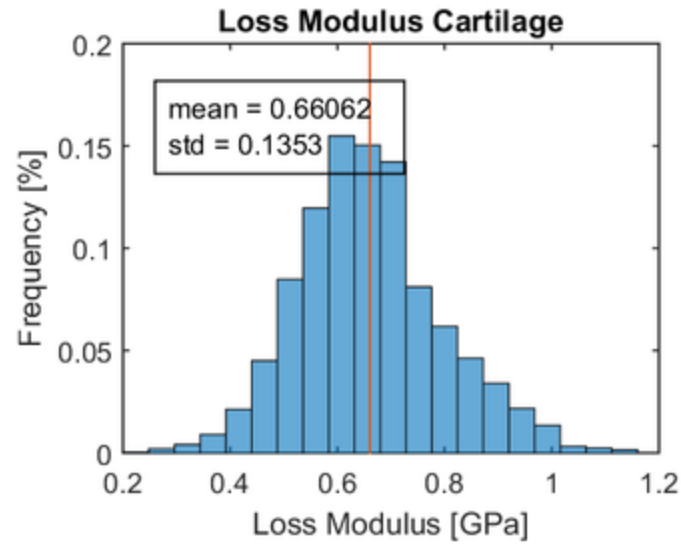
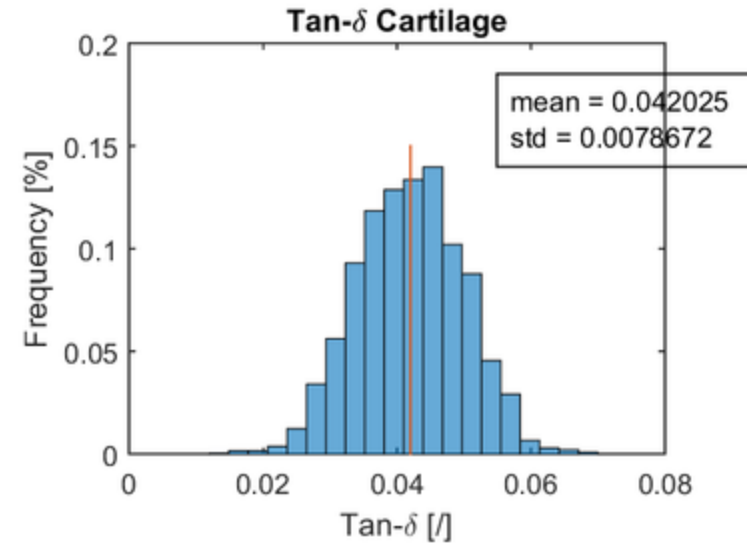
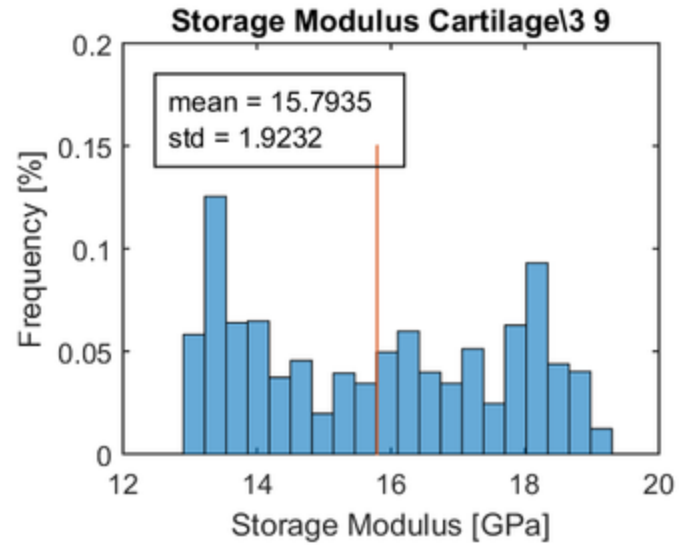
Cartilage C Point 7



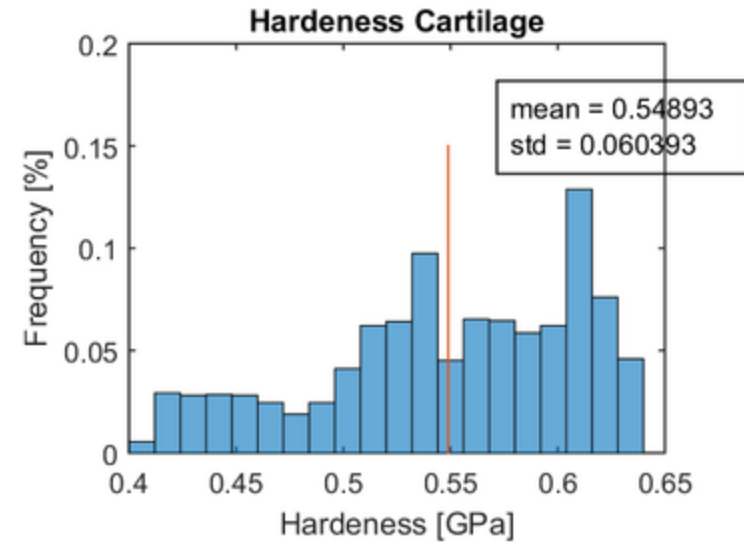
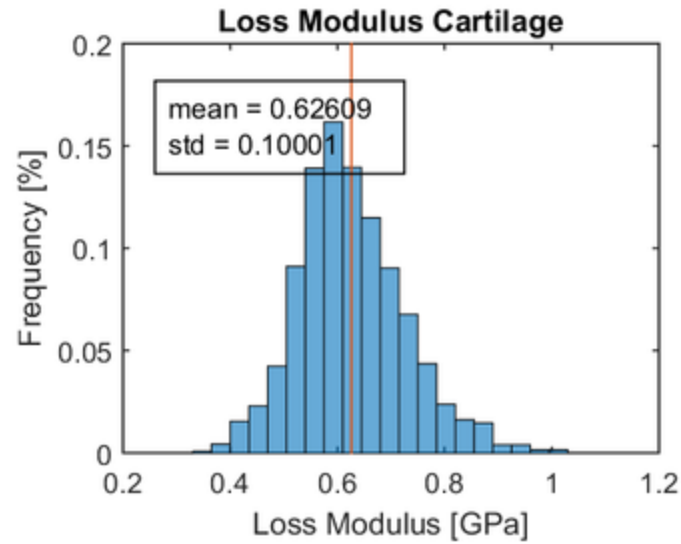
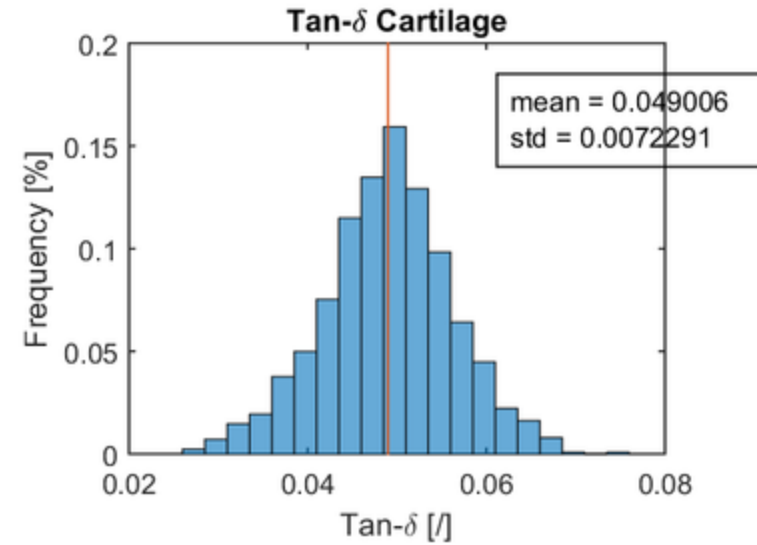
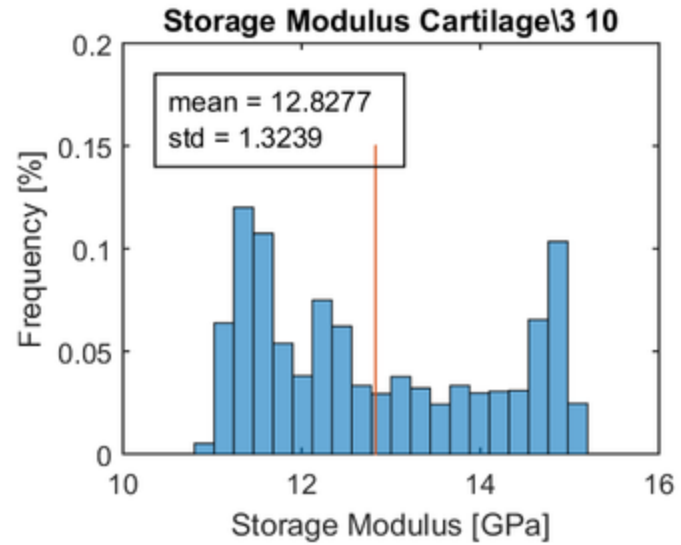
Cartilage C Point 8



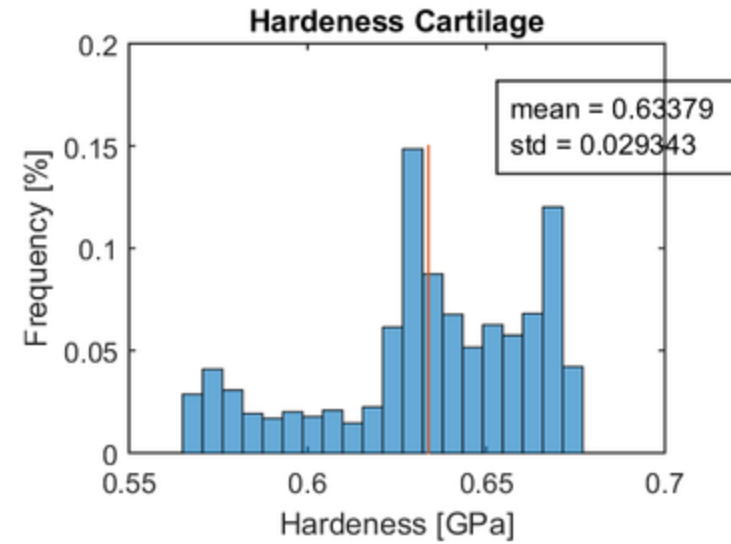
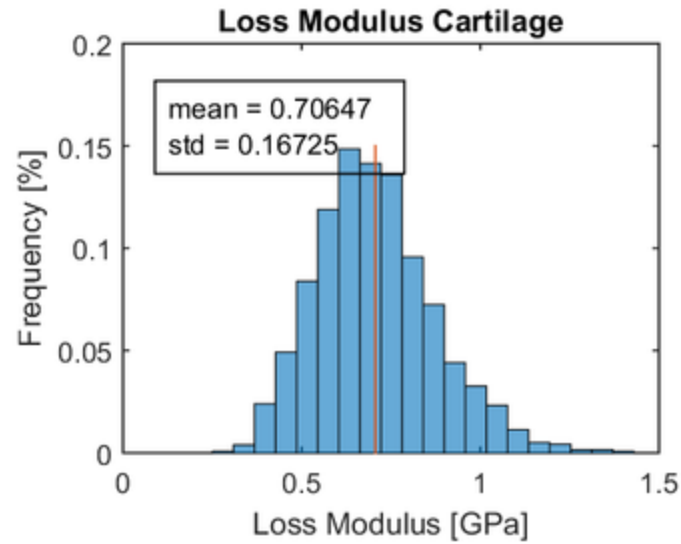
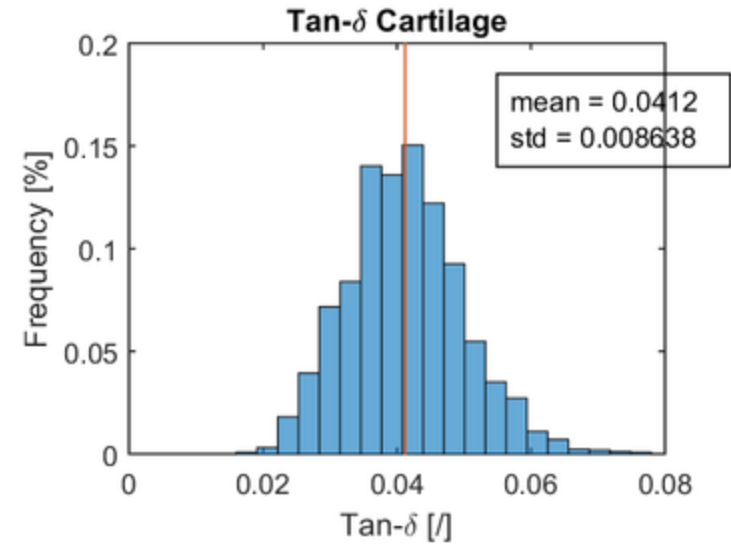
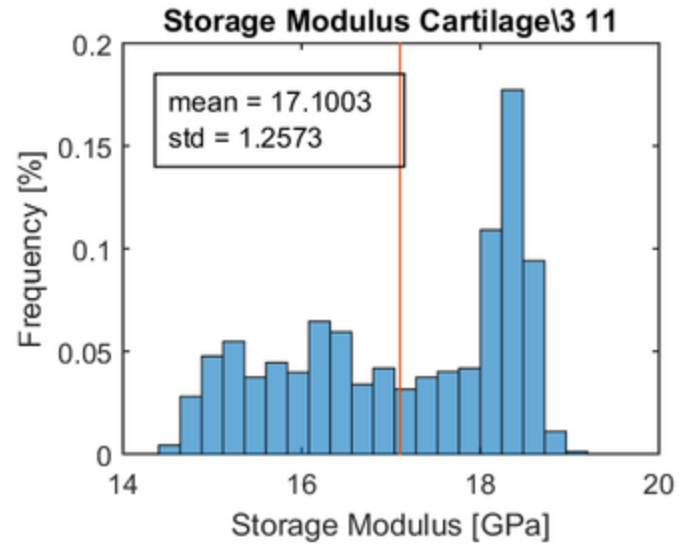
Cartilage C Point 9



Cartilage C Point 10



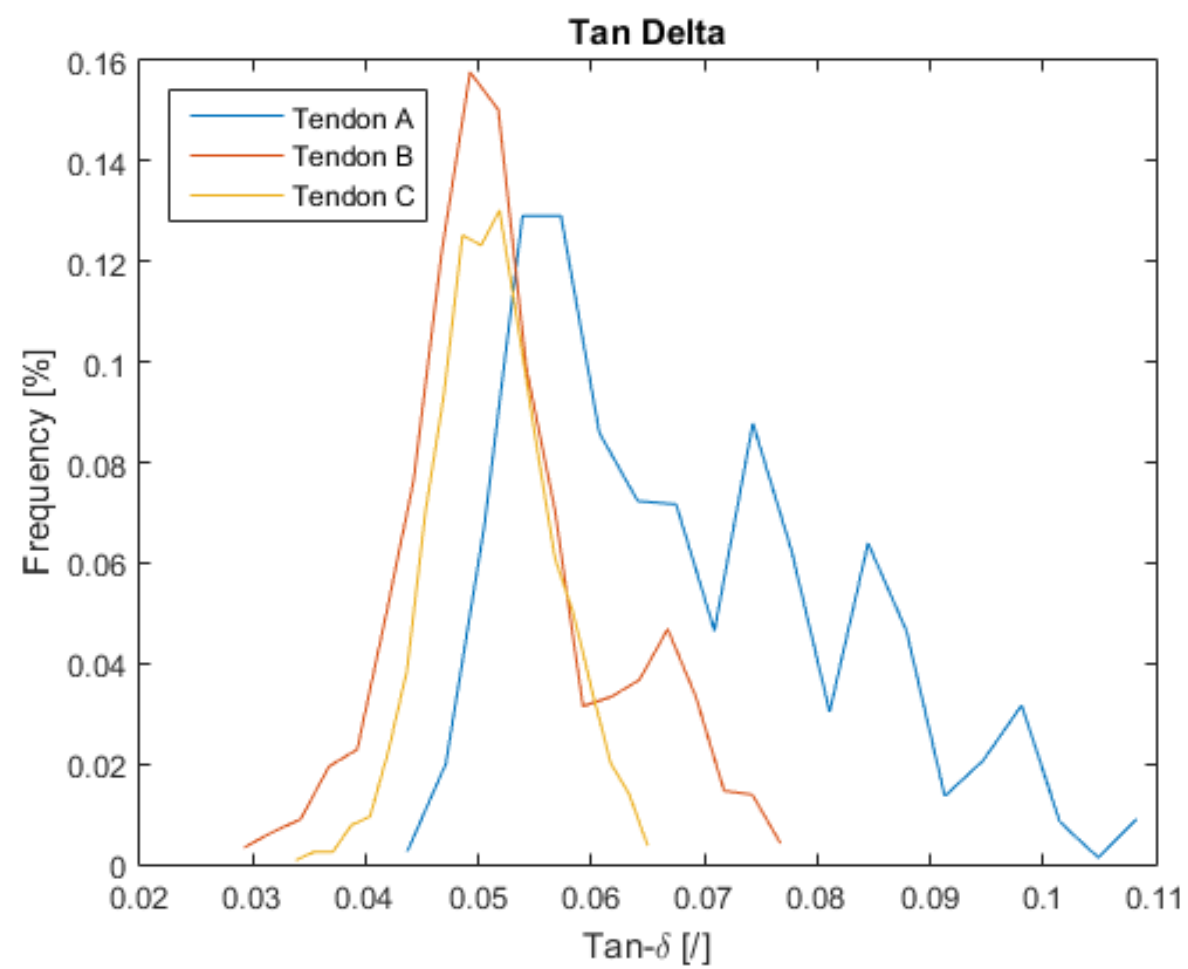
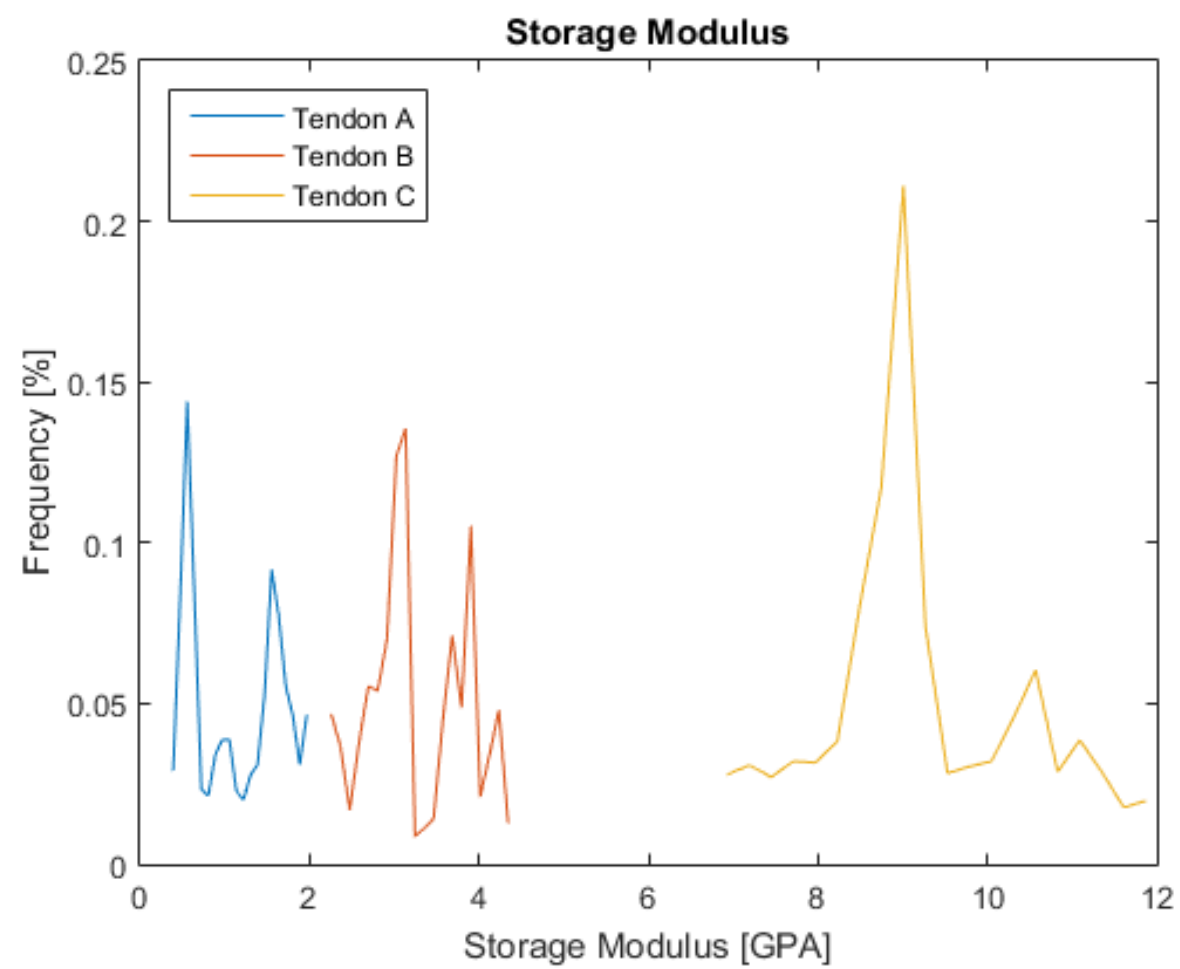
Cartilage C Point 11

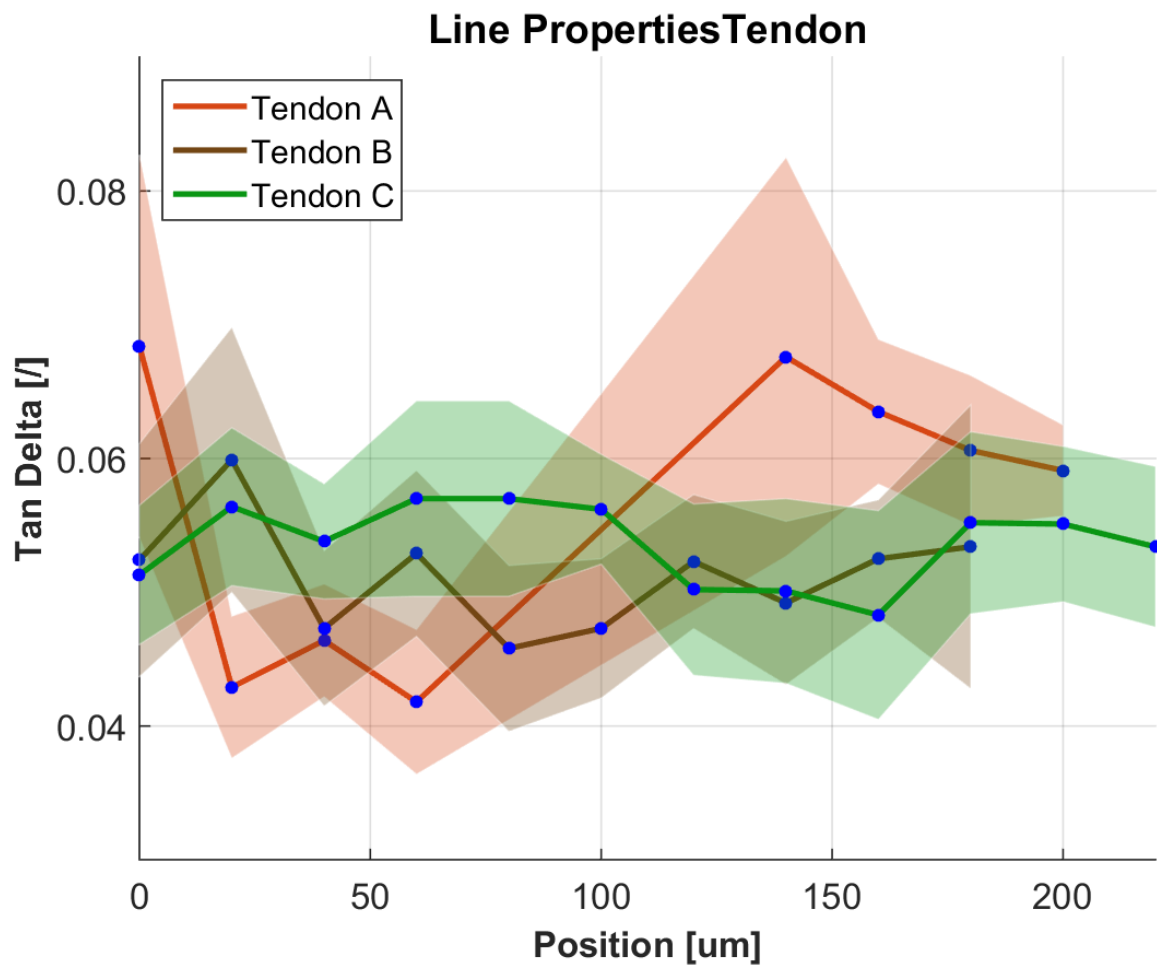
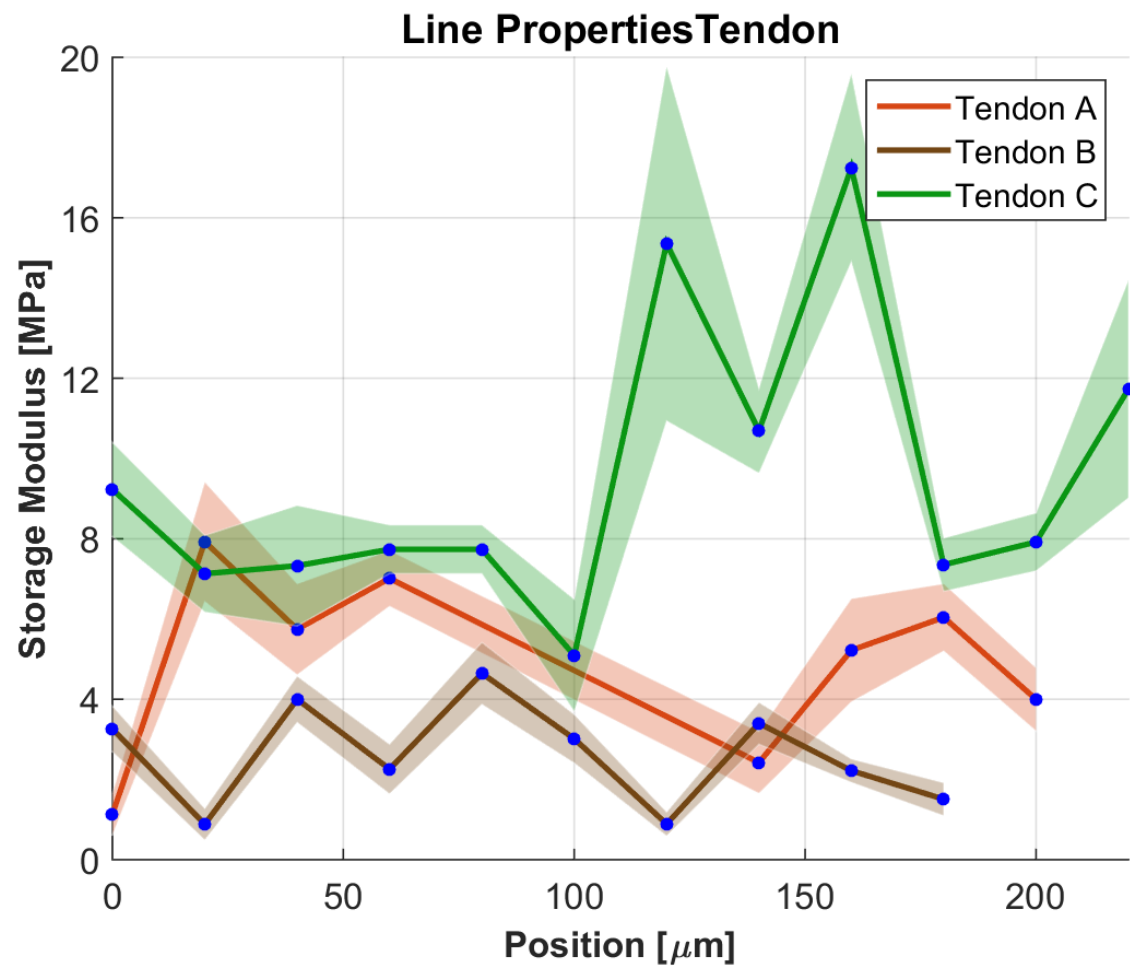


Tendon

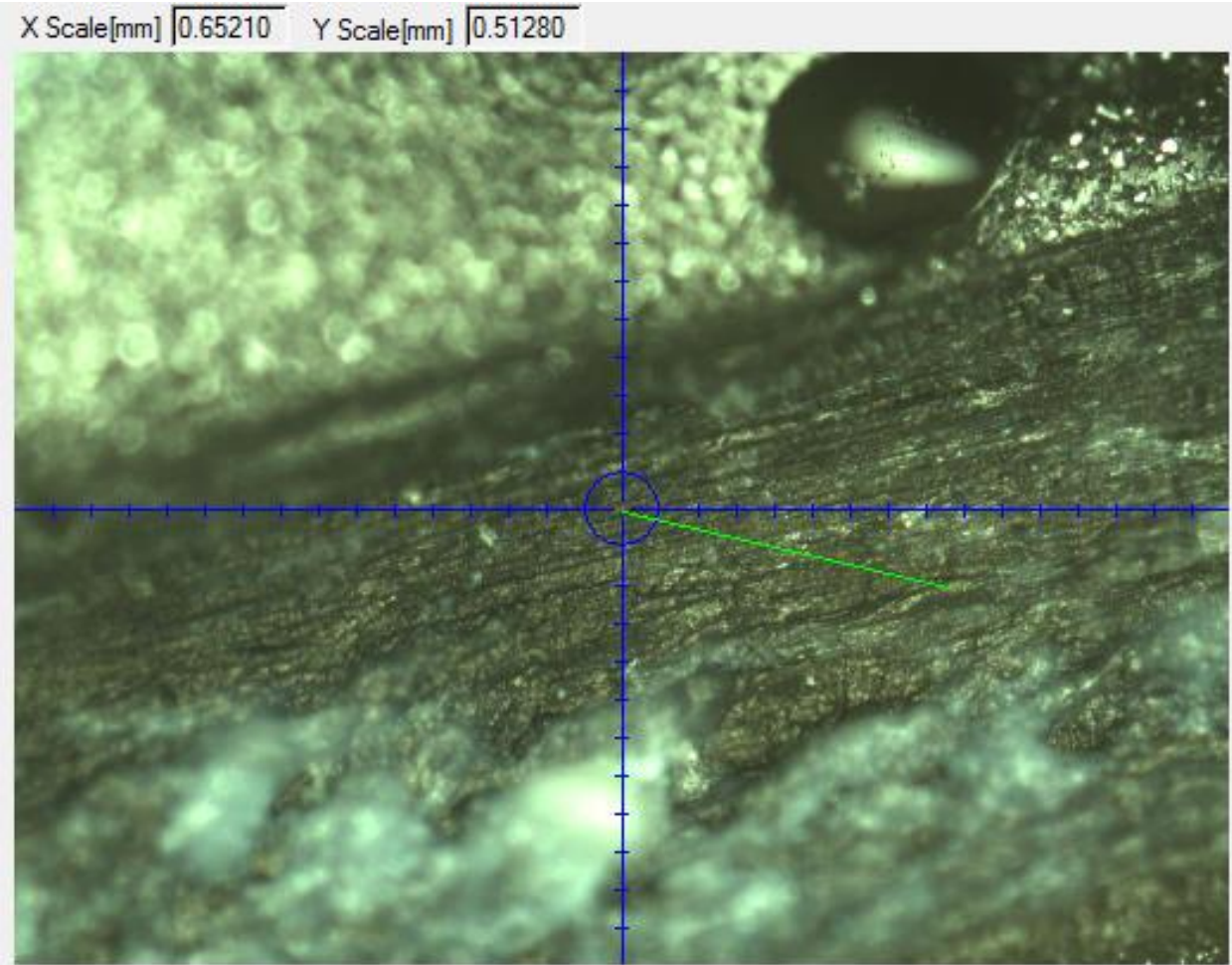
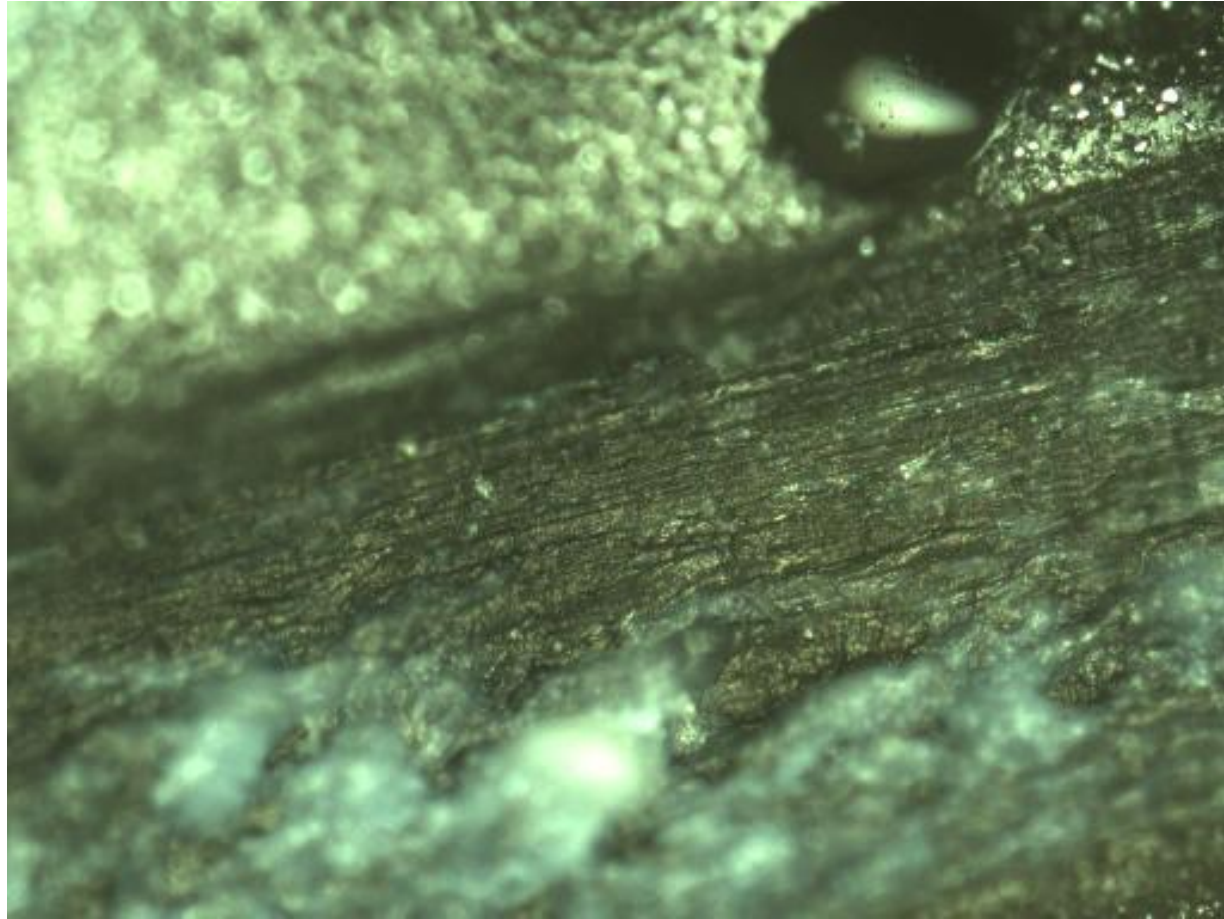
- A. Sample 3 roughness bad
- B. Sample 3 roughness bad
- C. Sample Ratto roughness bad

SPM bad so we can not trust the roughness measurements

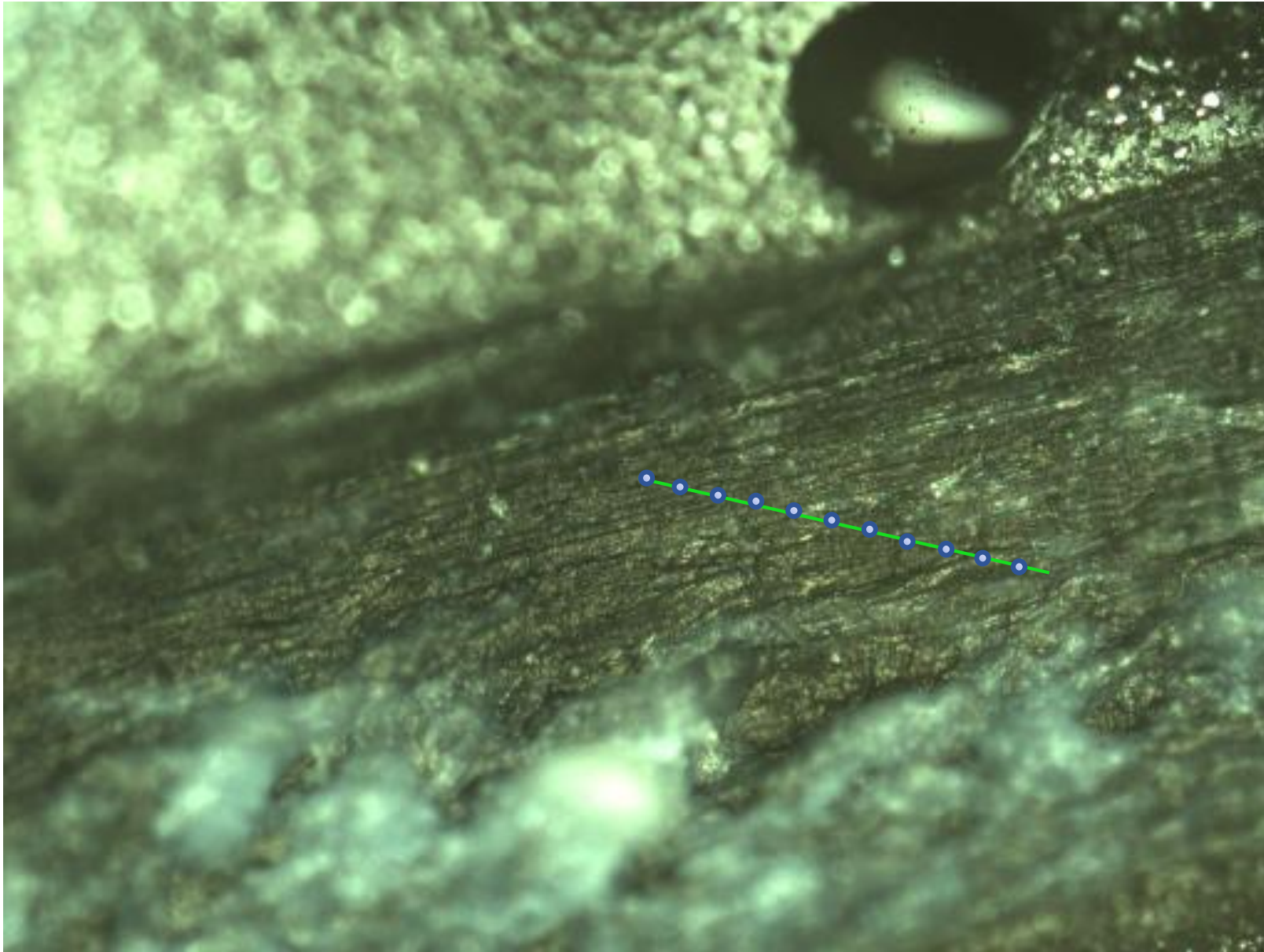




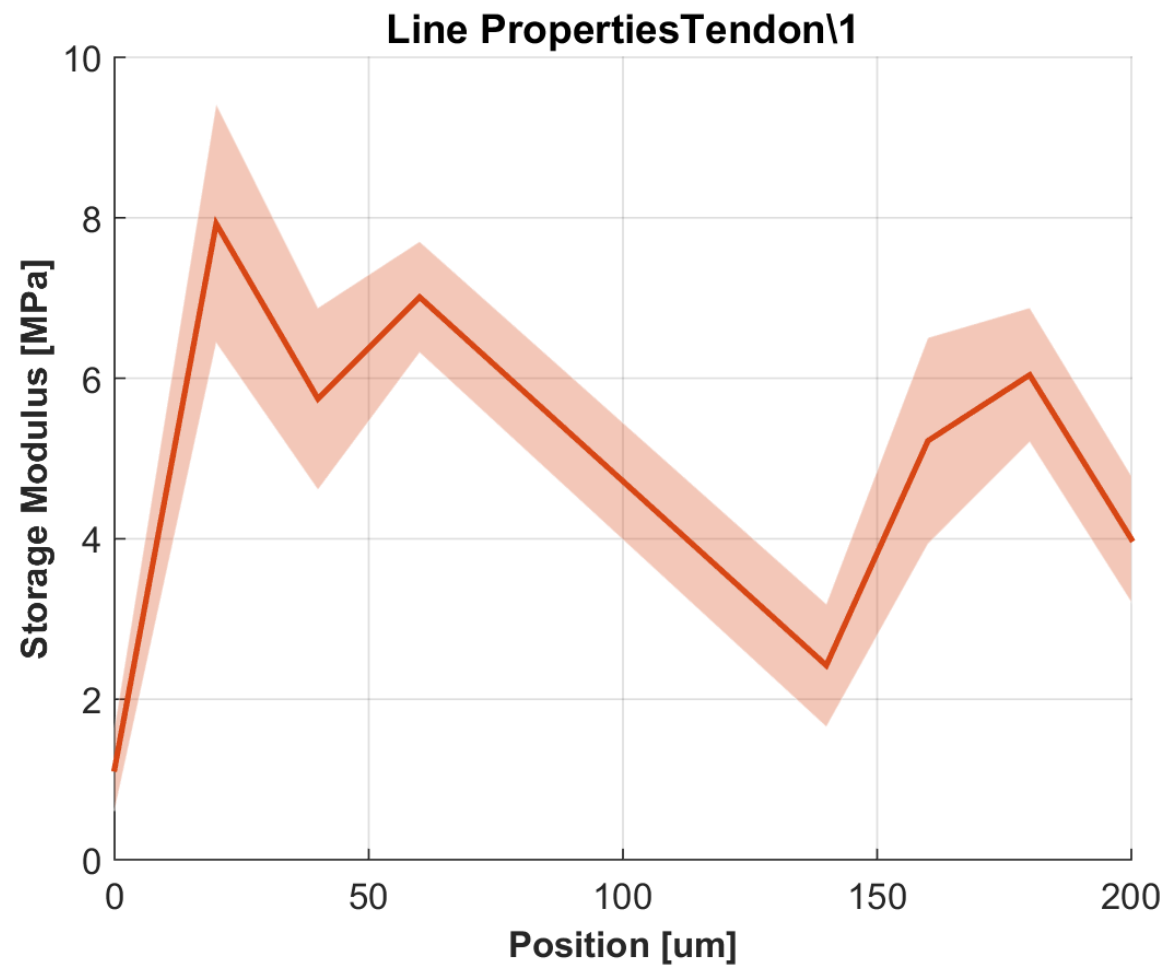
A. Tendon D1 11 points $\Delta=20\mu\text{m}$



A. Tendon D1 11 points $\Delta=20\mu\text{m}$

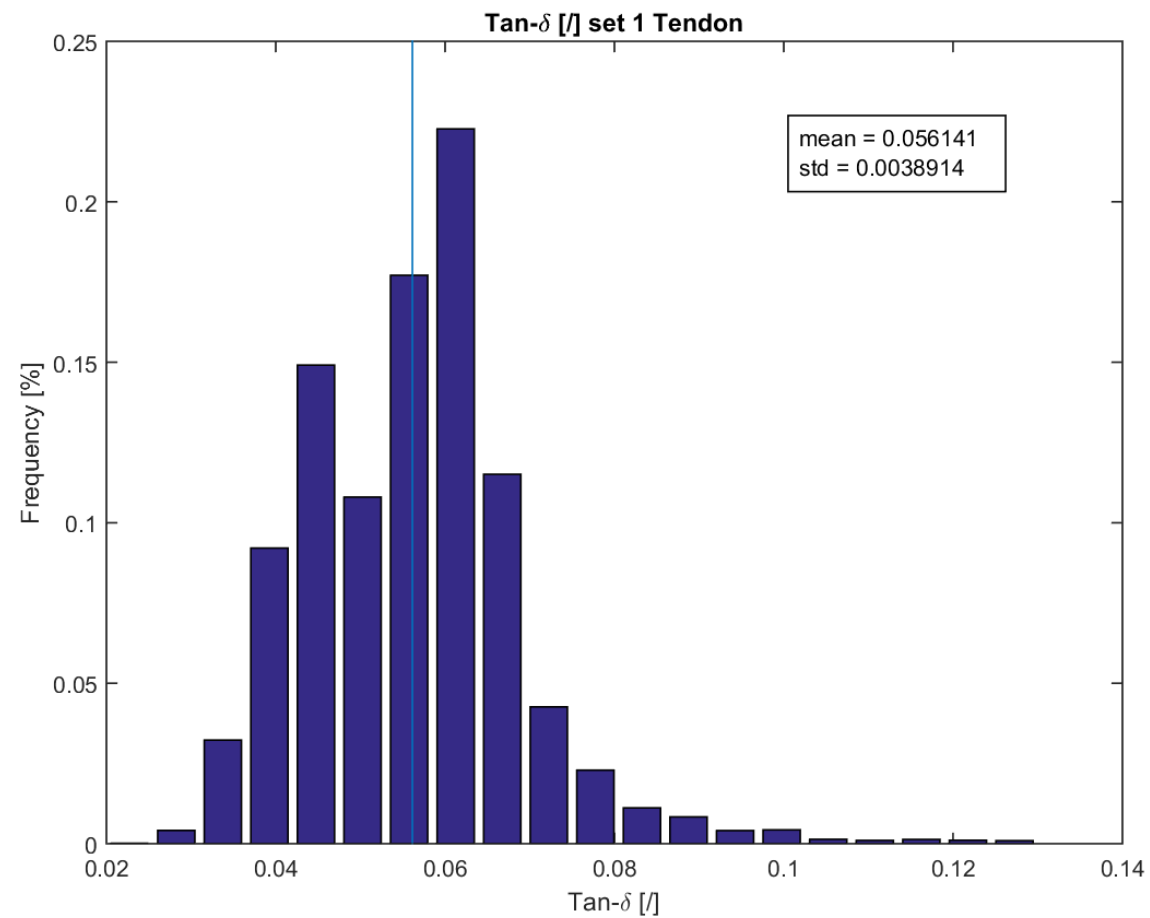
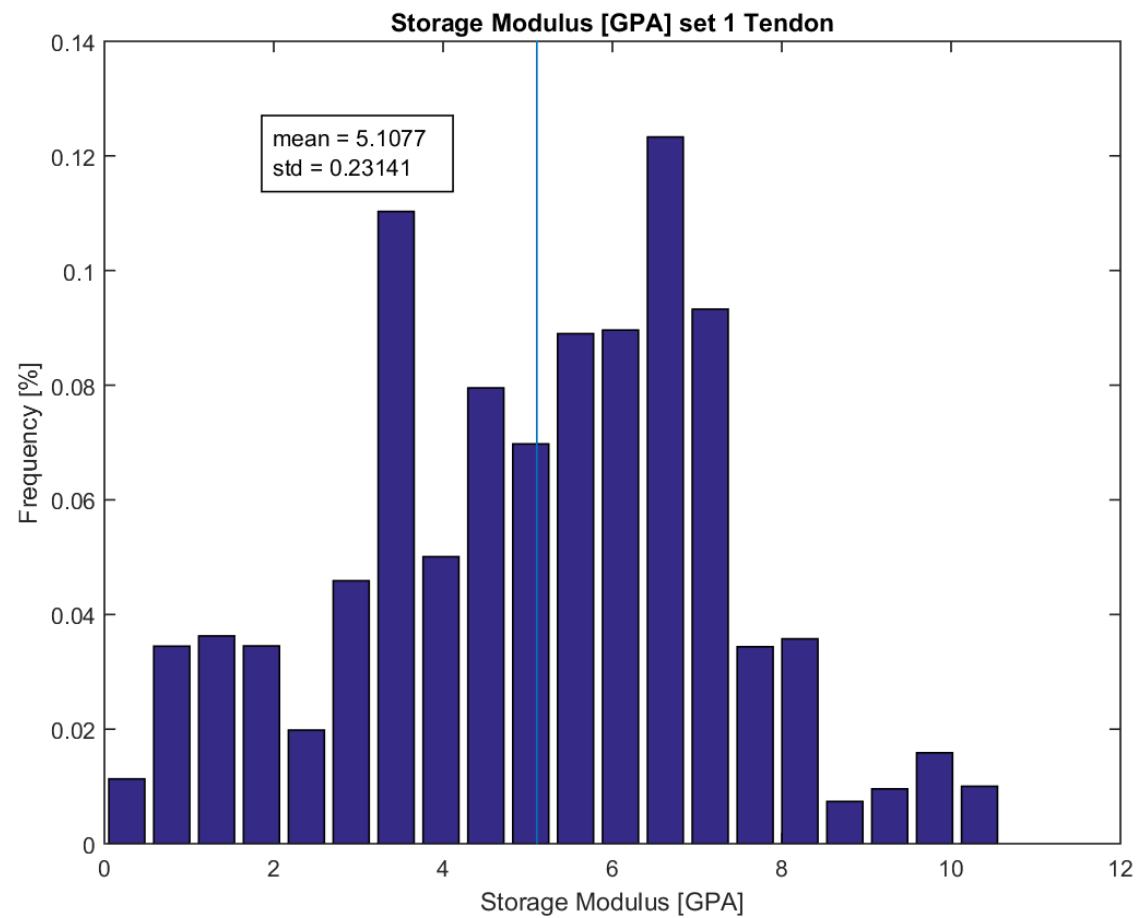


Blue means SPM
too bad to trust the
roughness
measurement

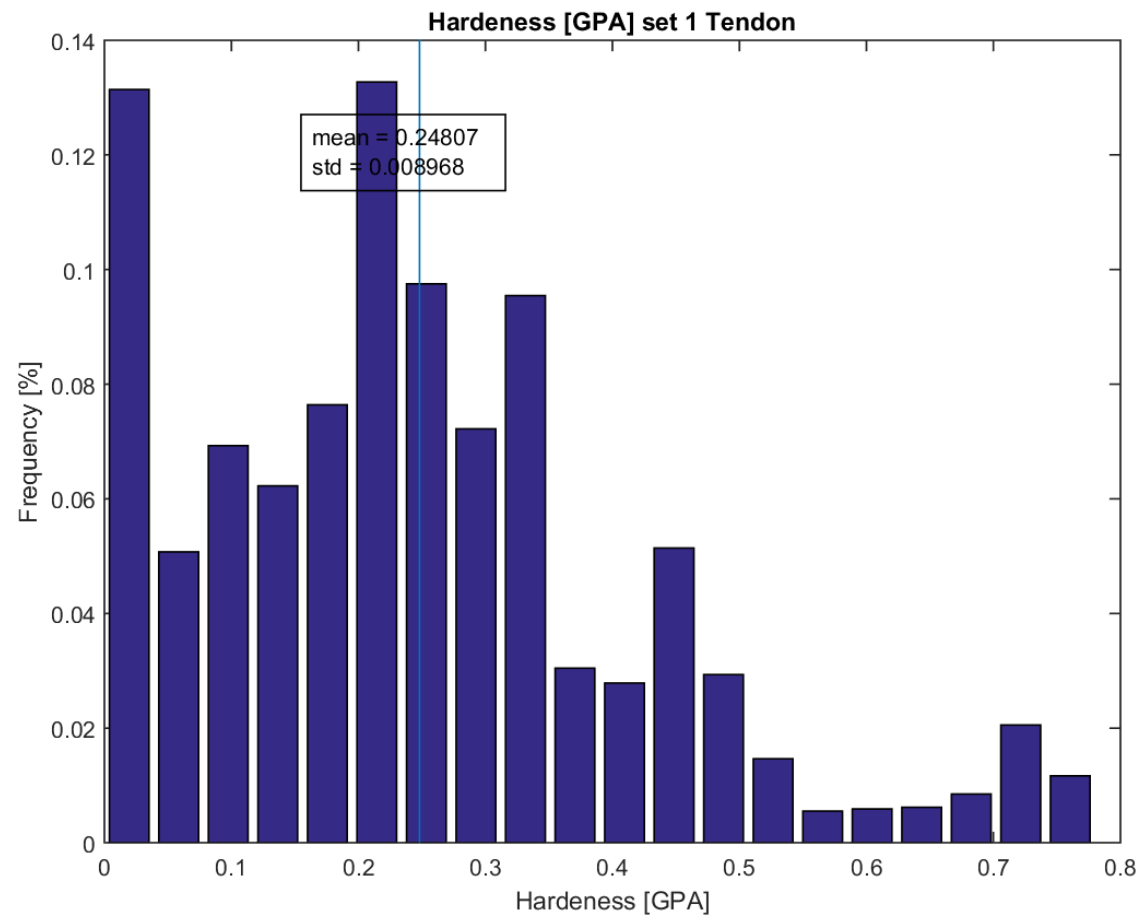
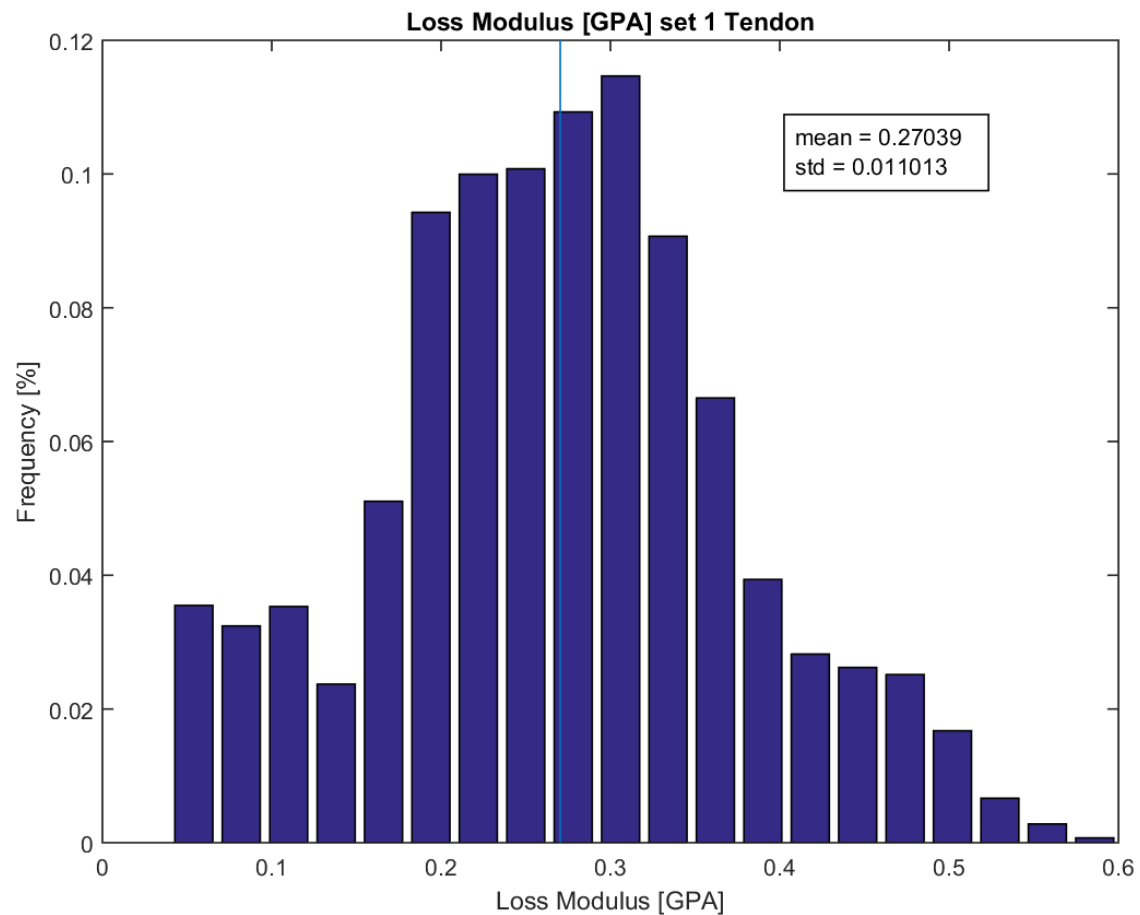


- No depth surface graph

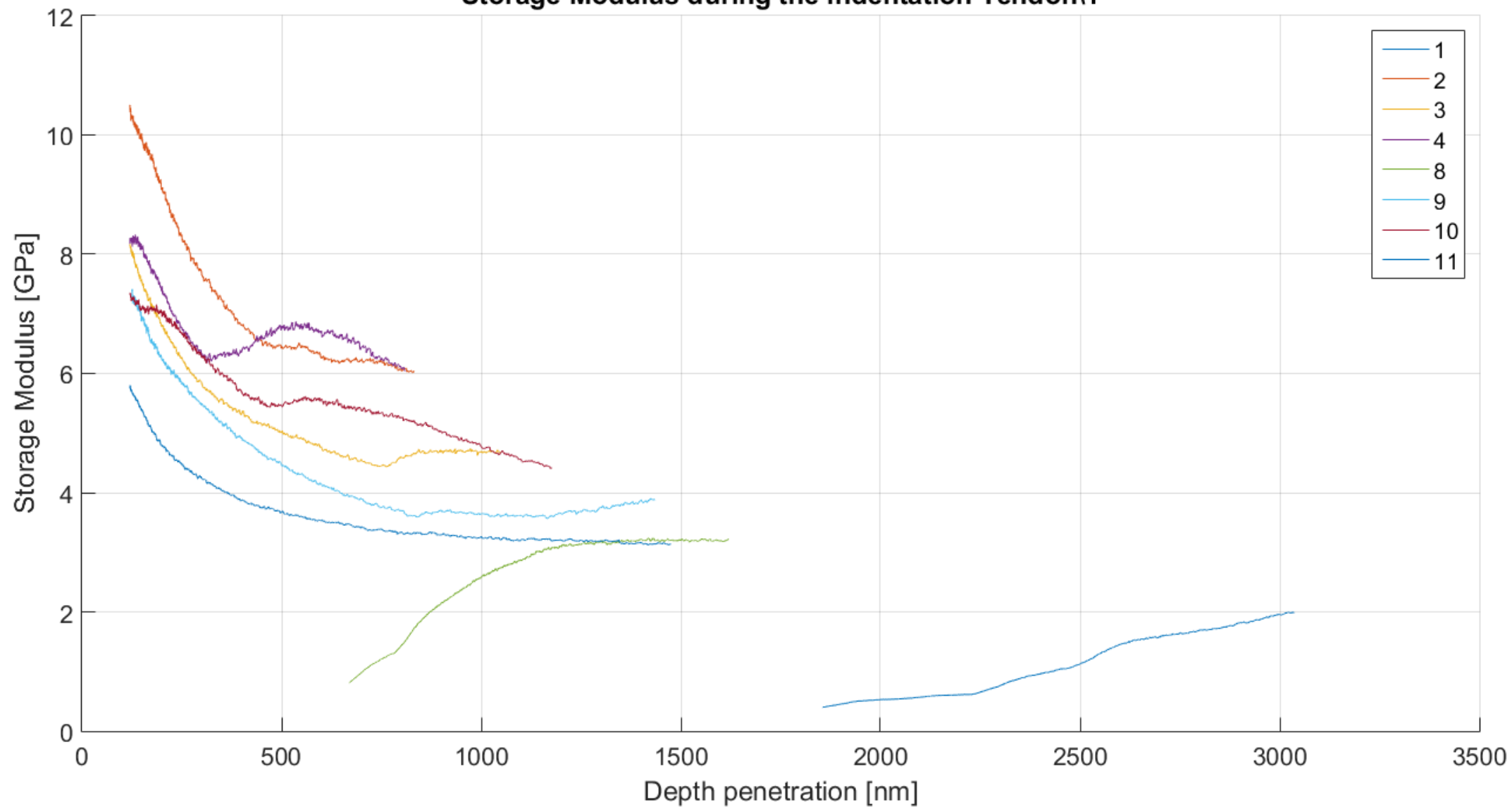
A. Complet

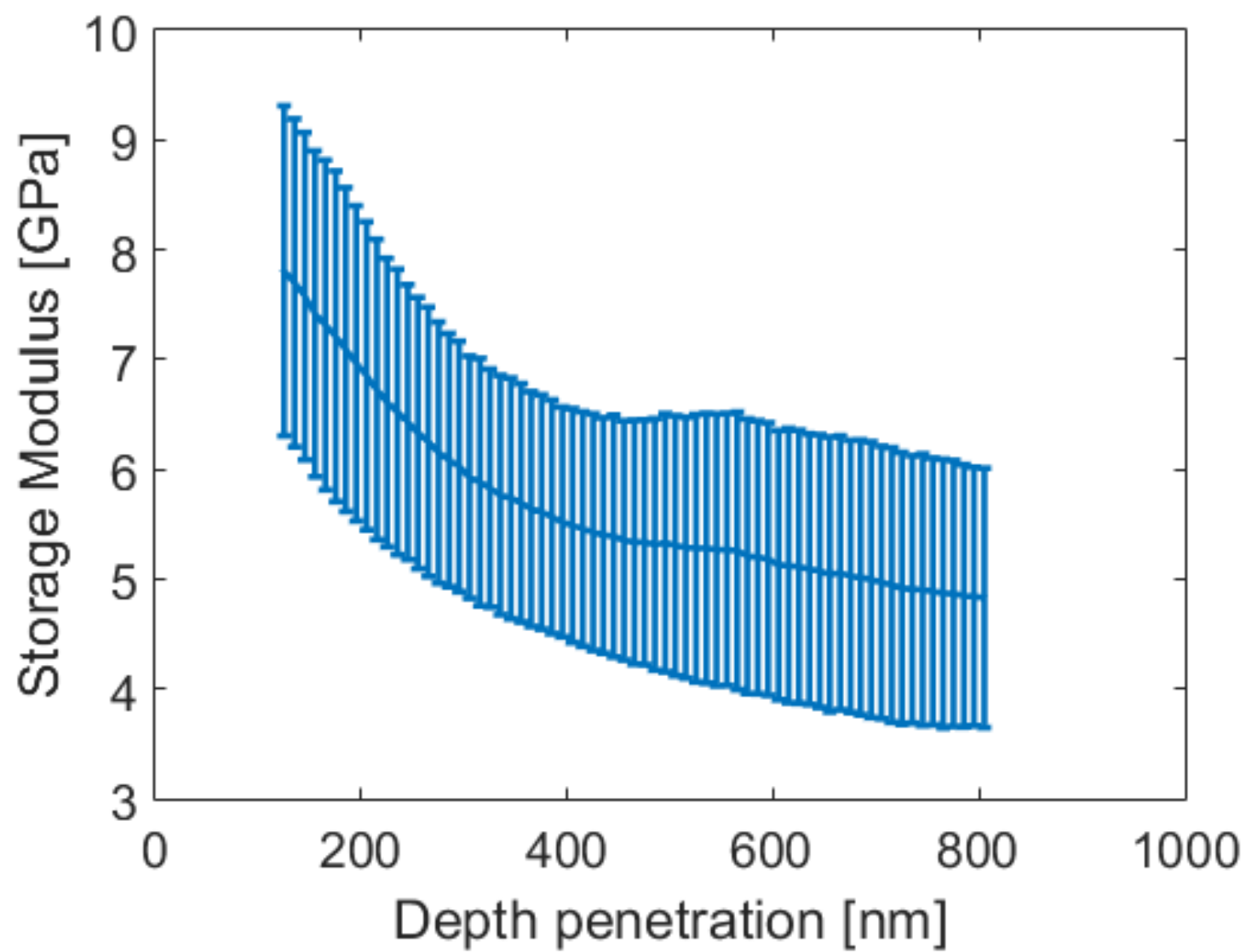


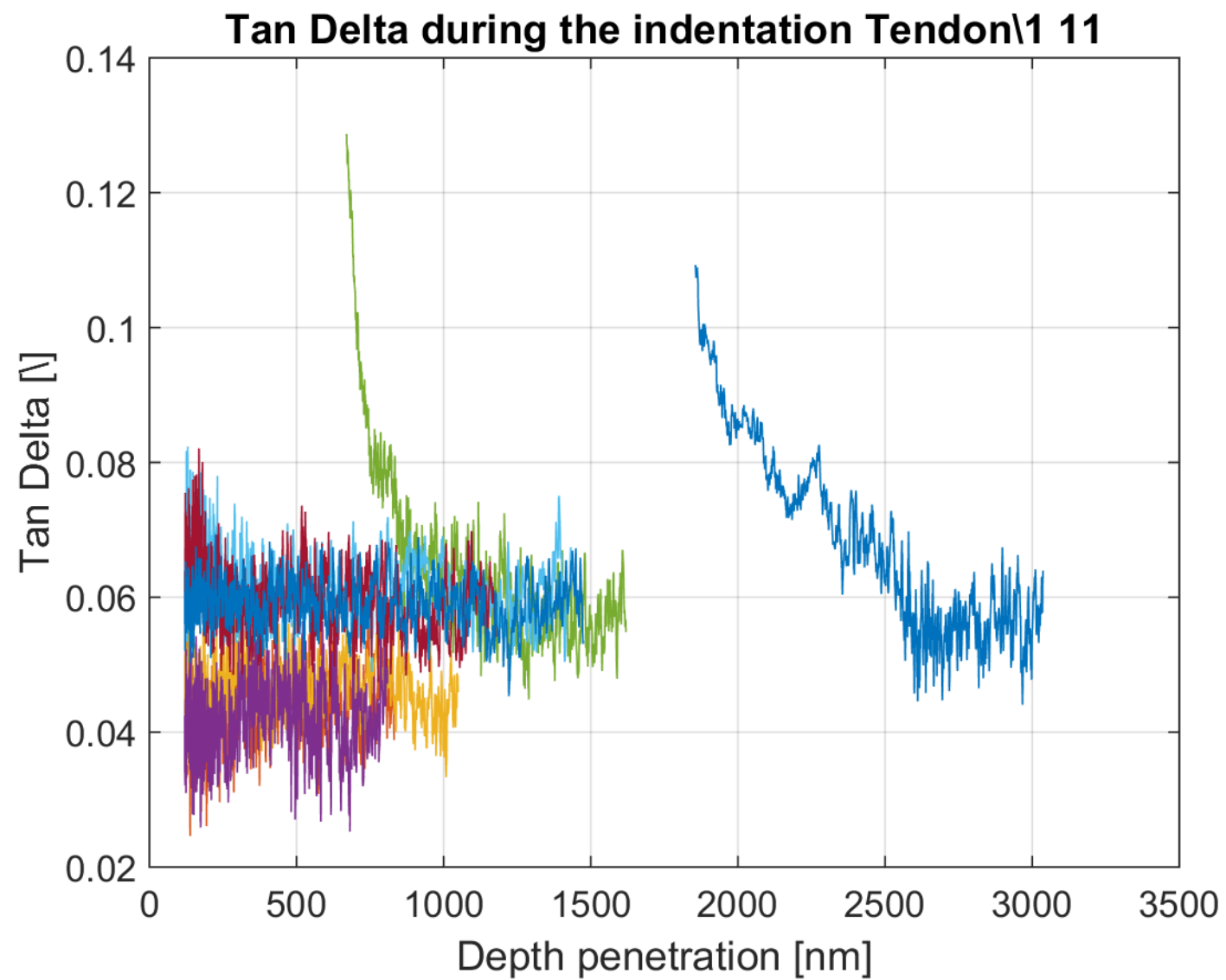
A. Complet

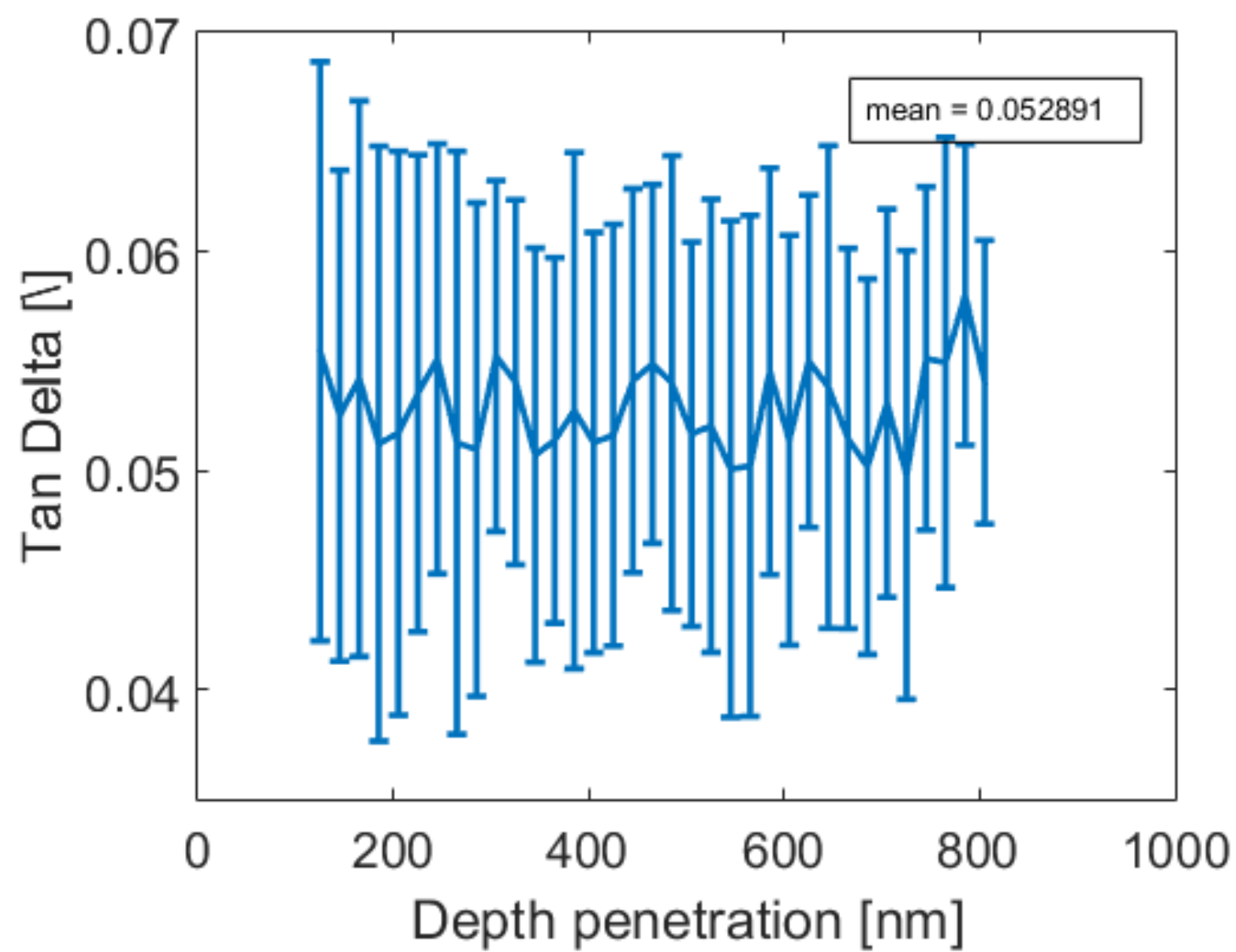


Storage Modulus during the indentation Tendon\1

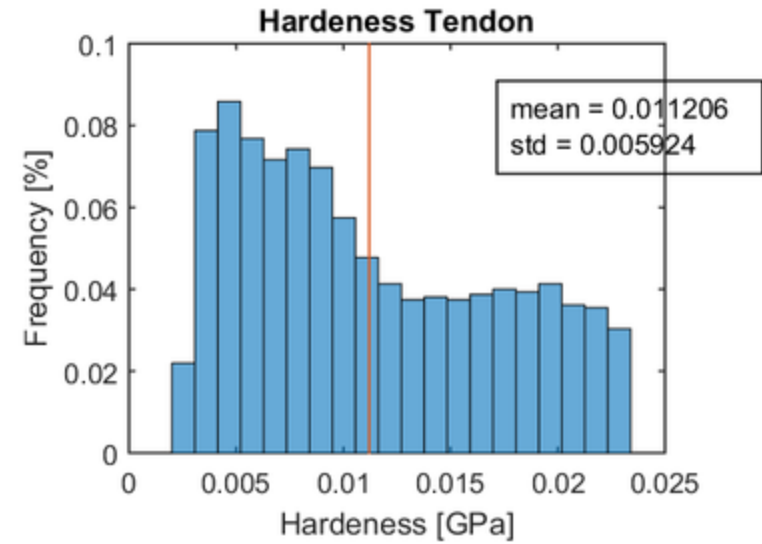
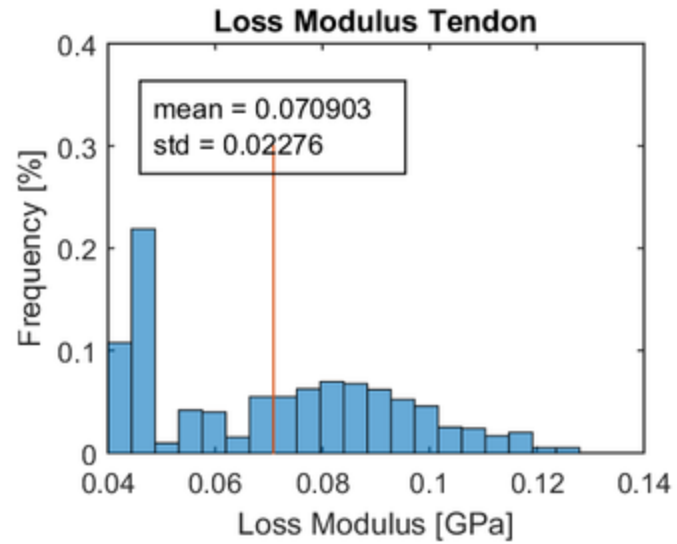
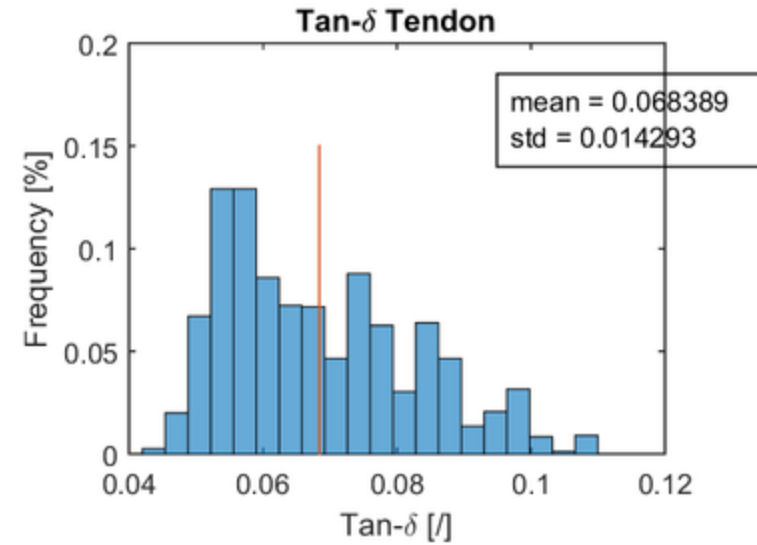
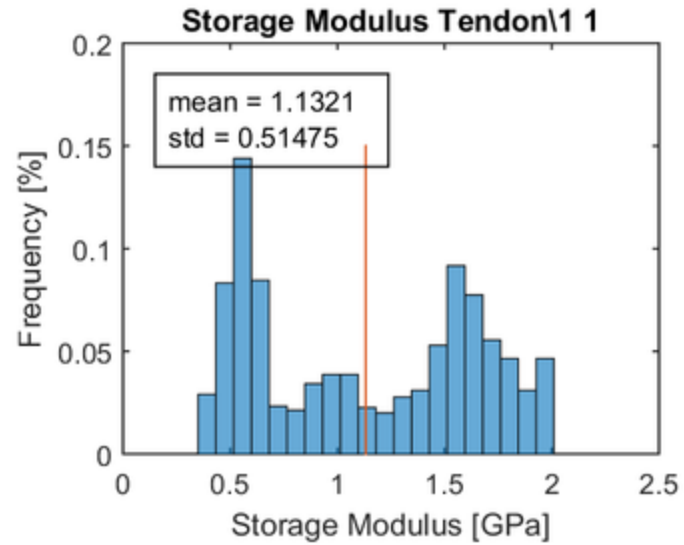




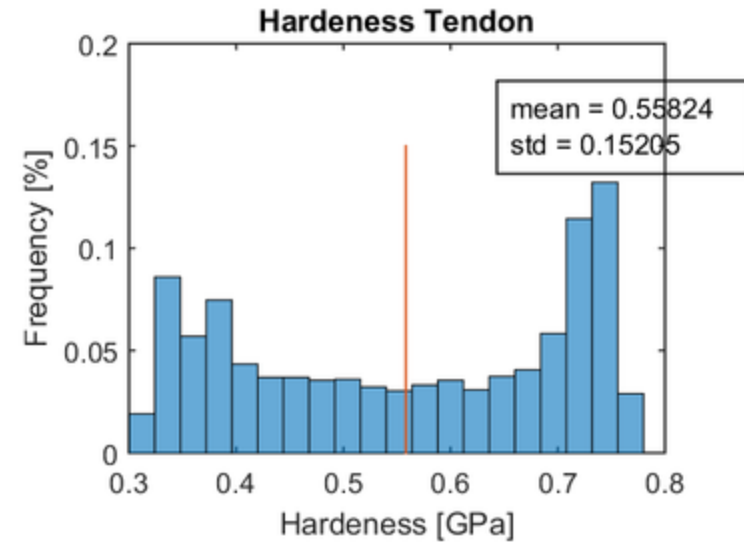
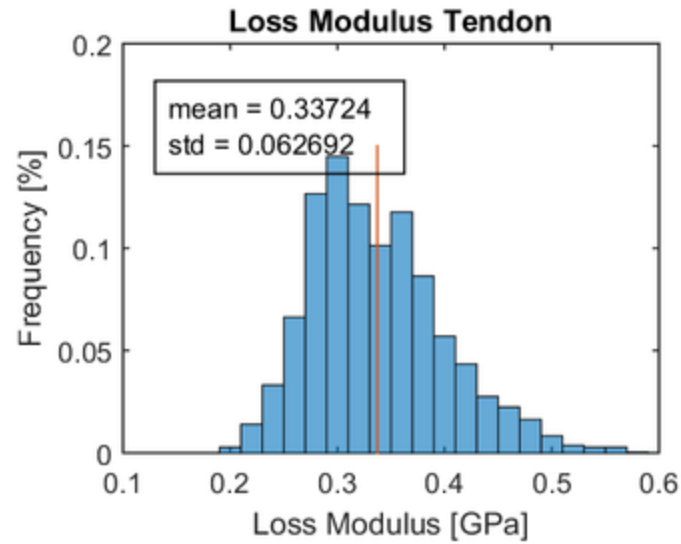
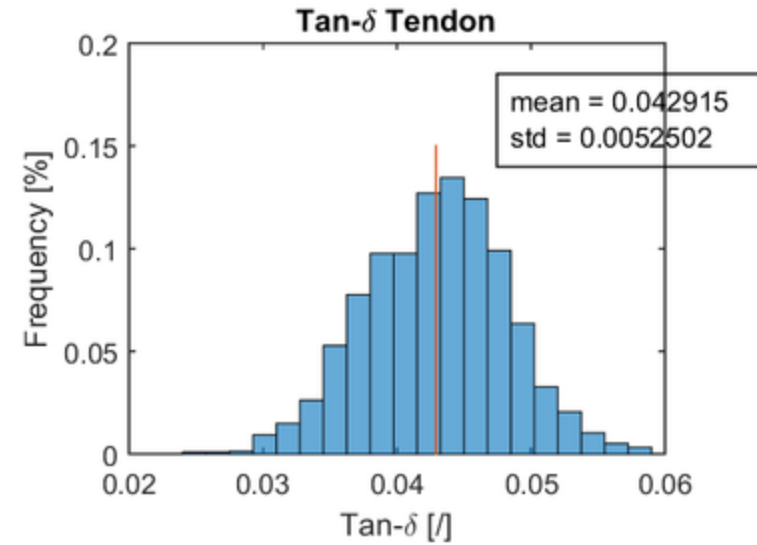
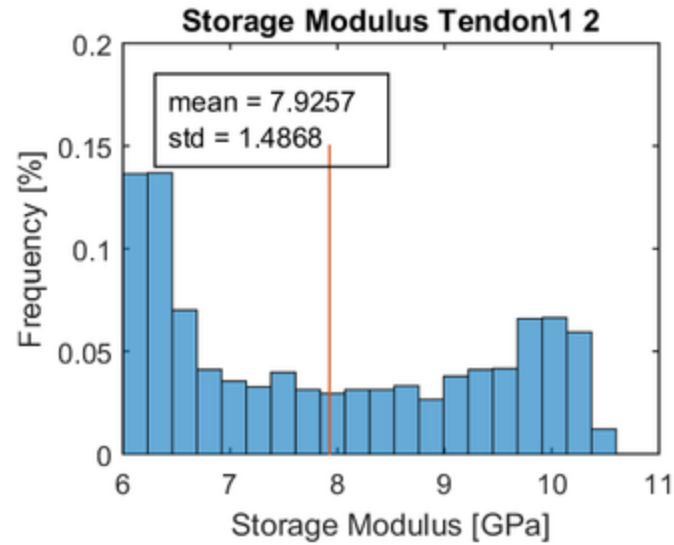




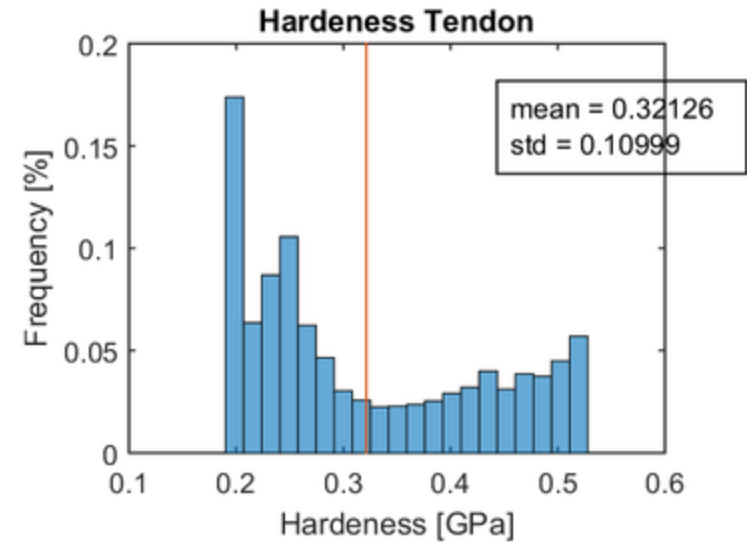
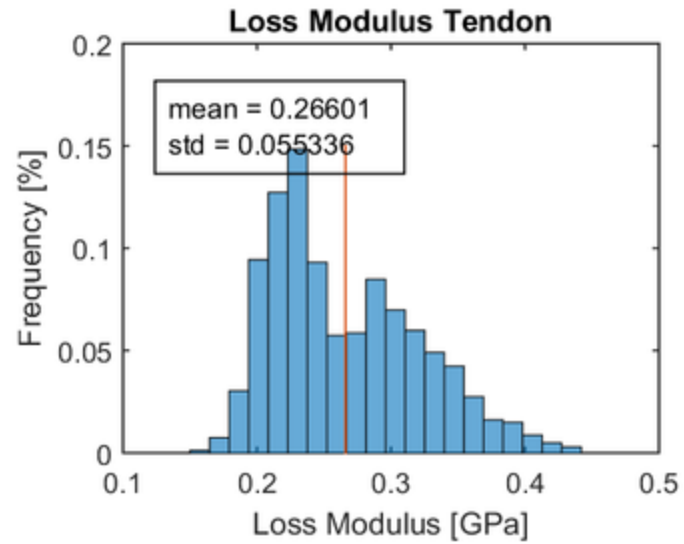
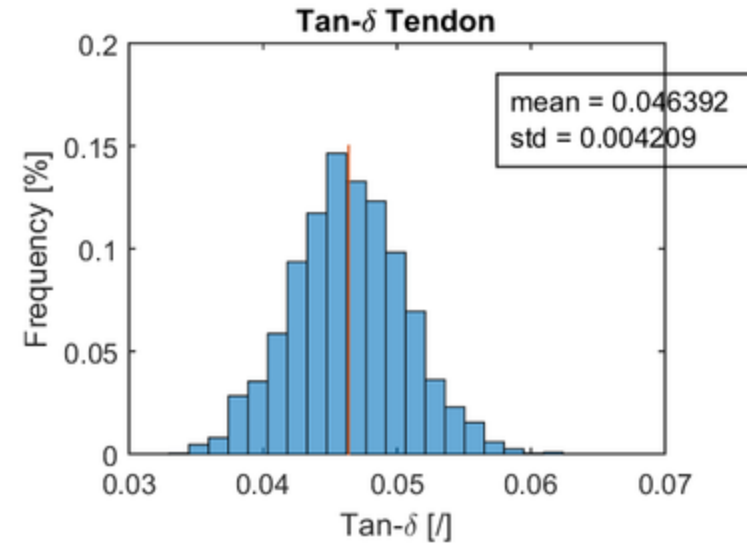
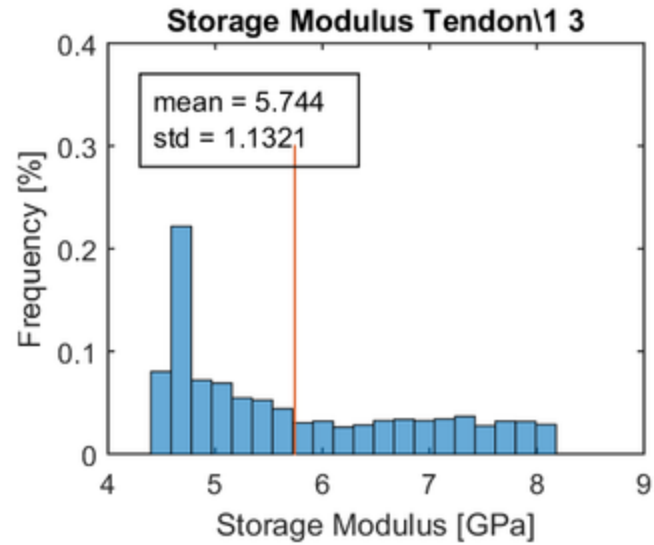
Tendon A Point 1



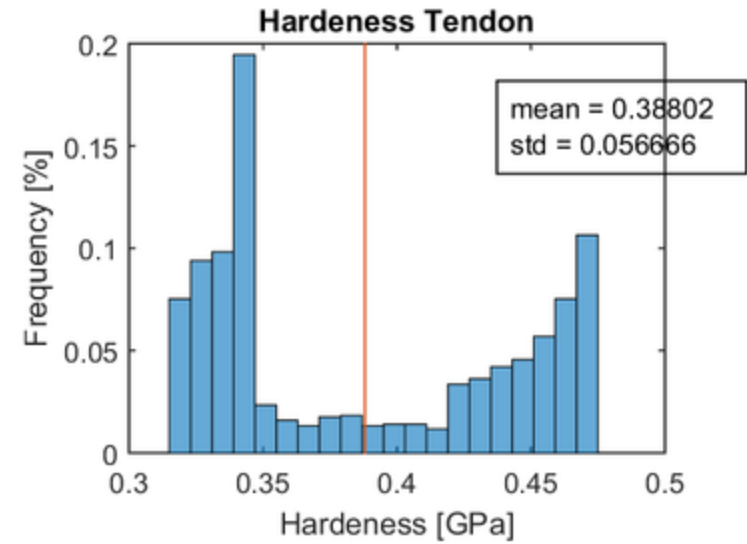
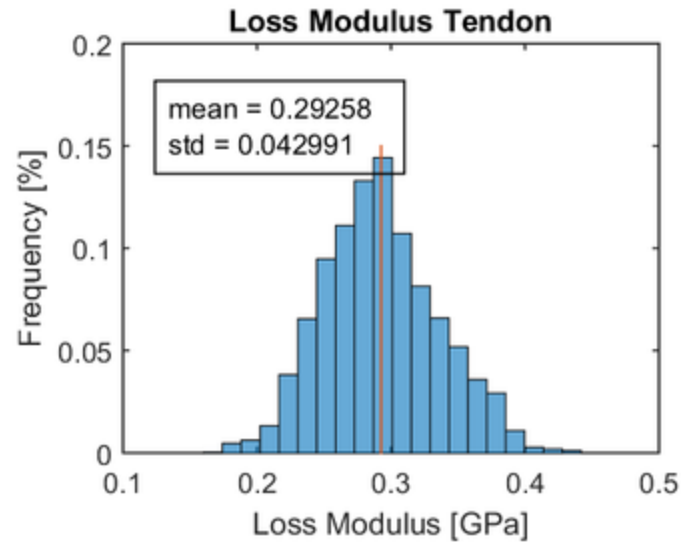
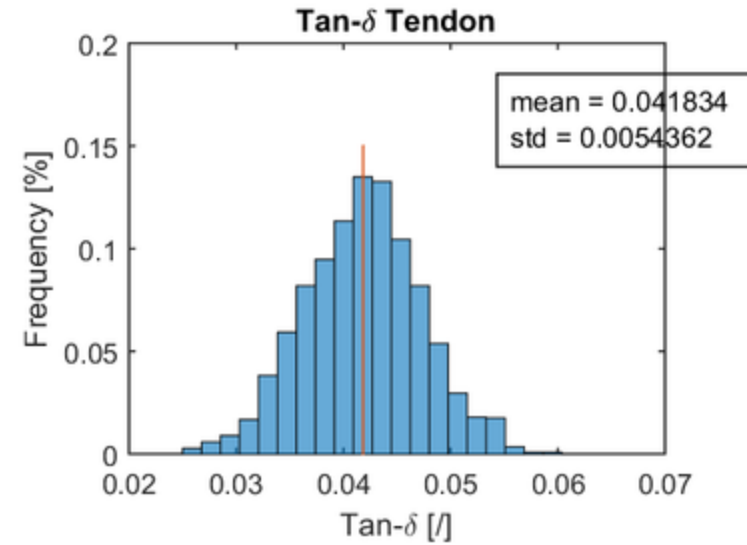
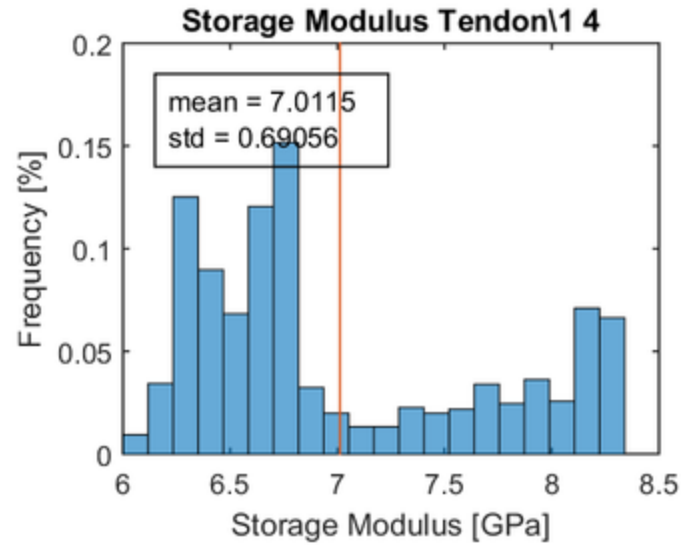
Tendon A Point 2



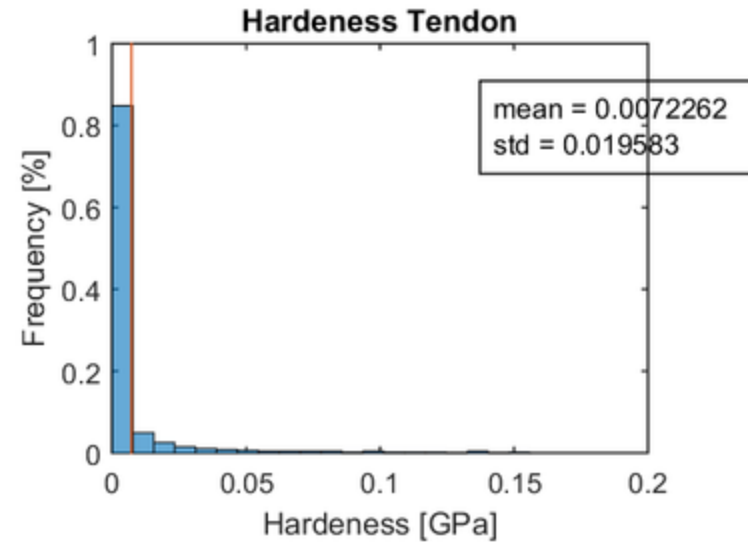
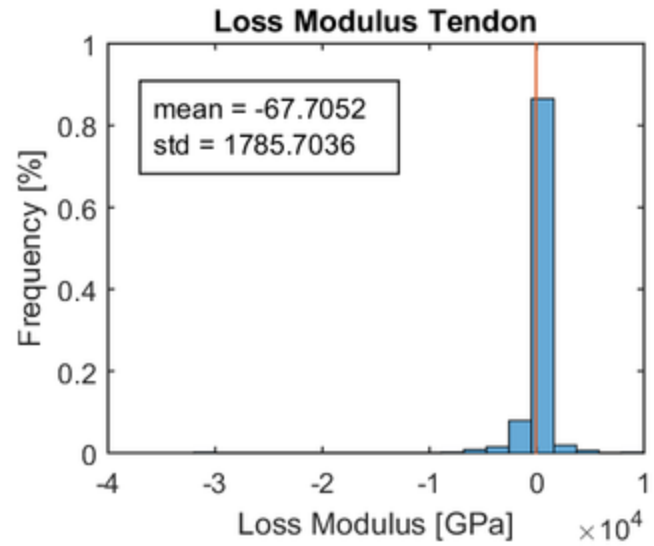
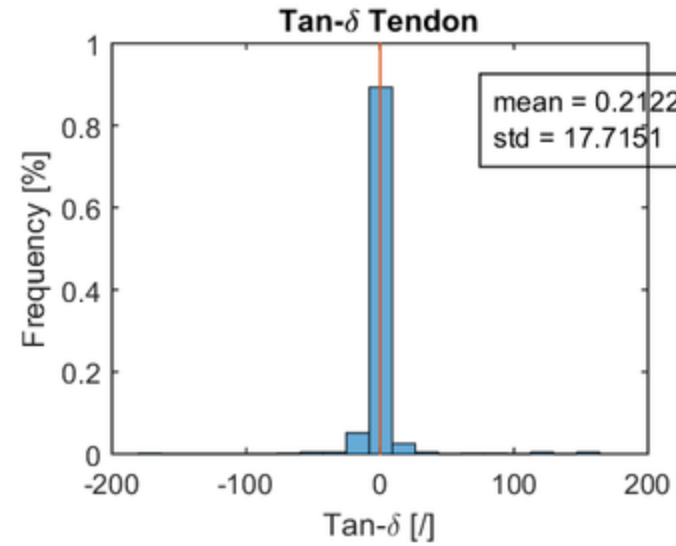
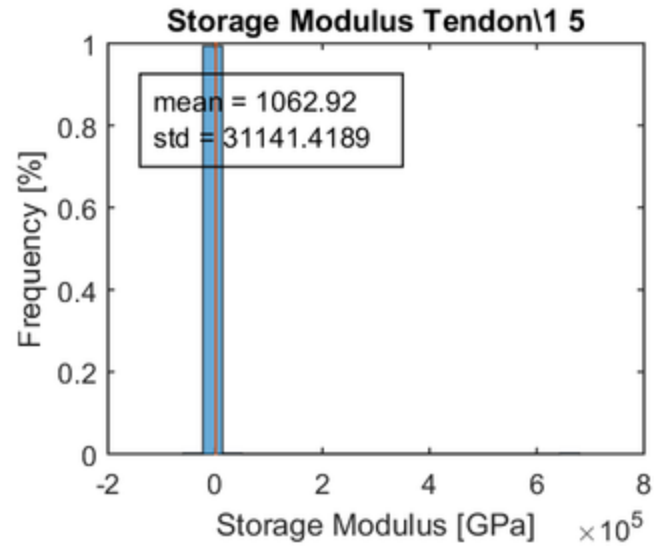
Tendon A Point 3



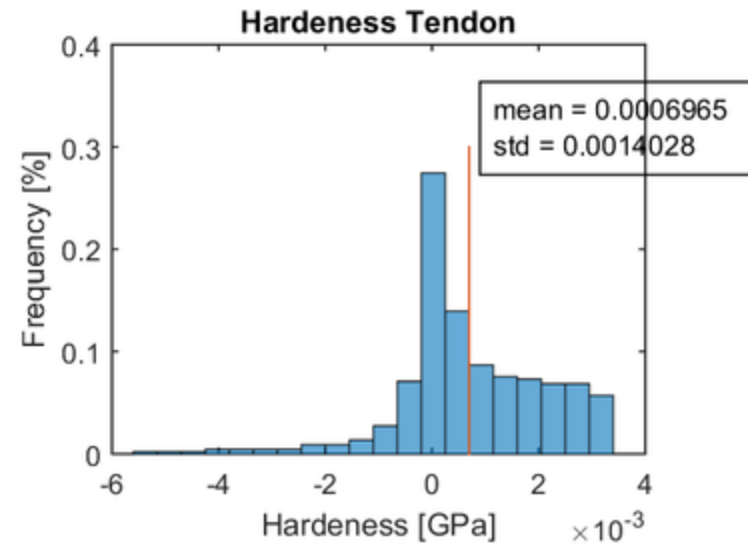
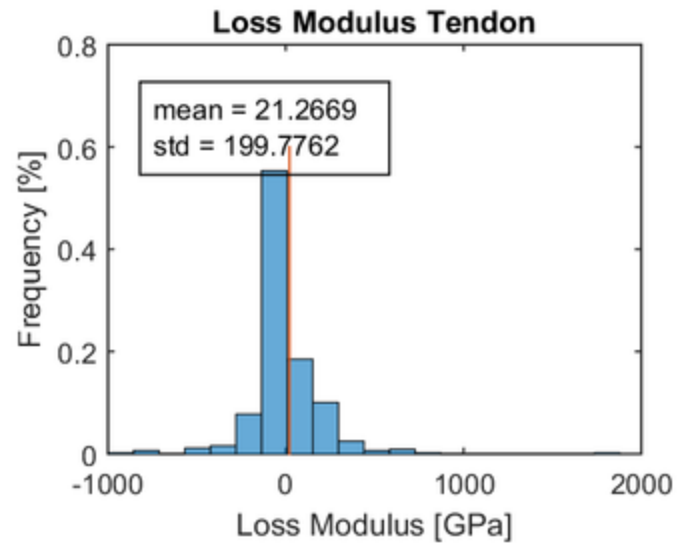
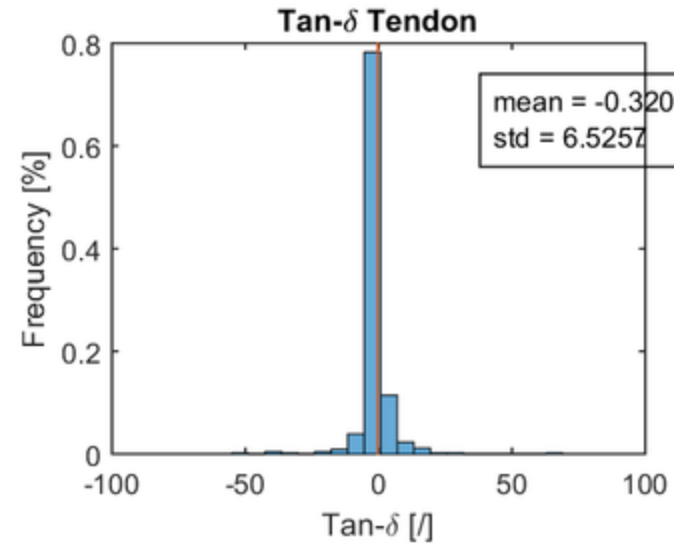
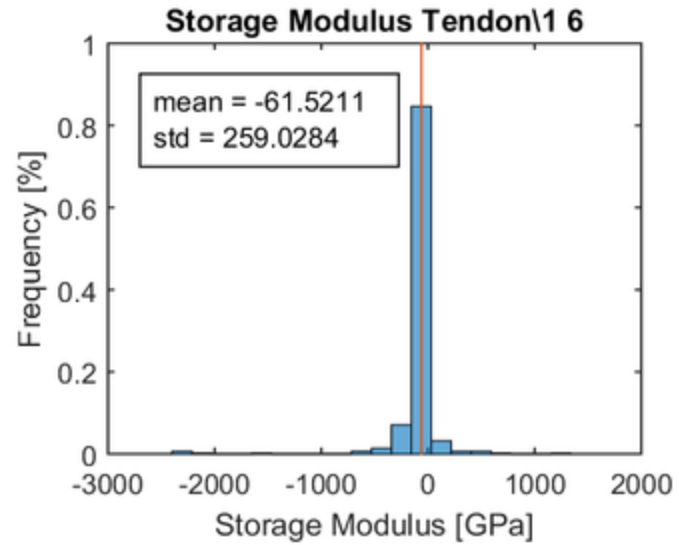
Tendon A Point 4



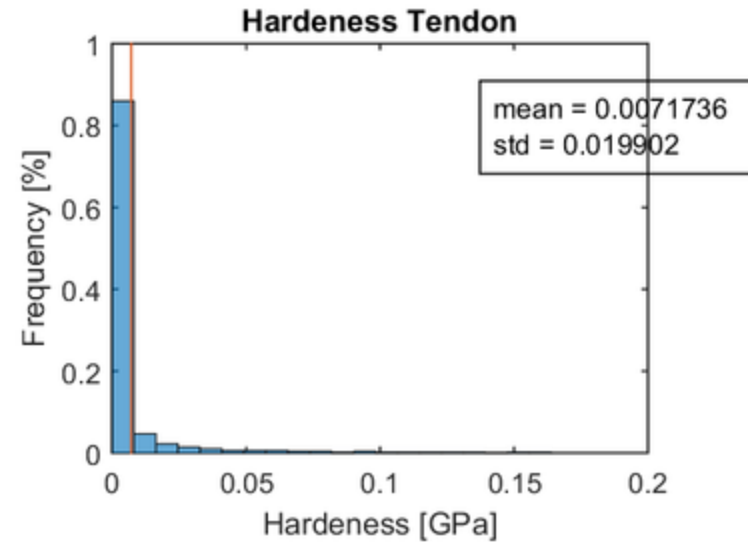
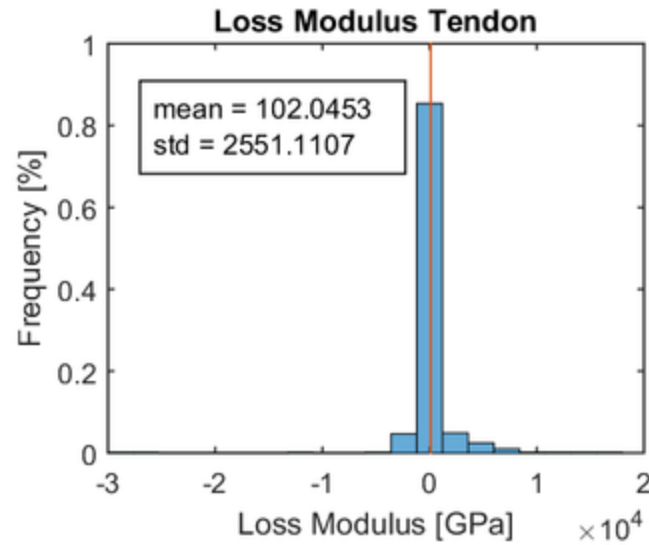
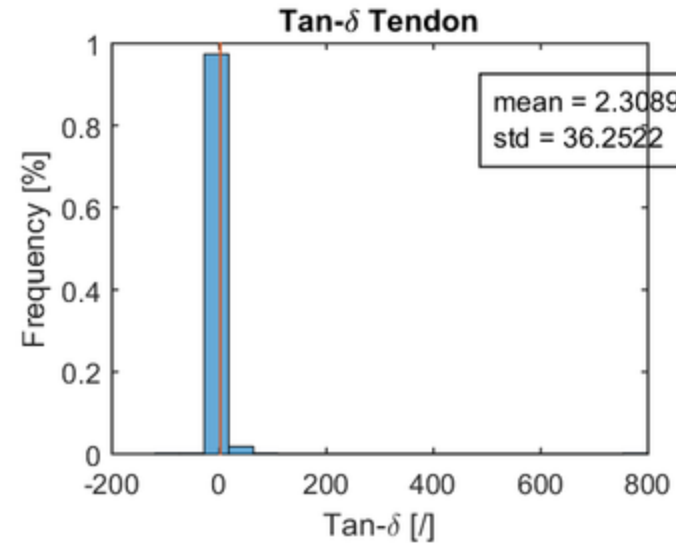
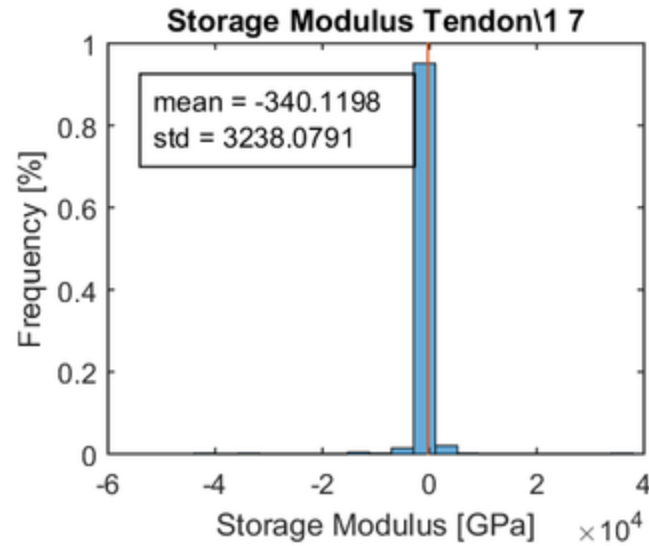
Tendon A Point 5 Not used



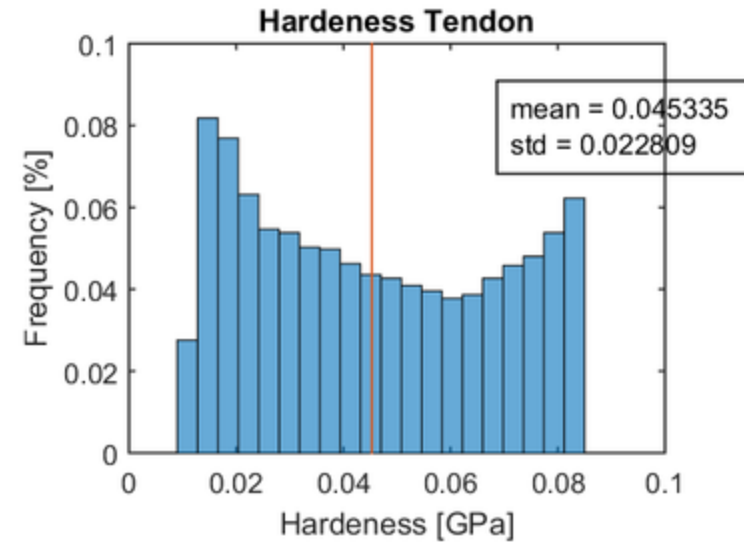
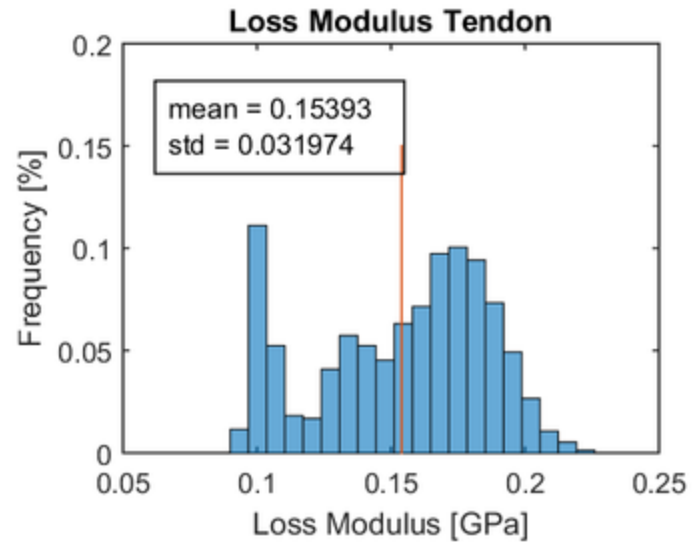
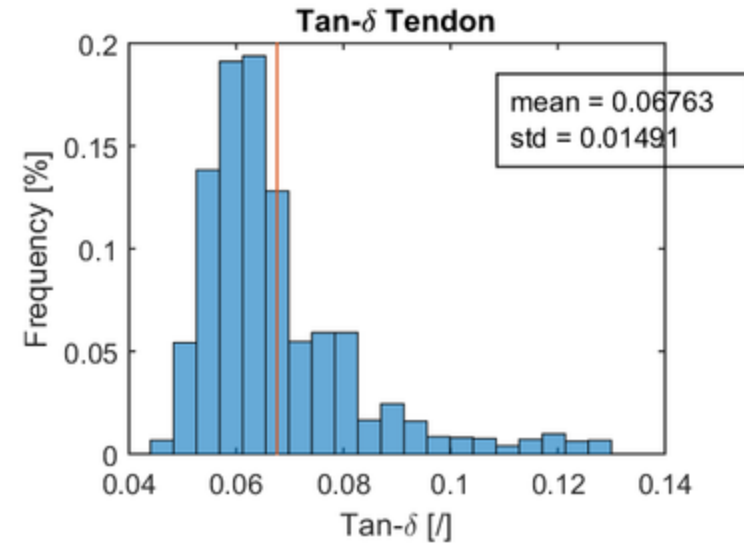
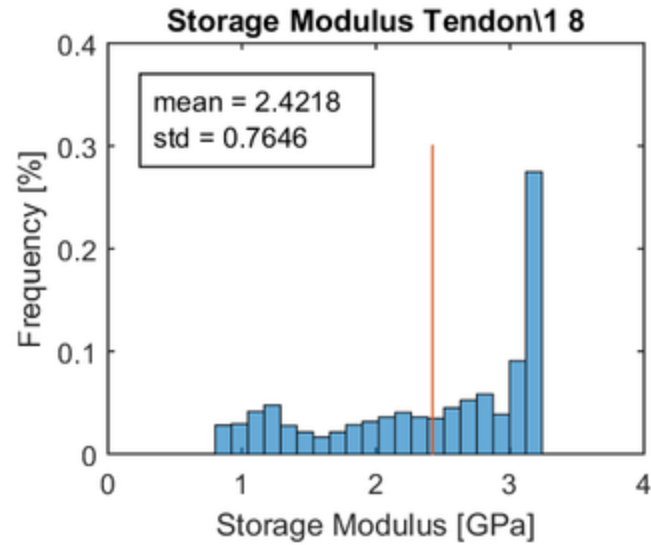
Tendon A Point 6 Not used



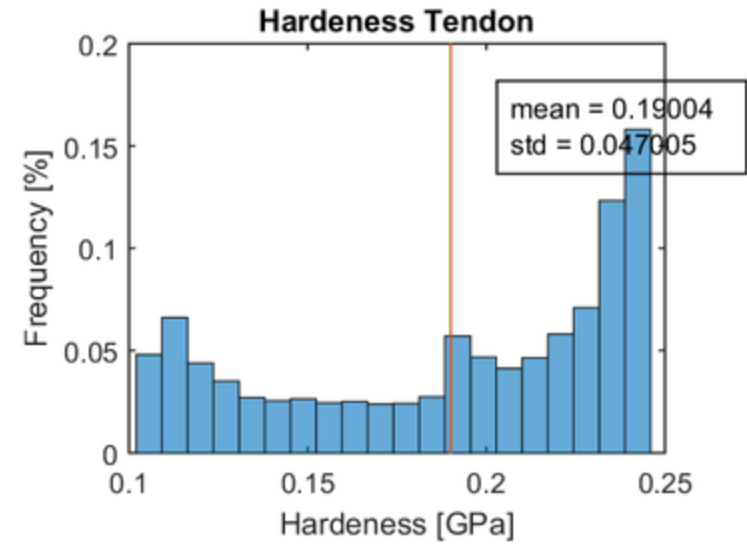
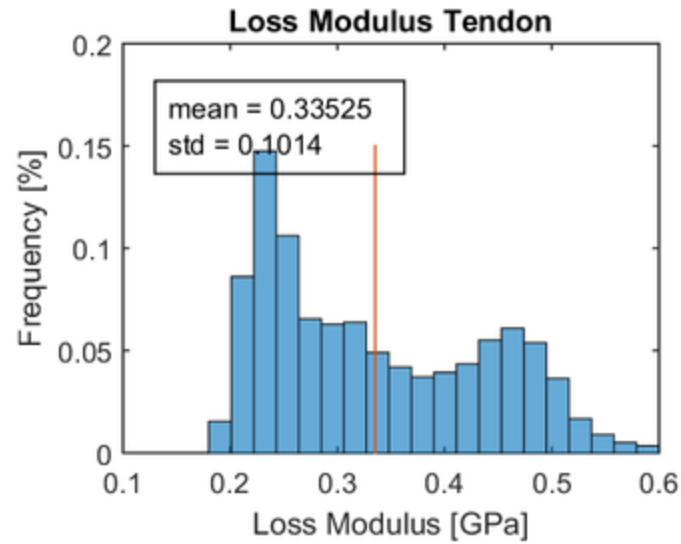
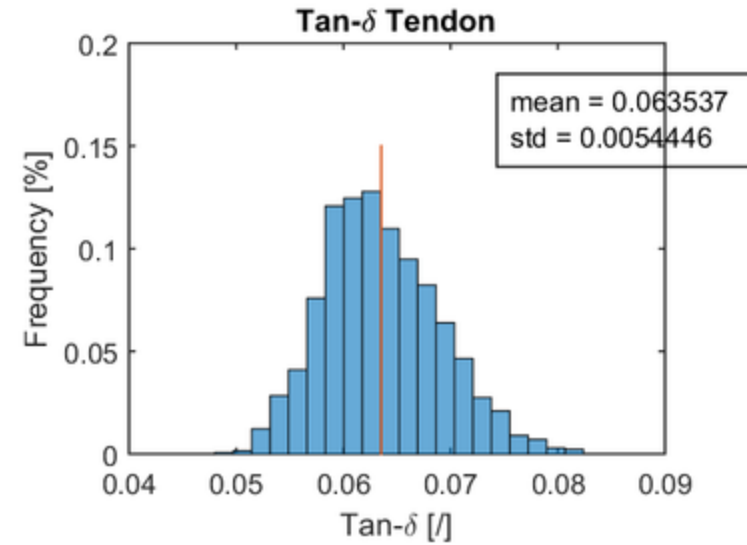
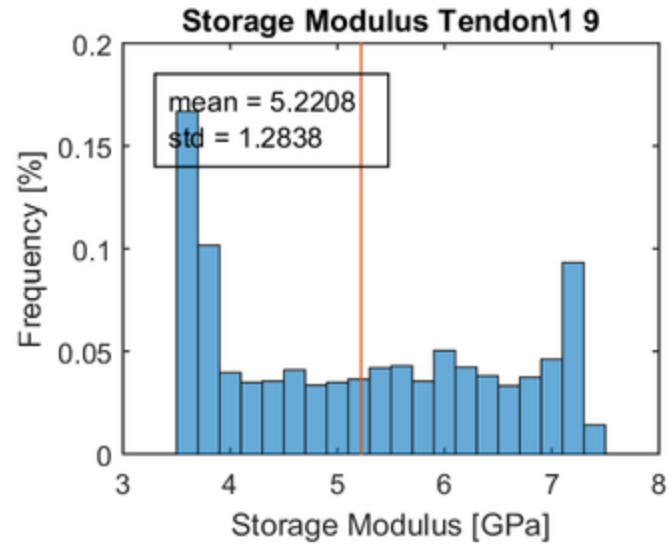
Tendon A Point 7 Not used



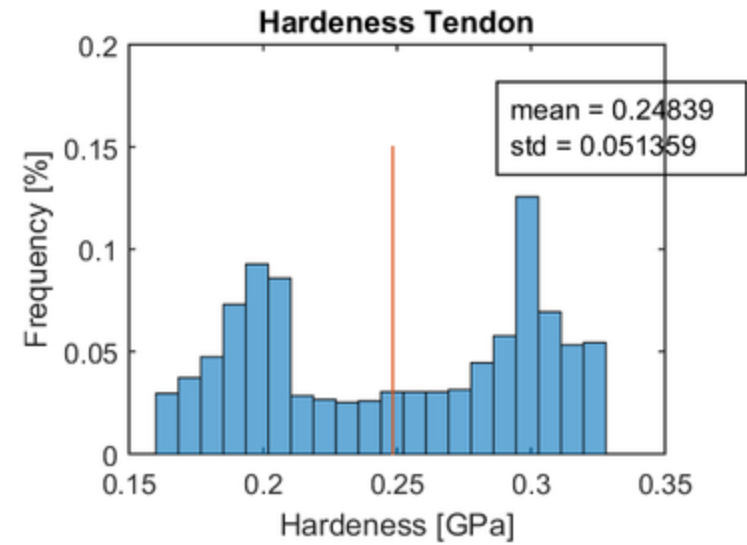
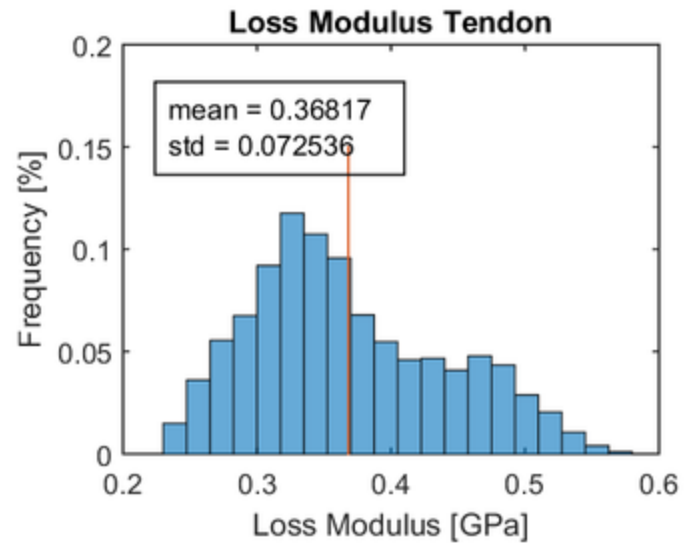
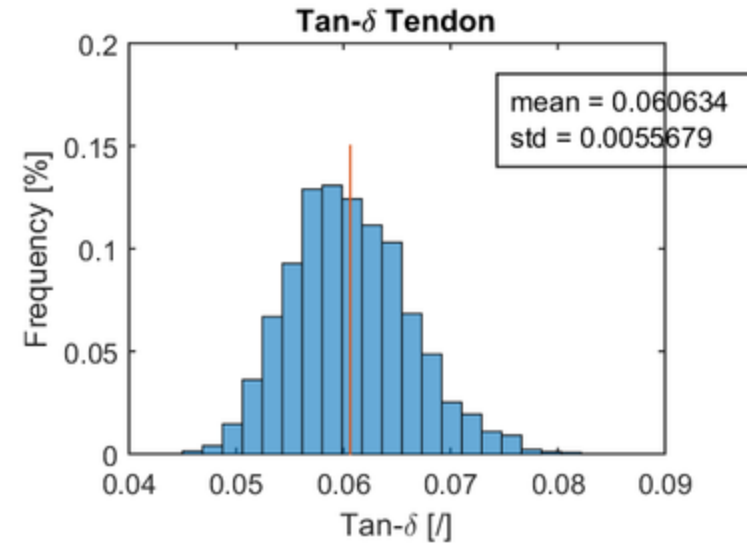
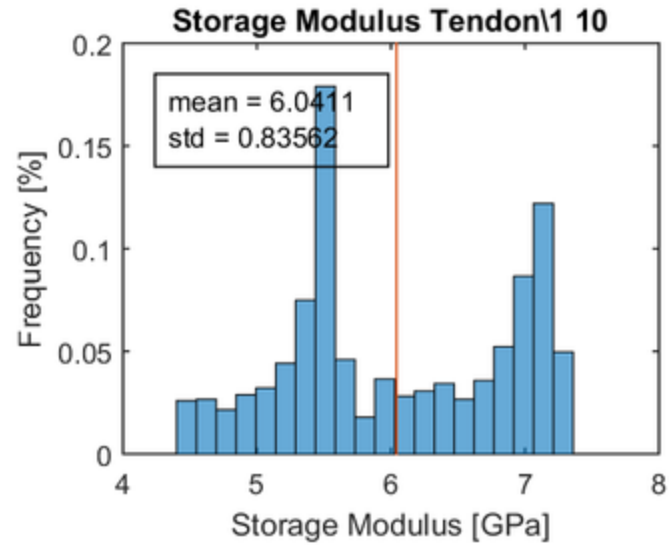
Tendon A Point 8



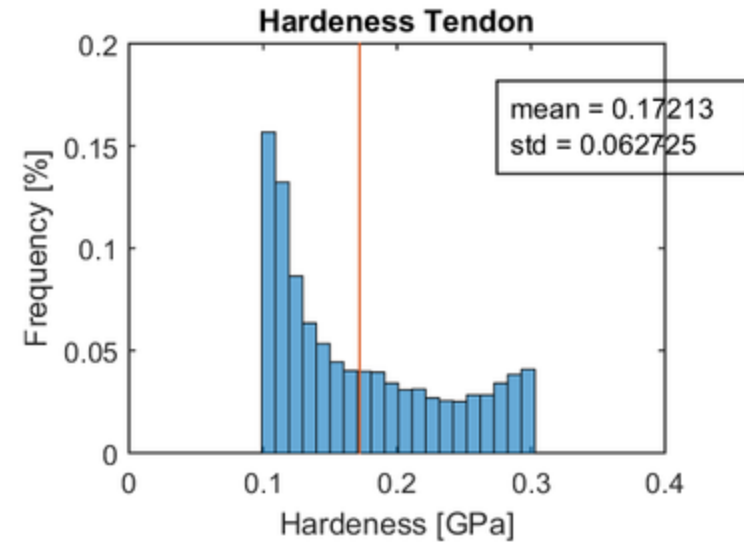
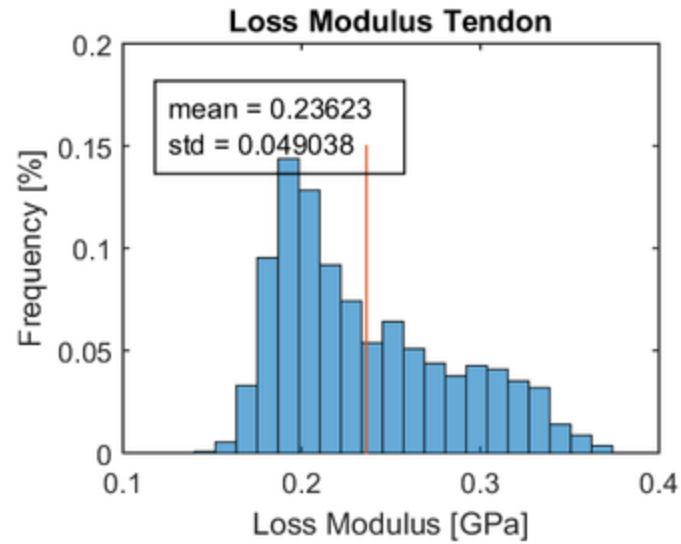
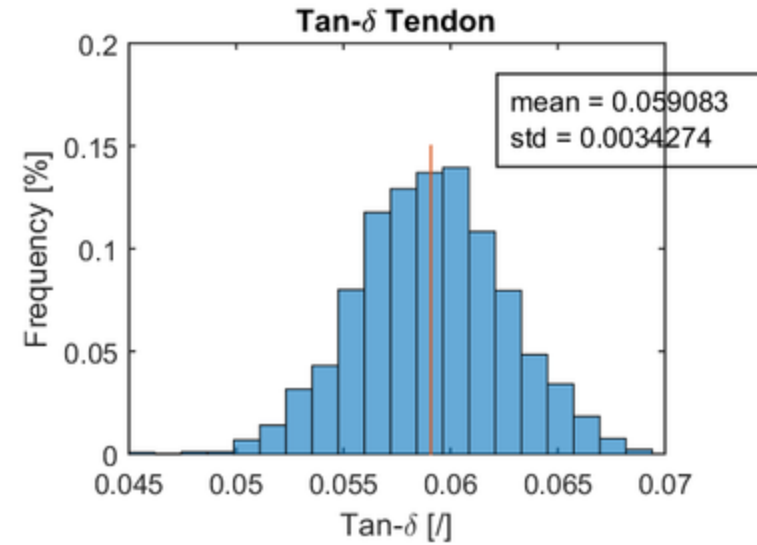
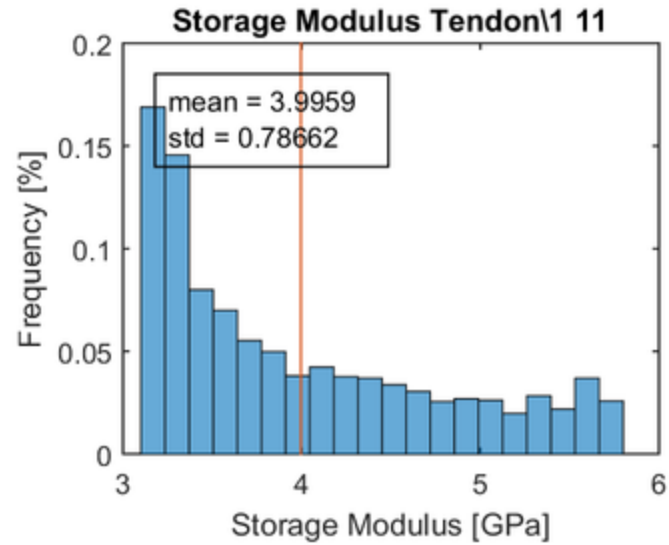
Tendon A Point 9



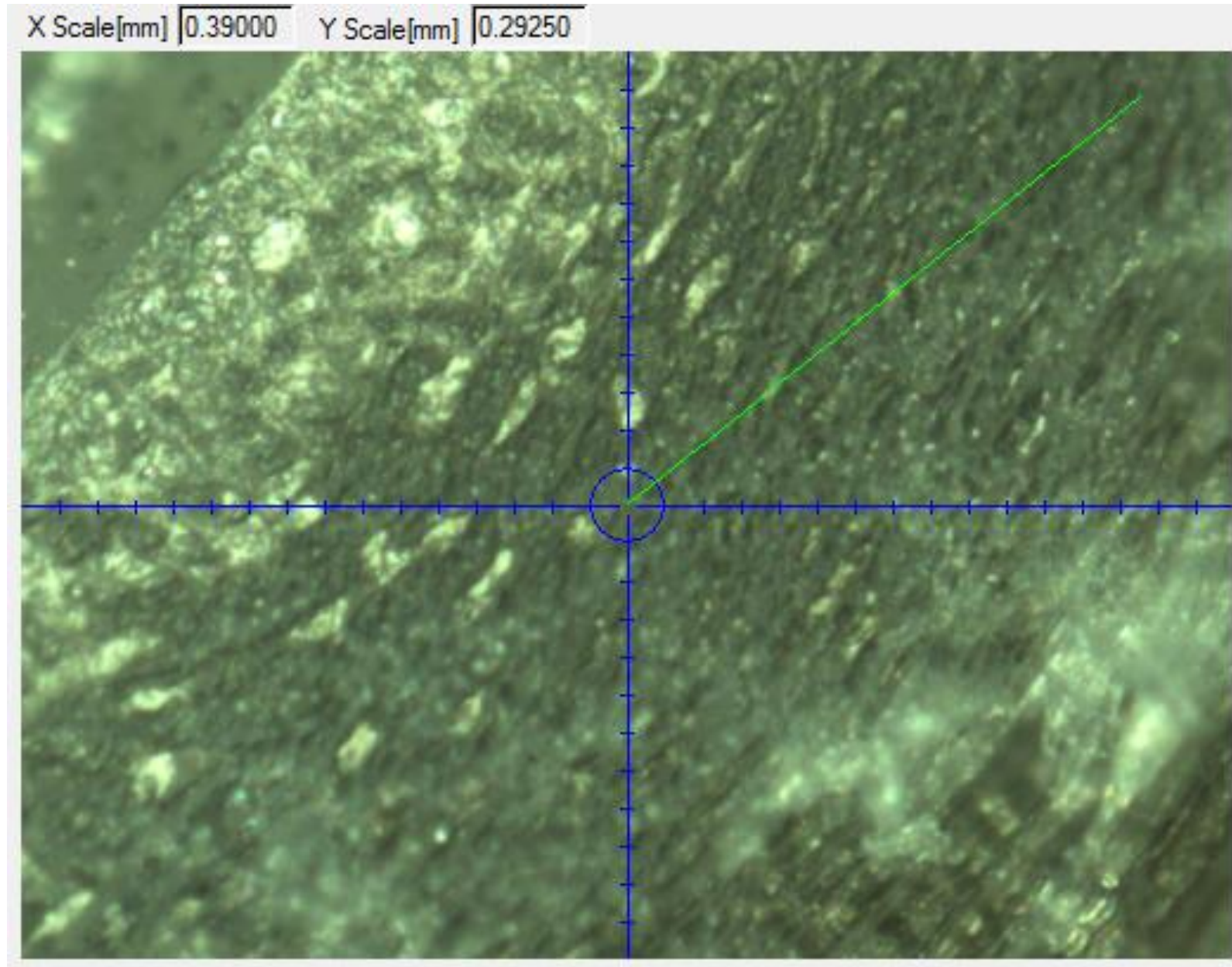
Tendon A Point 10



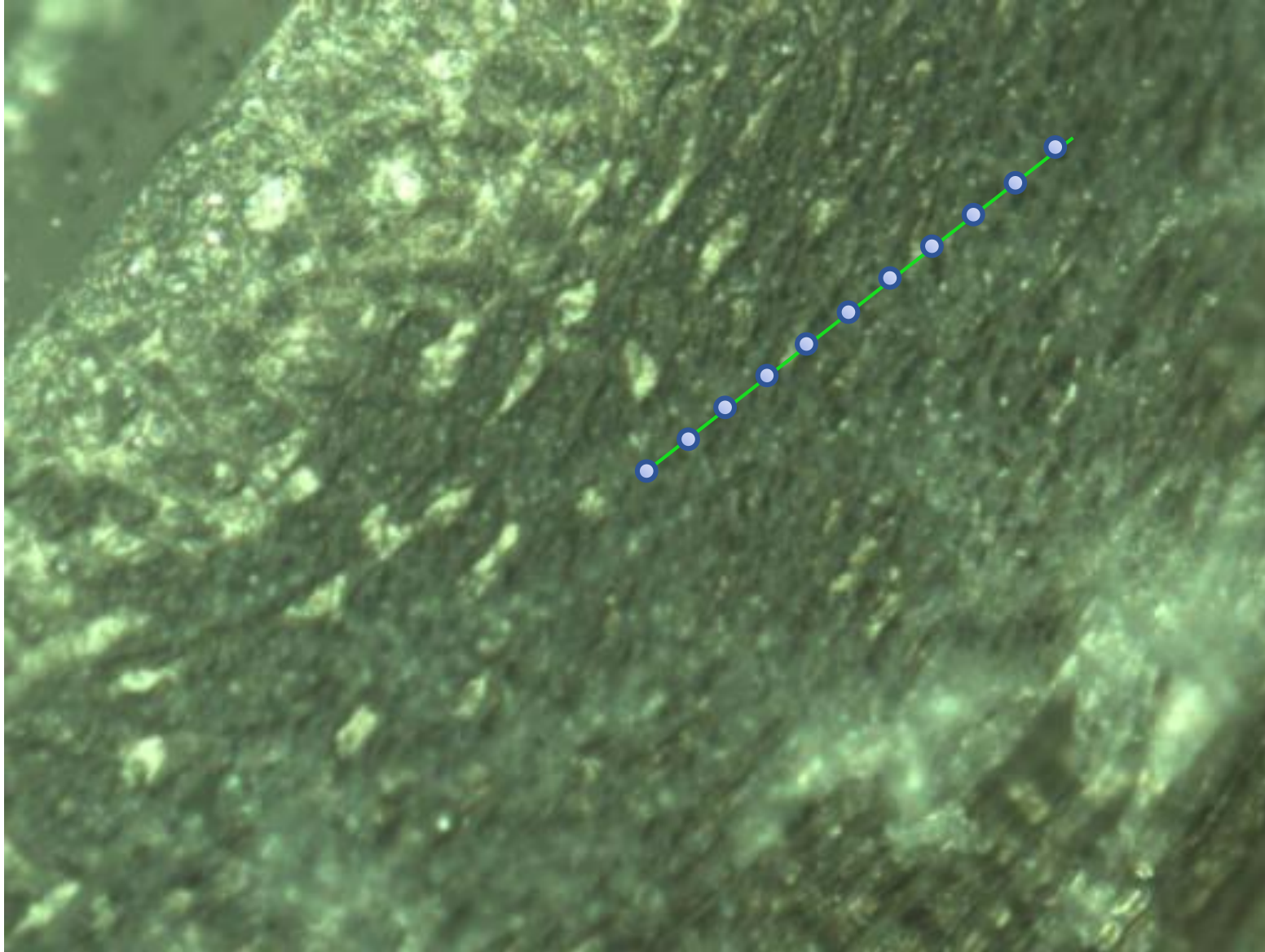
Tendon A Point 11



B. Tendon D1 11 points $\Delta=20\mu\text{m}$



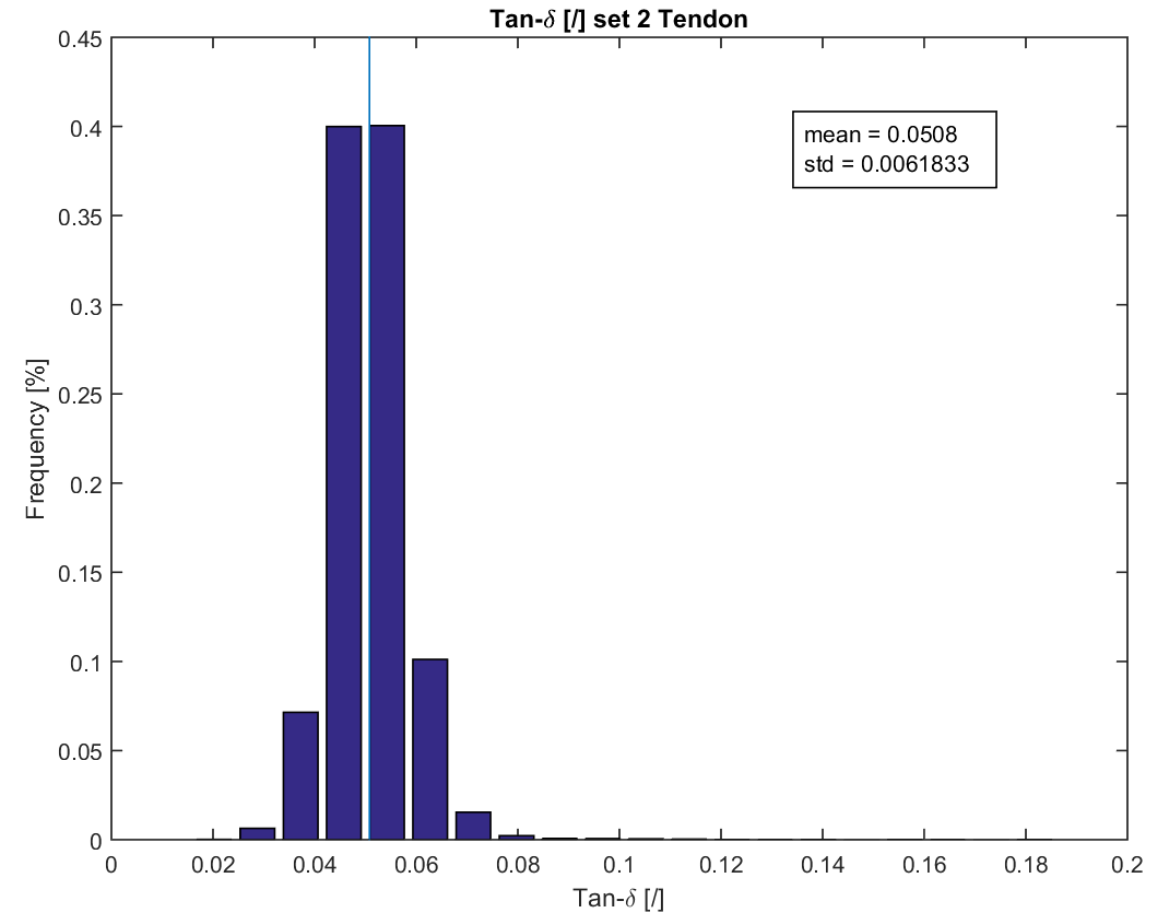
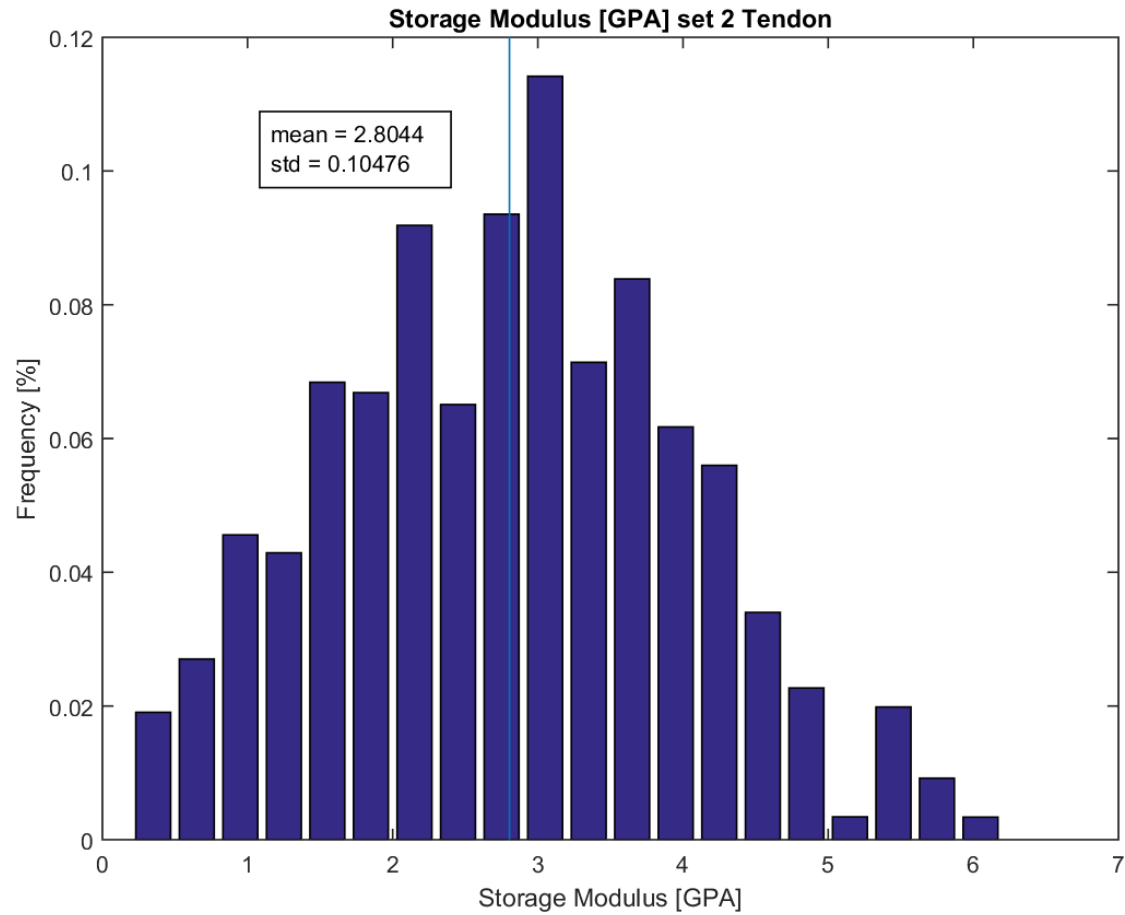
B. Tendon D1 11 points $\Delta=20\mu\text{m}$

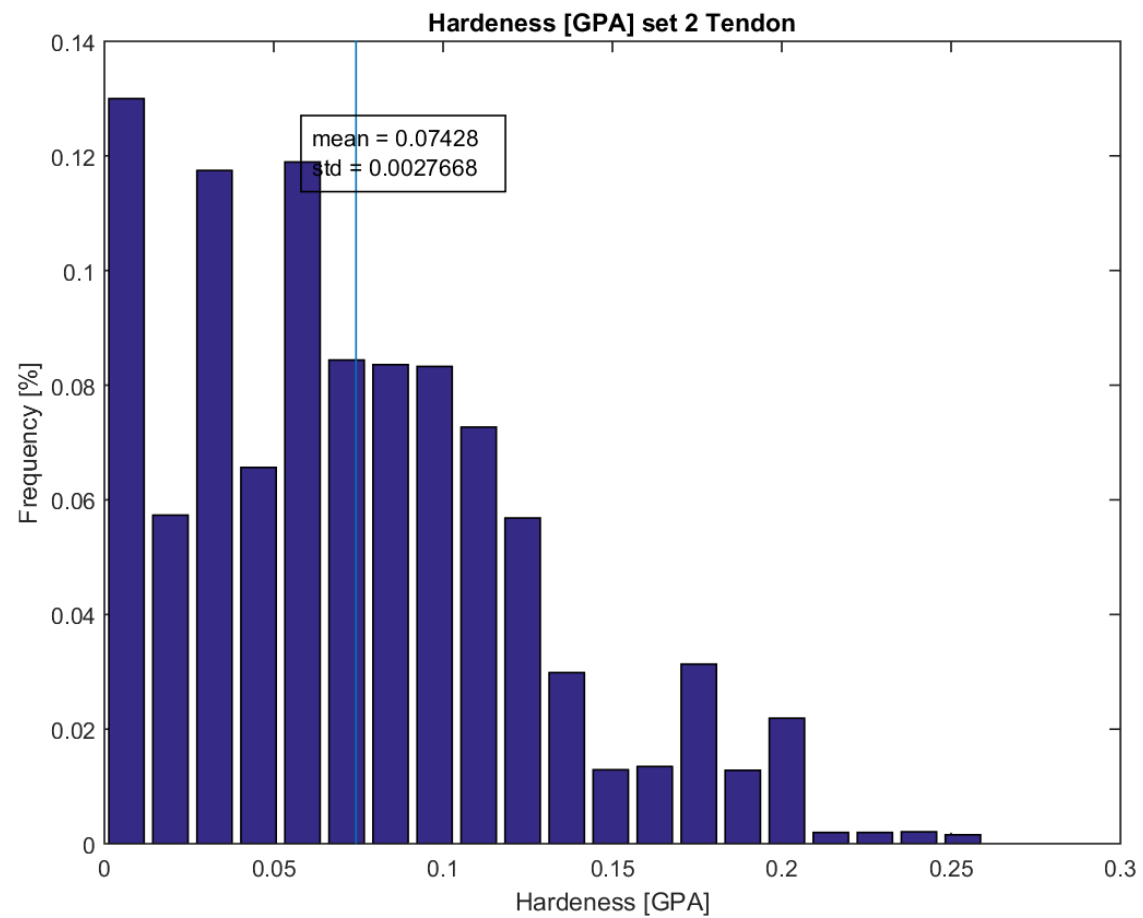
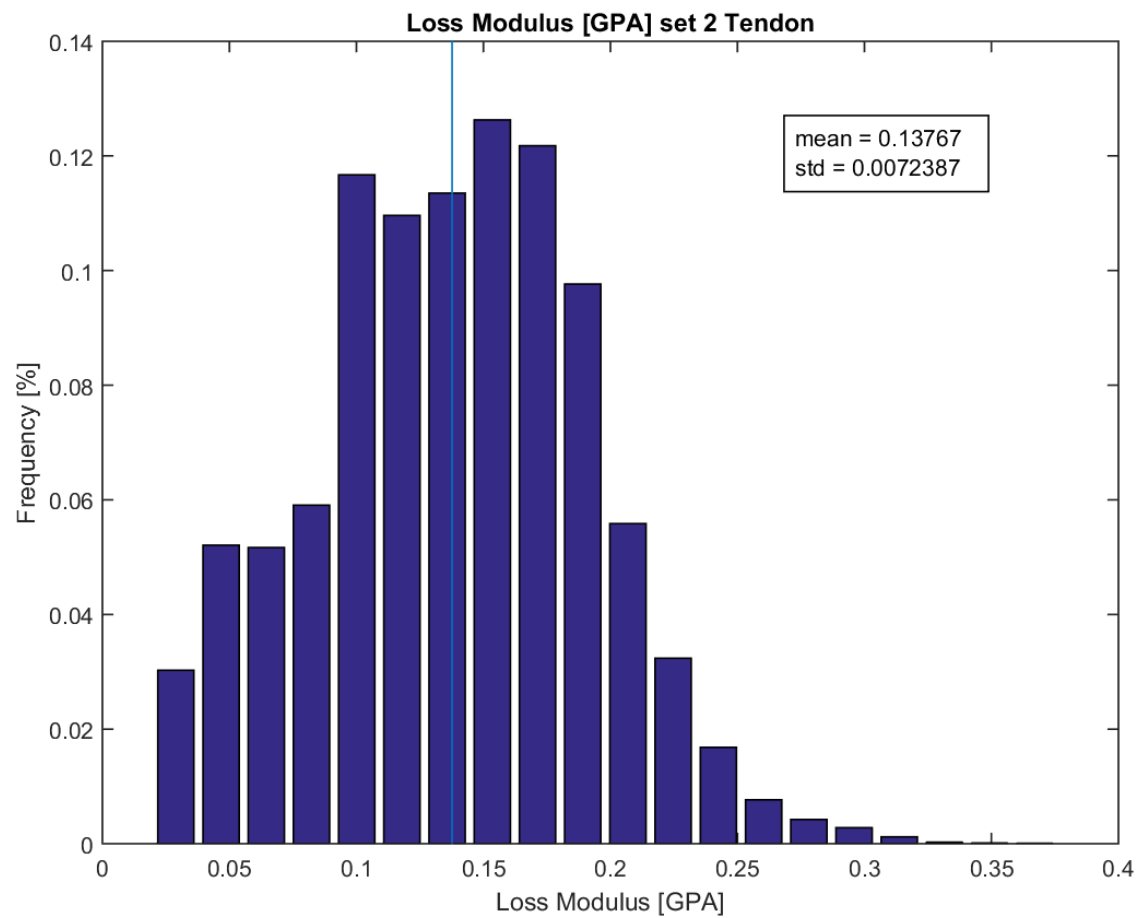




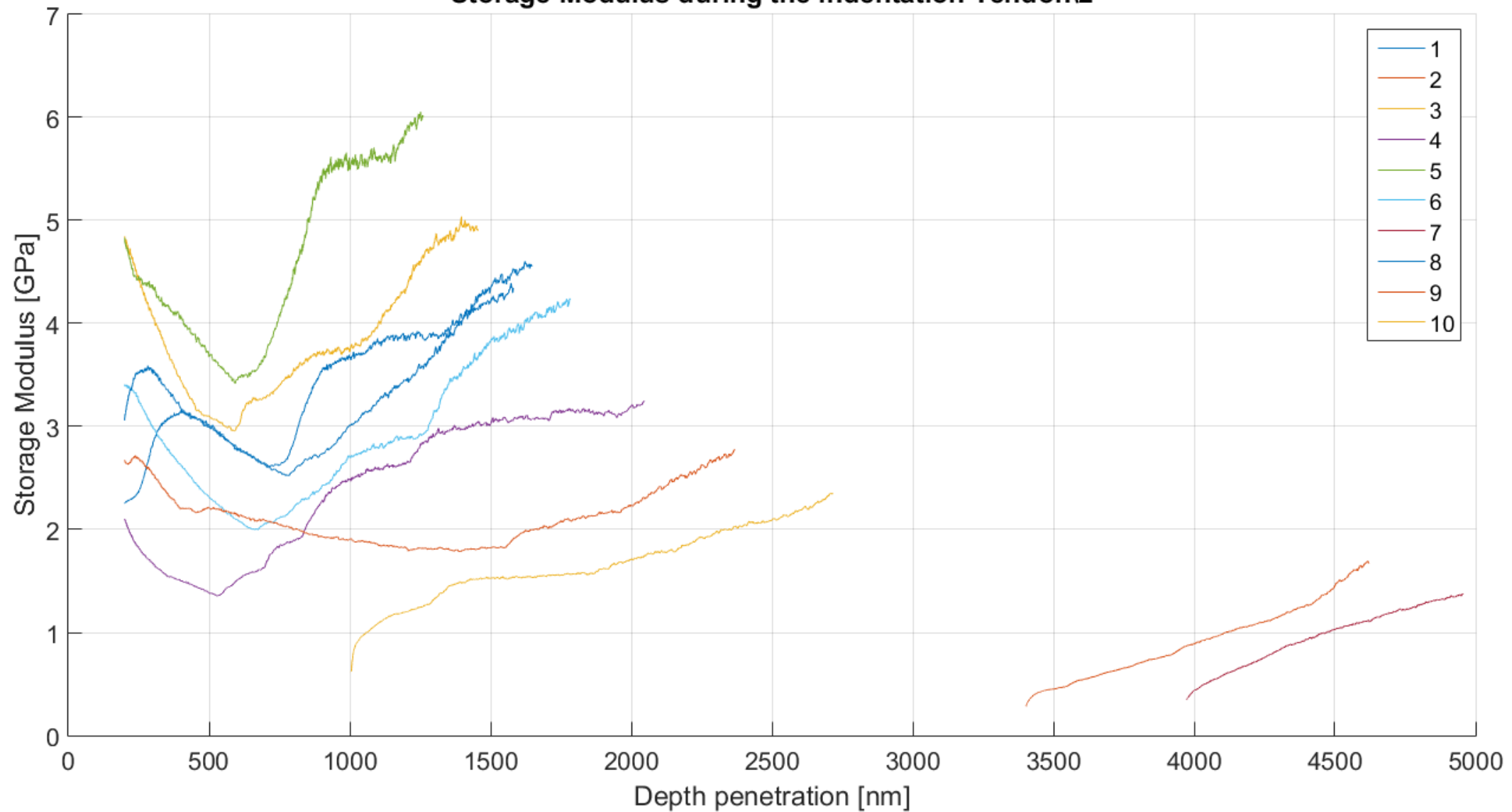
- No depth surface graph

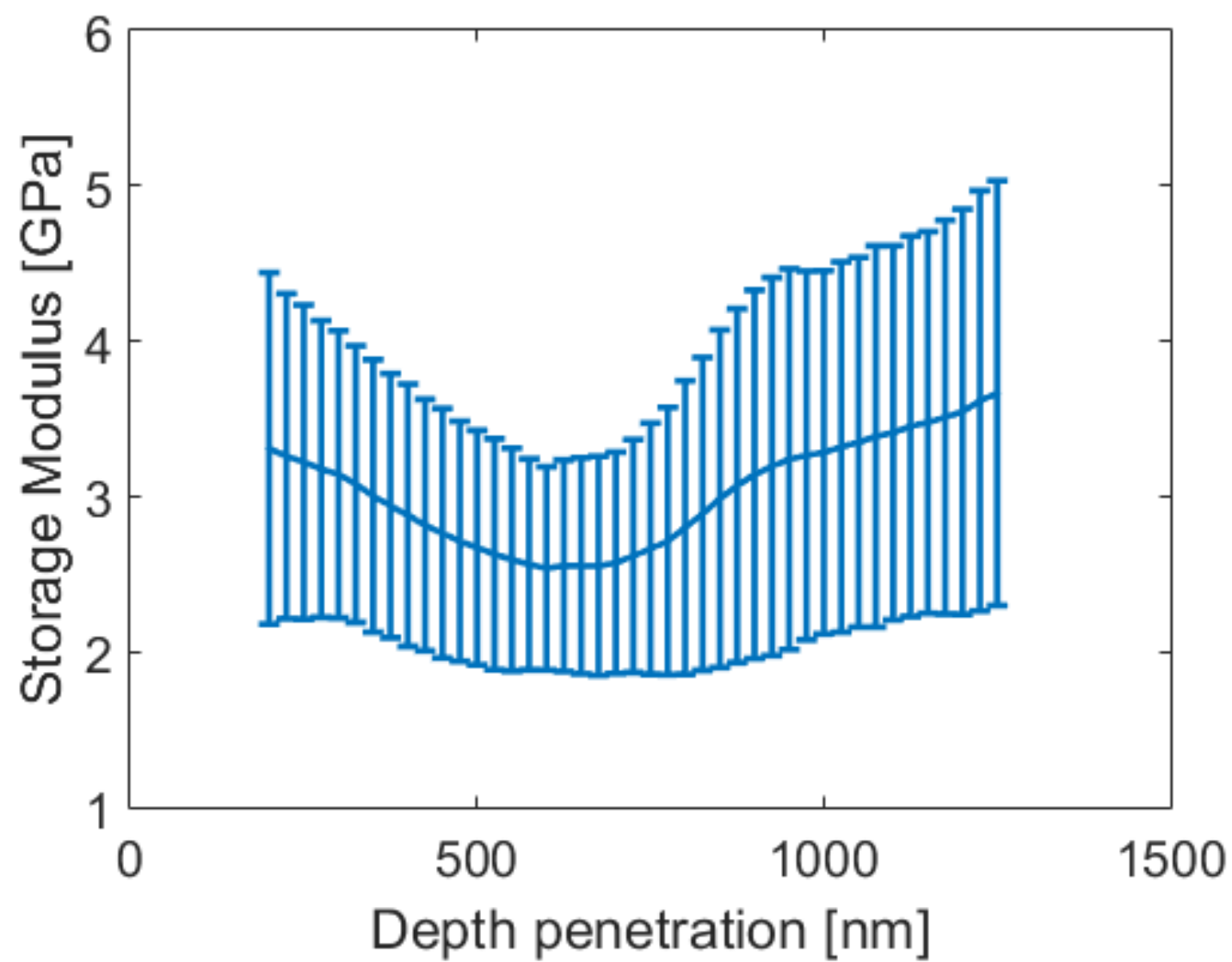
B. Complet

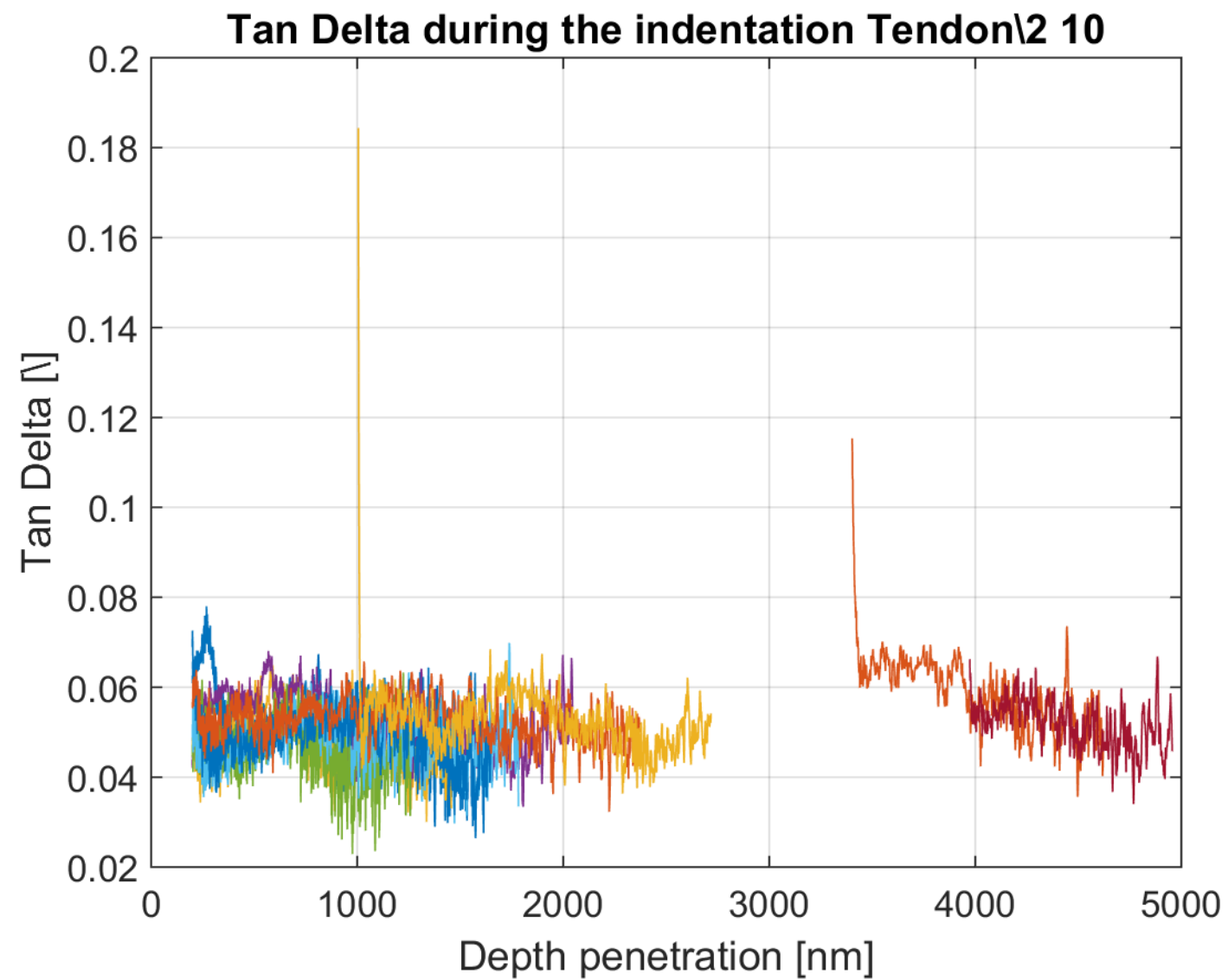


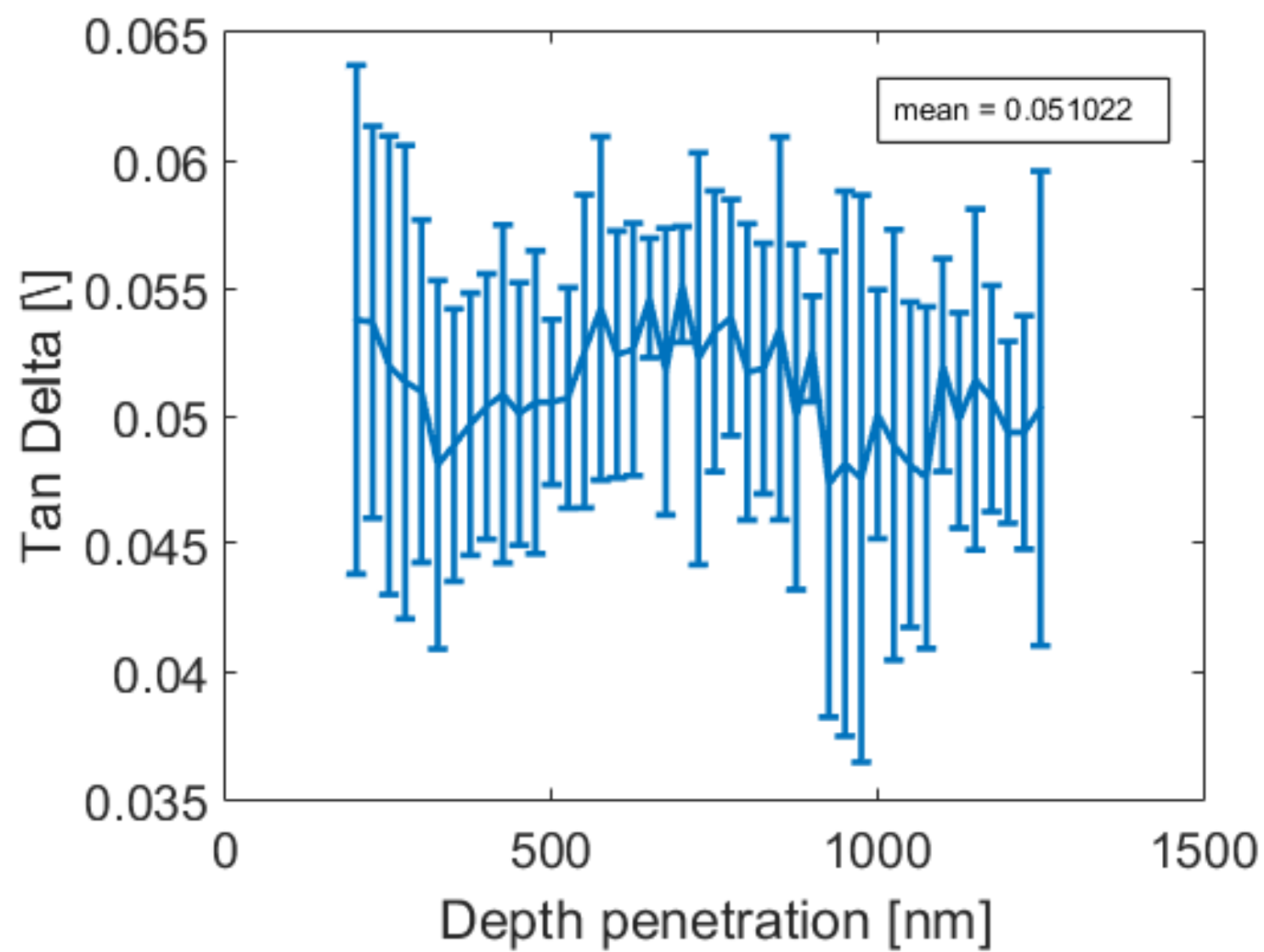


Storage Modulus during the indentation Tendon\2

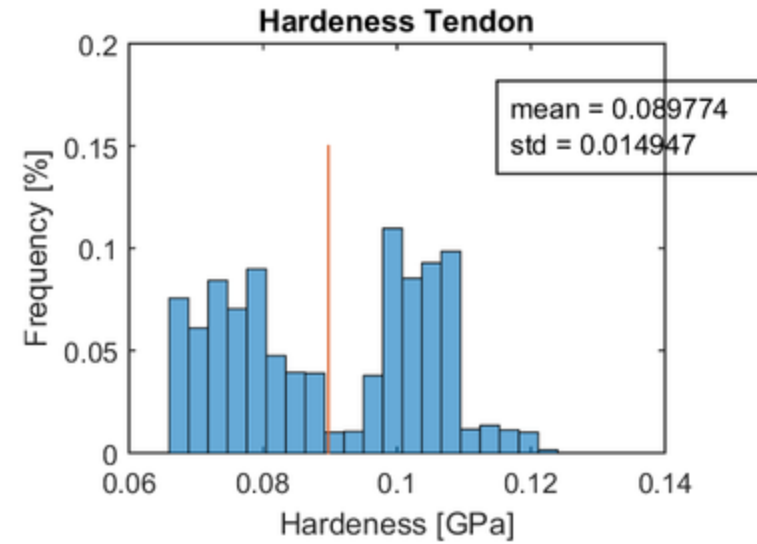
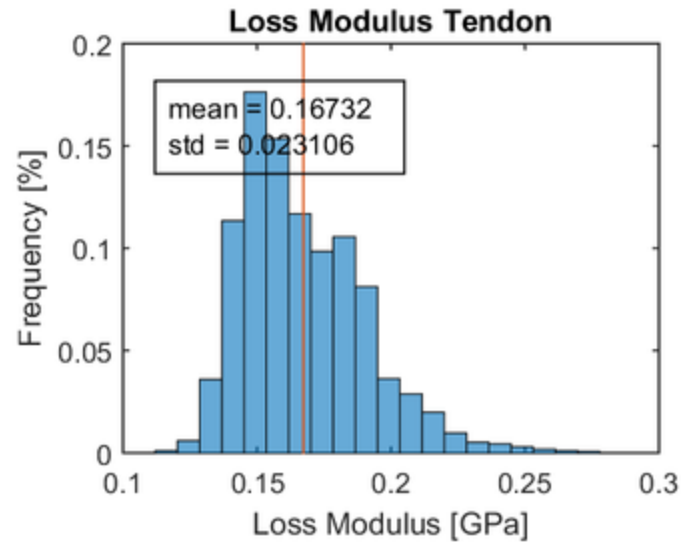
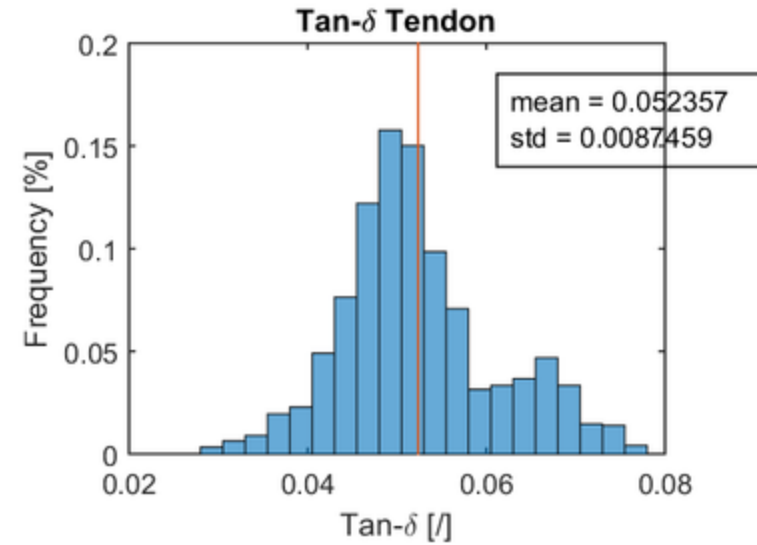
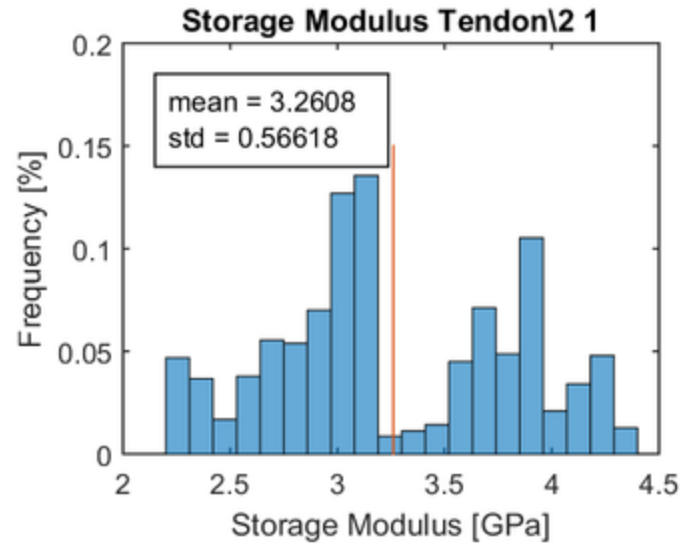




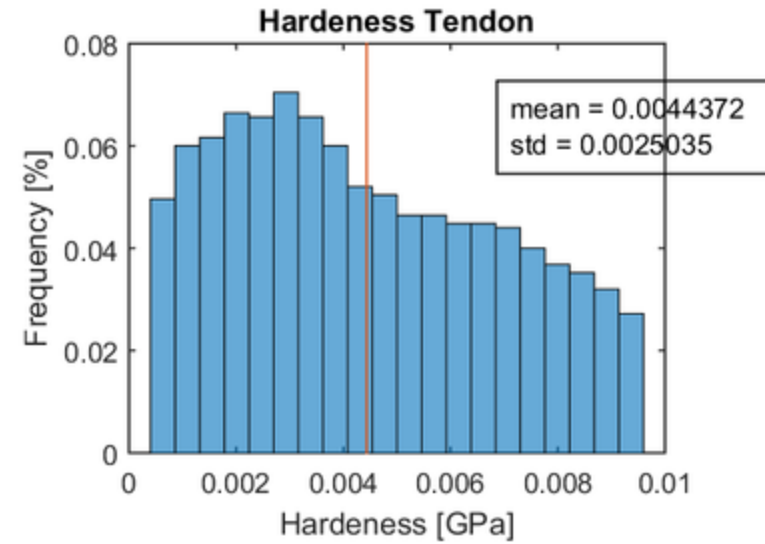
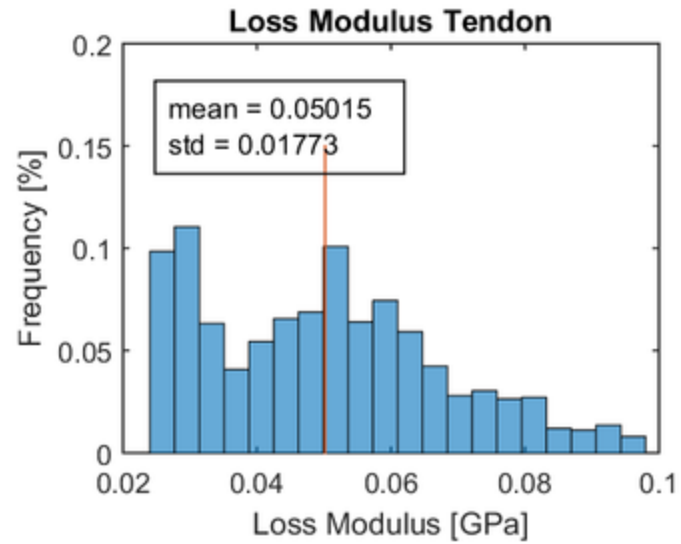
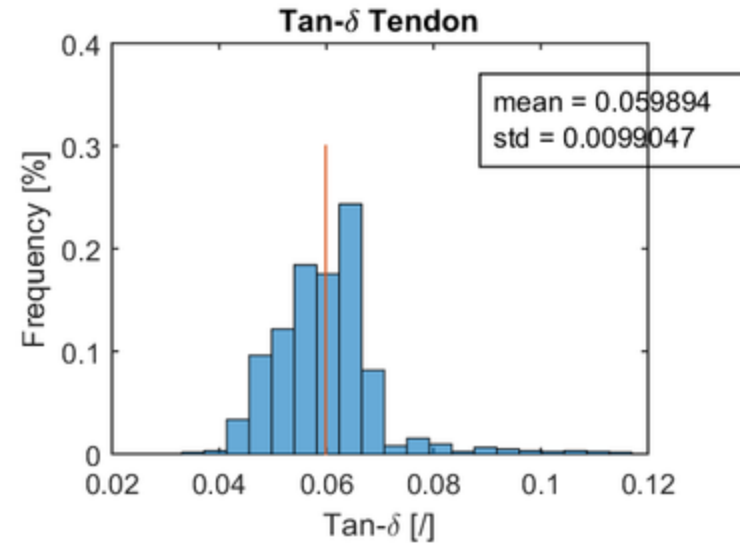
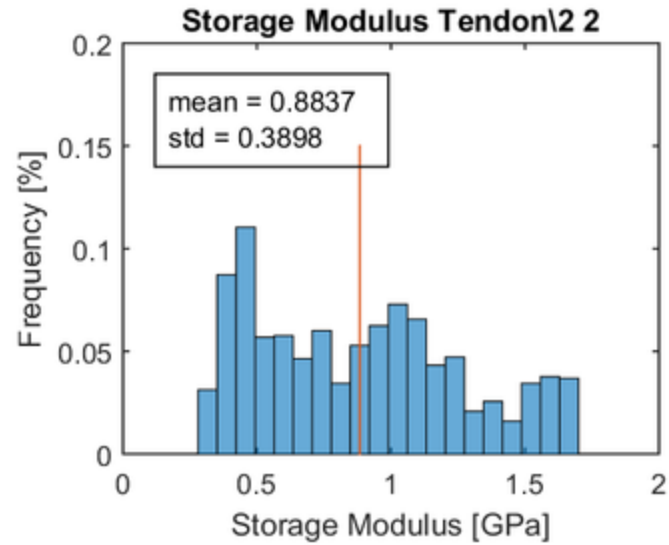




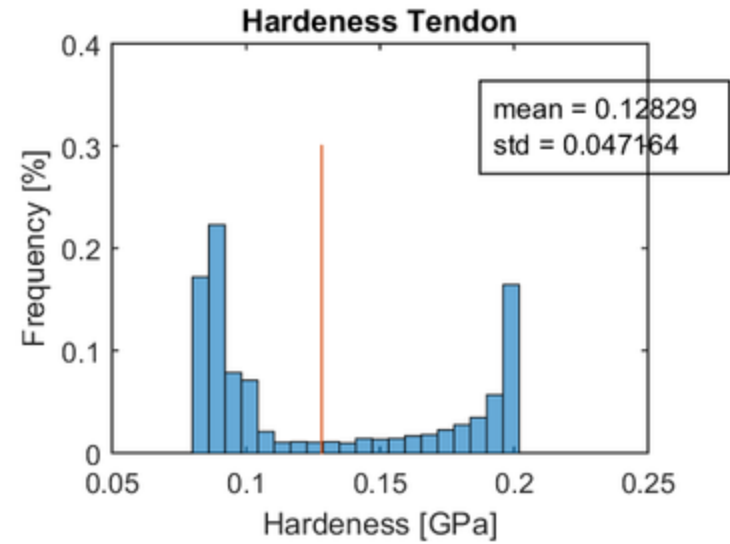
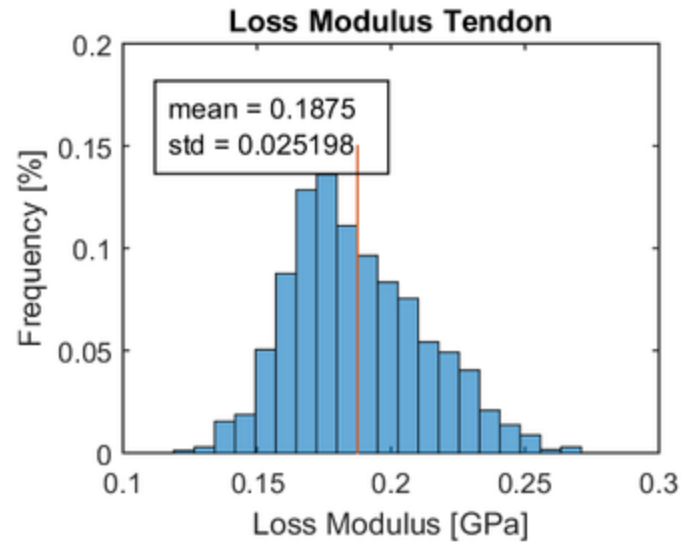
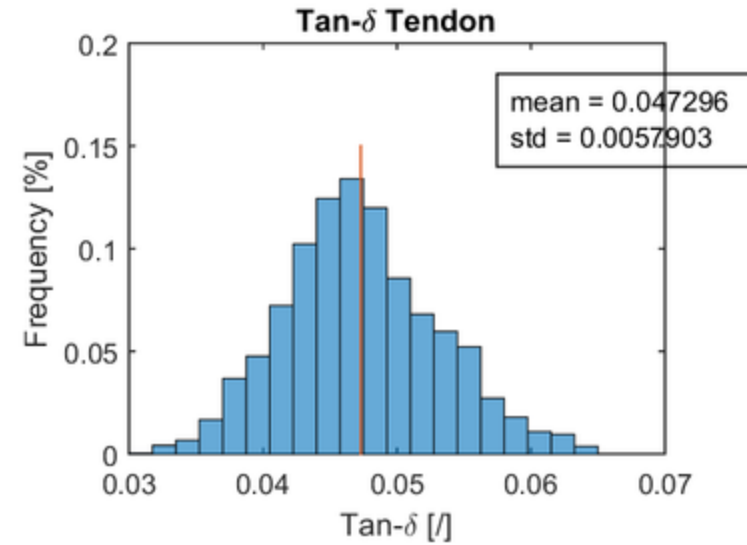
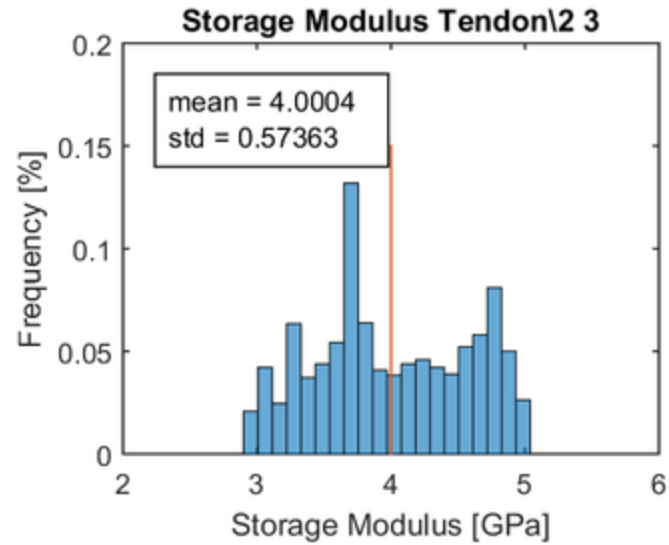
Tendon B Point 1



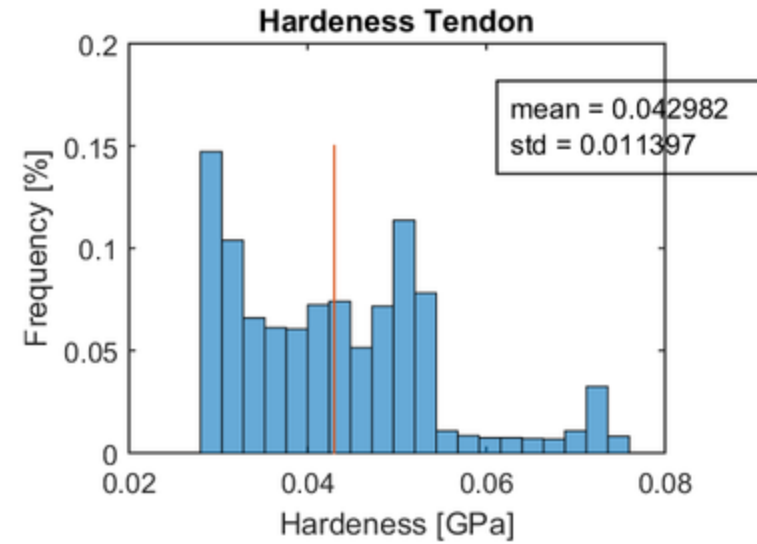
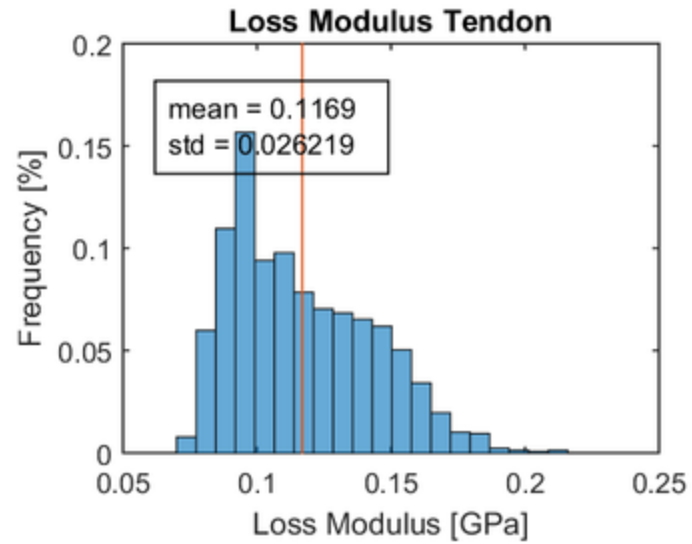
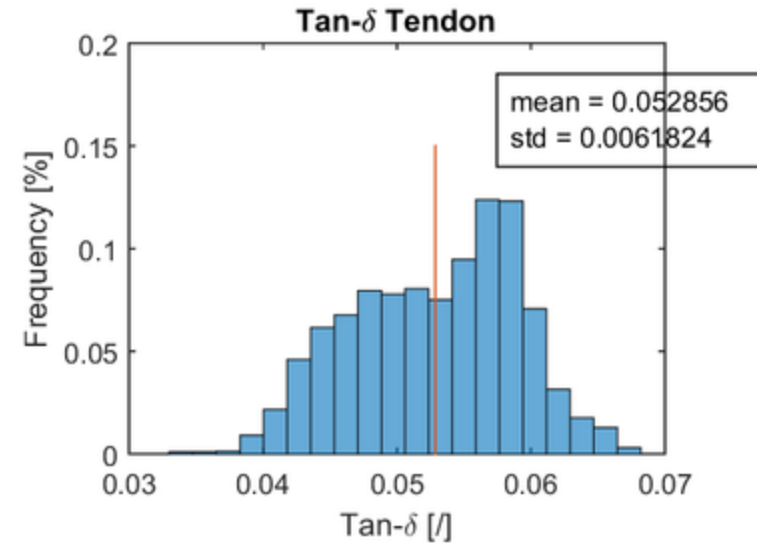
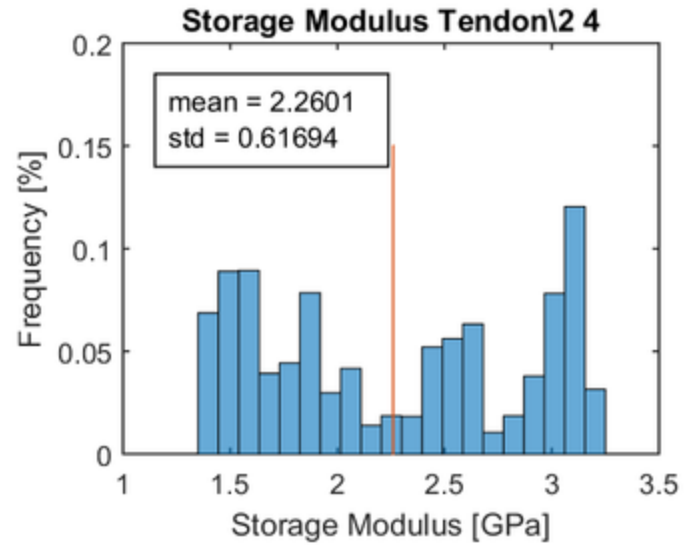
Tendon B Point 2



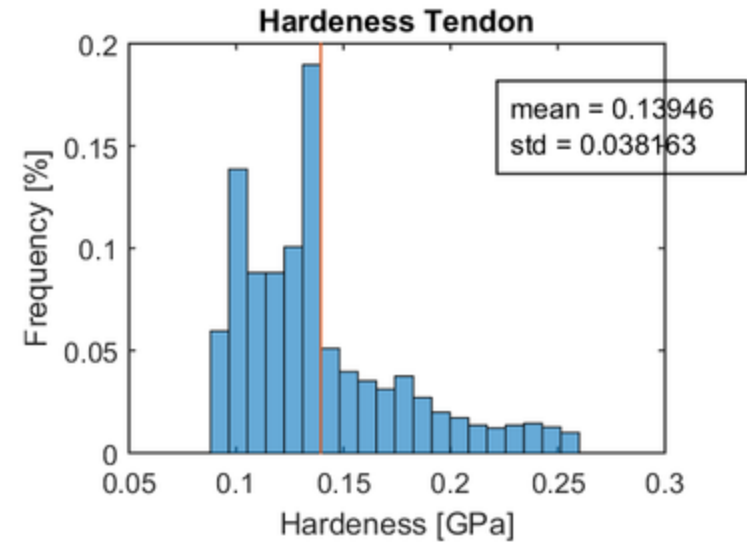
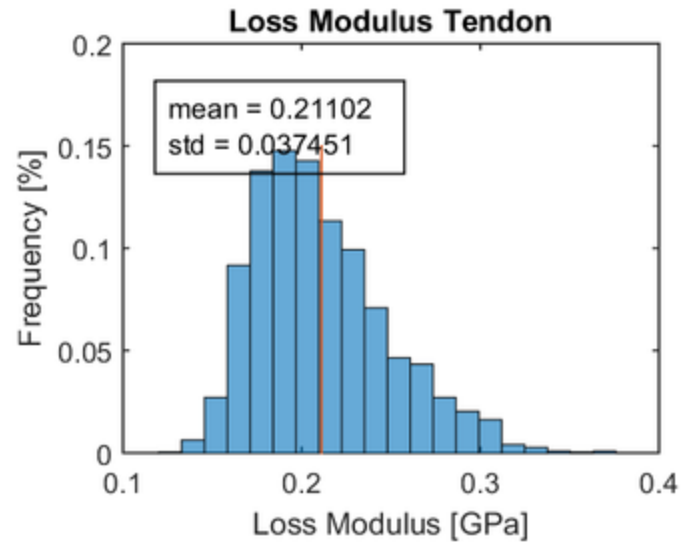
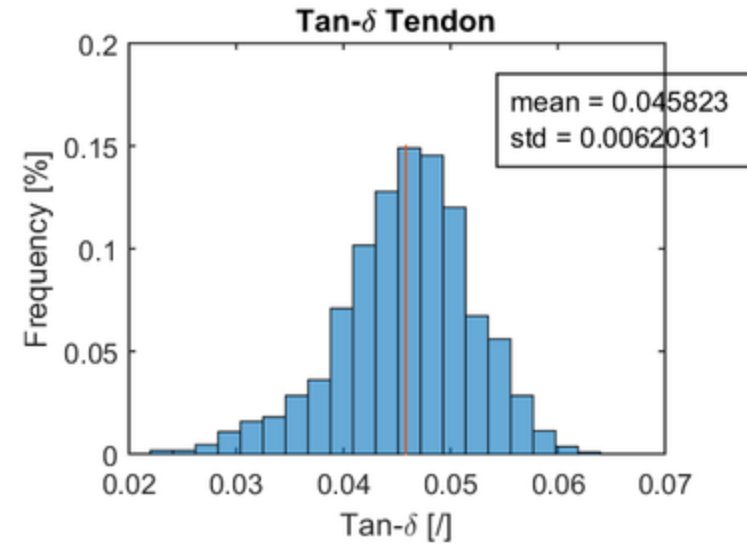
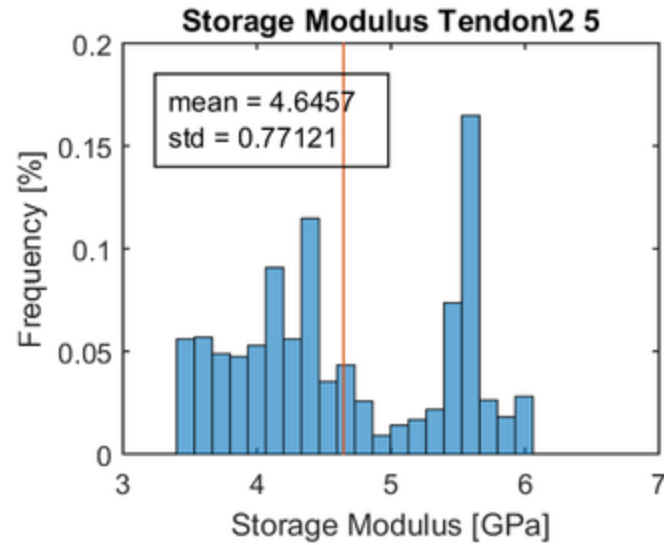
Tendon B Point 3



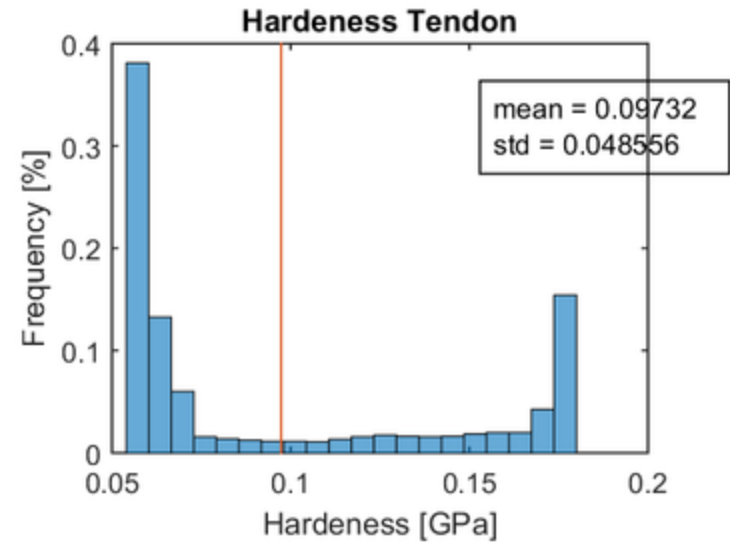
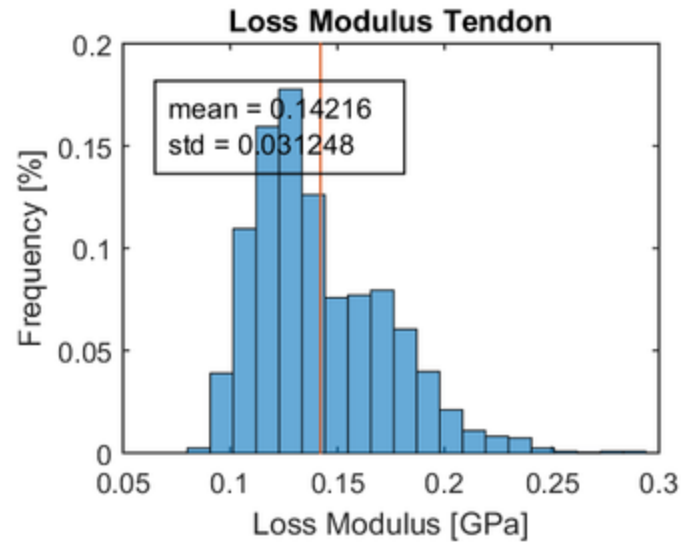
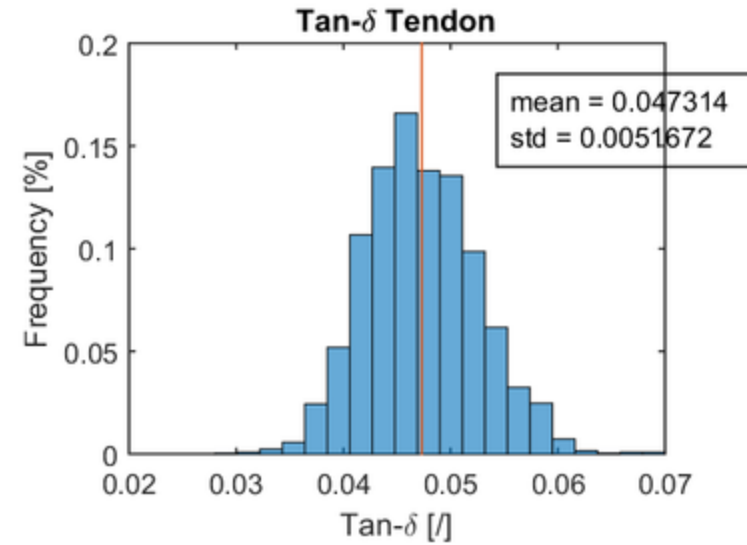
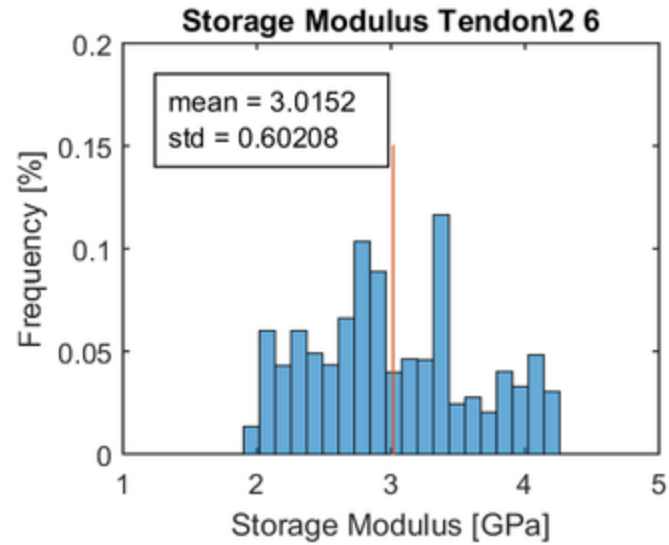
Tendon B Point 4



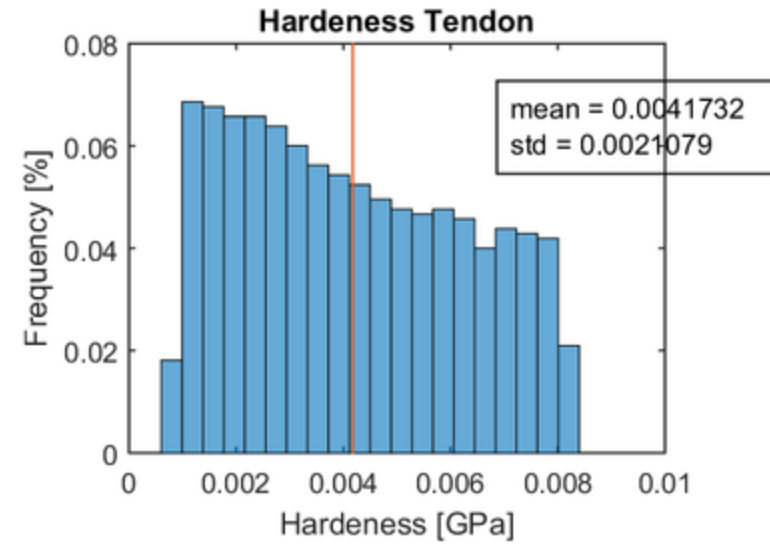
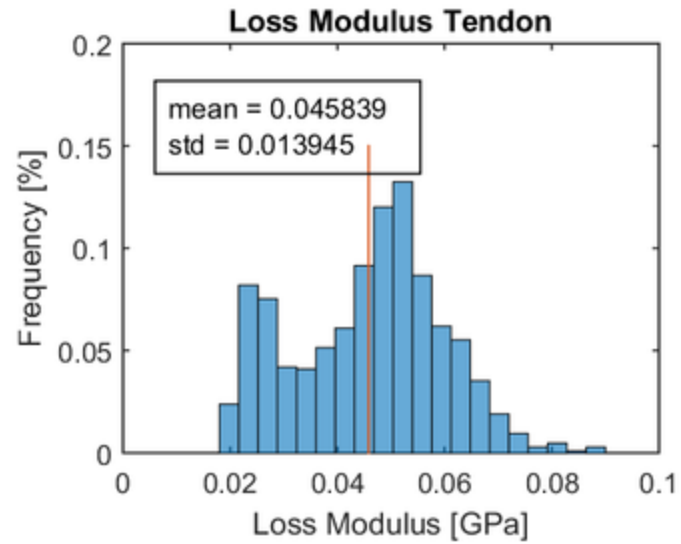
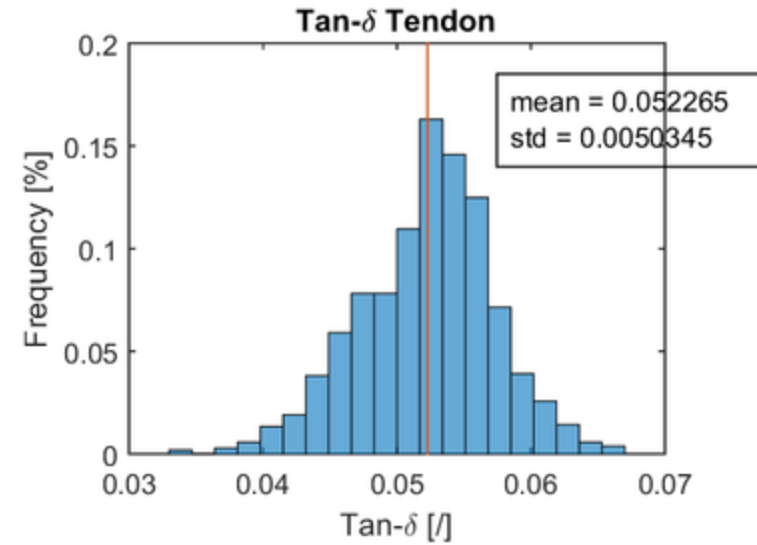
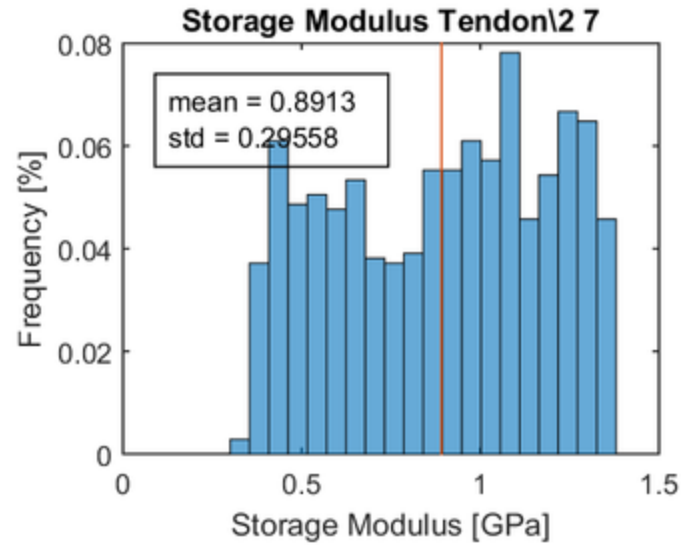
Tendon B Point 5



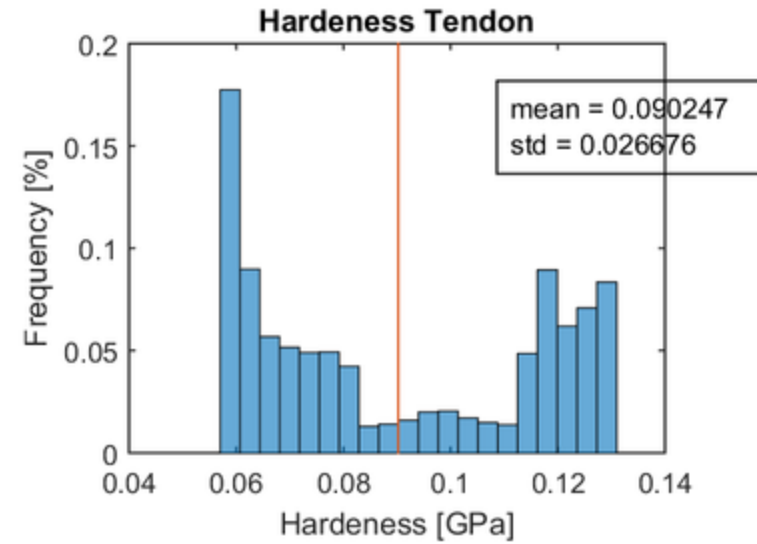
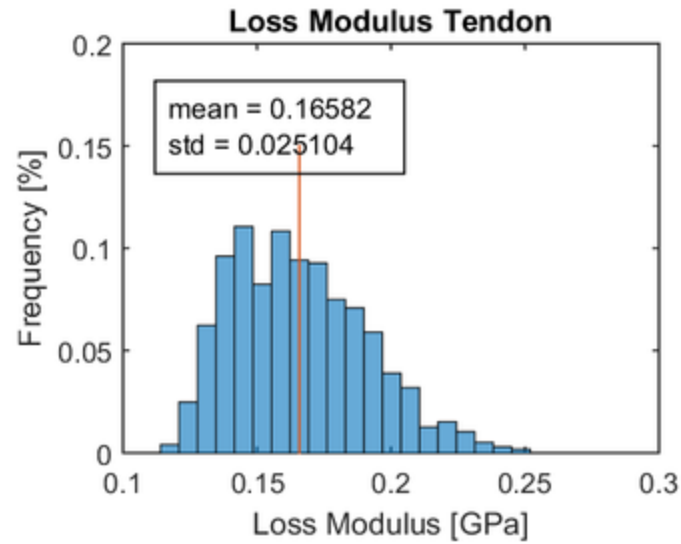
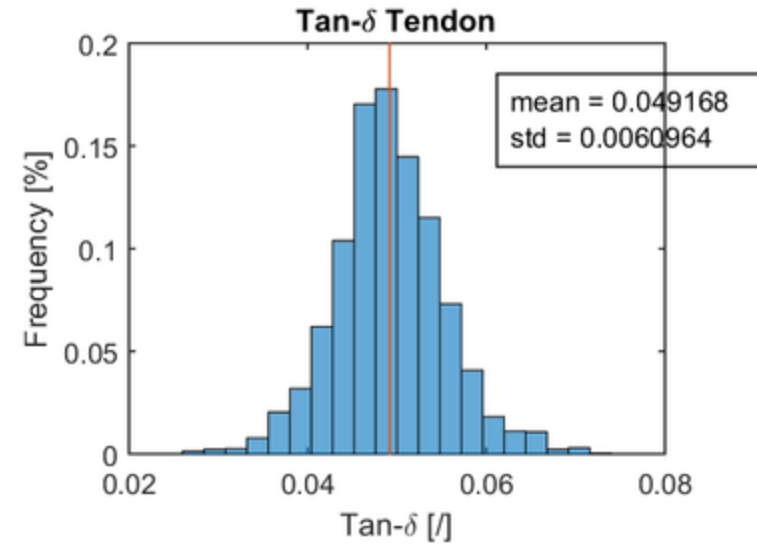
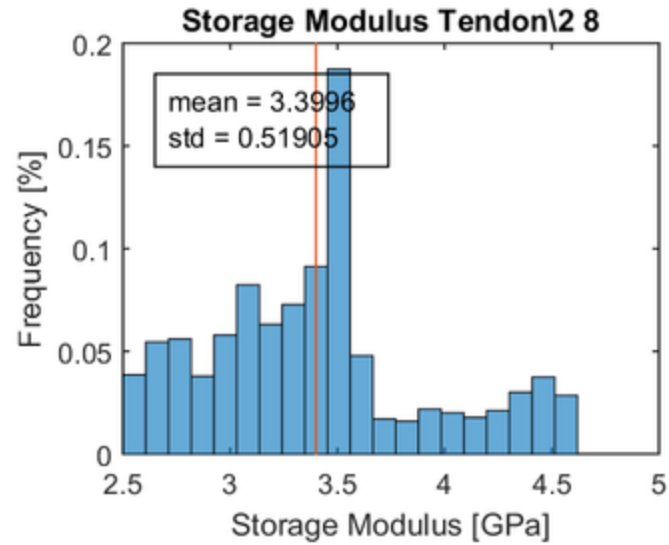
Tendon B Point 6



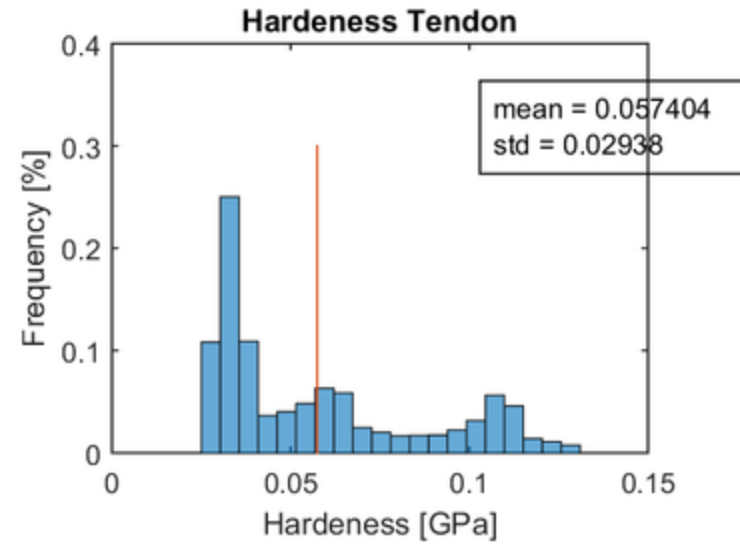
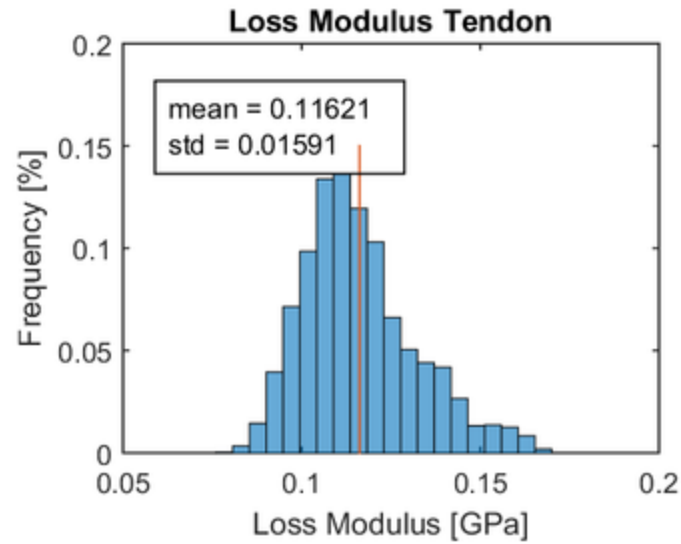
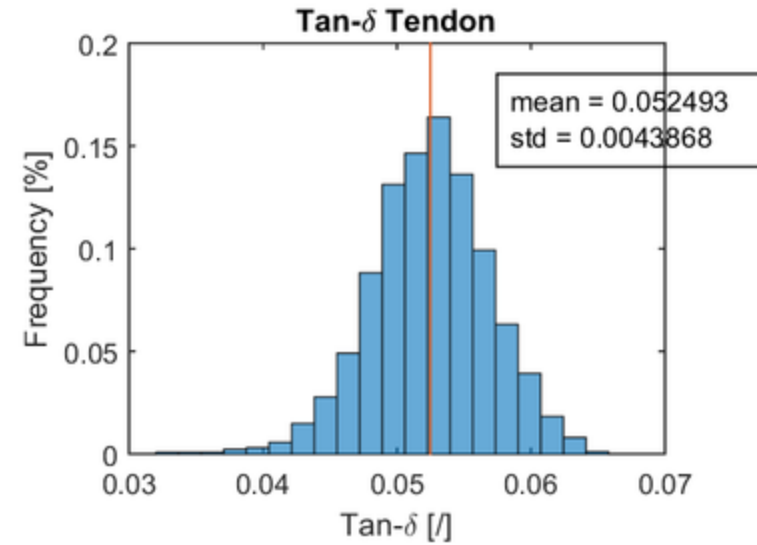
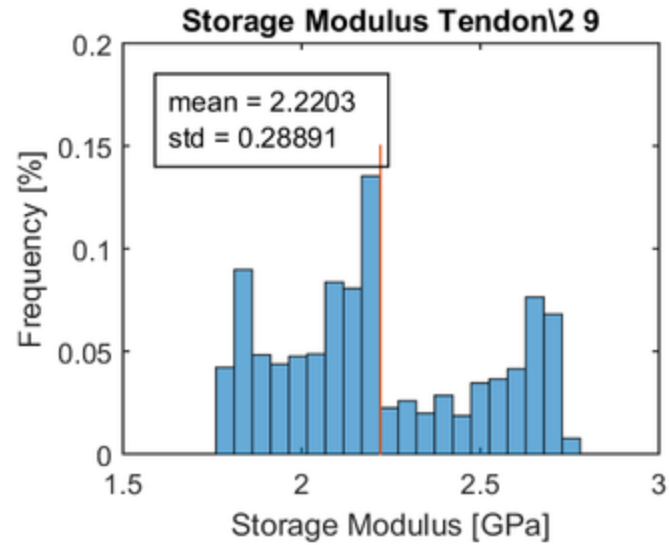
Tendon B Point 7



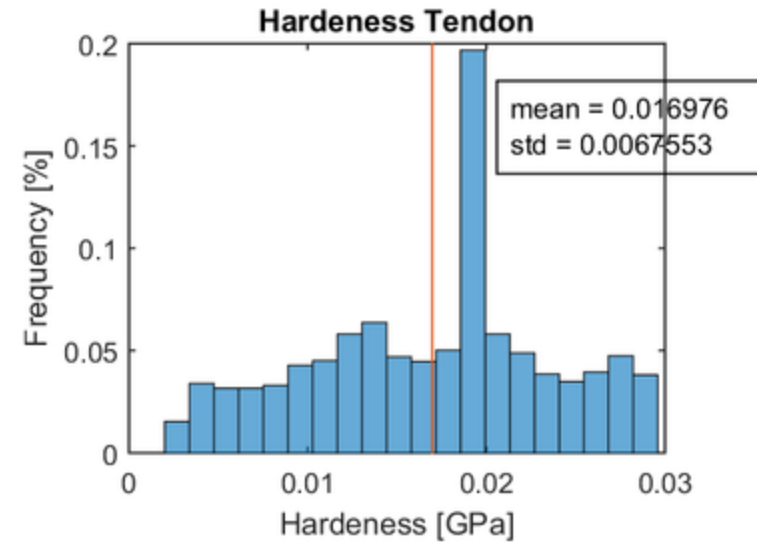
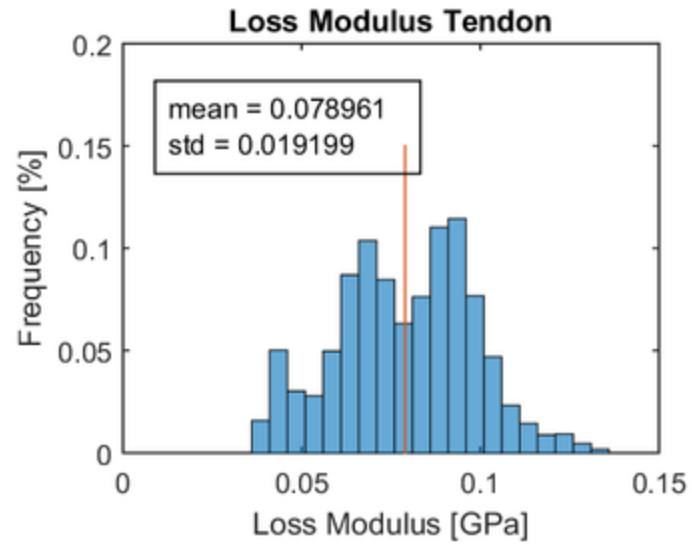
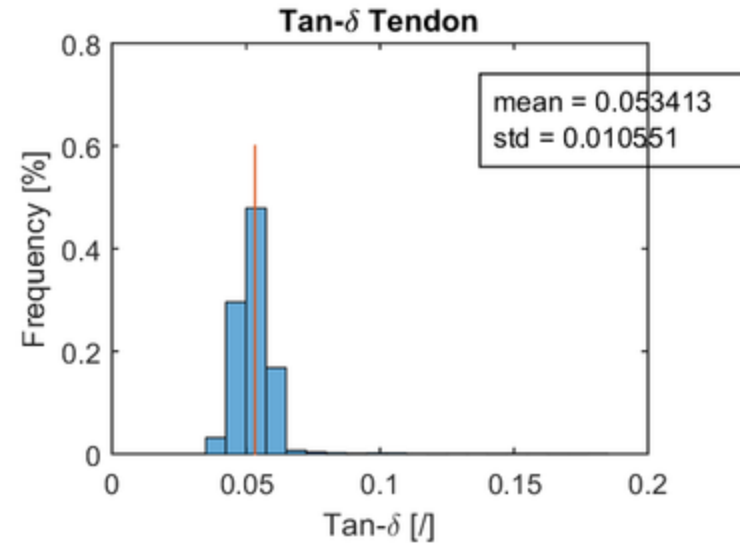
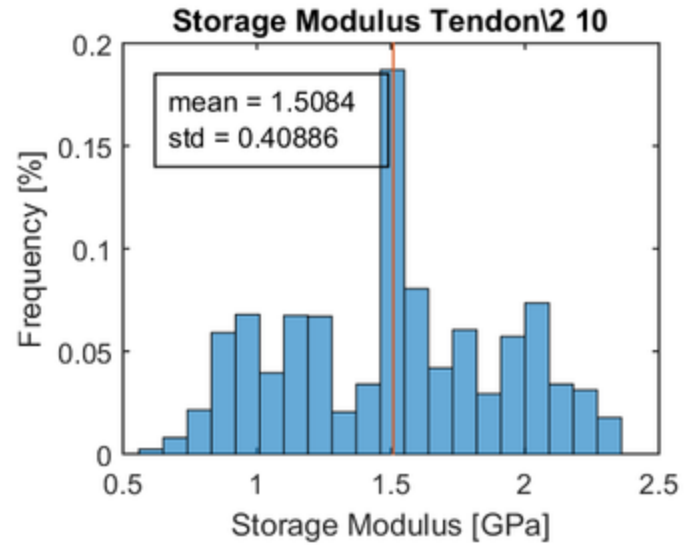
Tendon B Point 8



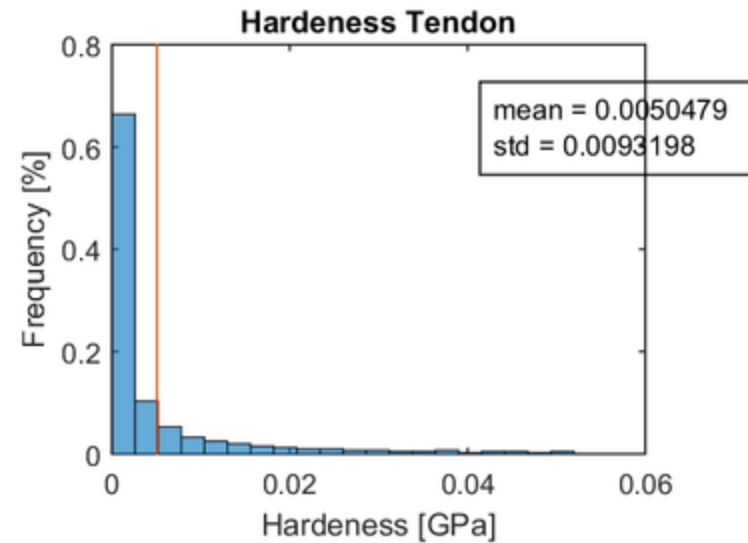
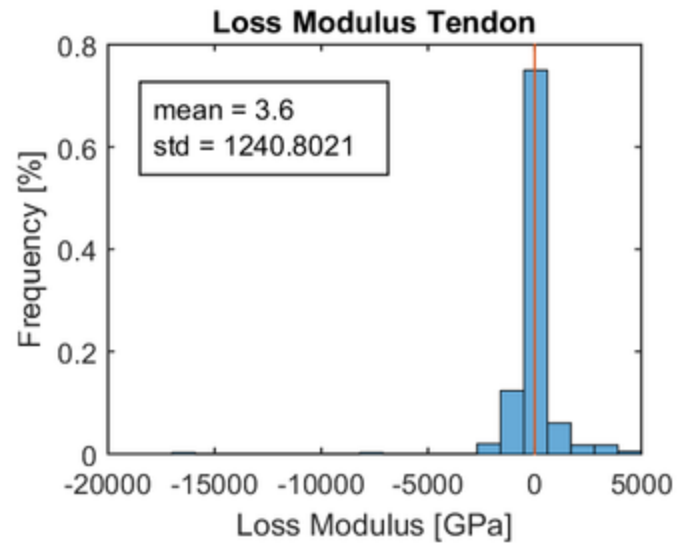
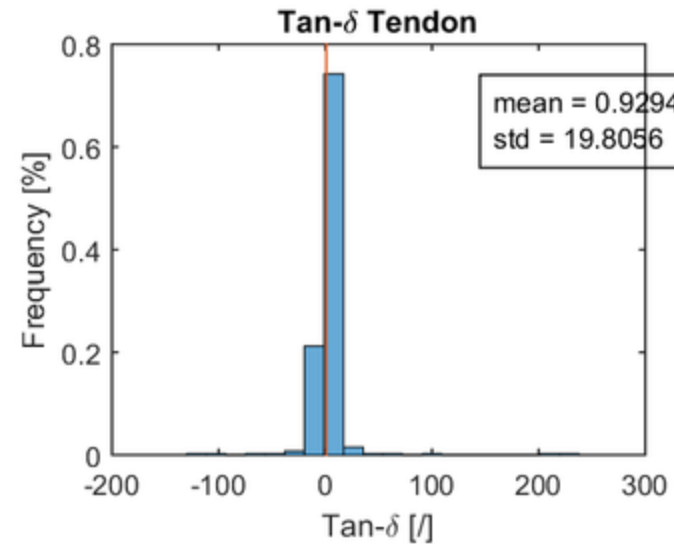
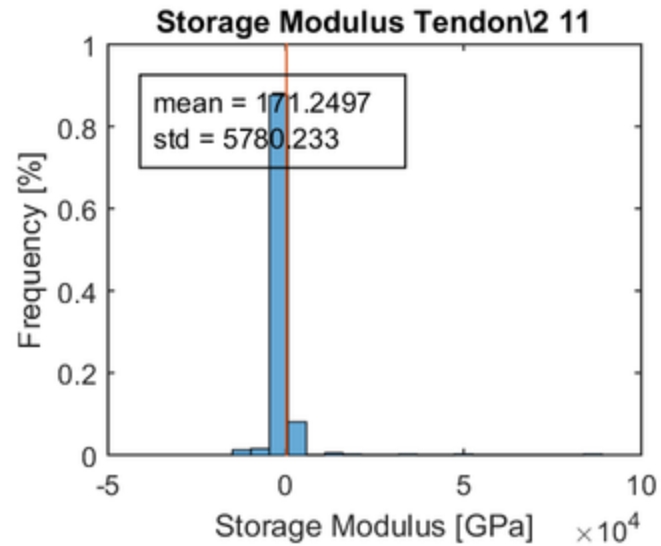
Tendon B Point 9



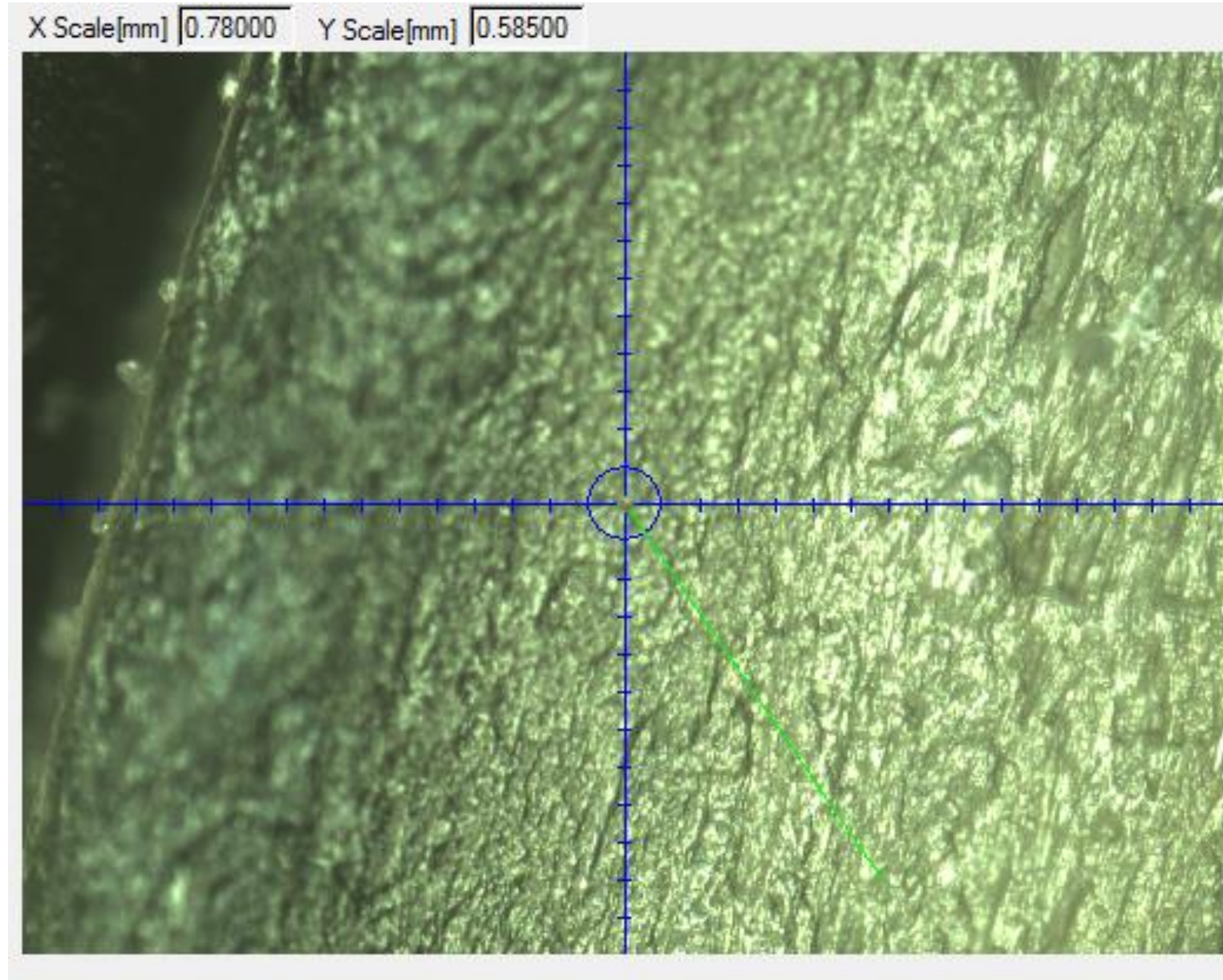
Tendon B Point 10



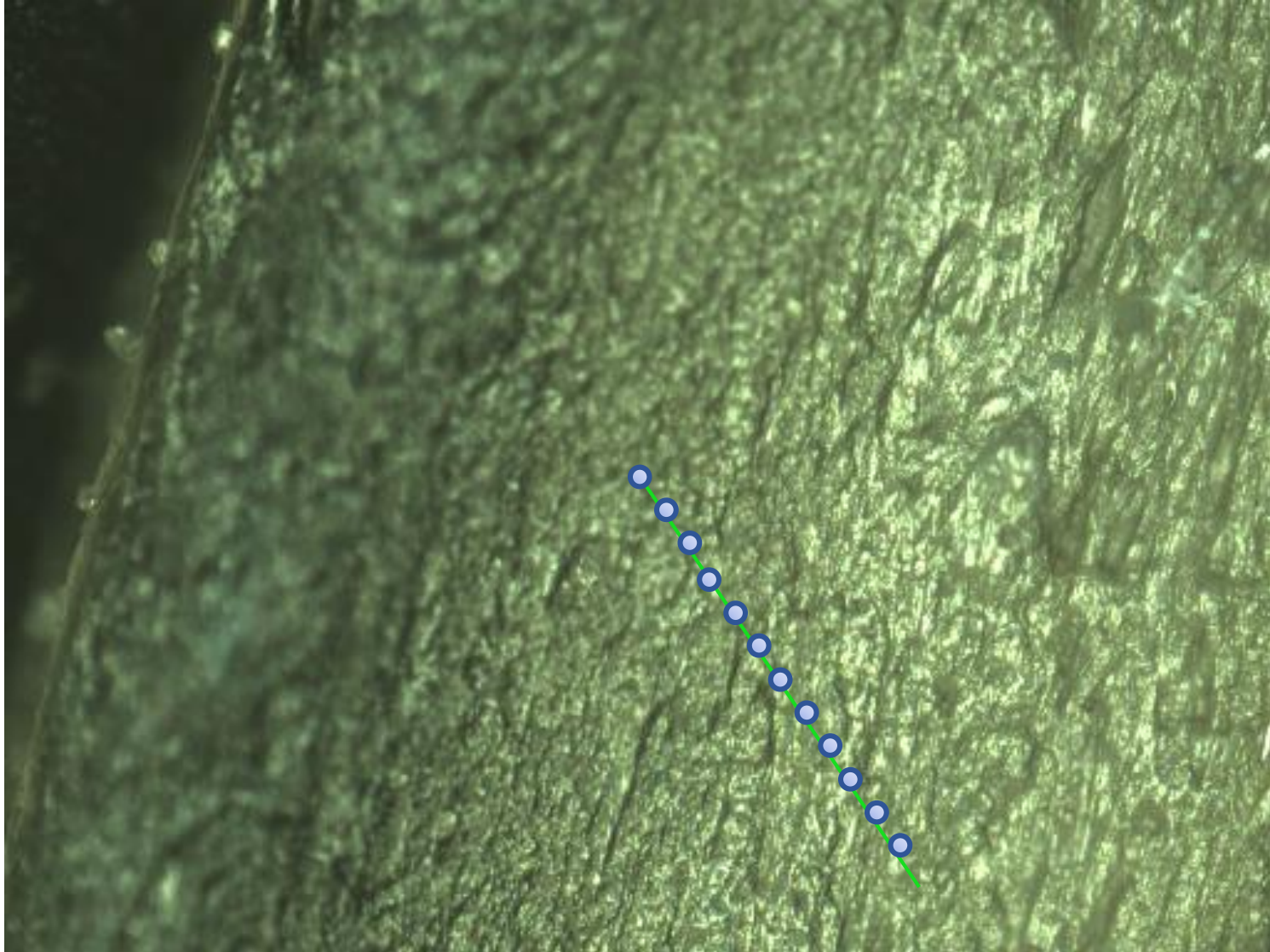
Tendon B Point 11 Not used

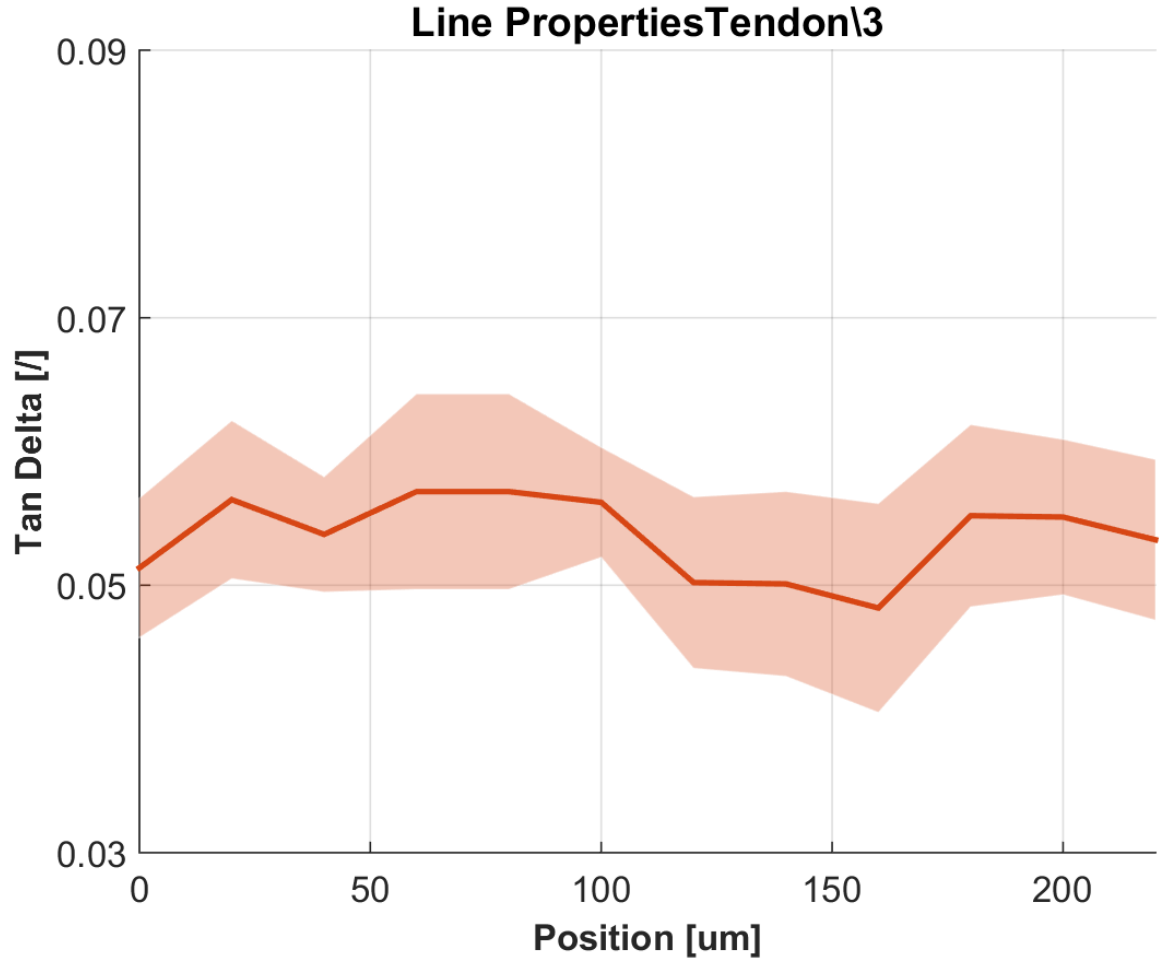
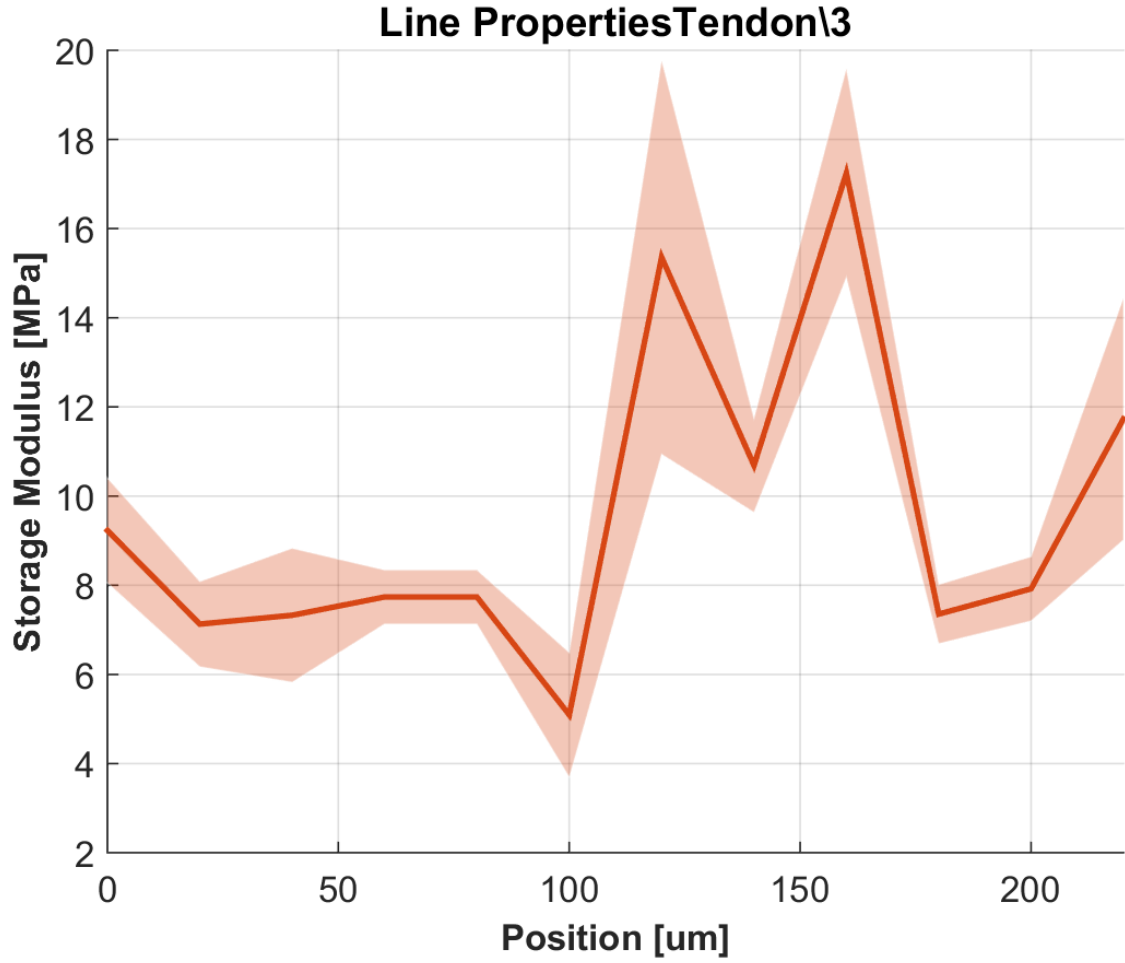


C. Tendon D2 2a 11 points $\Delta=20\mu\text{m}$

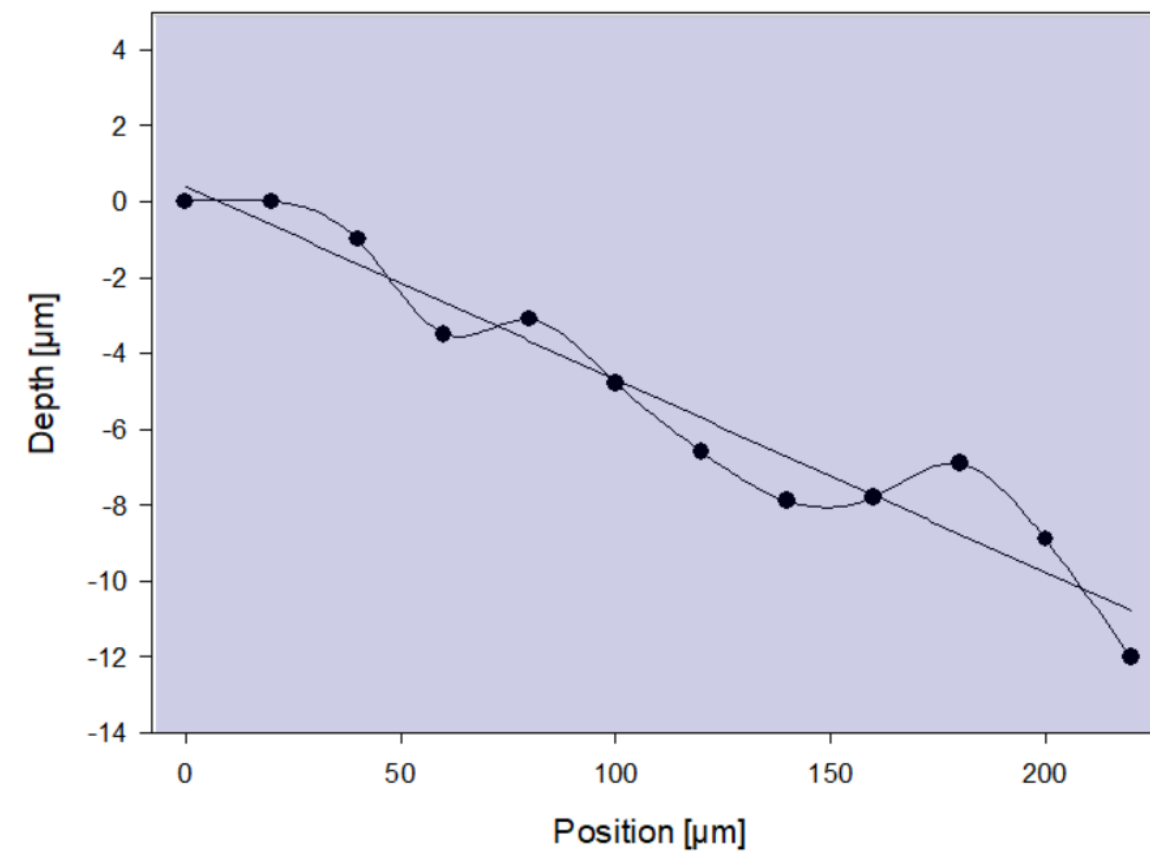


C. Tendon D2 2a 12 points $\Delta=20\mu\text{m}$

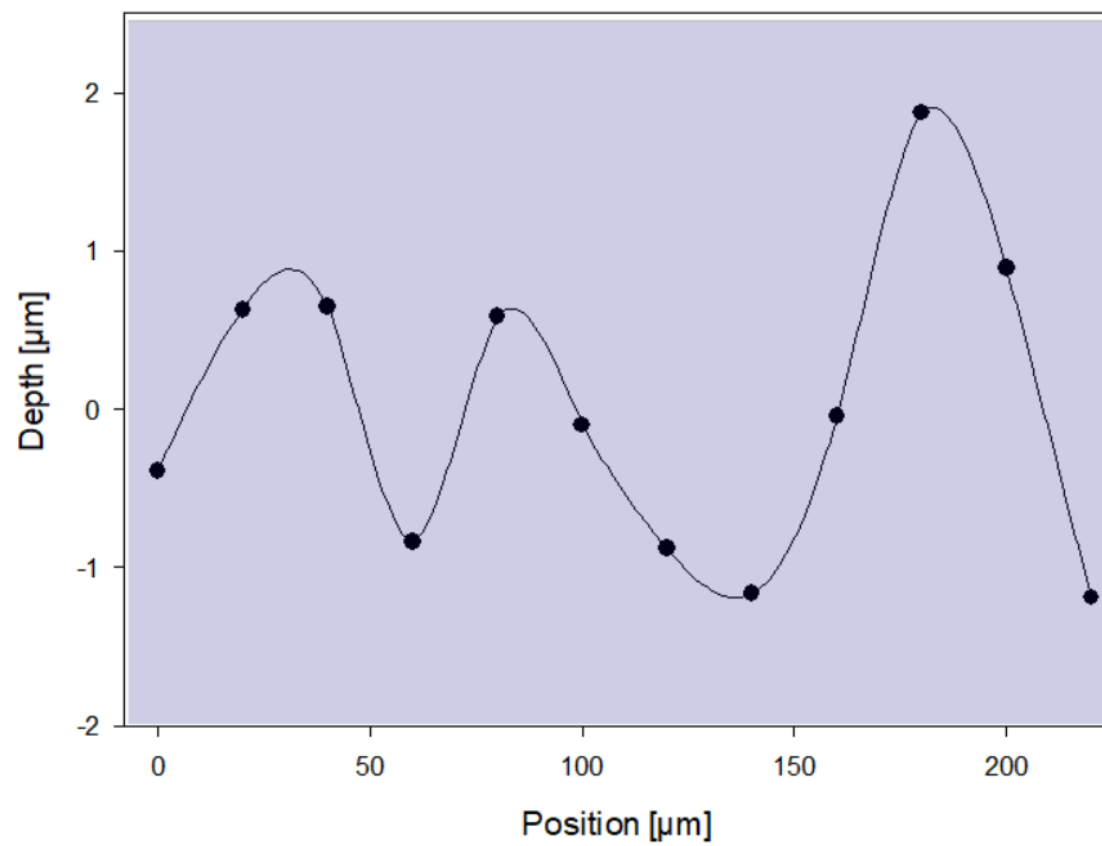




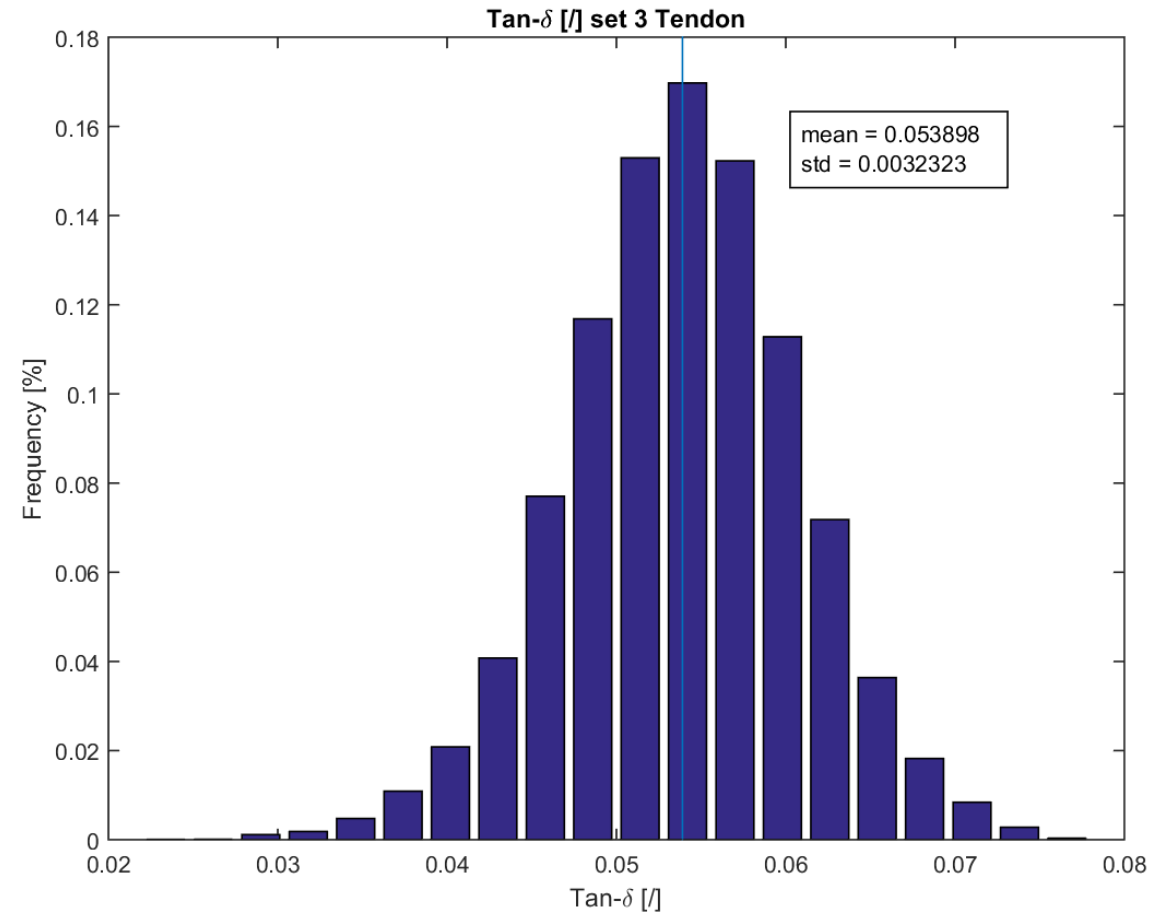
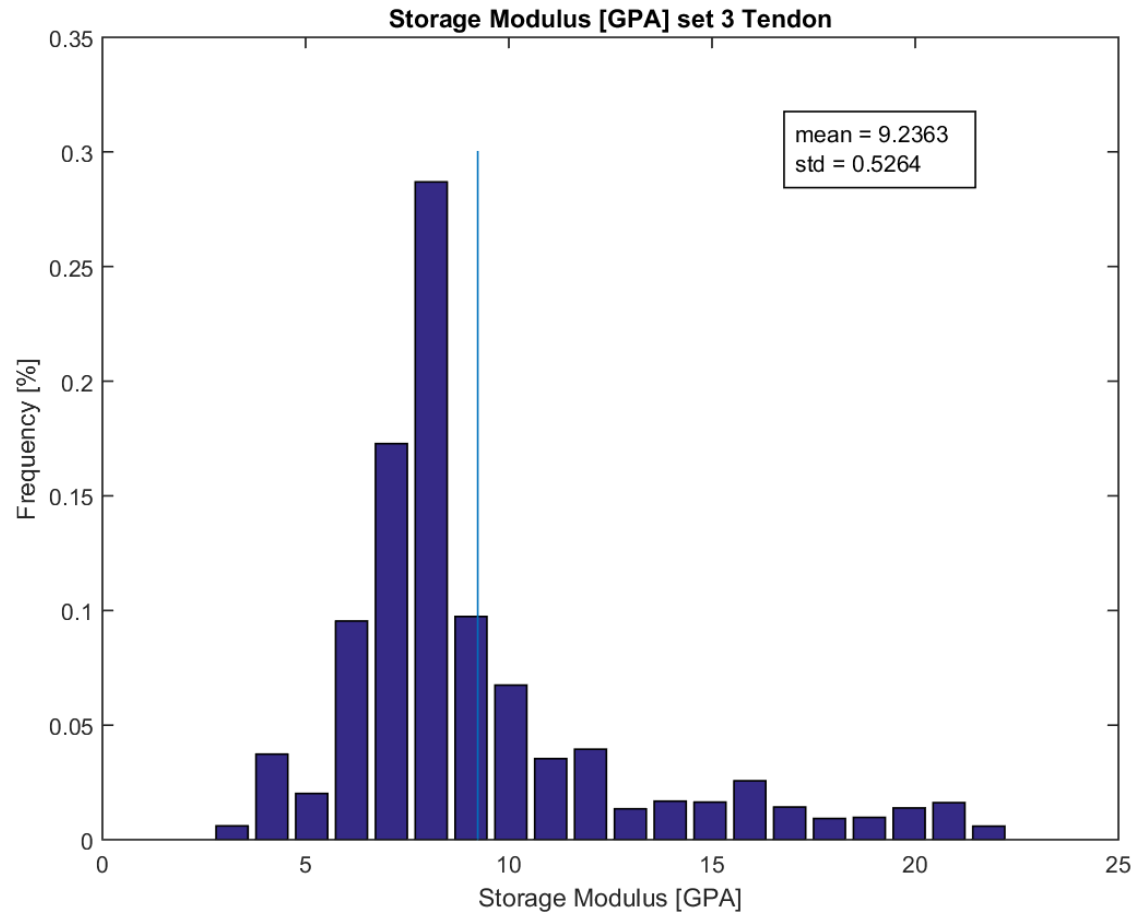
TendonC



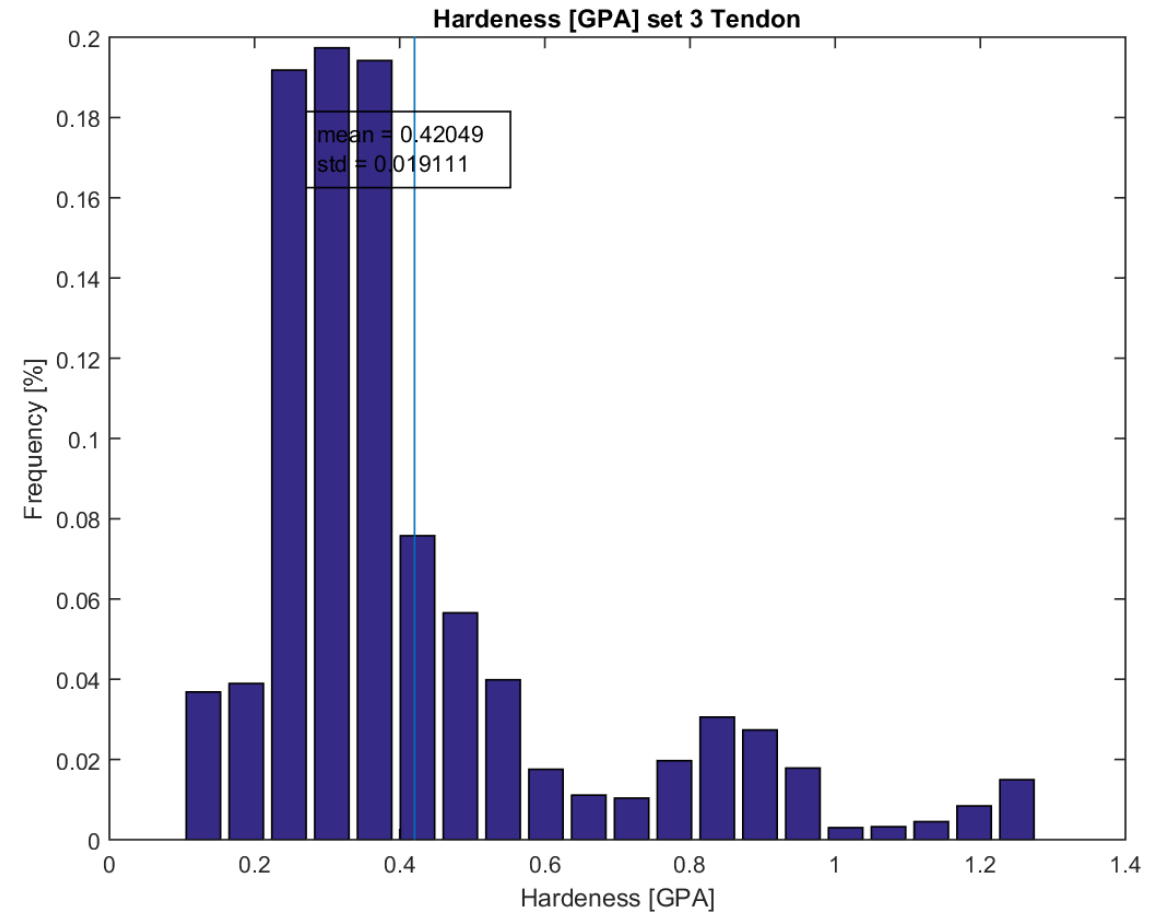
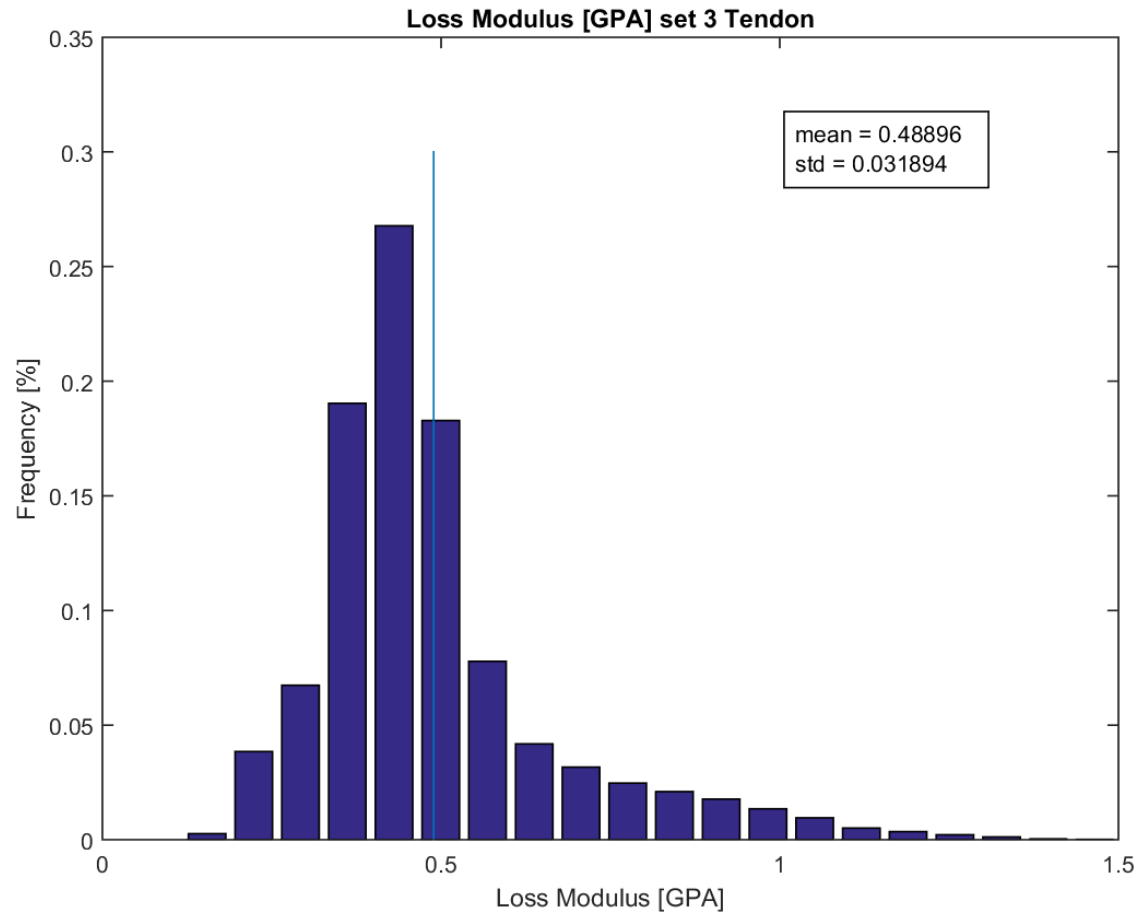
Tendon C w/o tilde



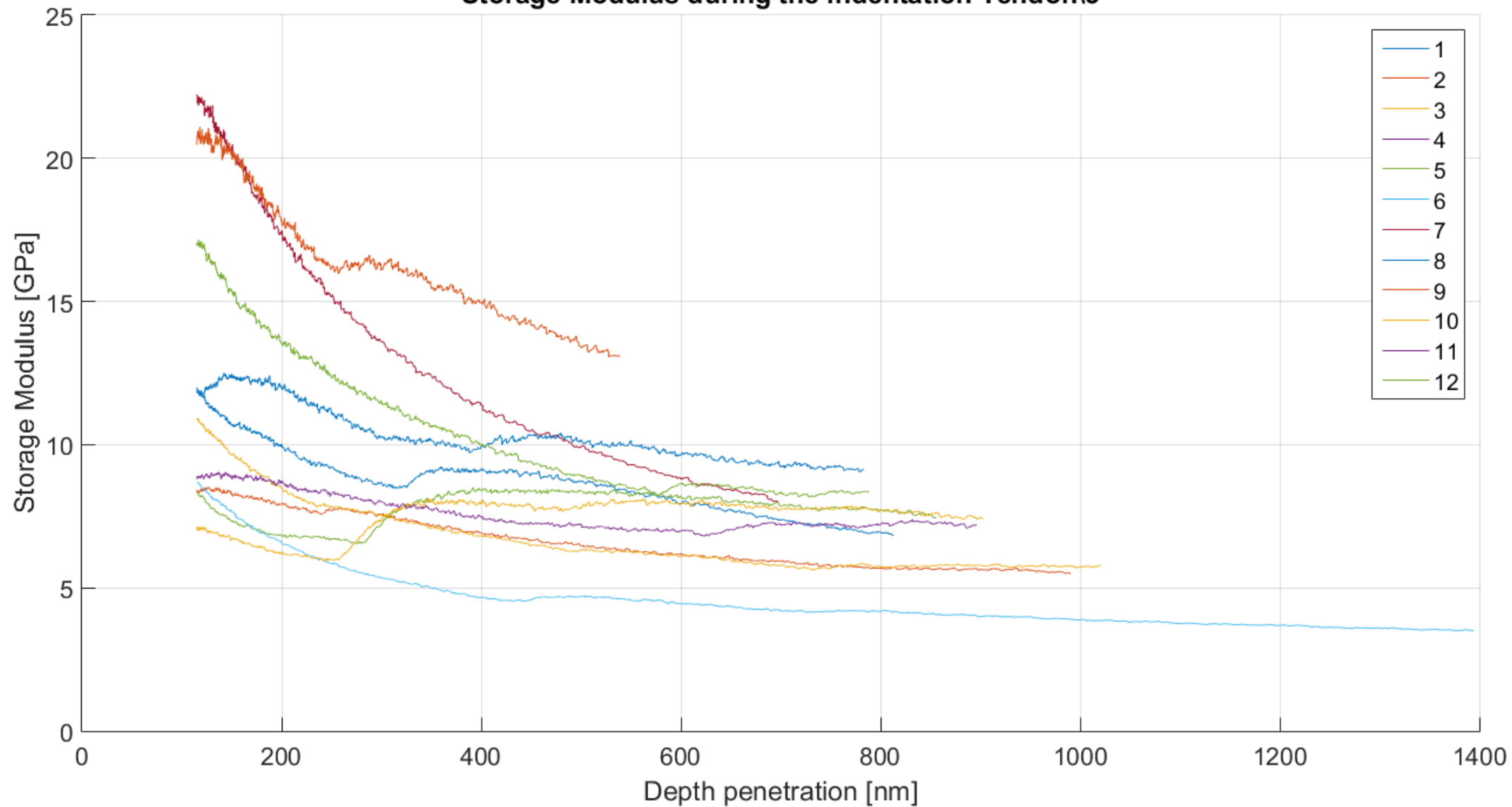
C. Complet

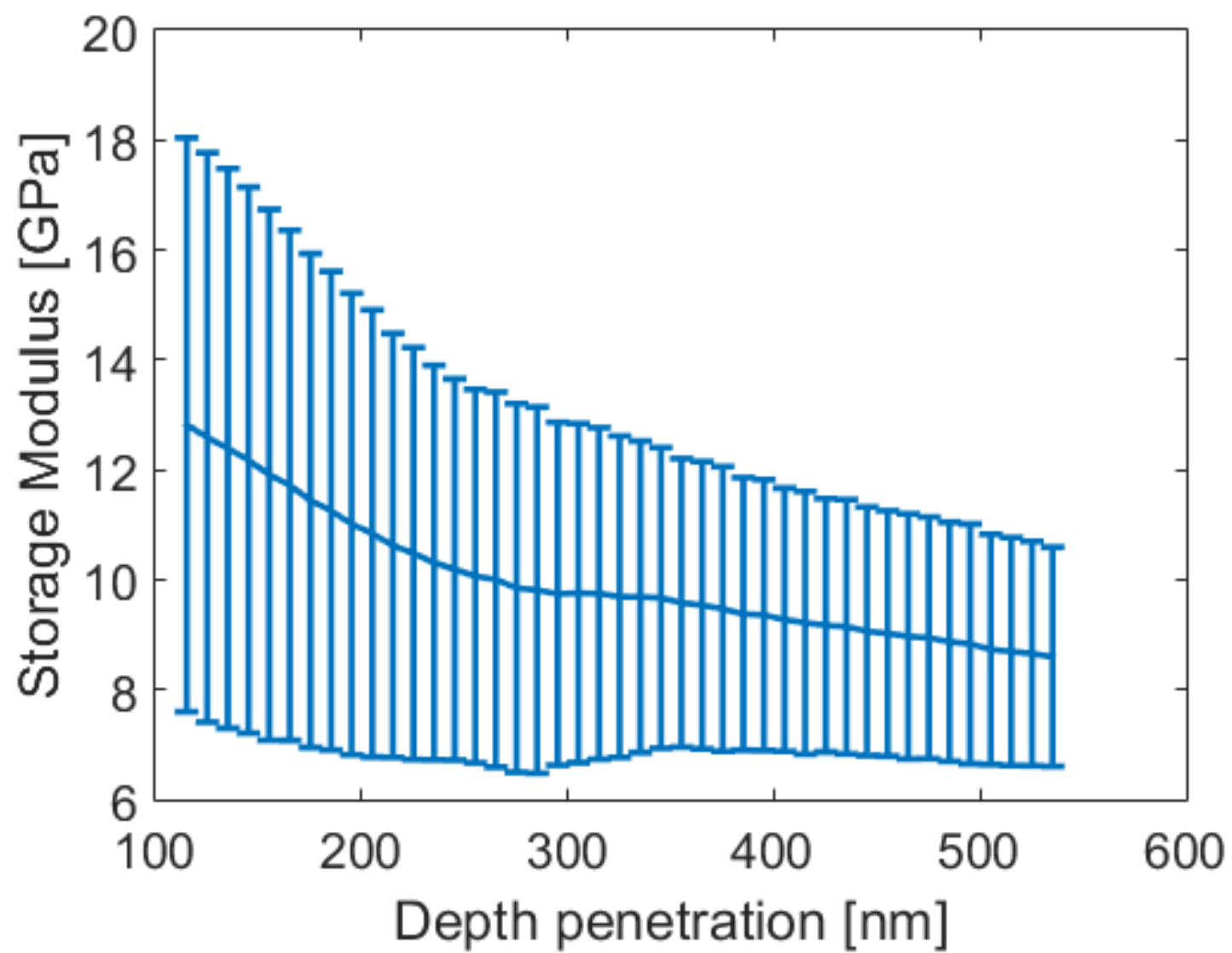


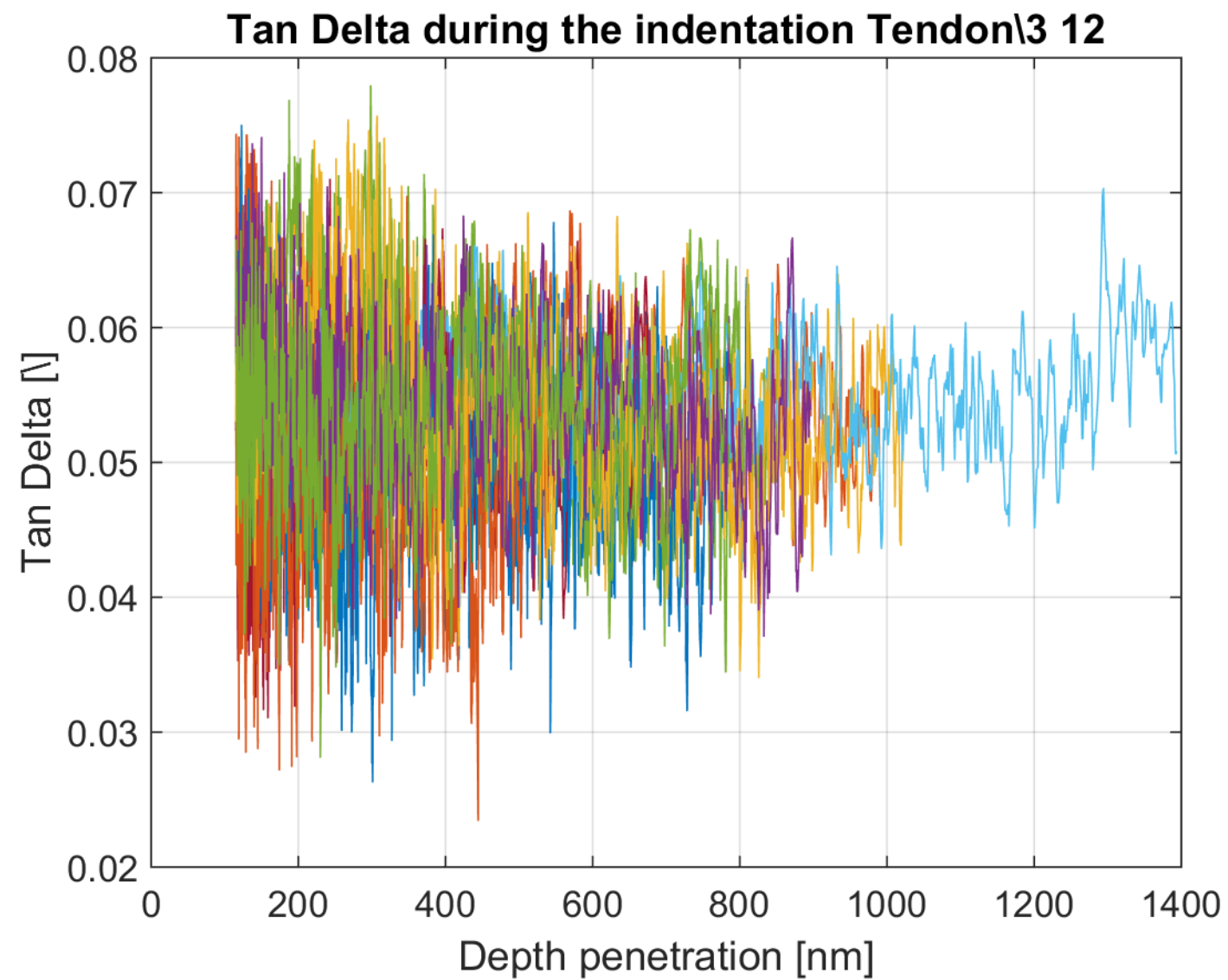
C. Complet

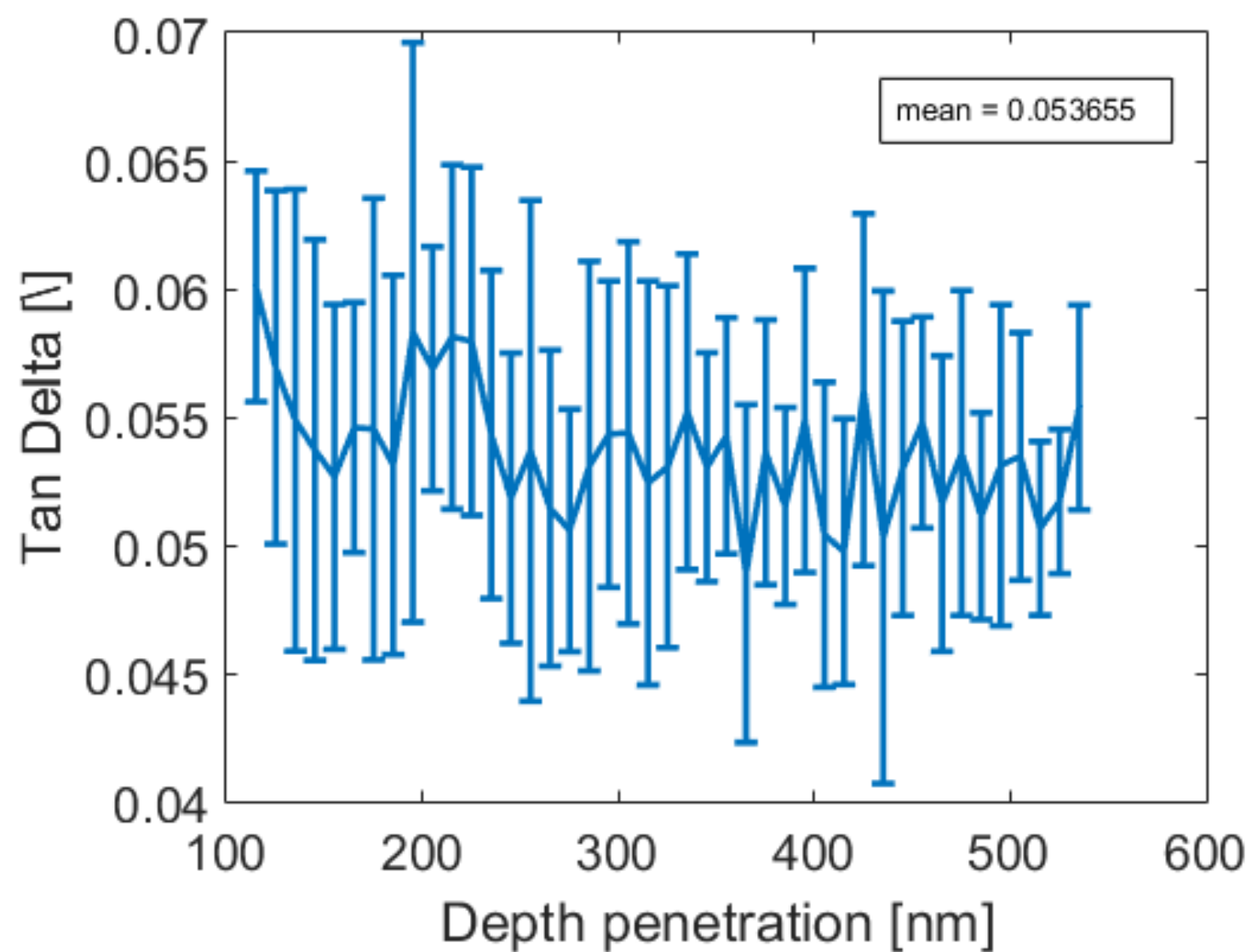


Storage Modulus during the indentation Tendon\3

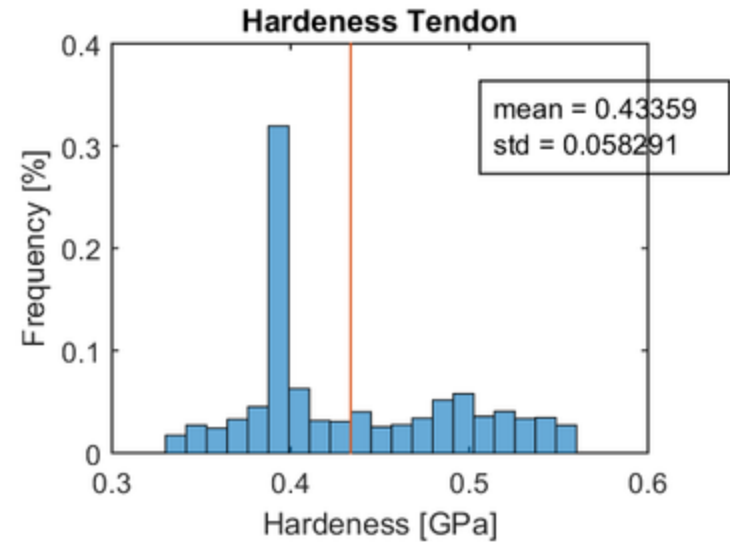
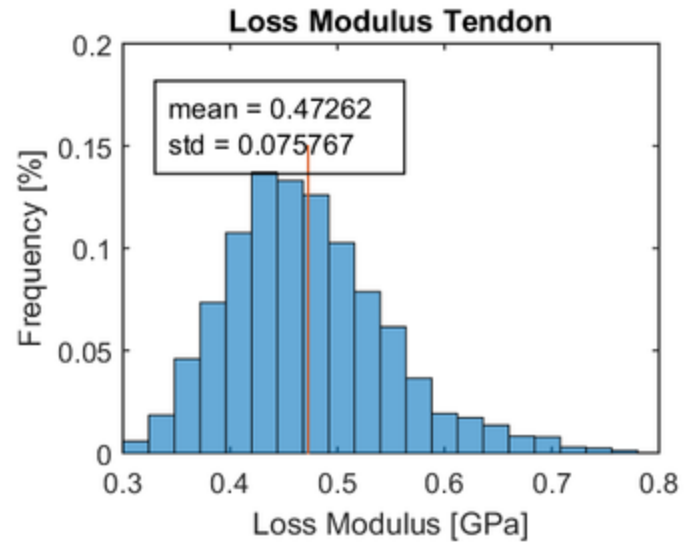
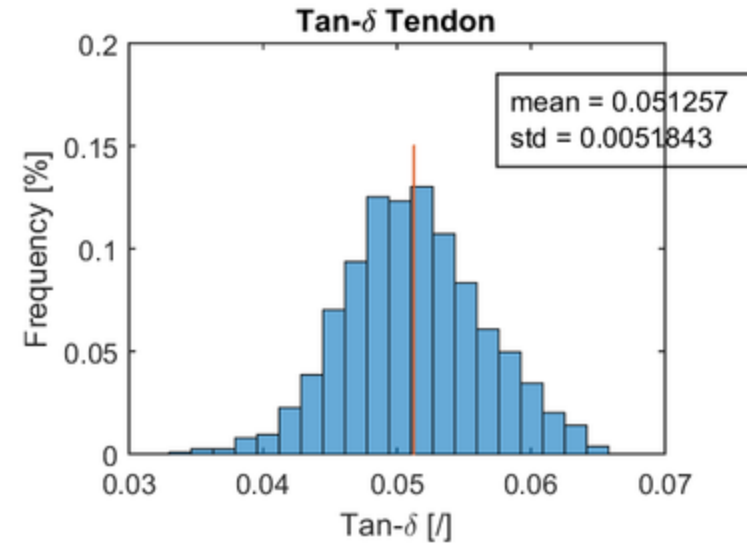
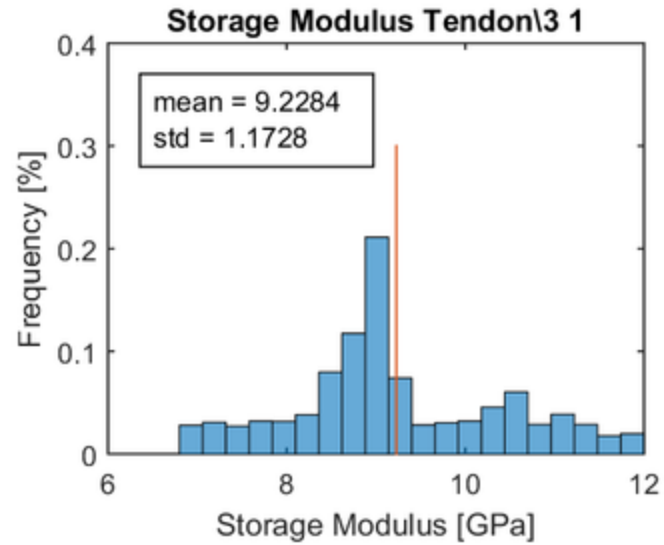




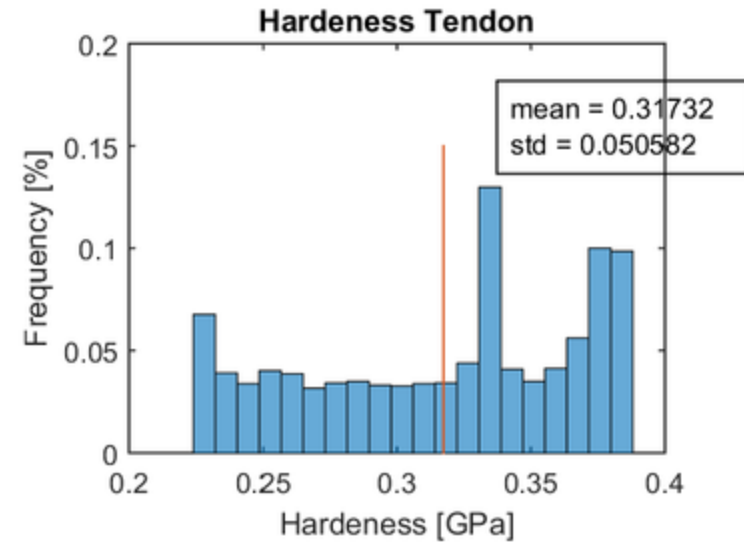
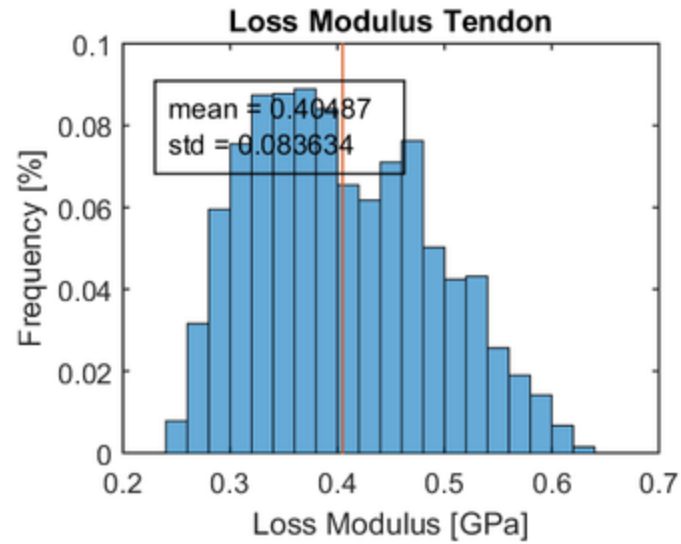
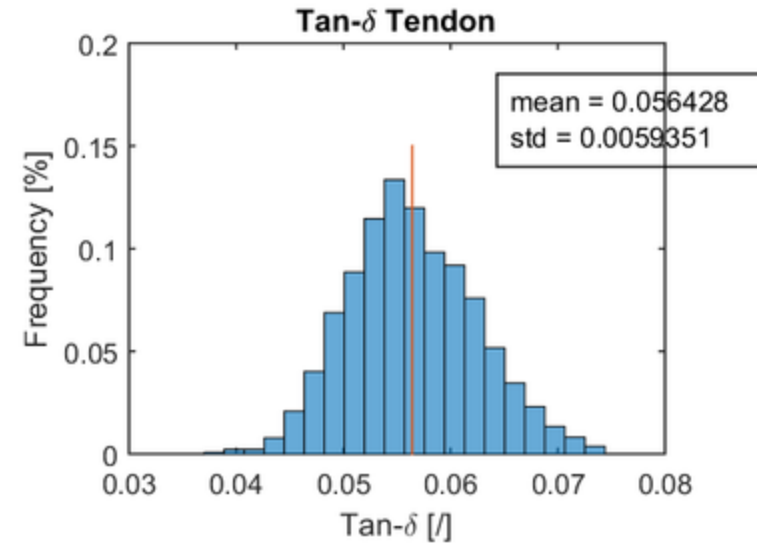
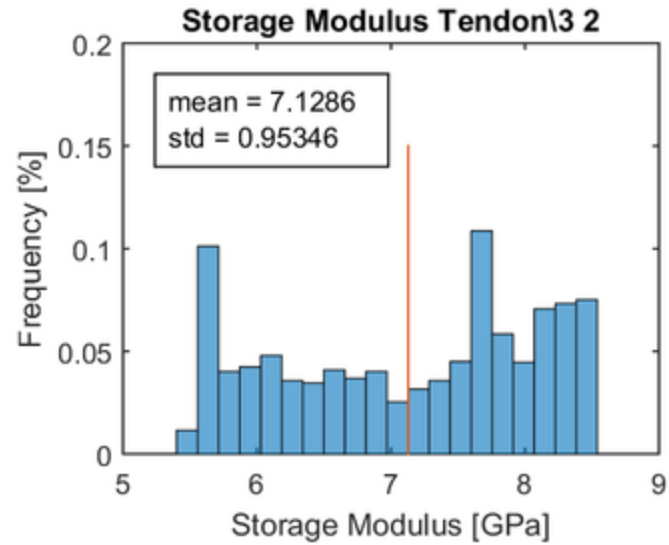




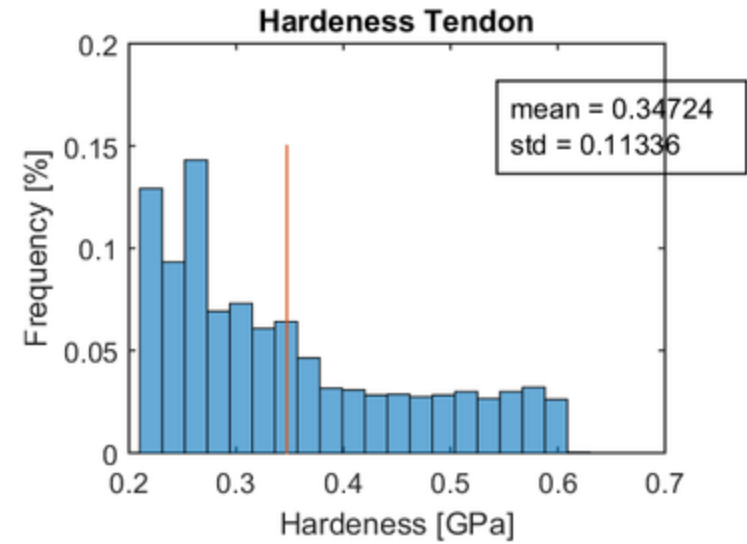
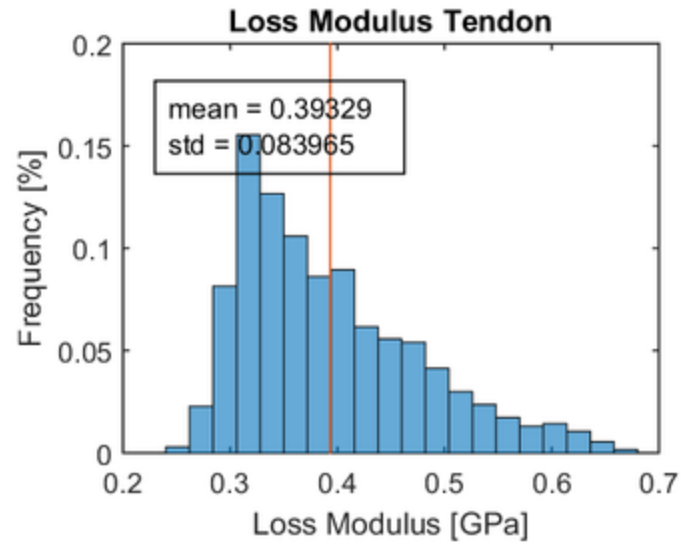
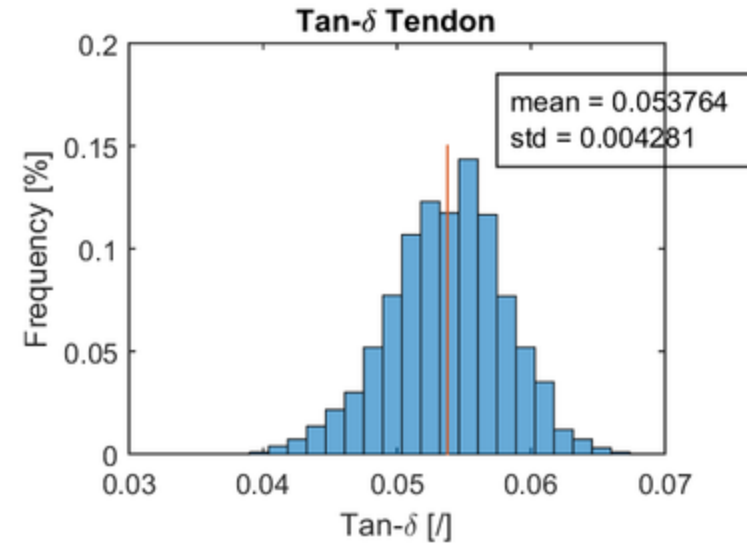
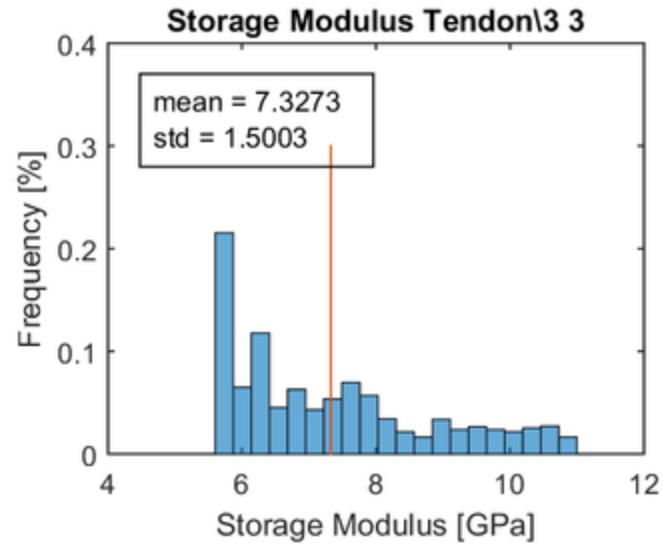
Tendon C Point 1



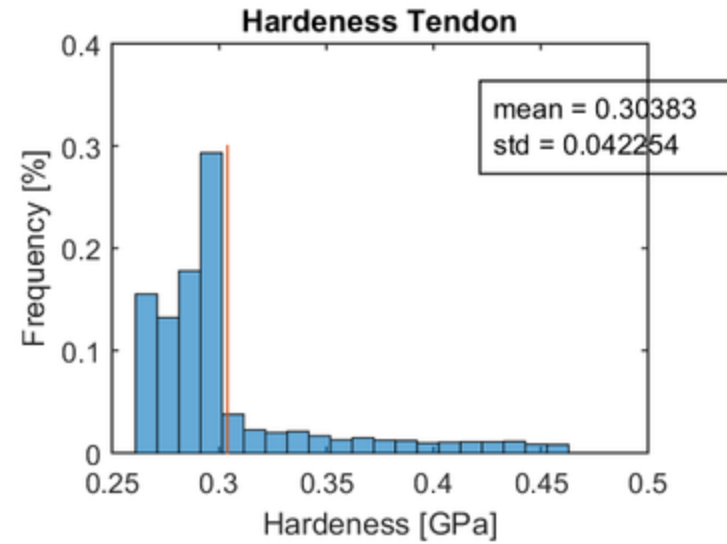
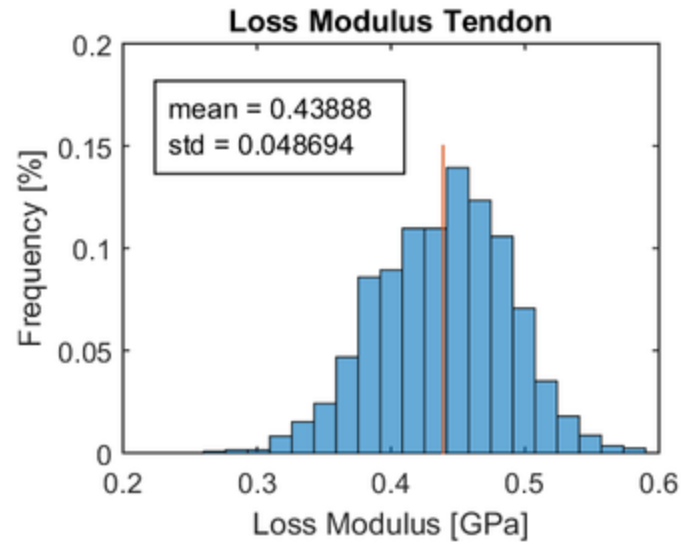
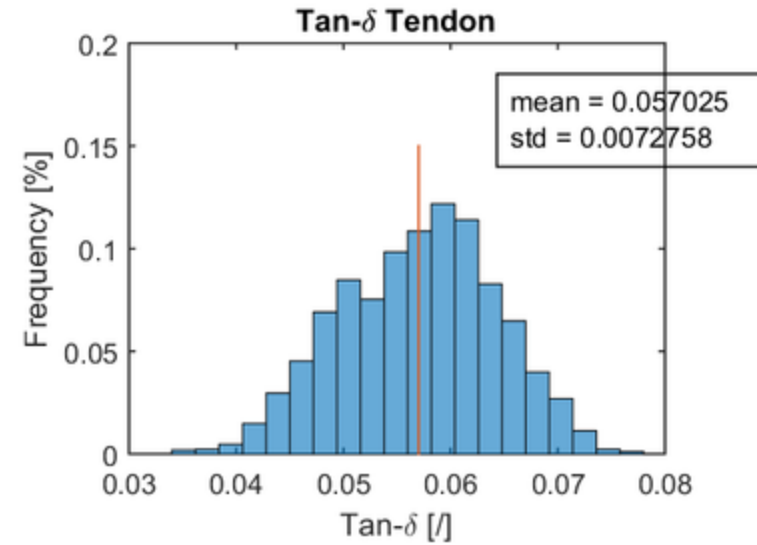
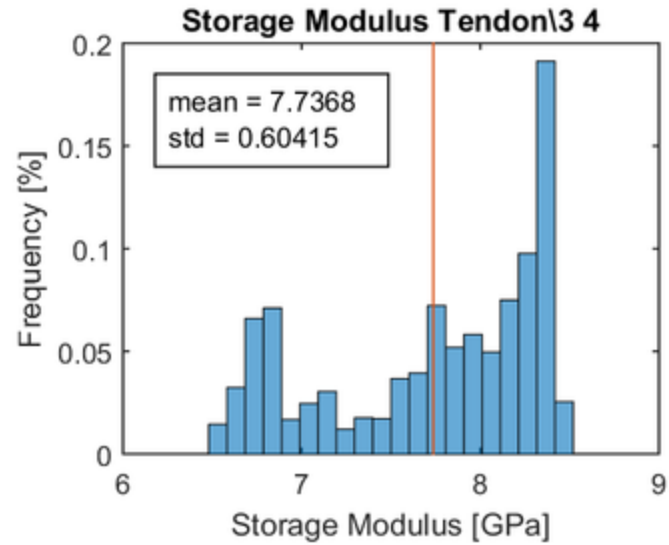
Tendon C Point 2



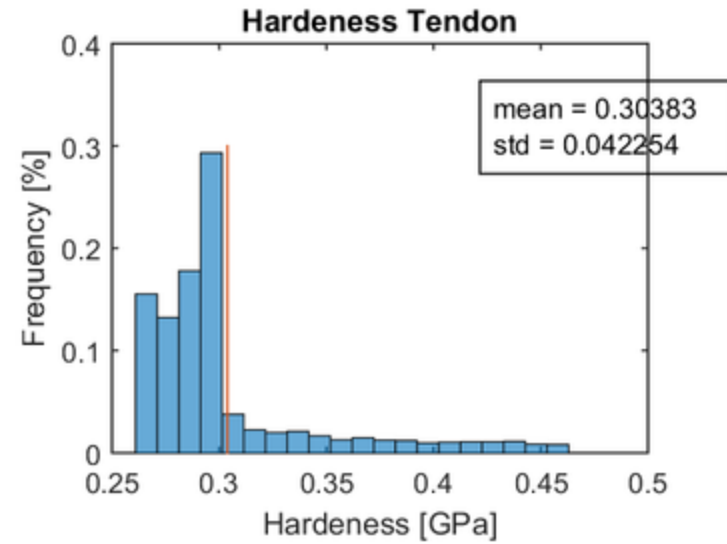
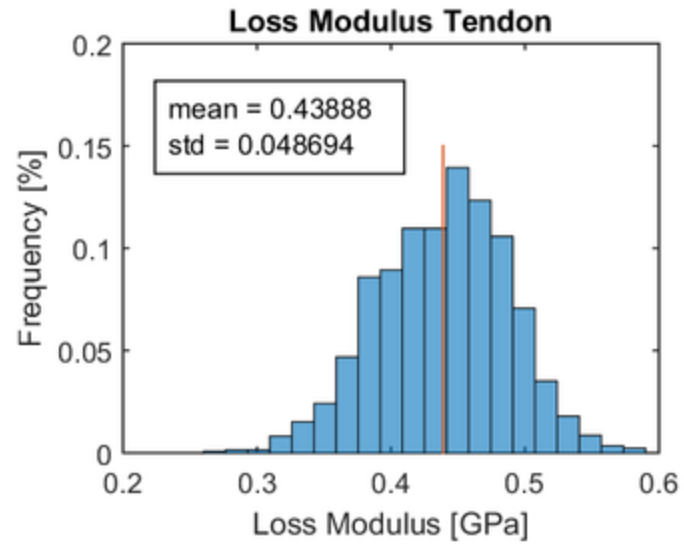
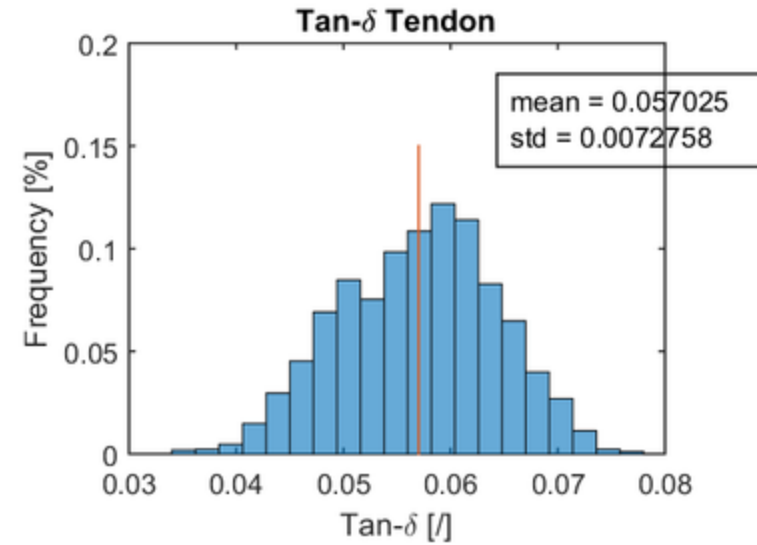
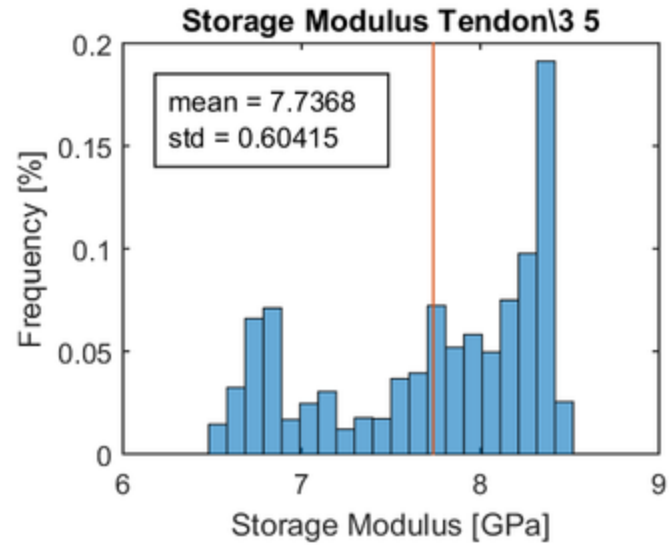
Tendon C Point 3



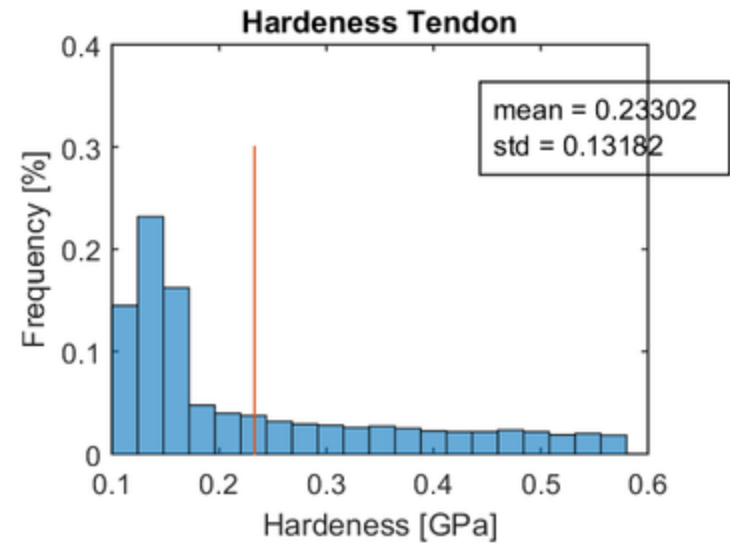
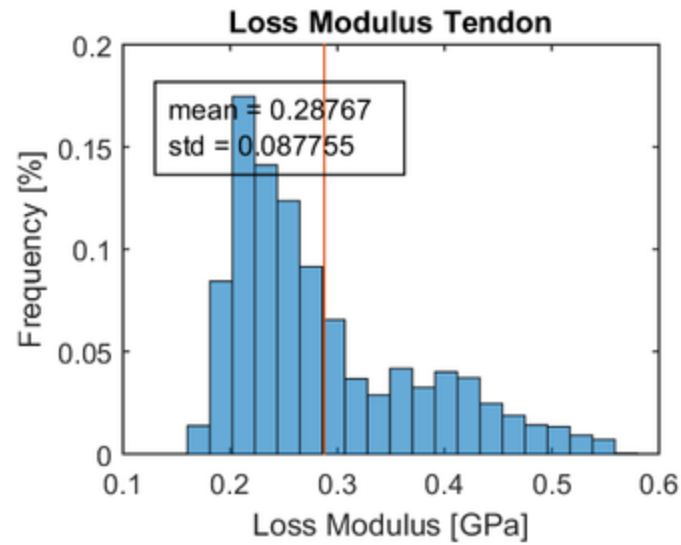
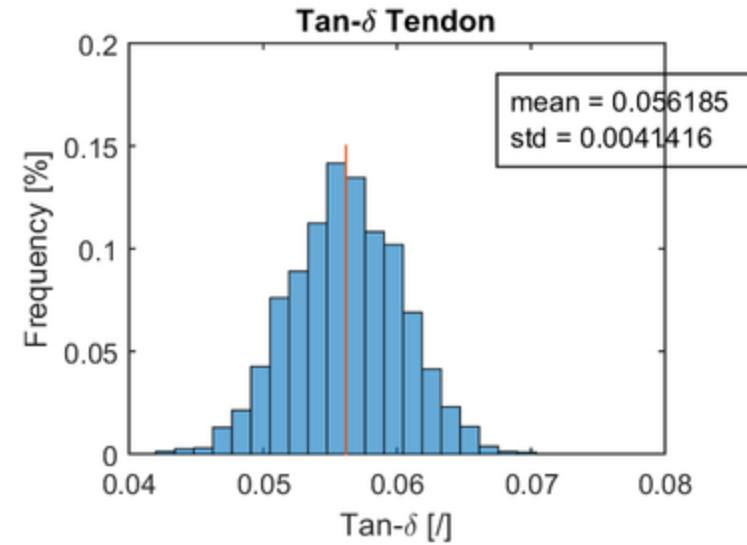
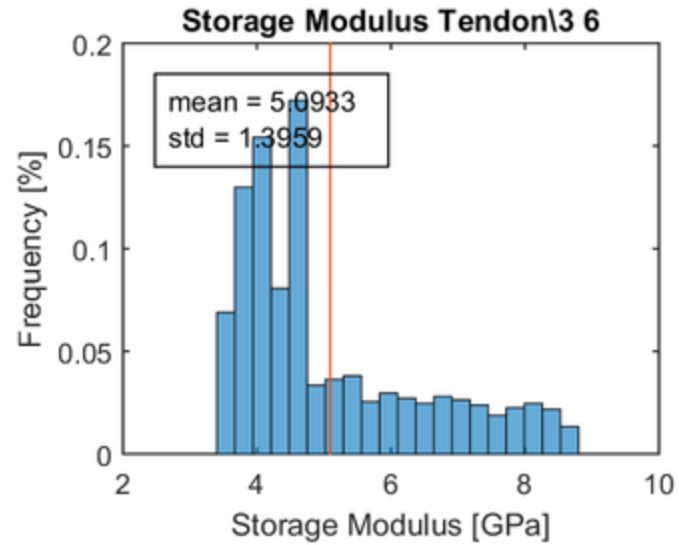
Tendon C Point 4



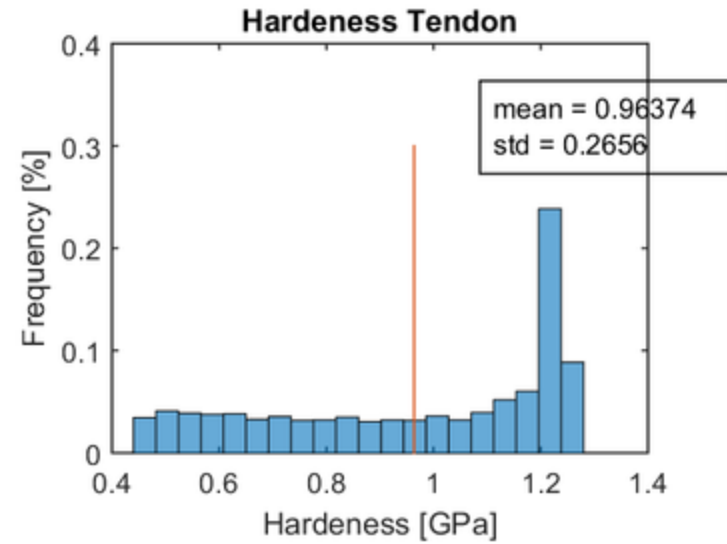
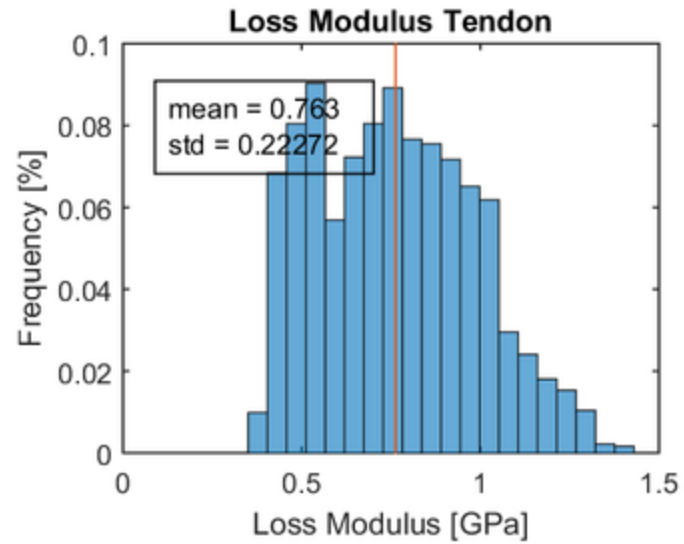
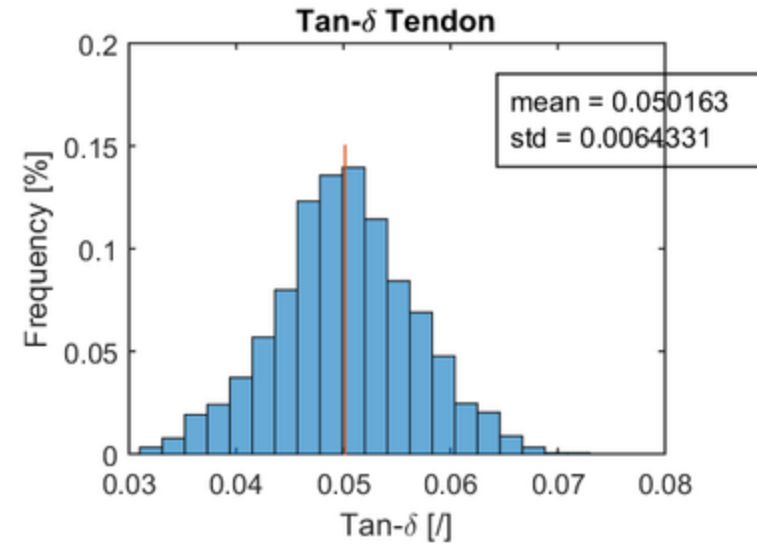
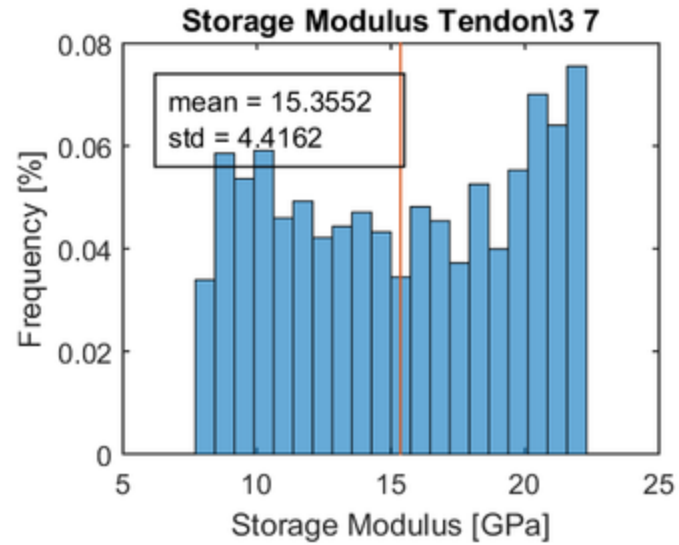
Tendon C Point 5



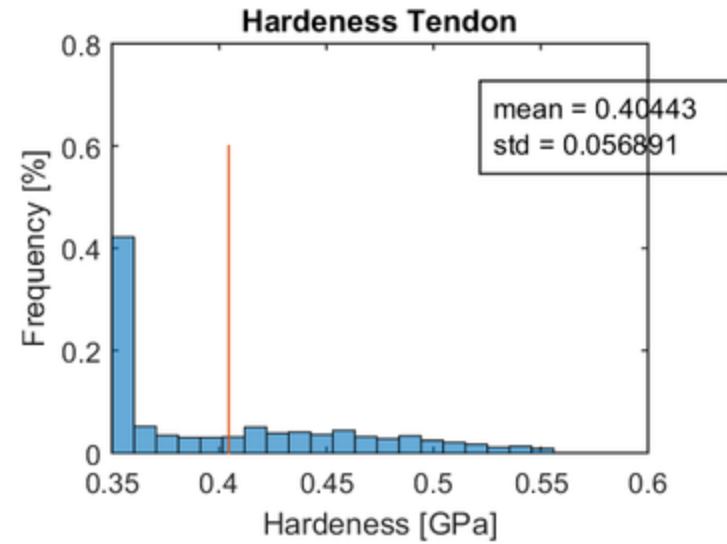
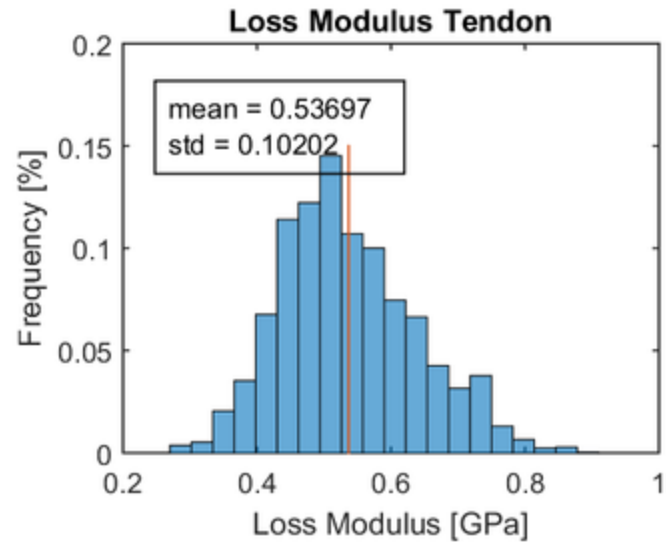
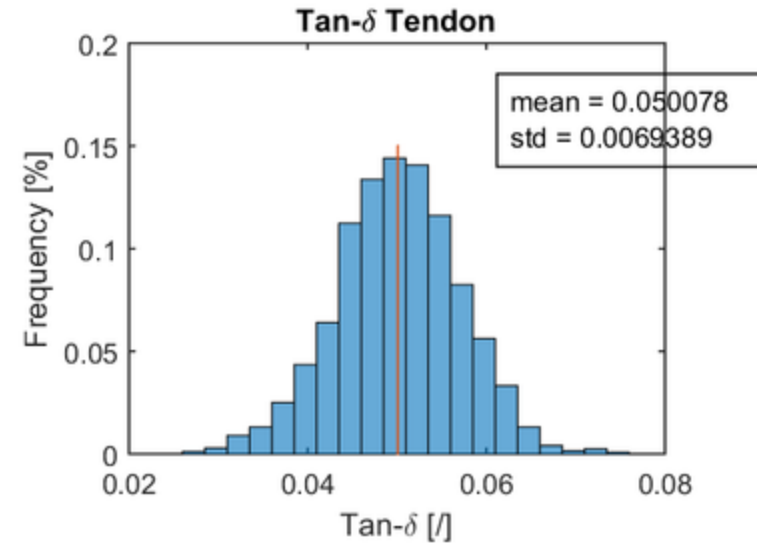
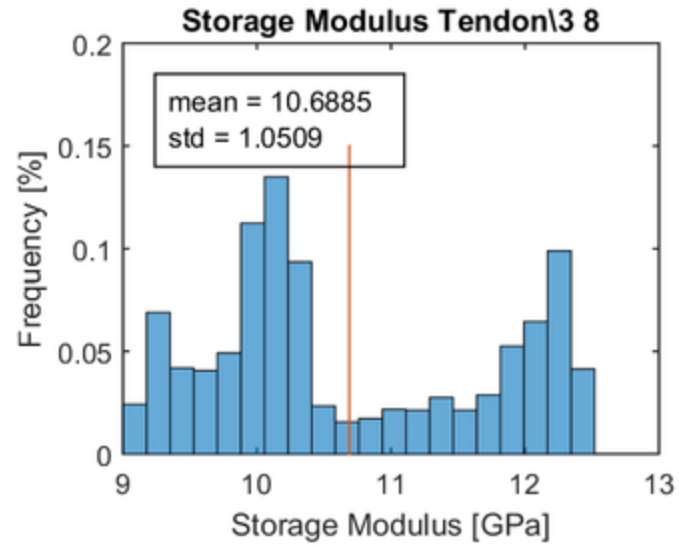
Tendon C Point 6



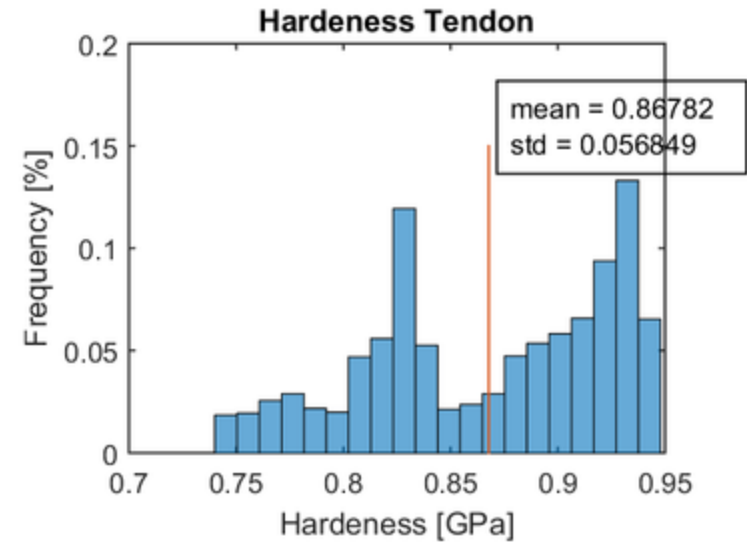
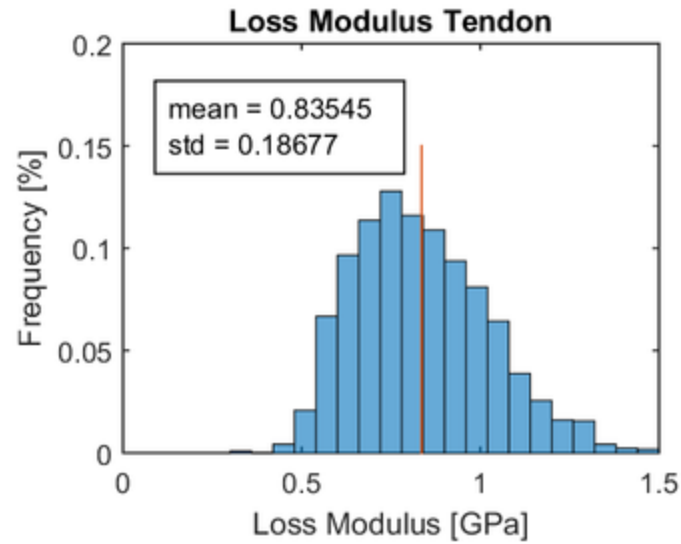
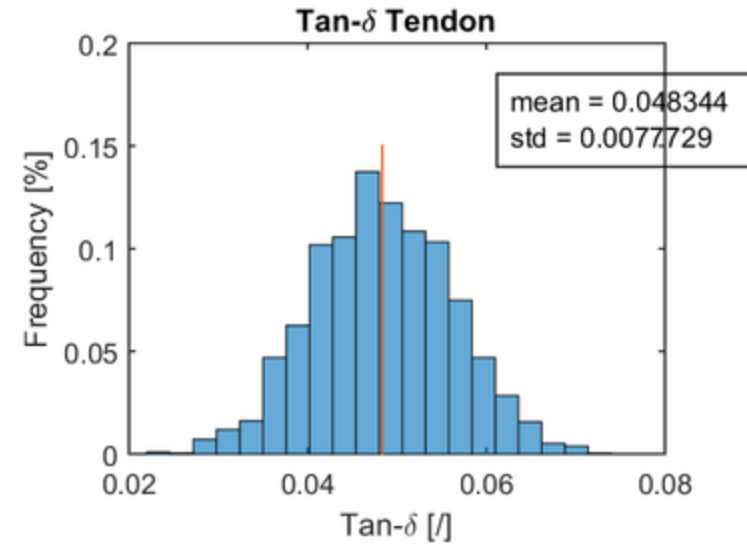
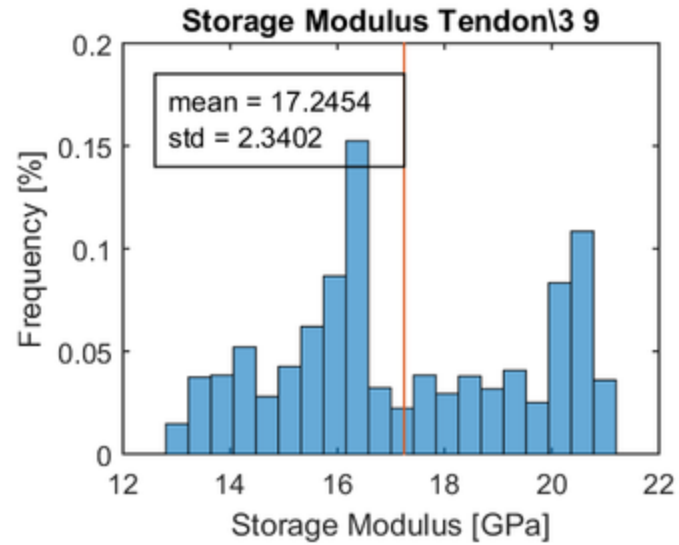
Tendon C Point 7



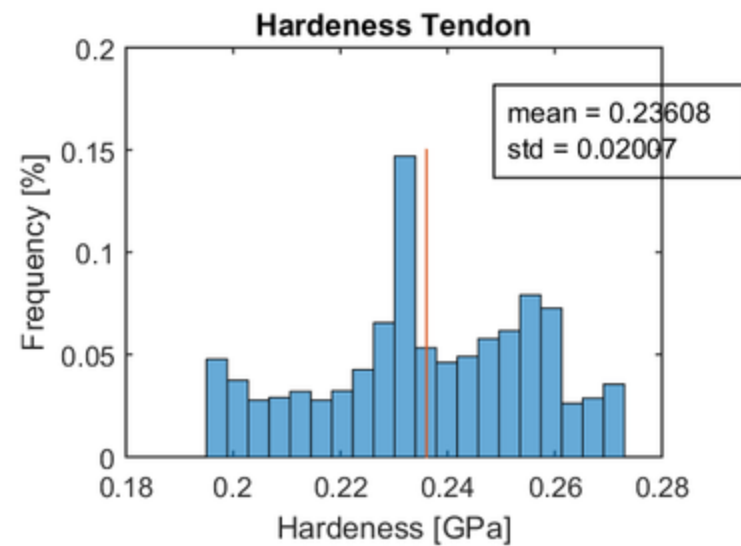
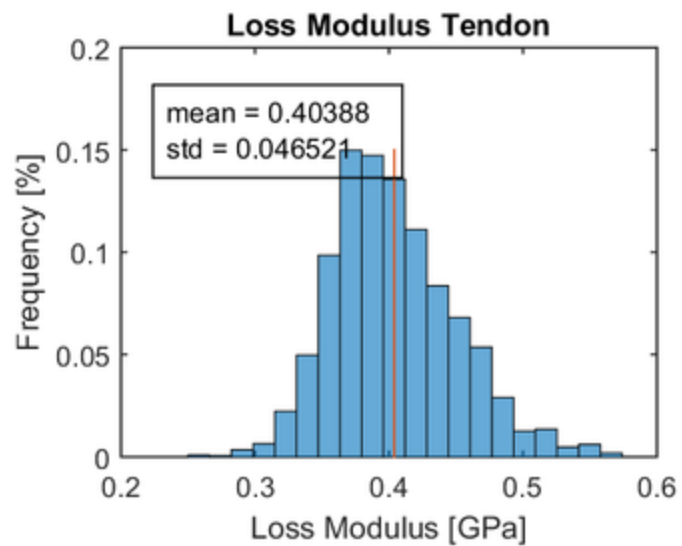
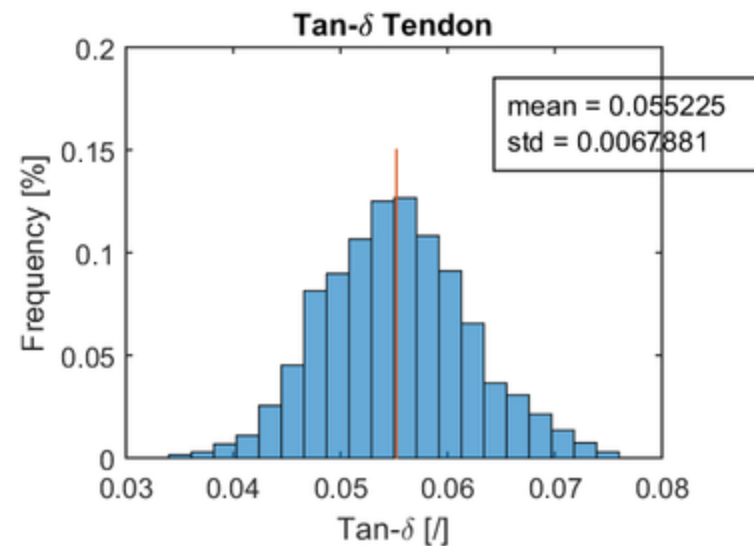
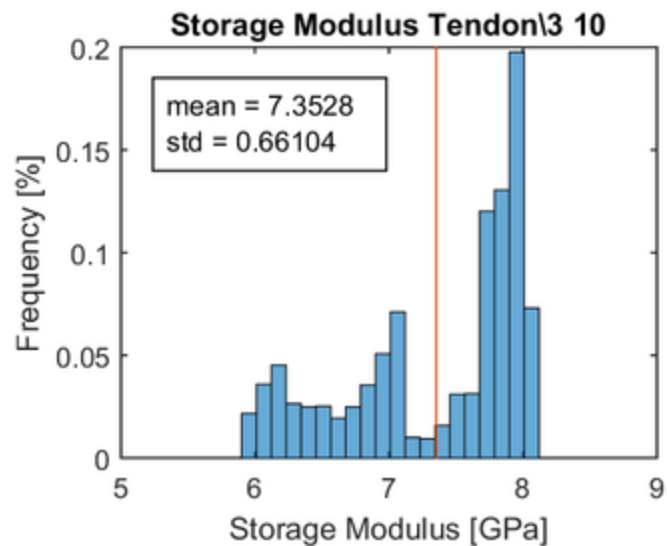
Tendon C Point 8



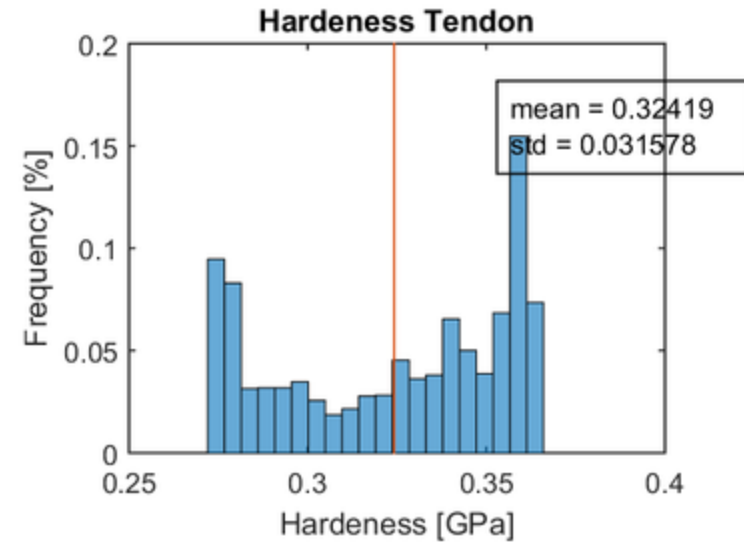
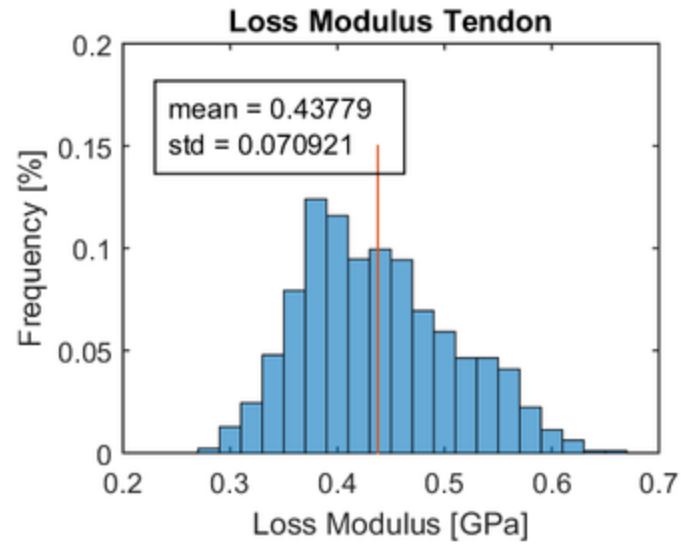
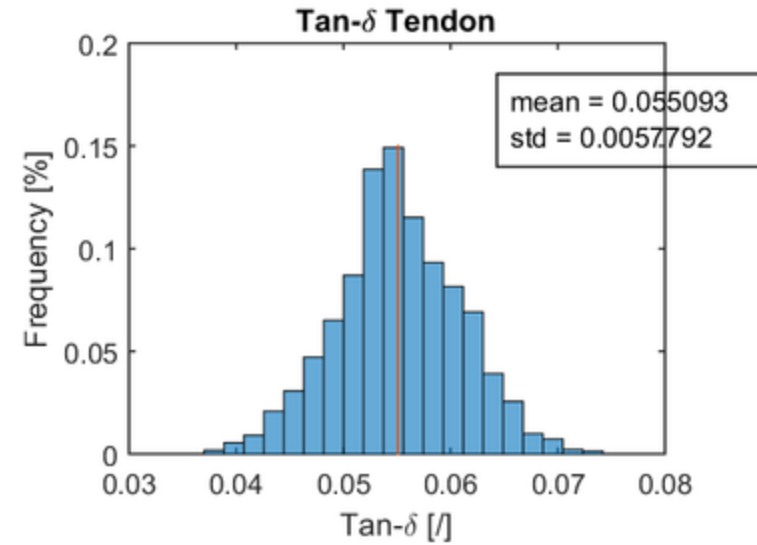
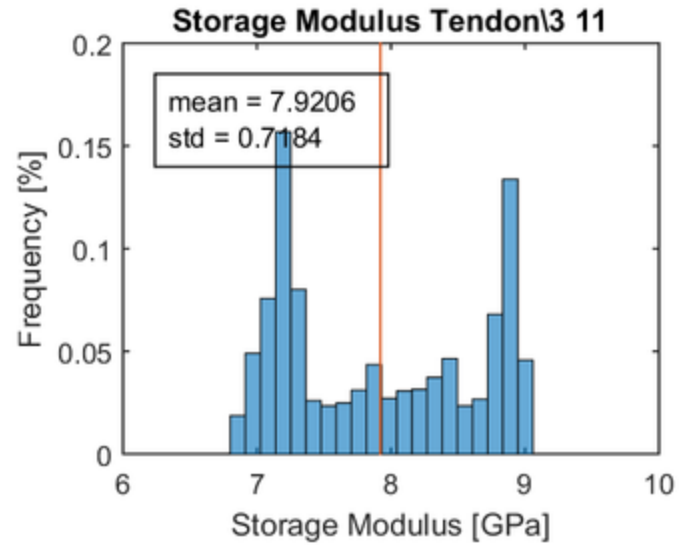
Tendon C Point 9



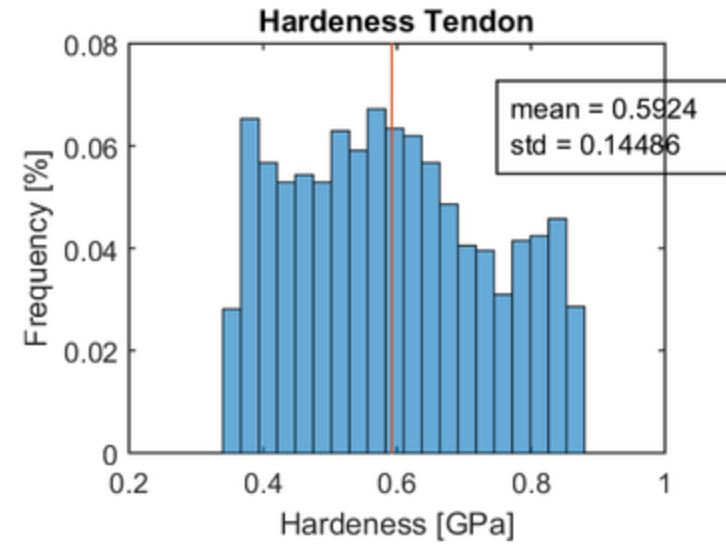
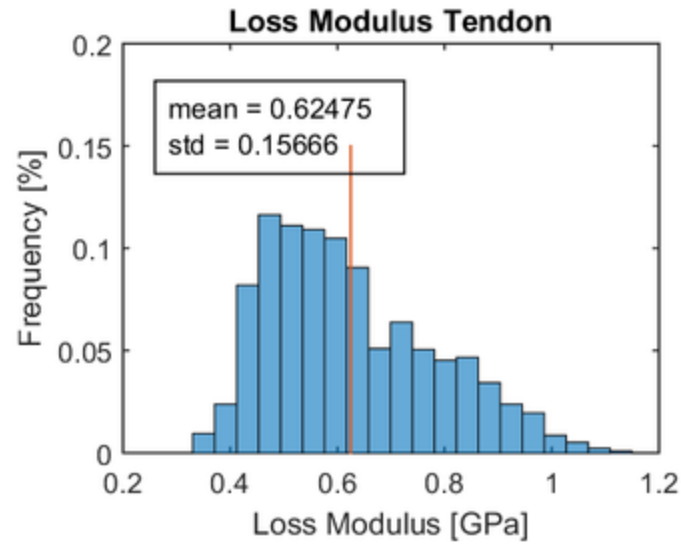
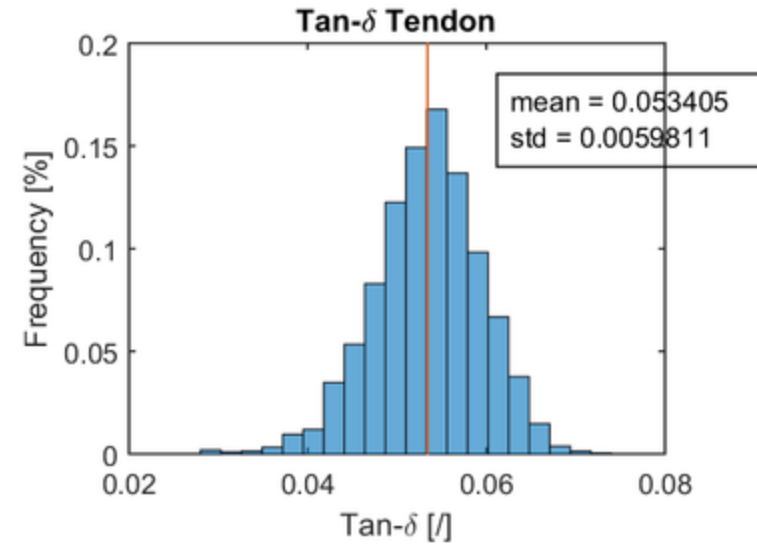
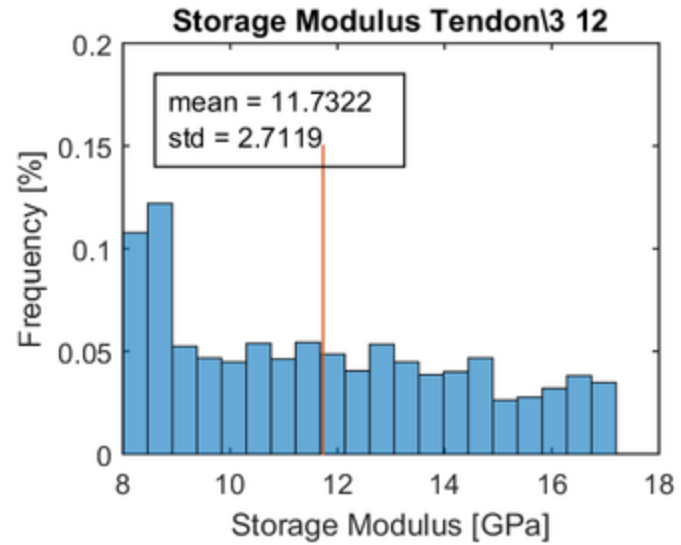
Tendon C Point 10



Tendon C Point 11



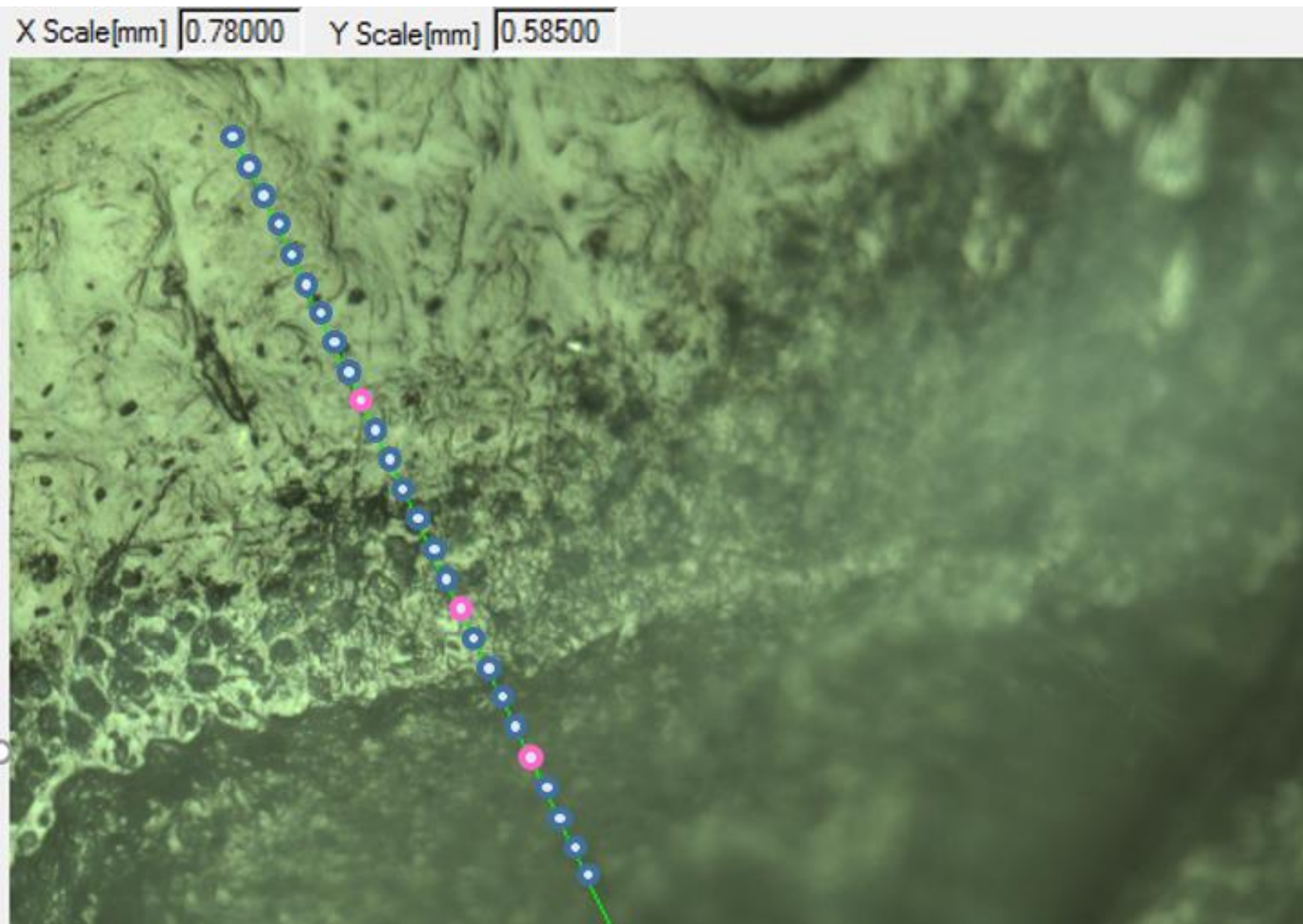
Tendon C Point 12



Interface

- A. Sample D1
- B. Ratto D2
- C. Sample D3

A Interface D1

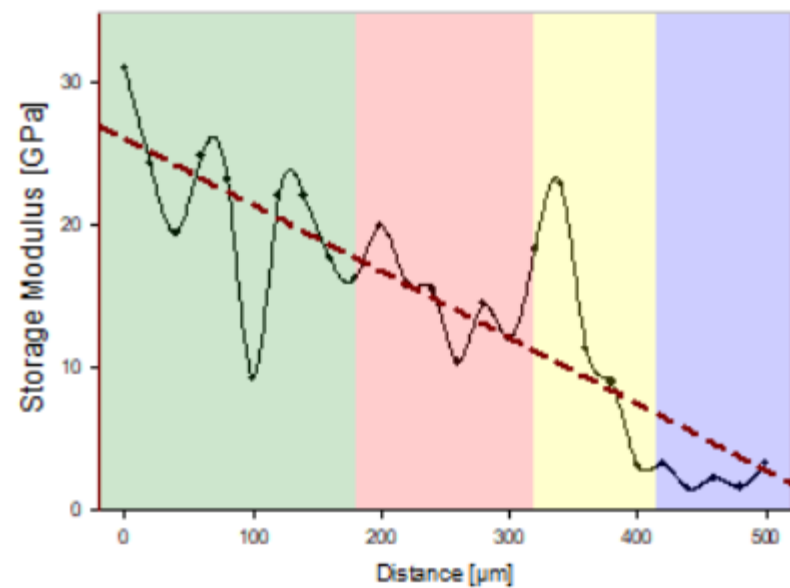


SPM too bad to determine accurate roughness.

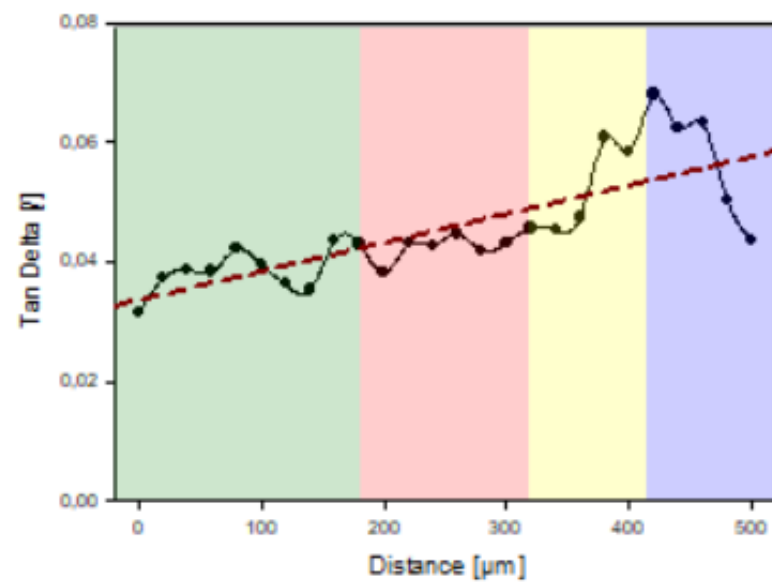
Points 5,7,8 and 14,15,16 in « holes »

Pink dots = Region chgt

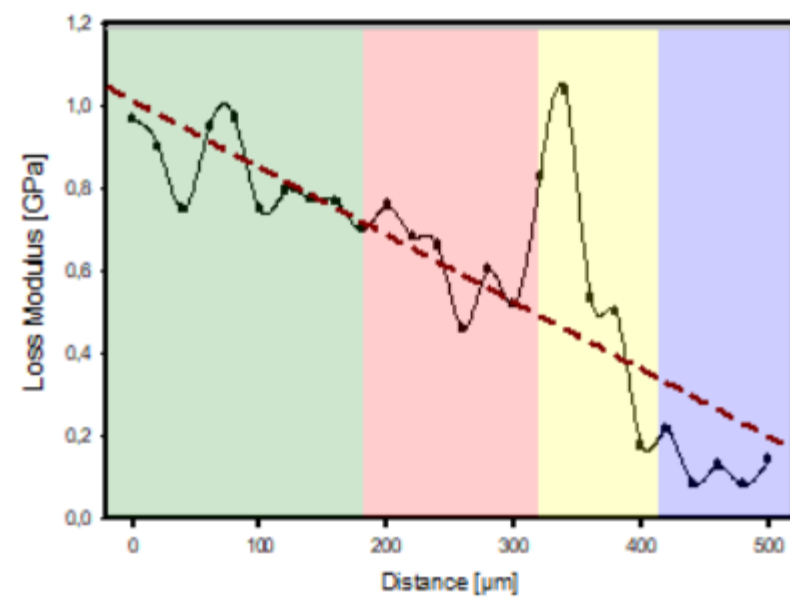
StorM S3 Interface



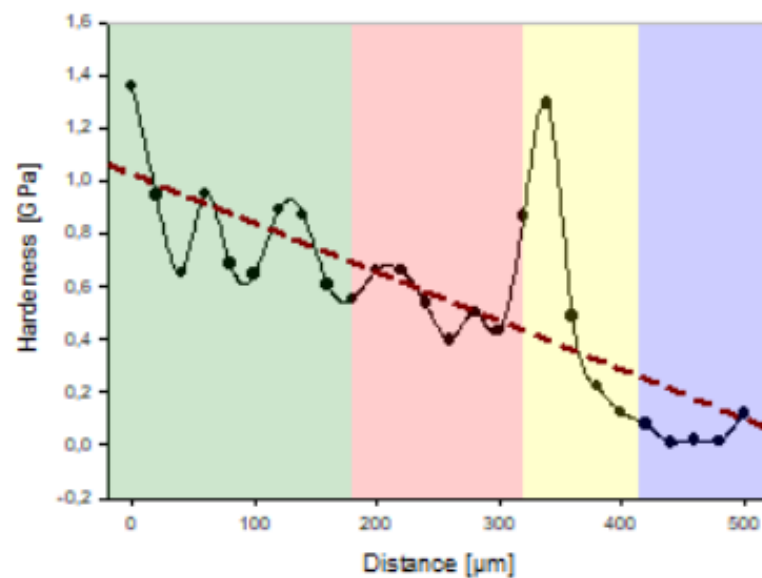
Tan S3 Interface



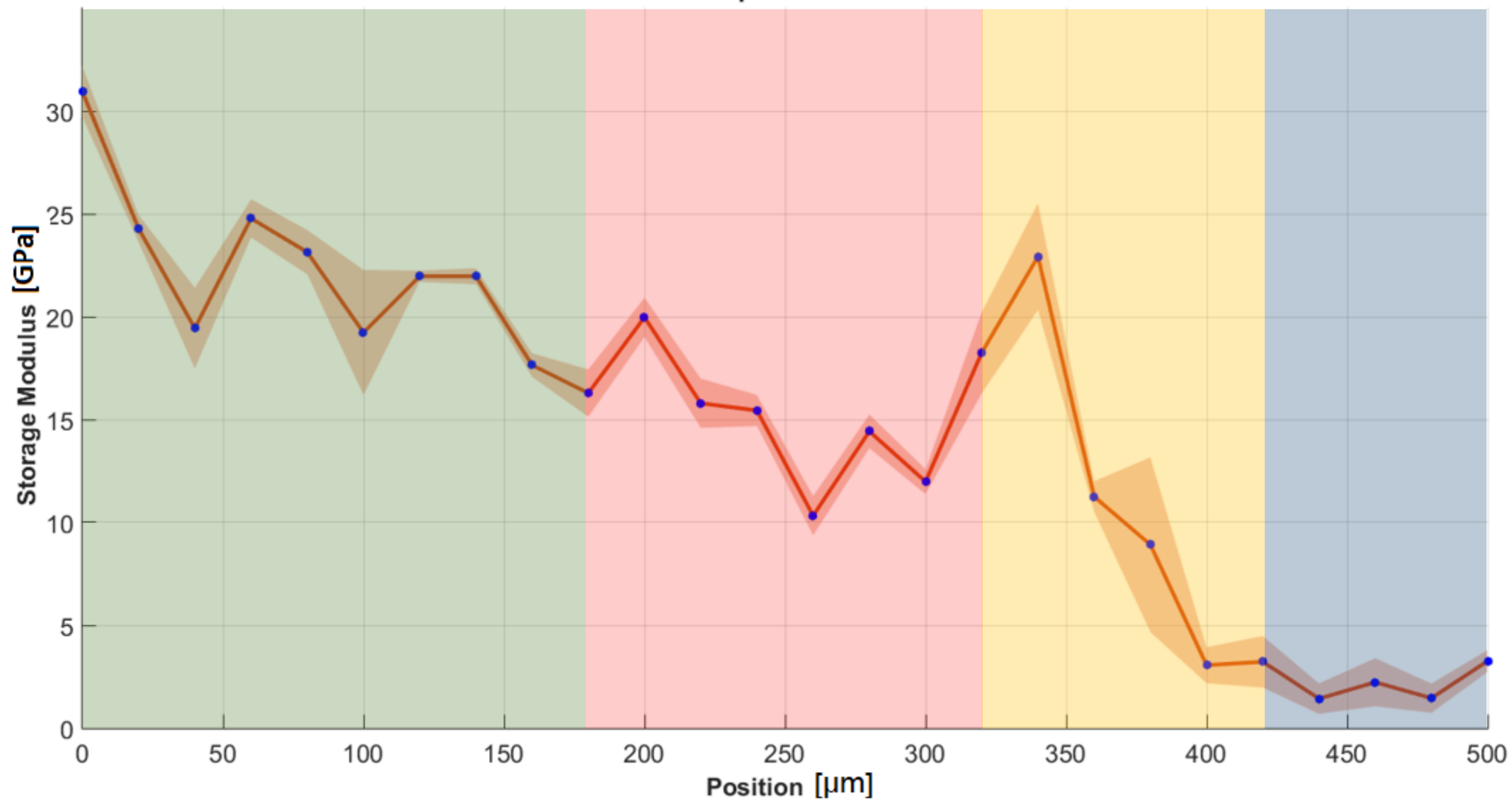
LossM S3 Interface



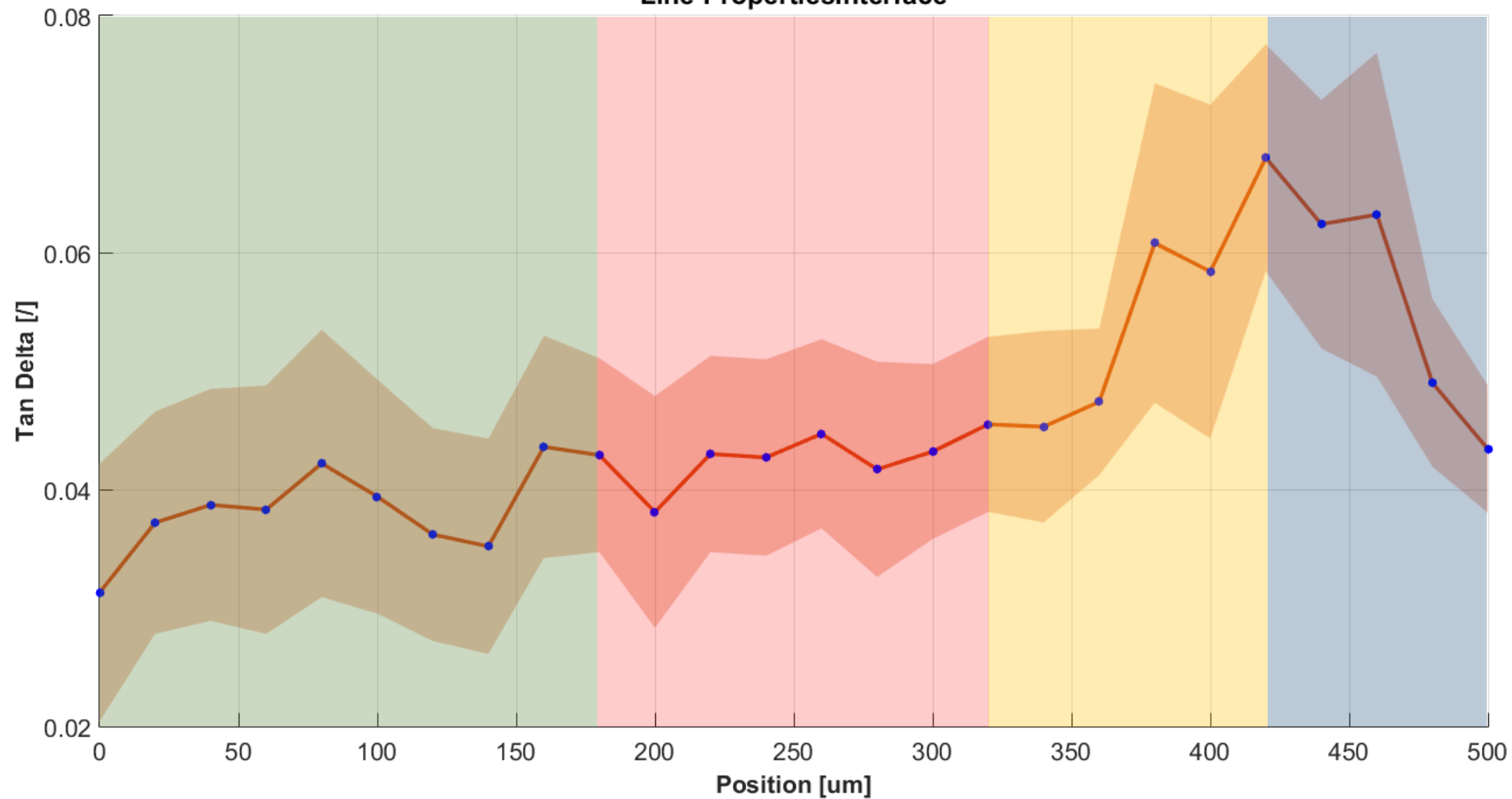
Hard S3 Interface



Line PropertiesInterface



Line PropertiesInterface

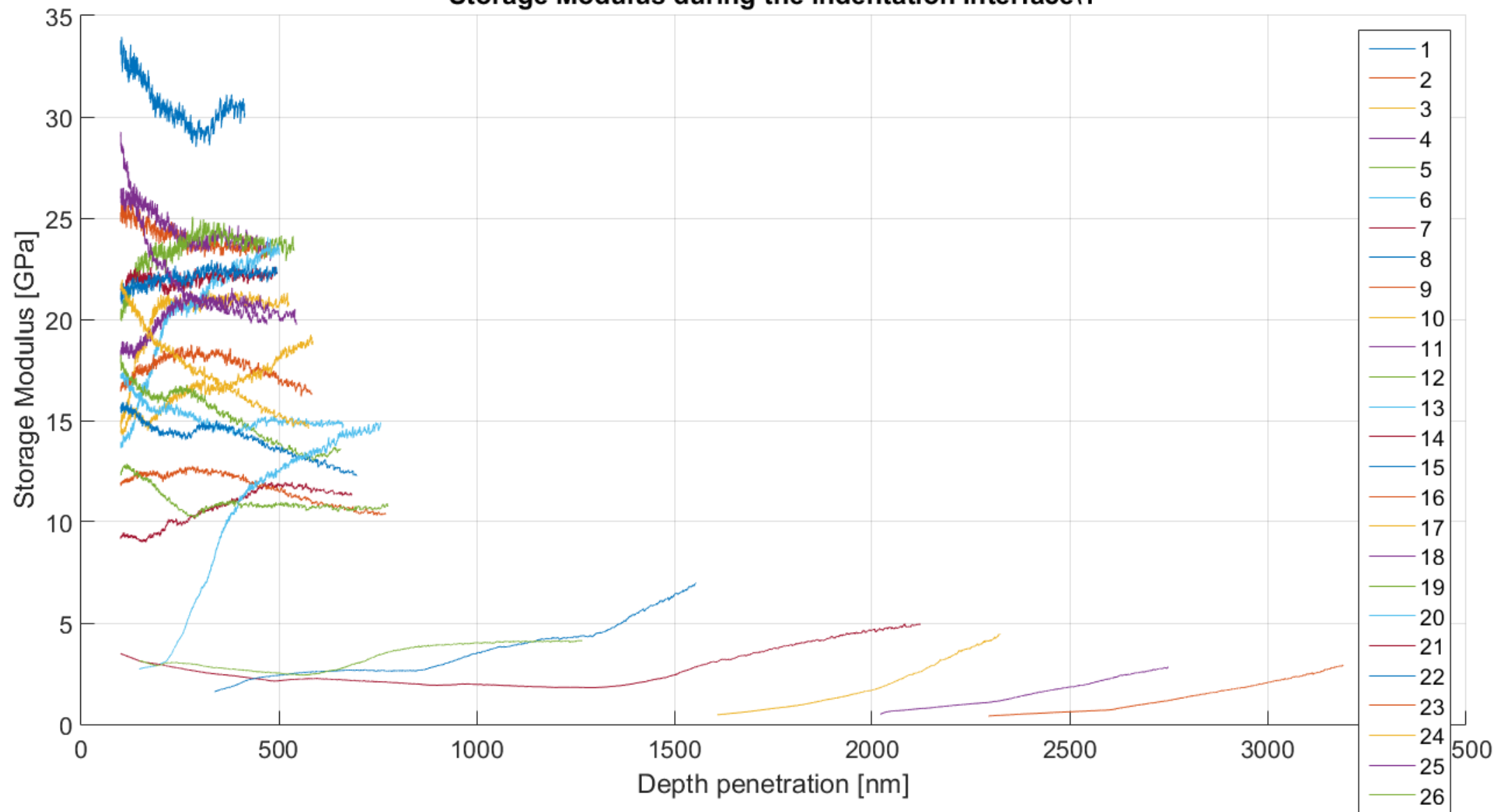


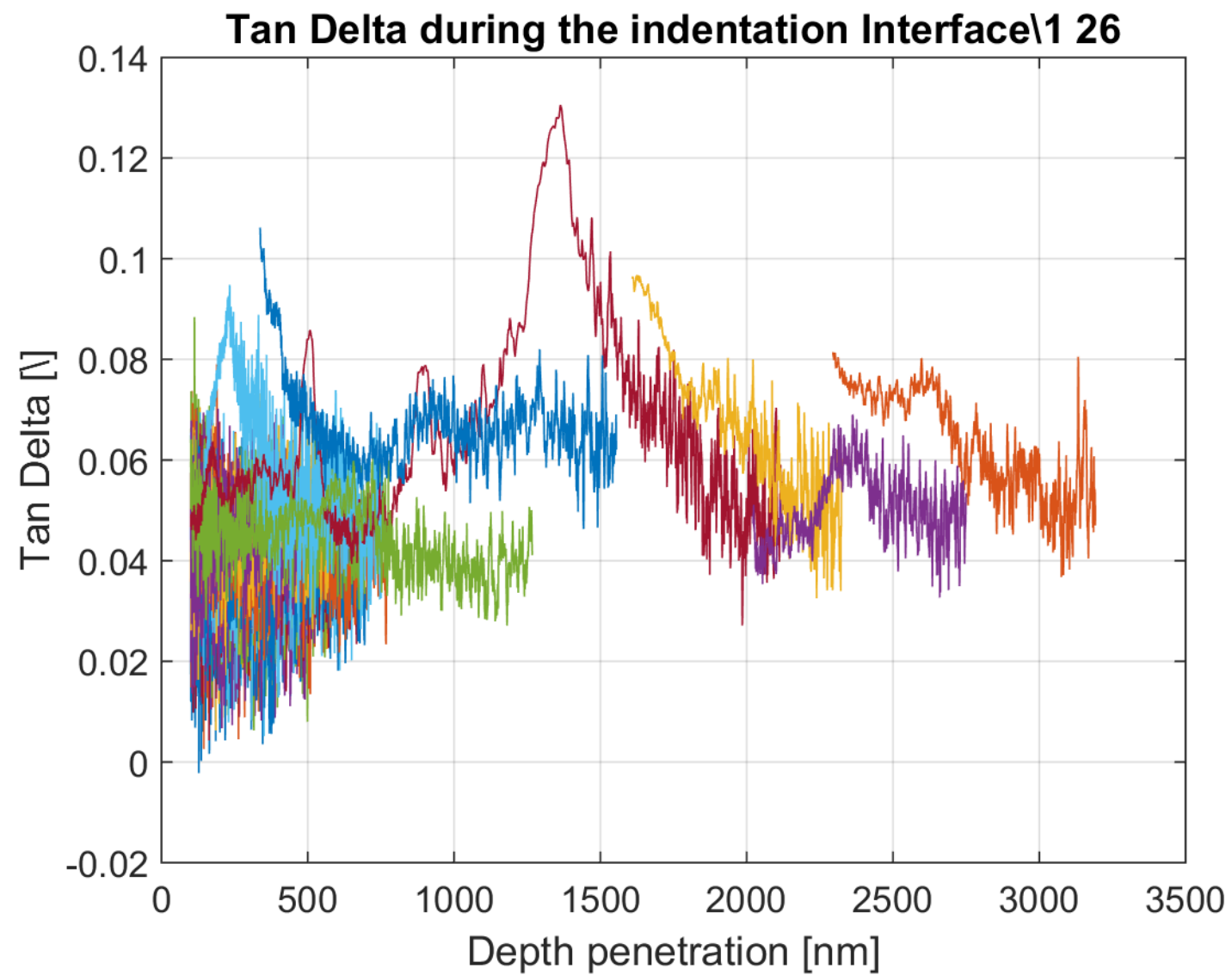
Interface A

	Bone	Cart	Interface	Tendon
StorM [Gpa]	16-31	10-20	1-23	1-3
LossM [Gpa]	0,75-1,00	0,47-0,73	0,18-1,00	0,06-0,08
Hard [Gpa]	0,55-1,36	0,39-0,66	0,07-1,29	0,10-0,12
Tan	0,031-0,044	0,038-0,045	0,045-0,068	0,043-0,063

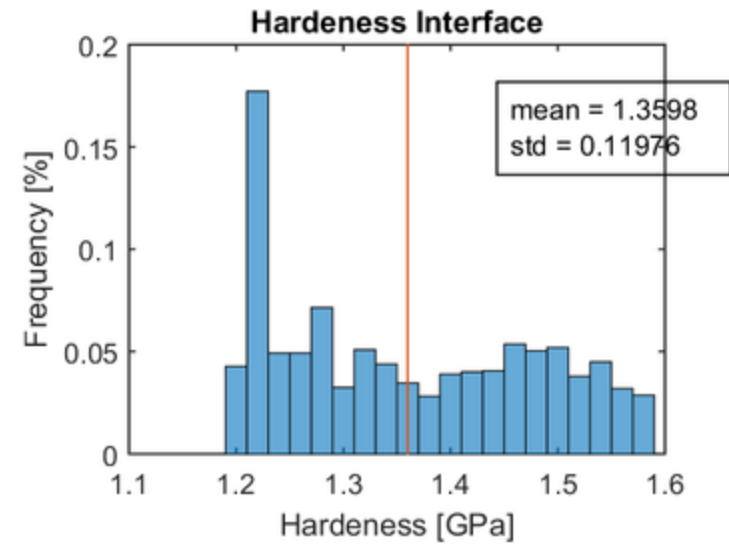
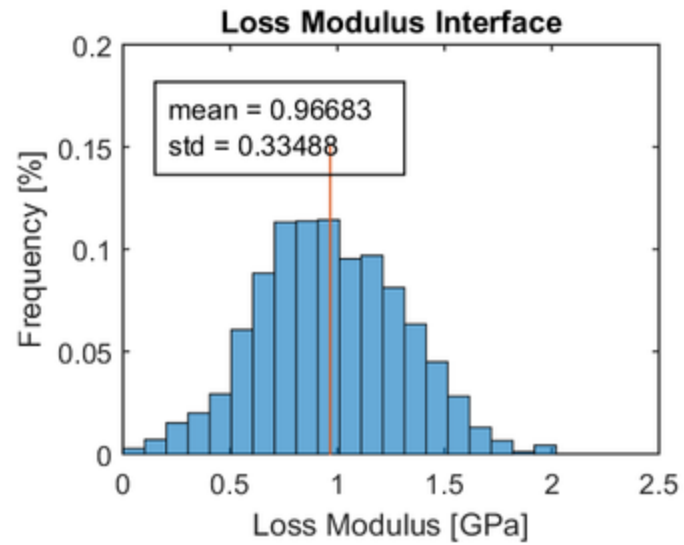
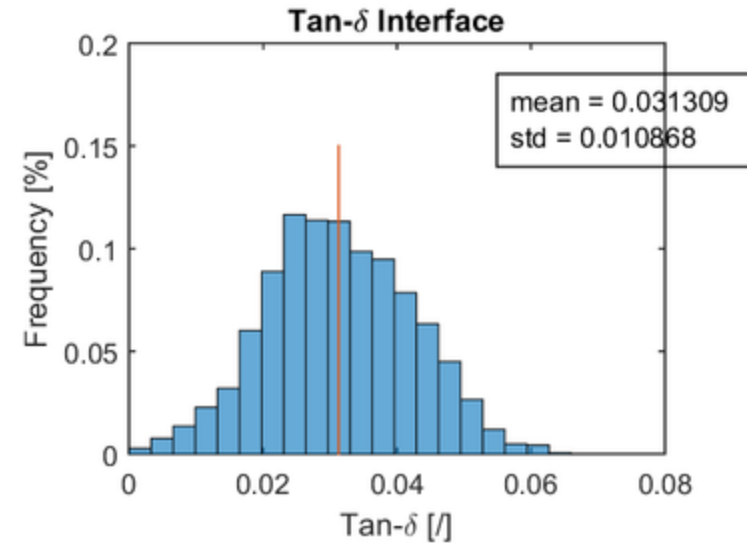
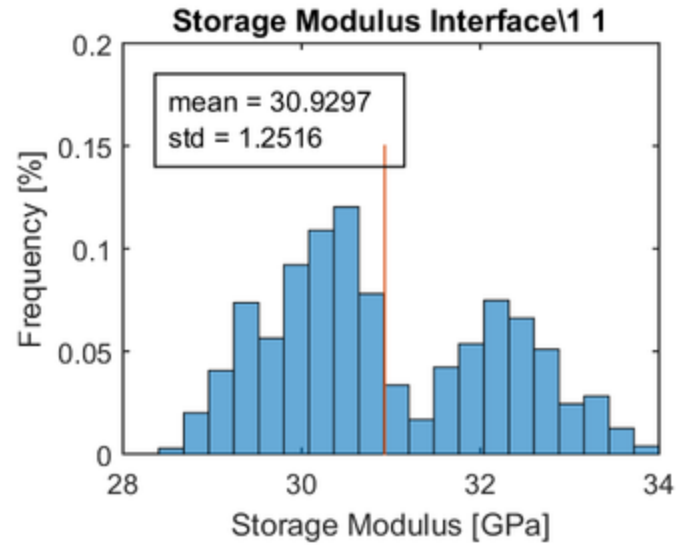
- No depth surface graph

Storage Modulus during the indentation Interface\1

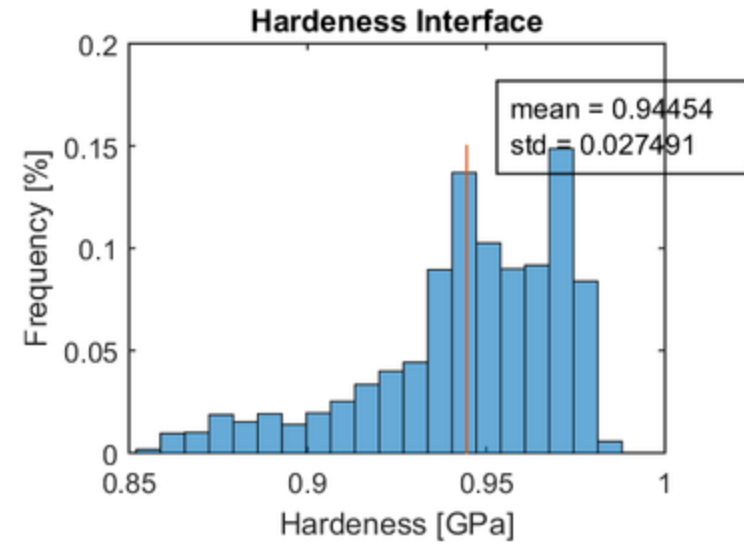
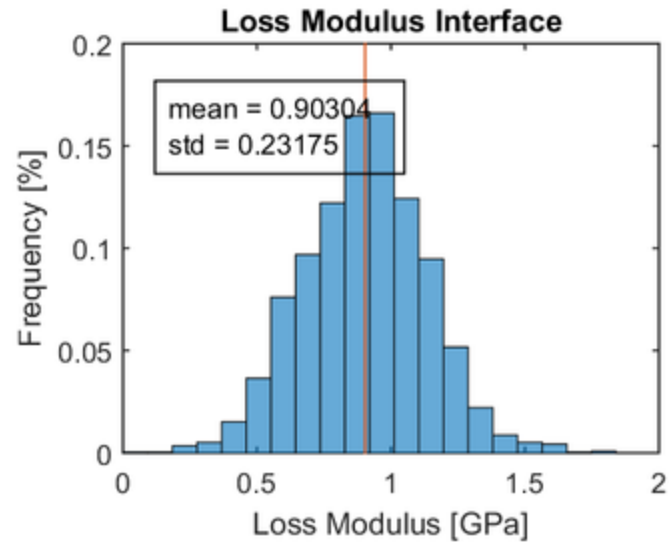
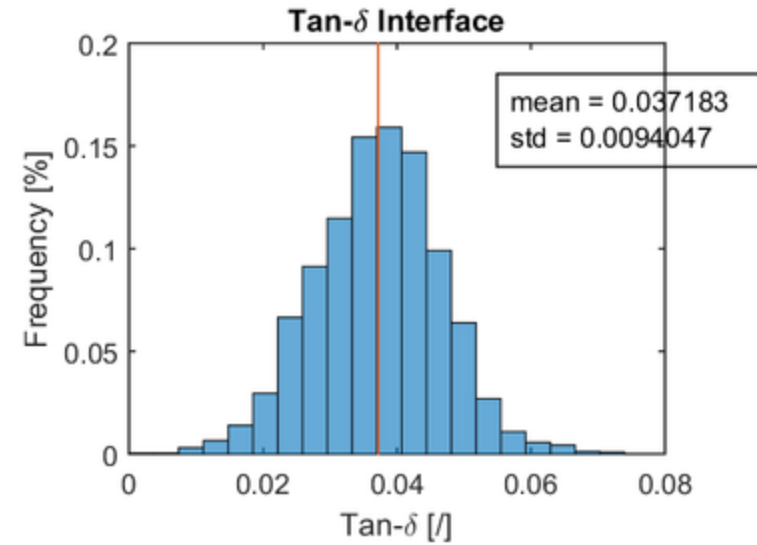
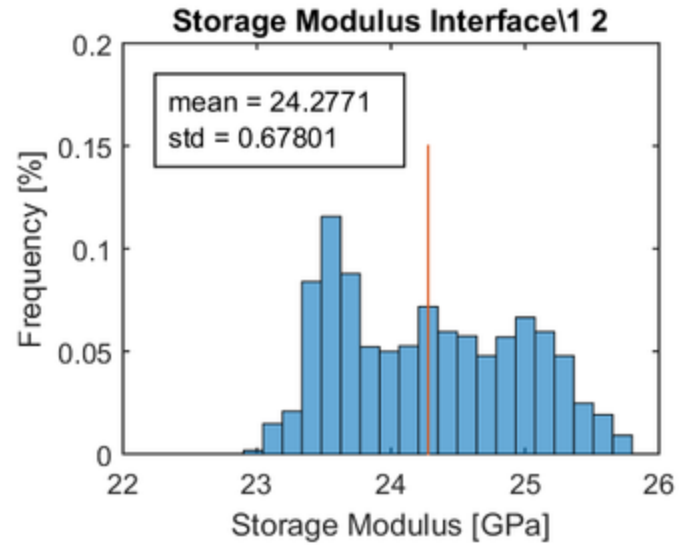




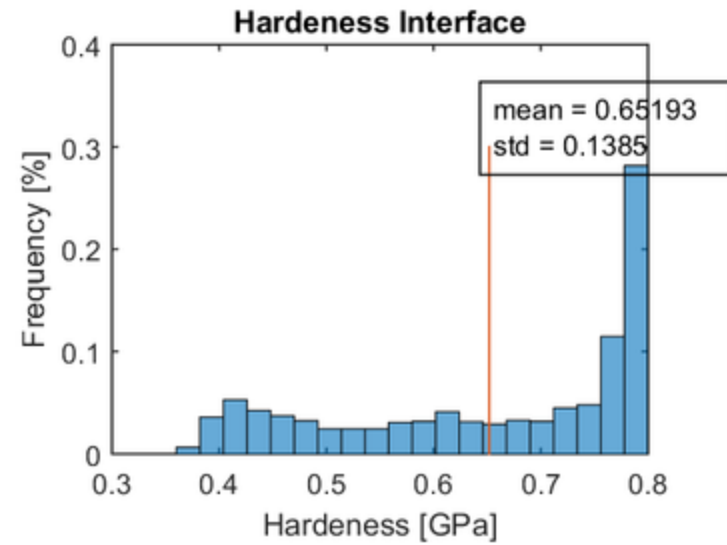
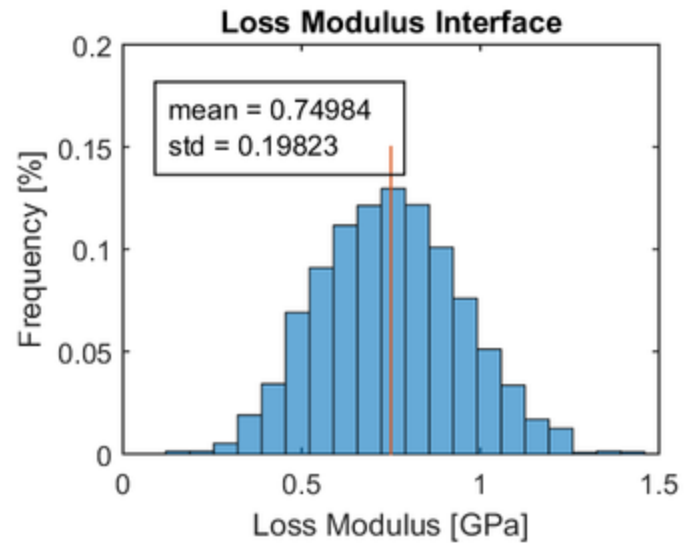
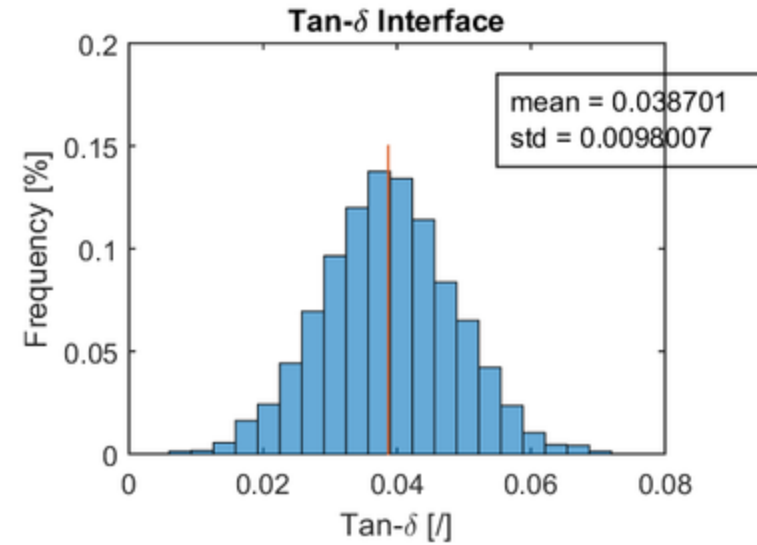
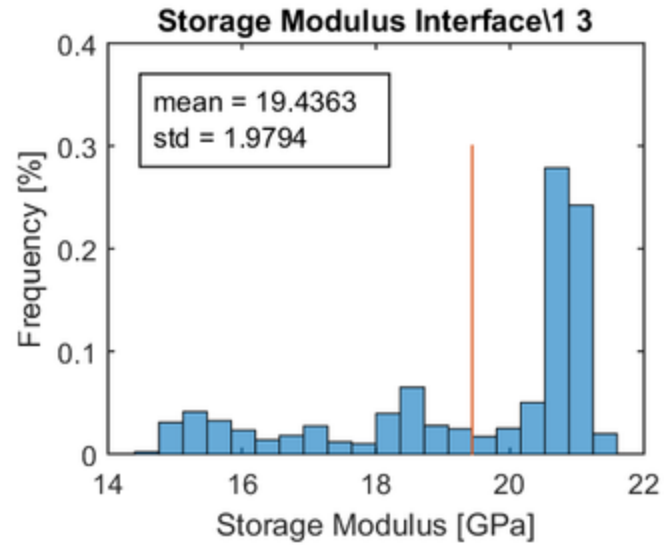
Interface A Point 1



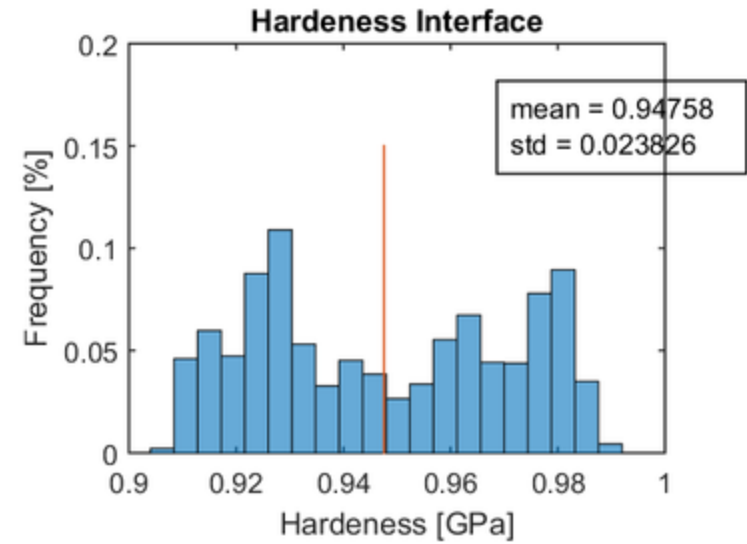
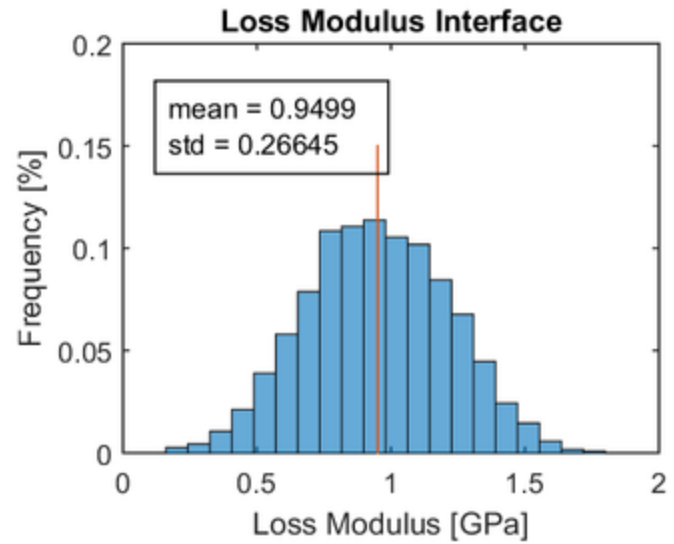
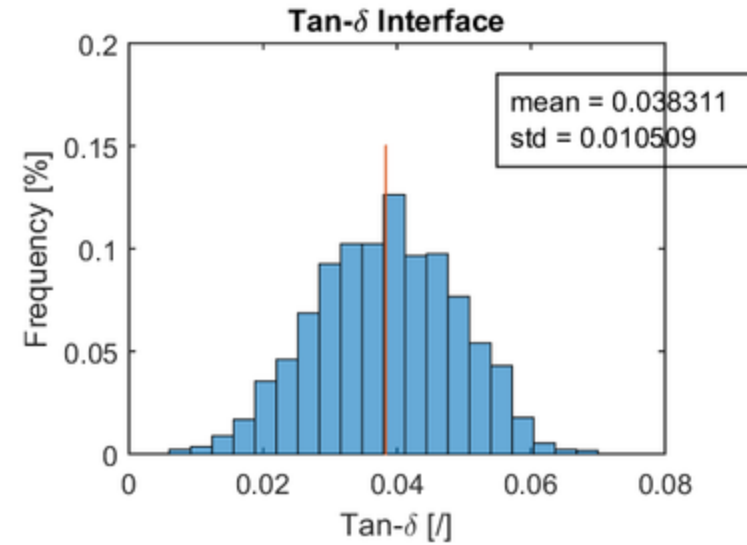
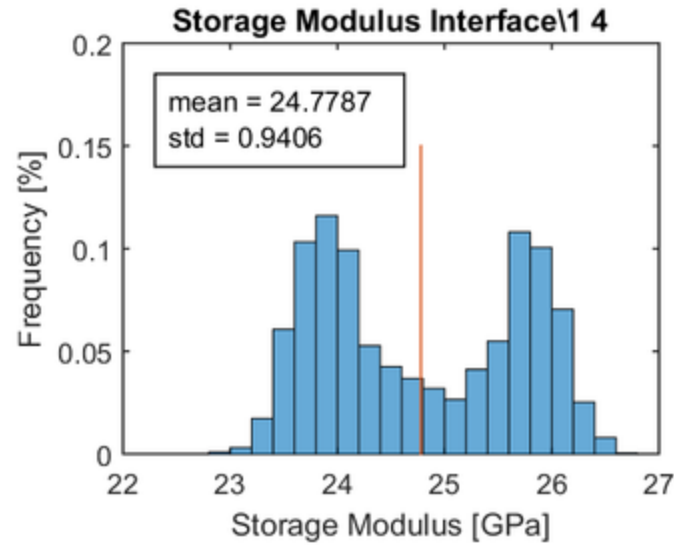
Interface A Point 2



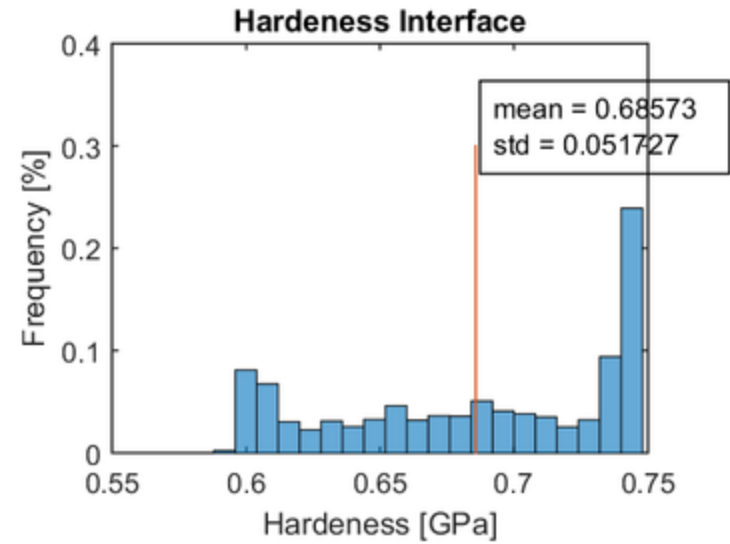
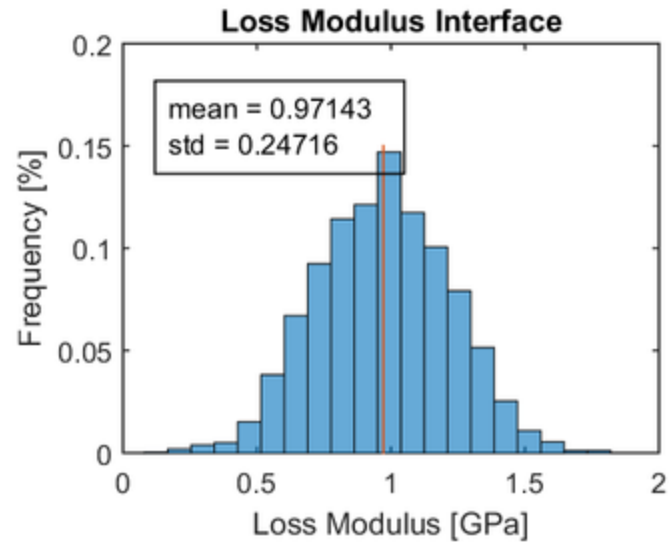
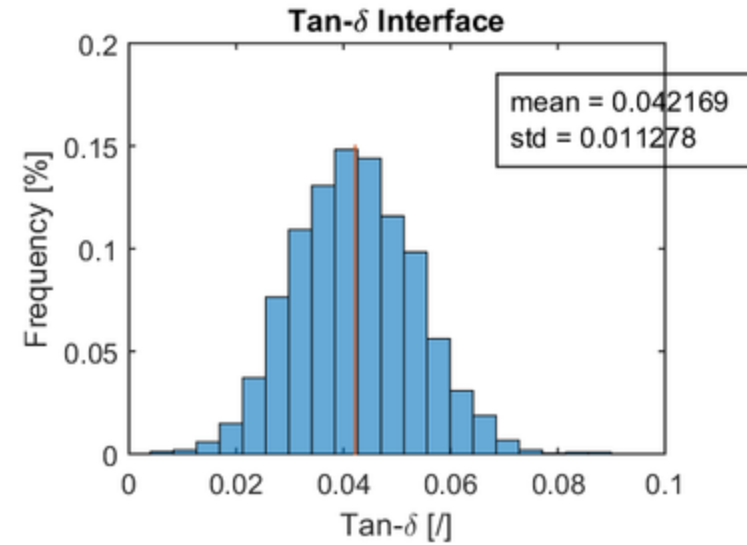
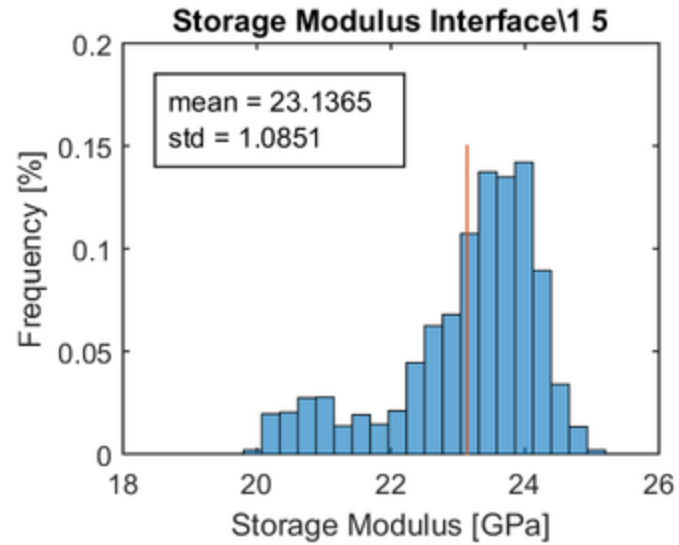
Interface A Point 3



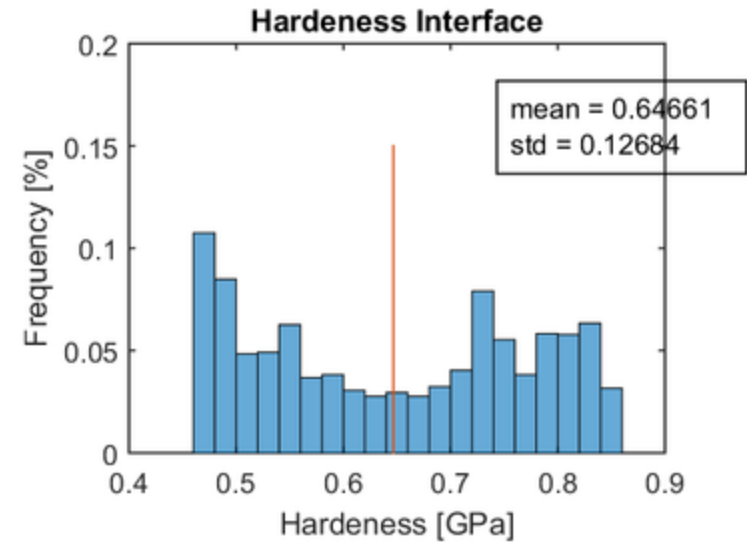
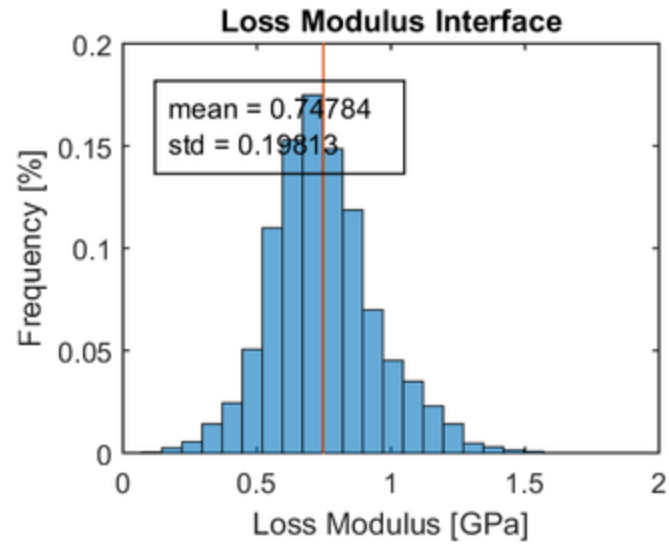
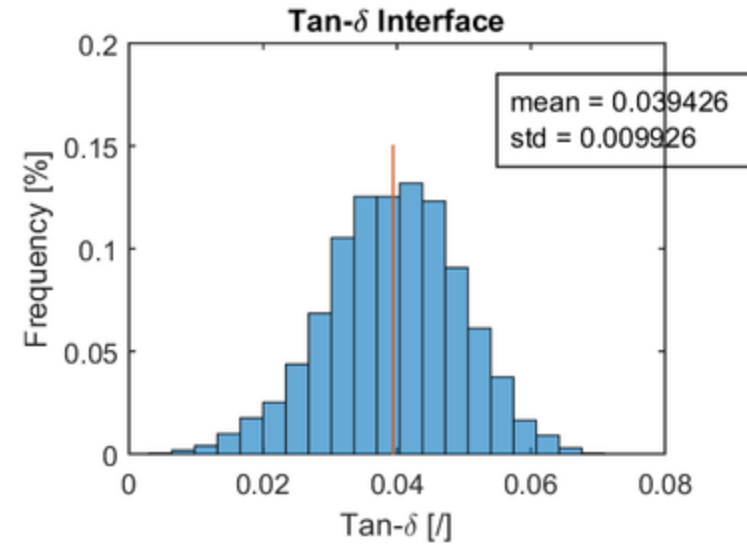
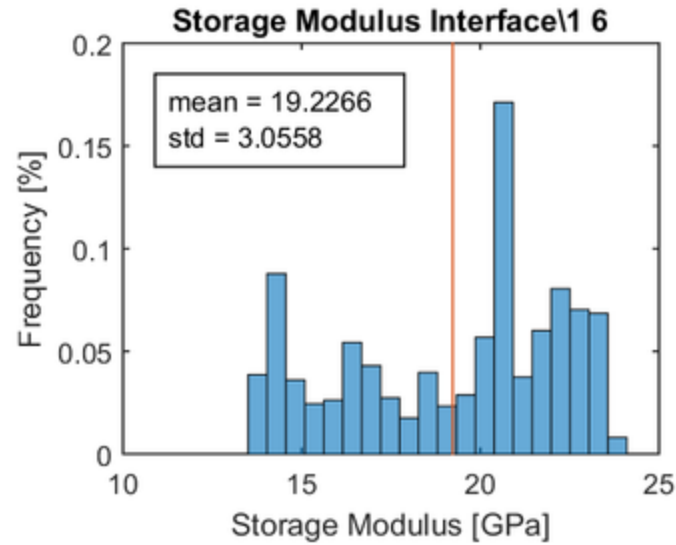
Interface A Point 4



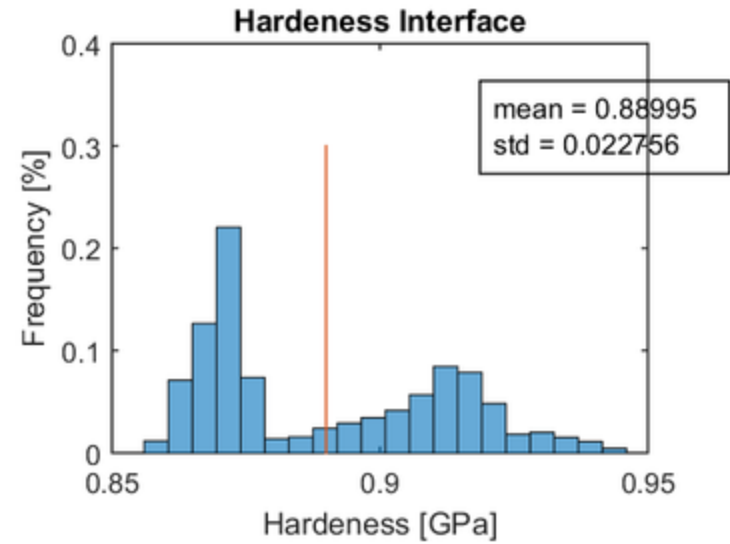
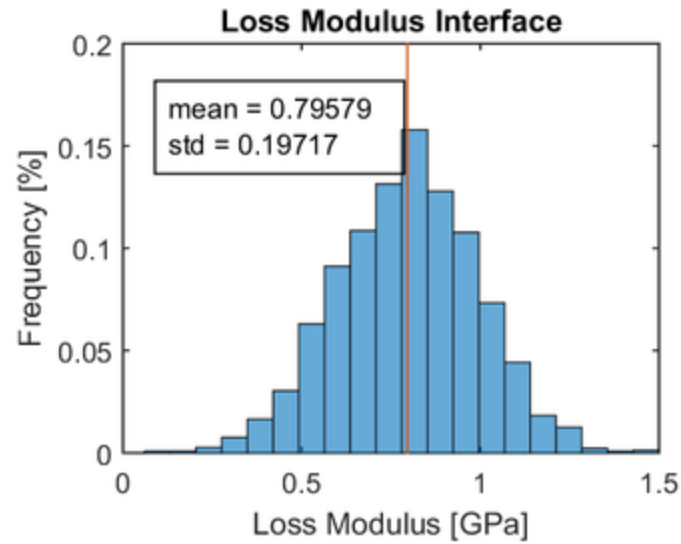
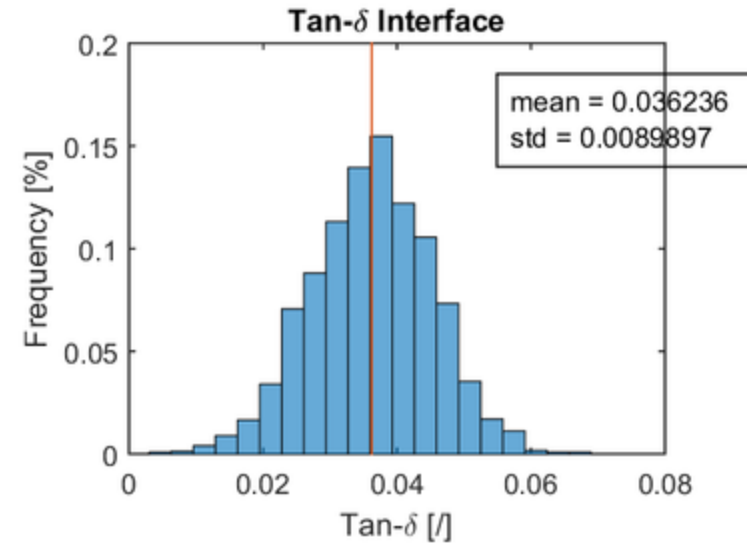
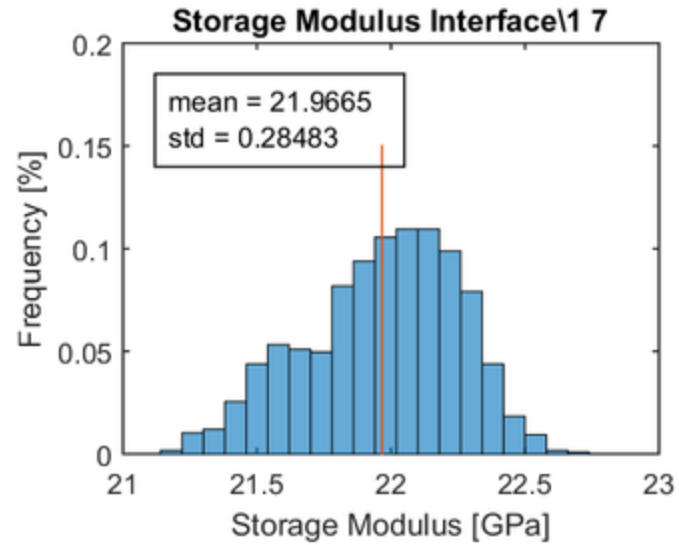
Interface A Point 5



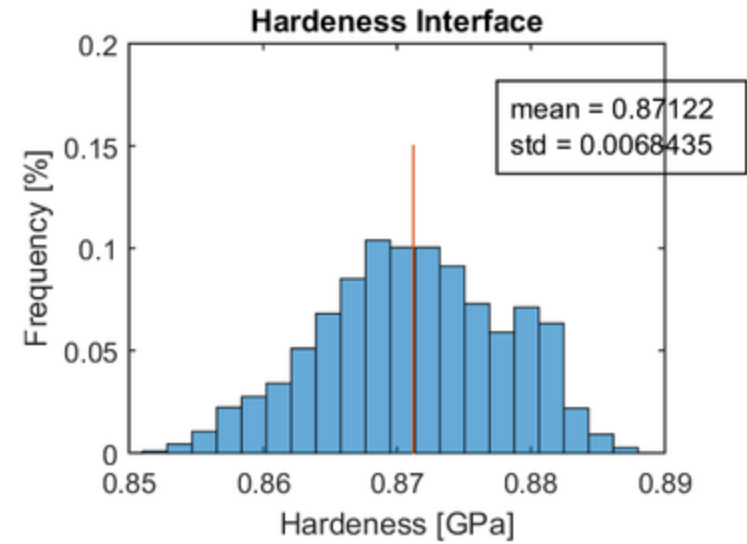
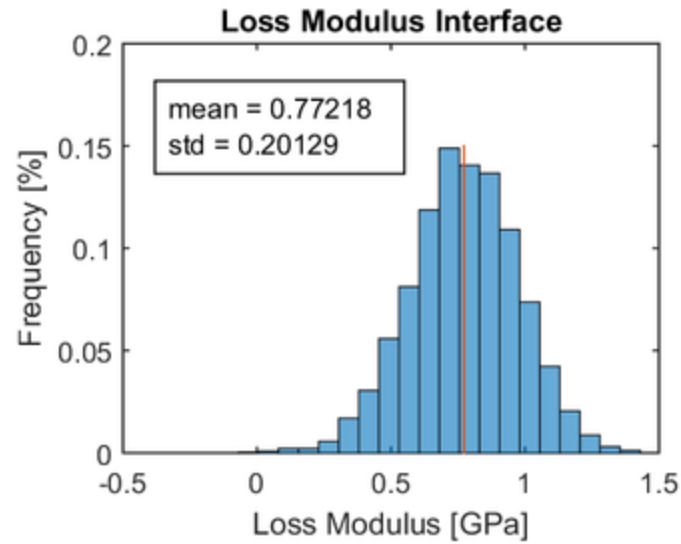
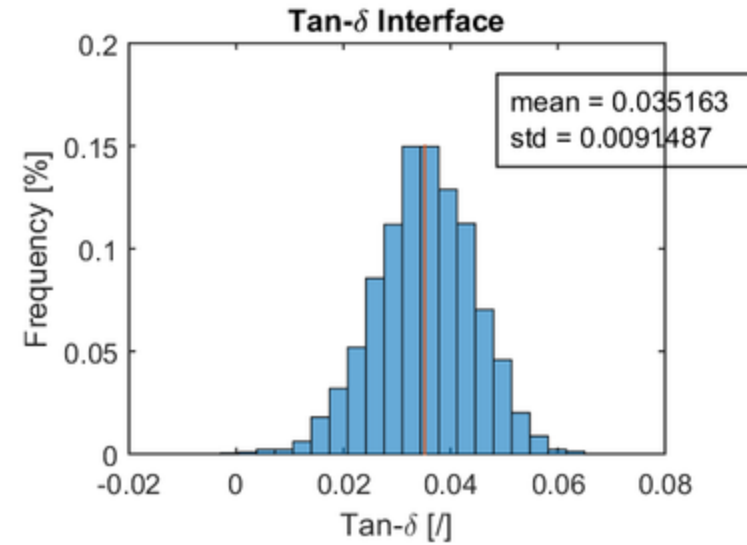
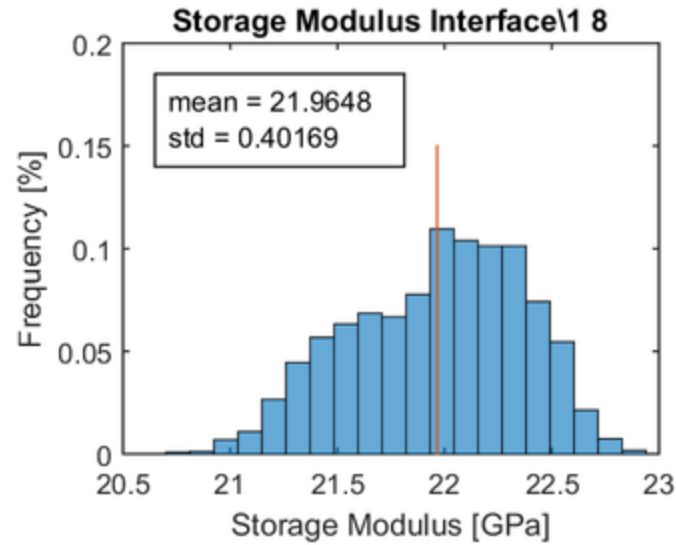
Interface A Point 6



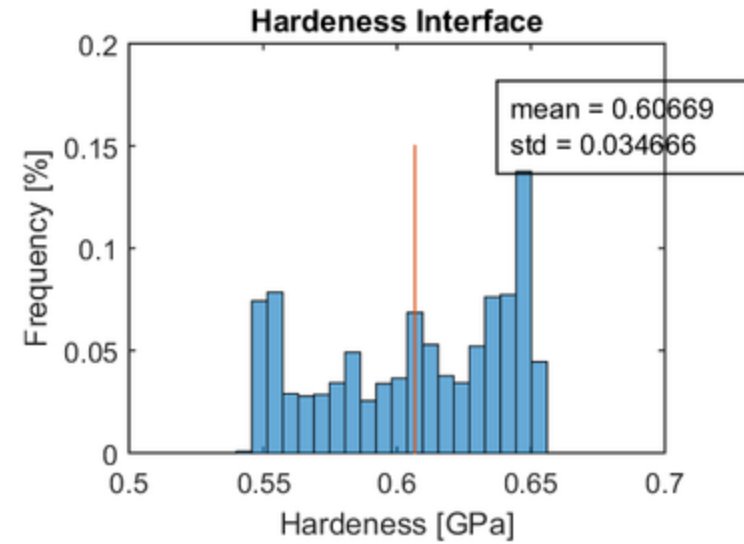
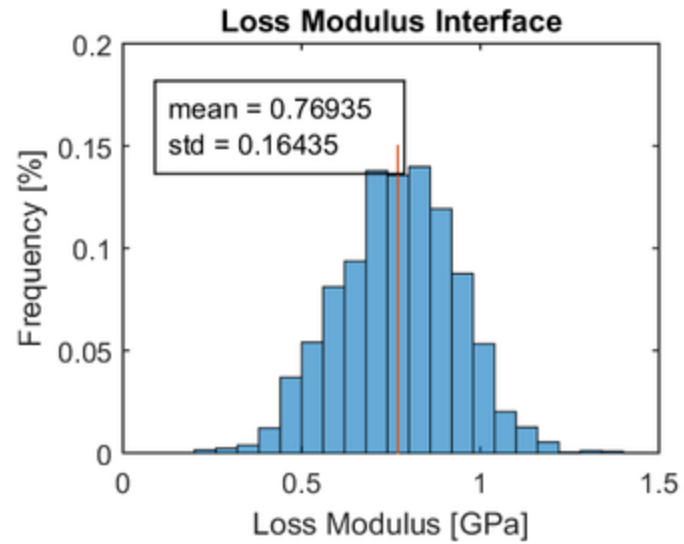
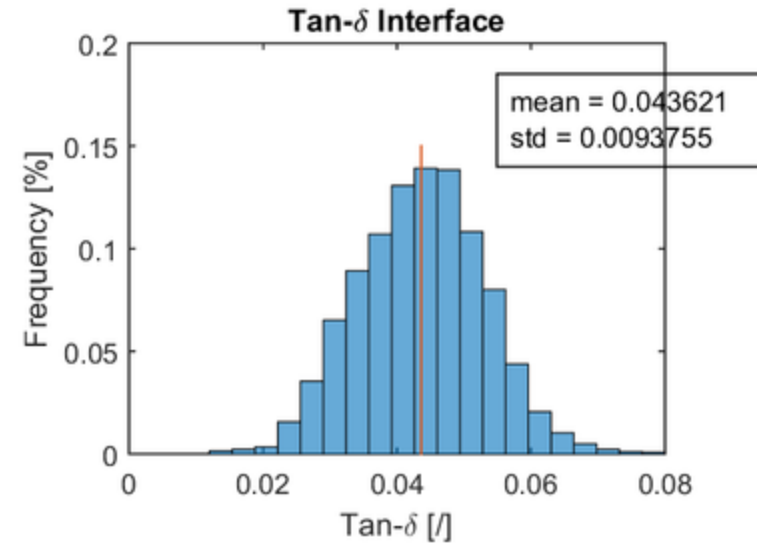
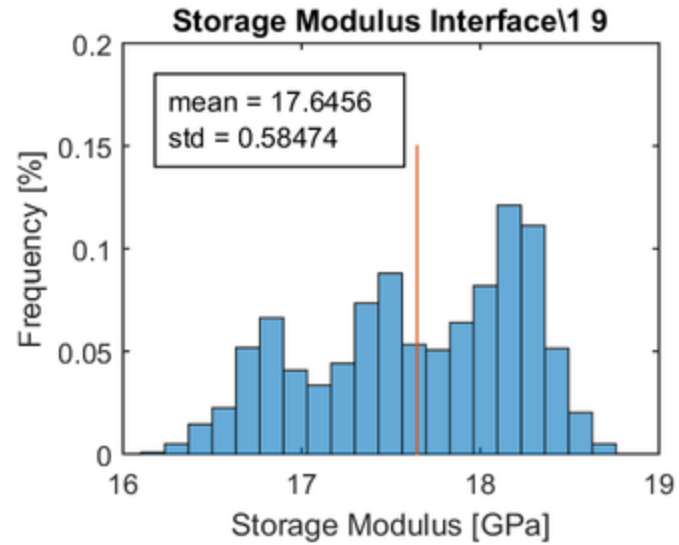
Interface A Point 7



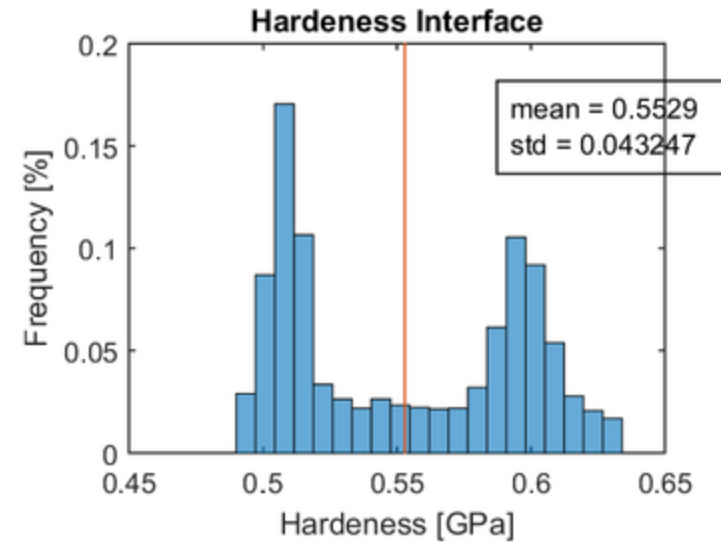
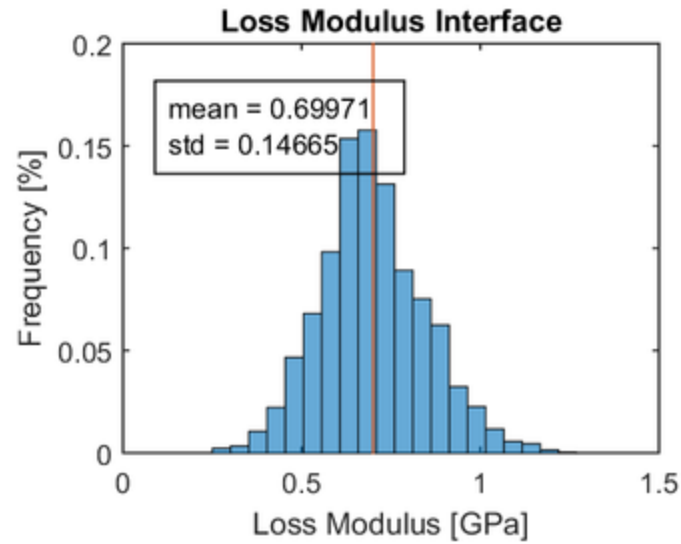
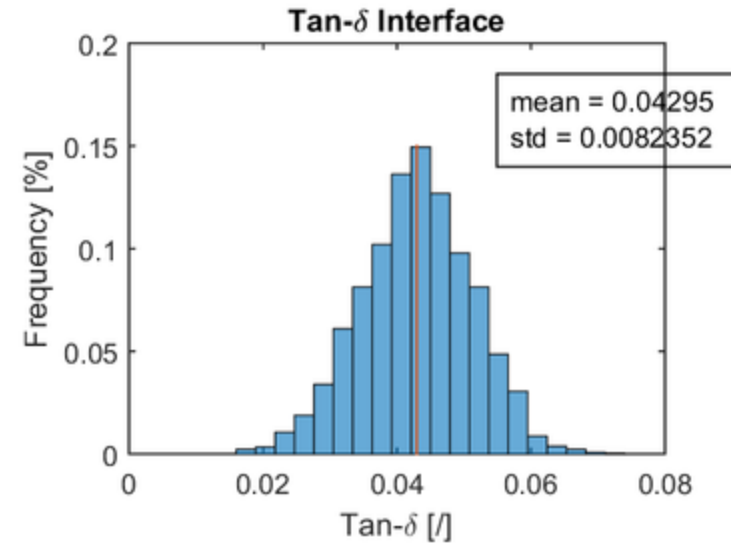
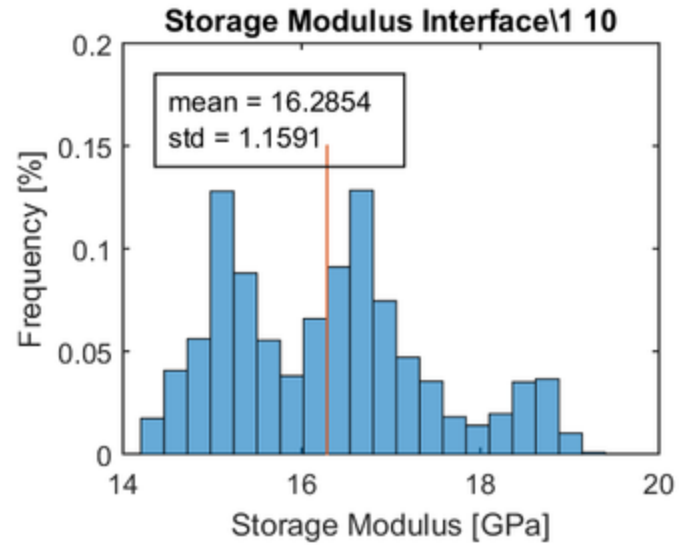
Interface A Point 8



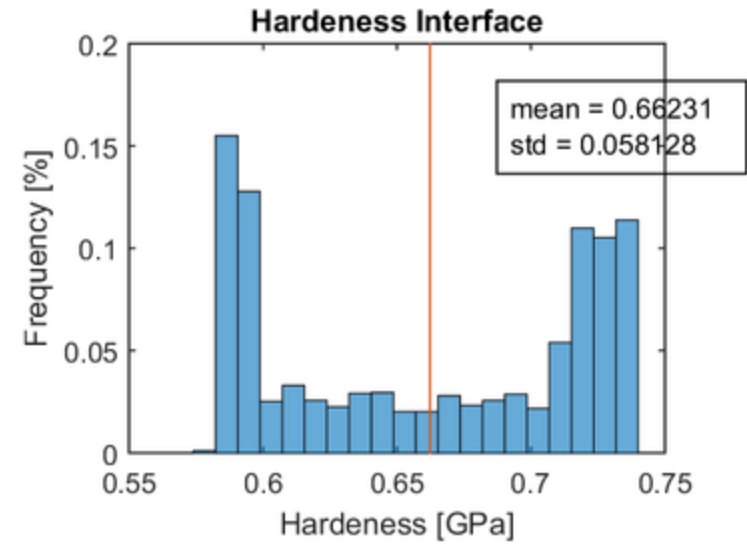
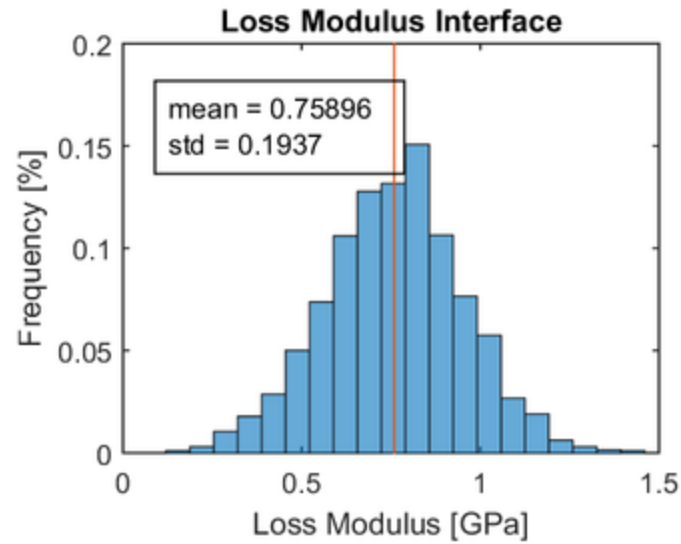
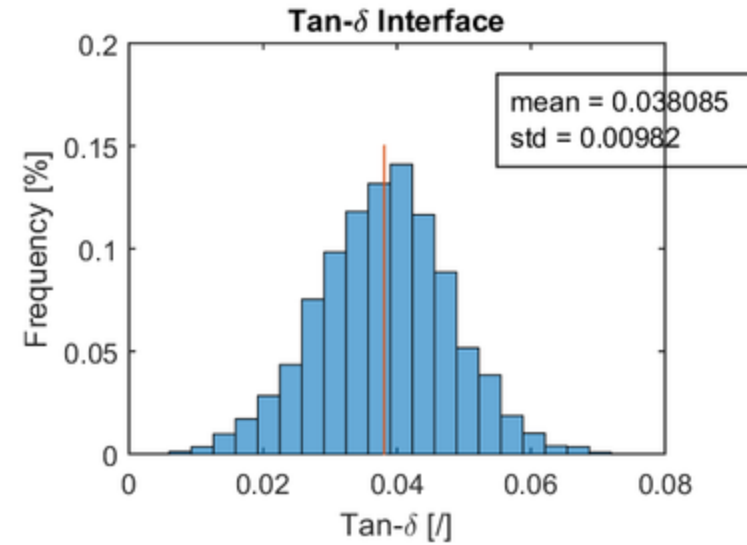
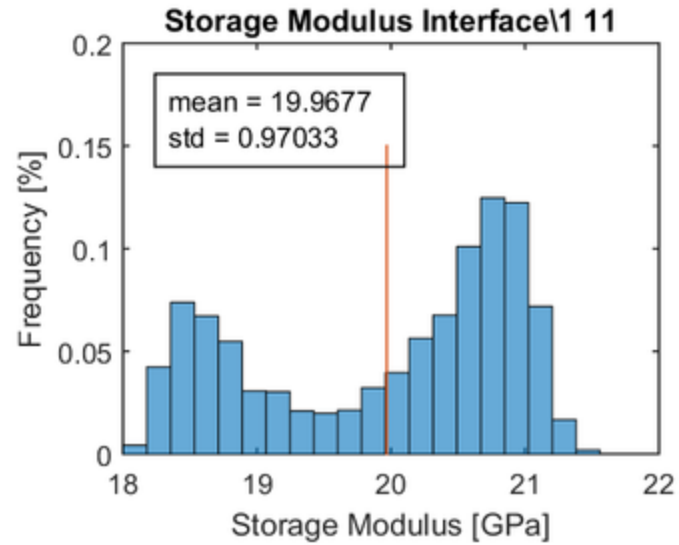
Interface A Point 9



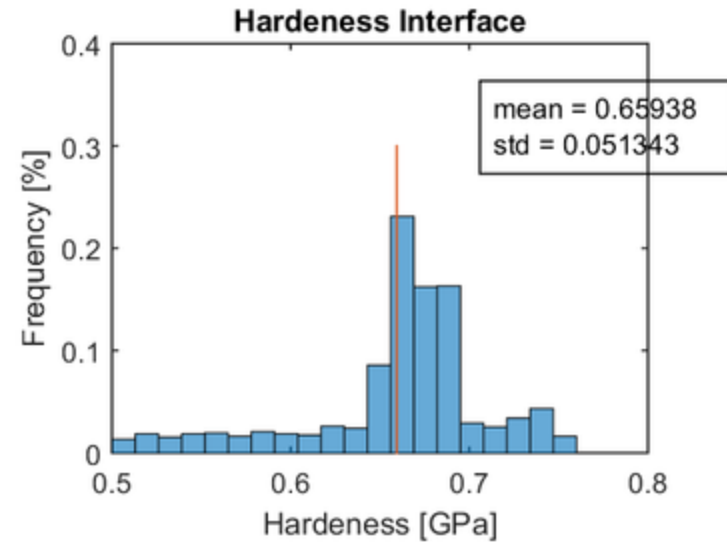
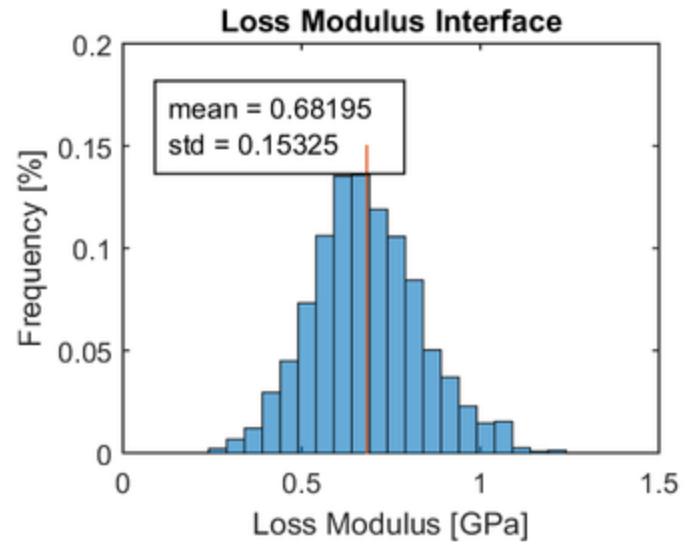
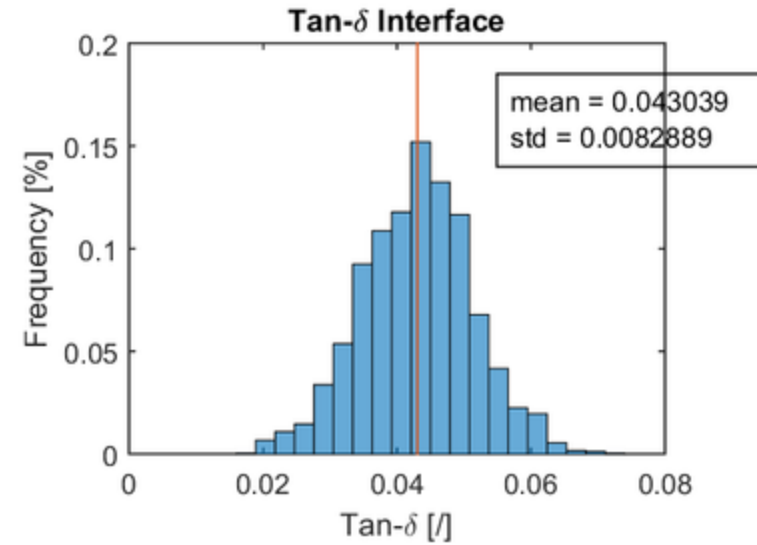
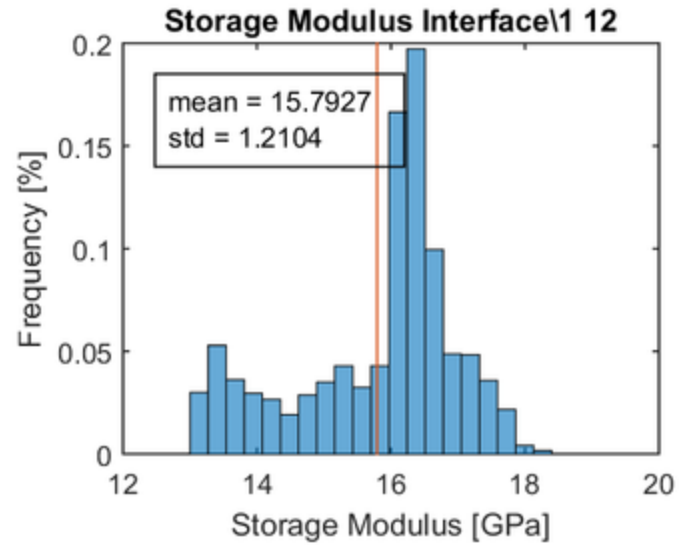
Interface A Point 10



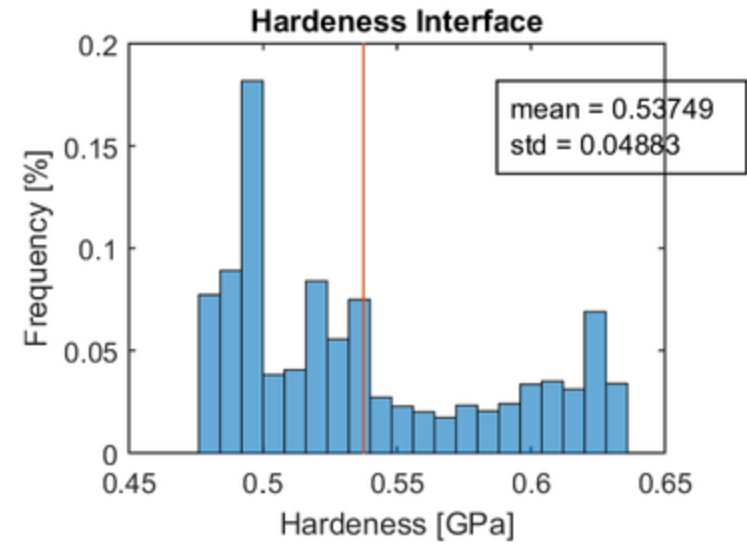
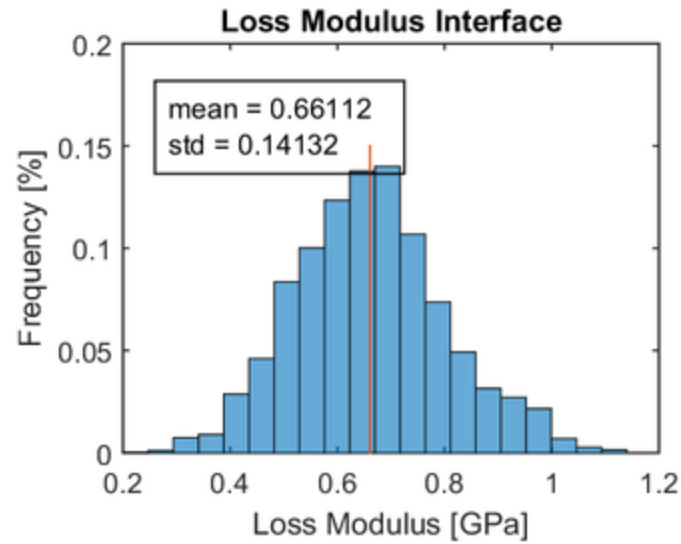
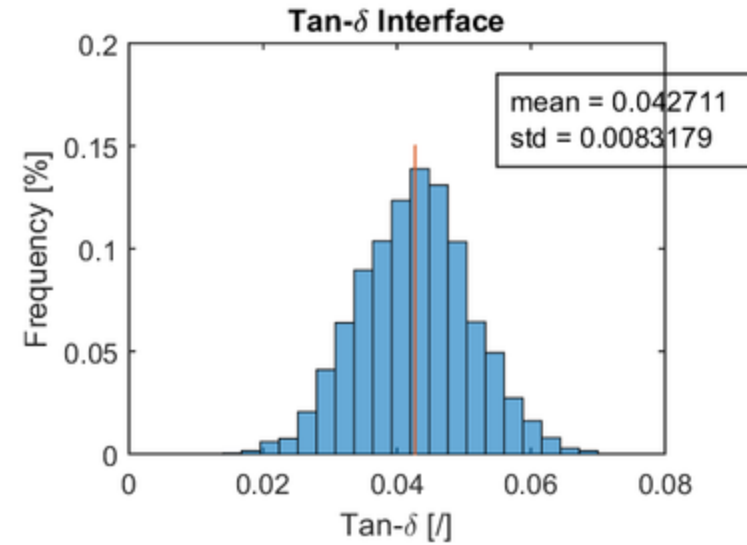
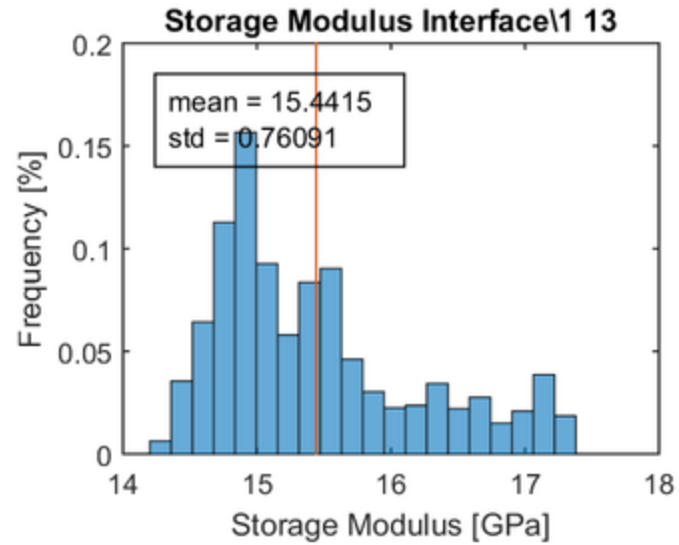
Interface A Point 11



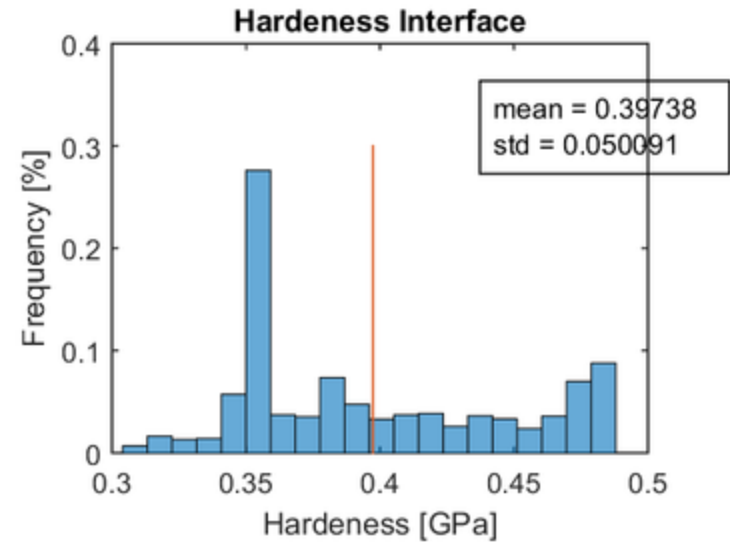
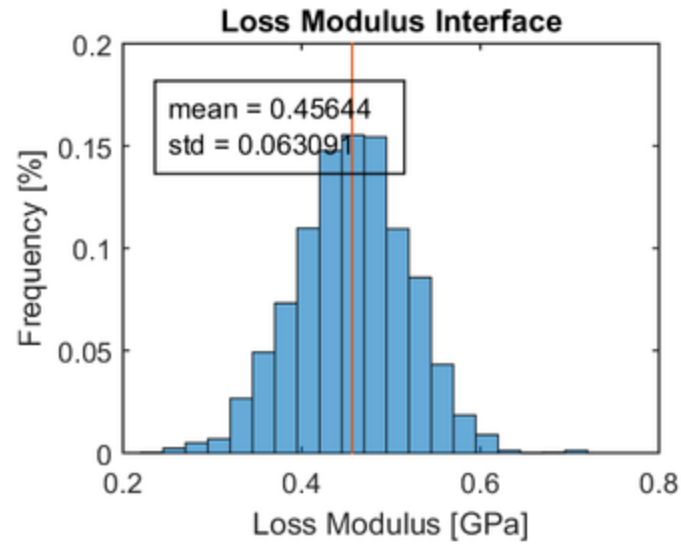
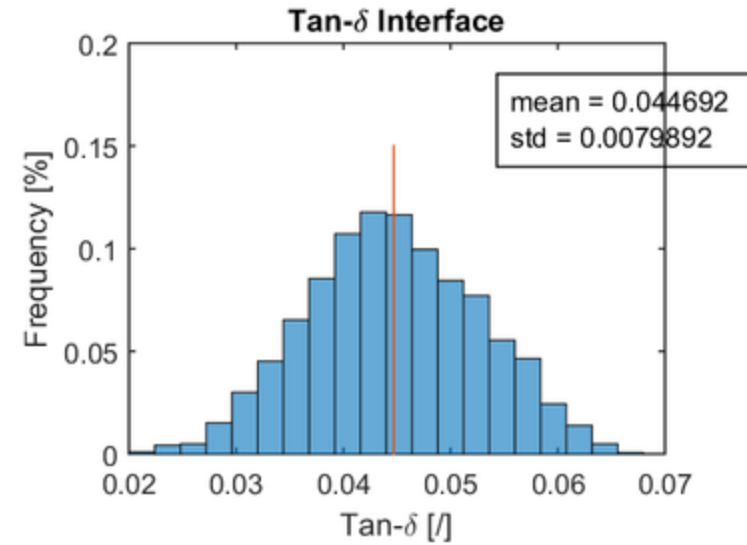
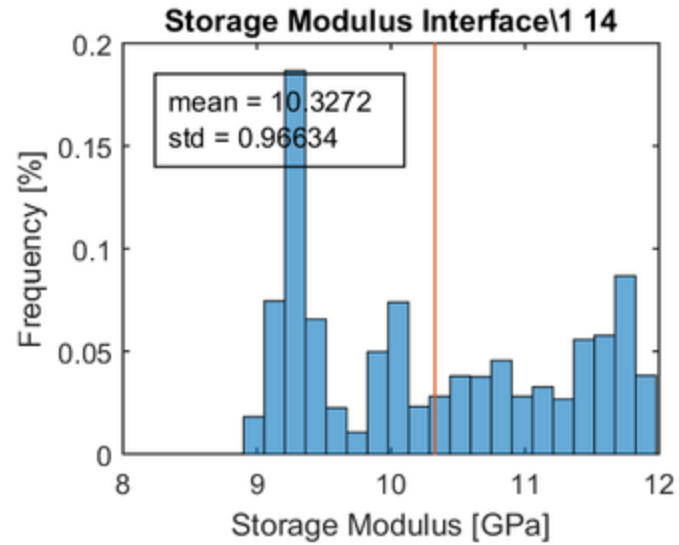
Interface A Point 12



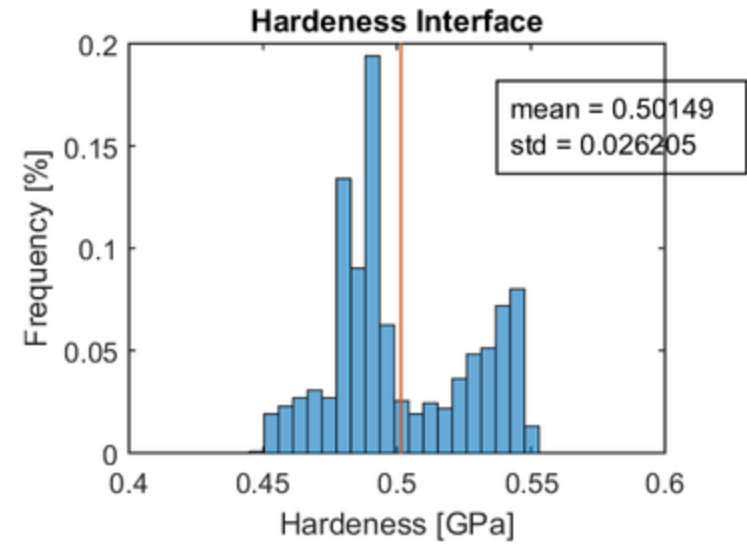
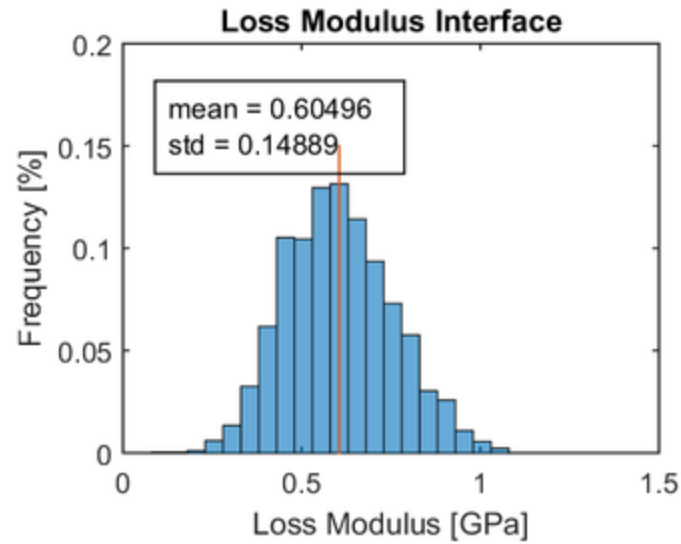
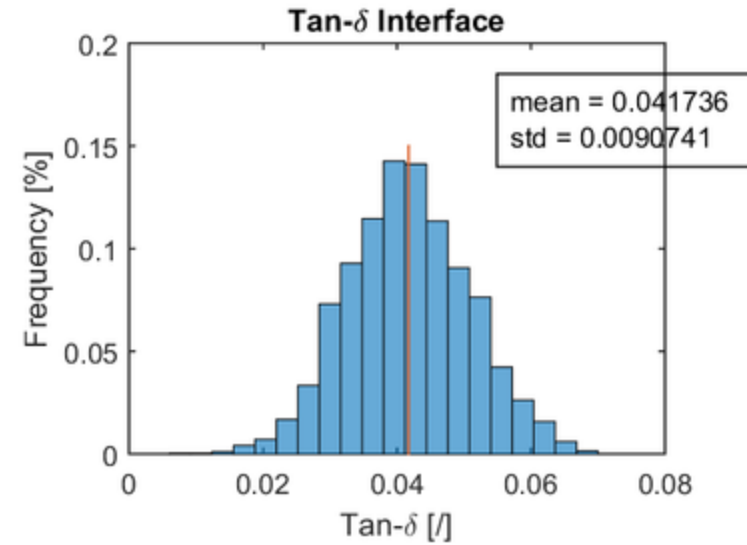
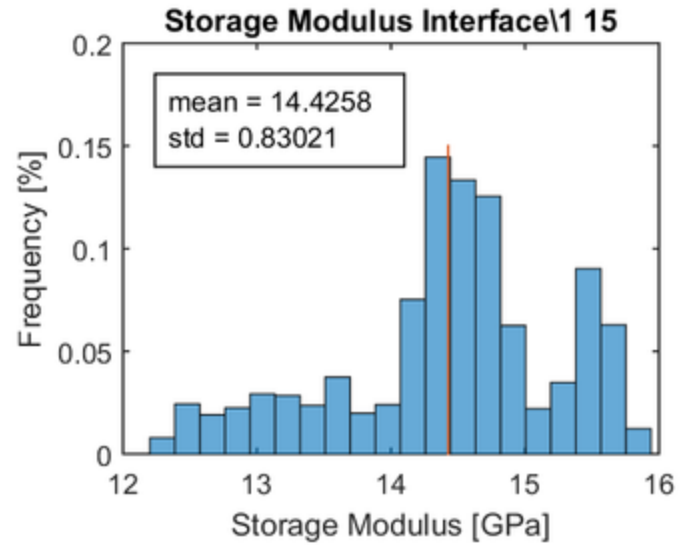
Interface A Point 13



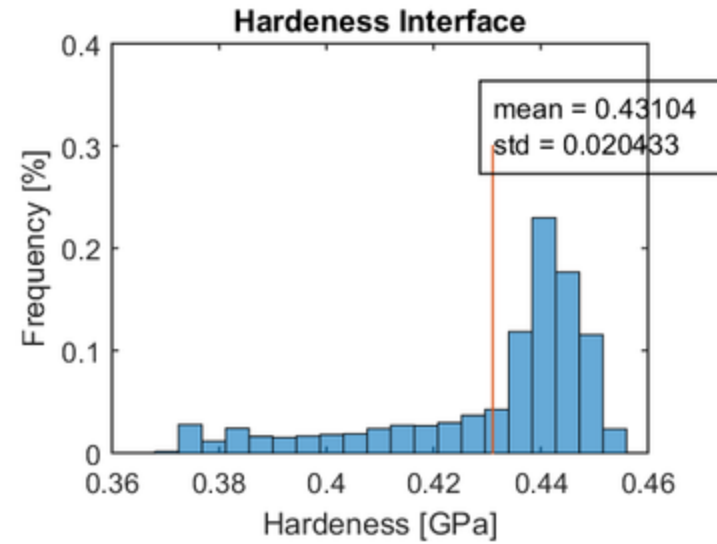
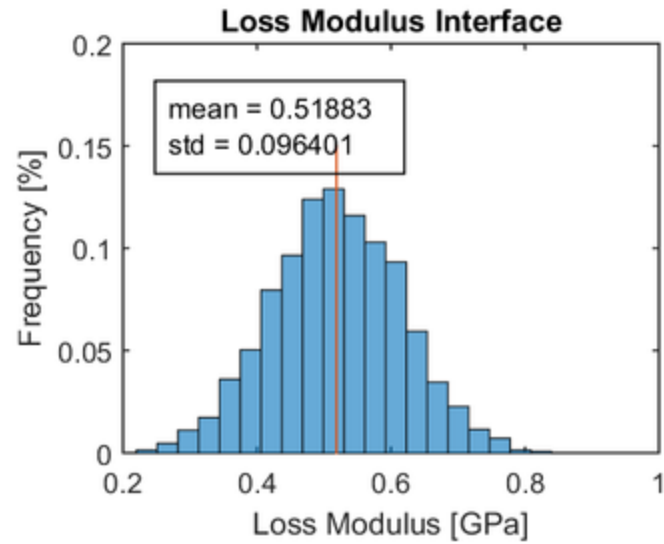
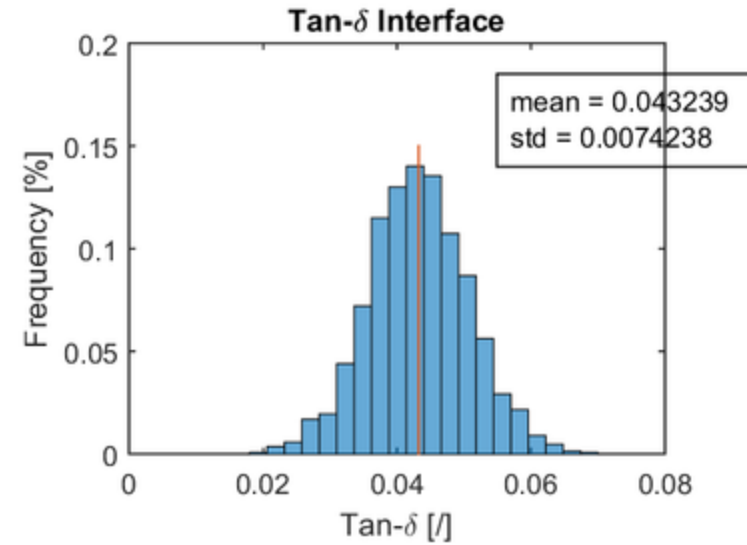
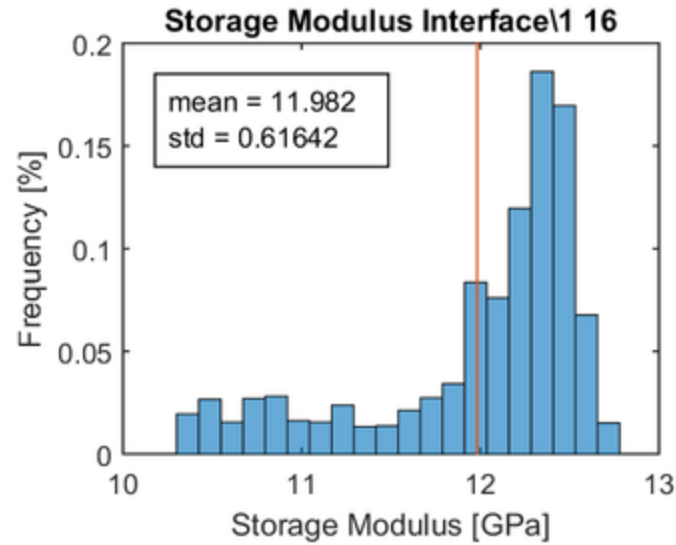
Interface A Point 14



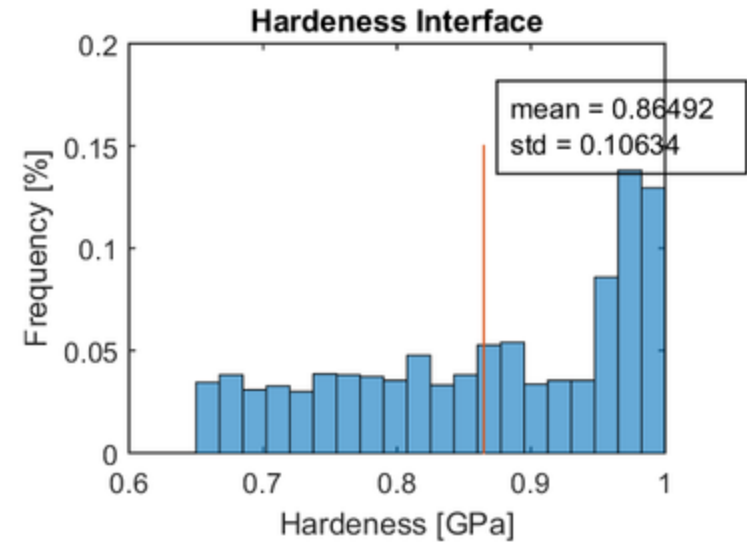
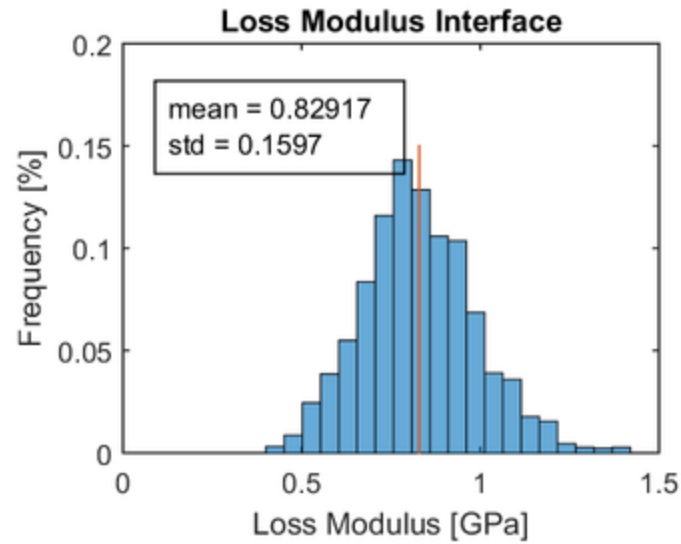
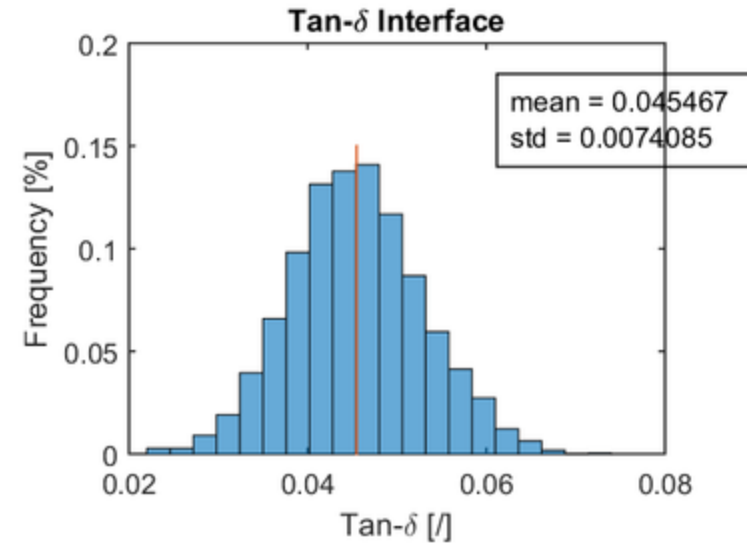
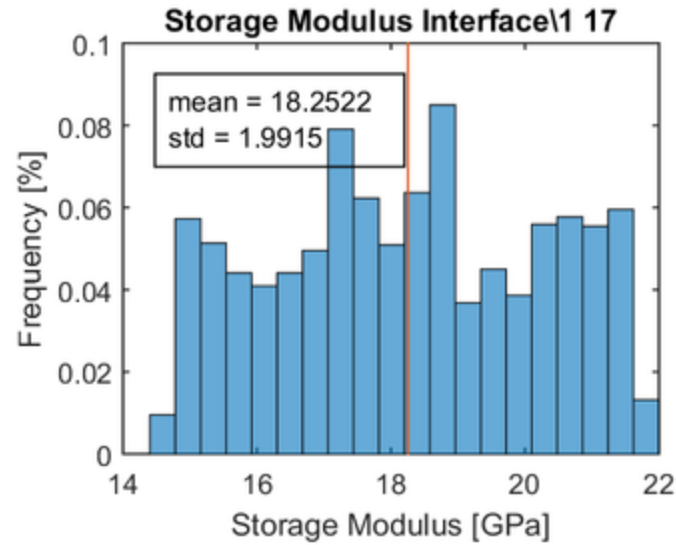
Interface A Point 15



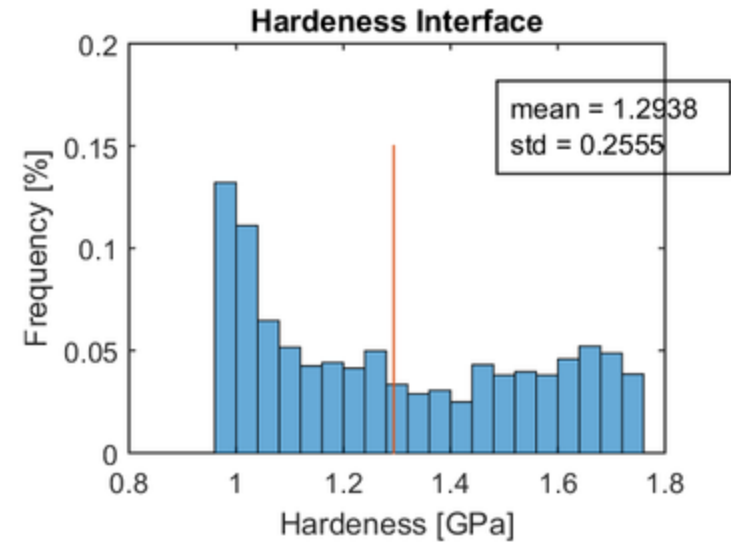
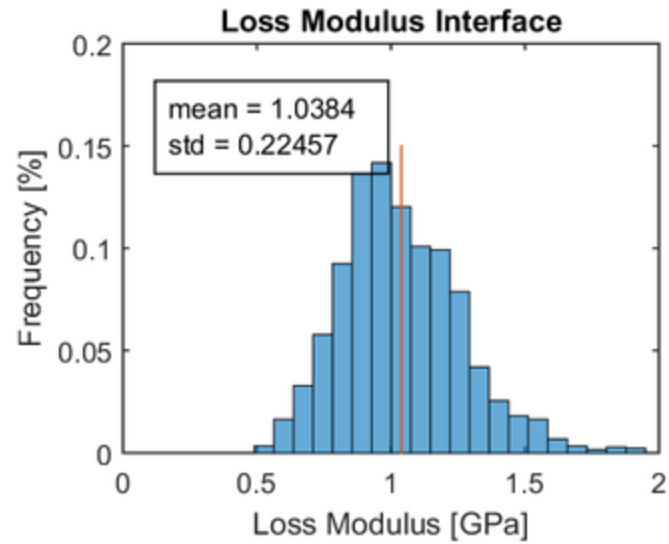
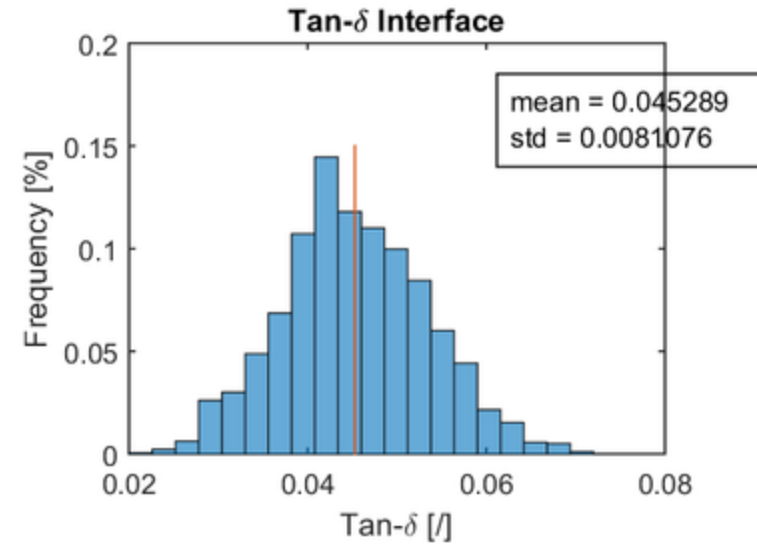
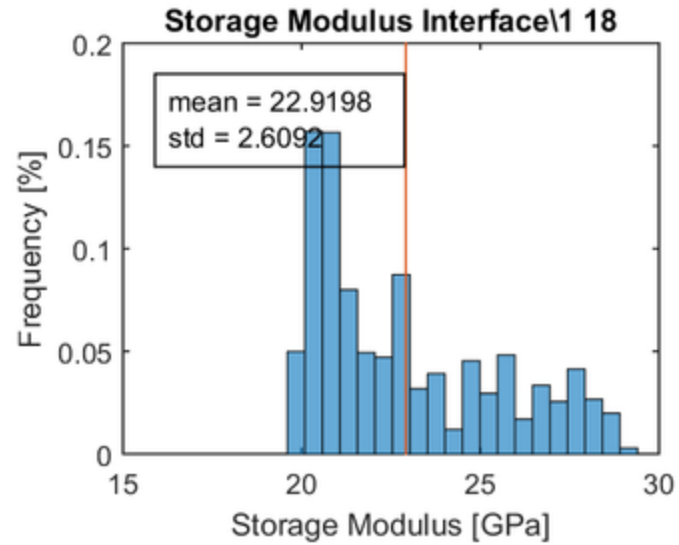
Interface A Point 16



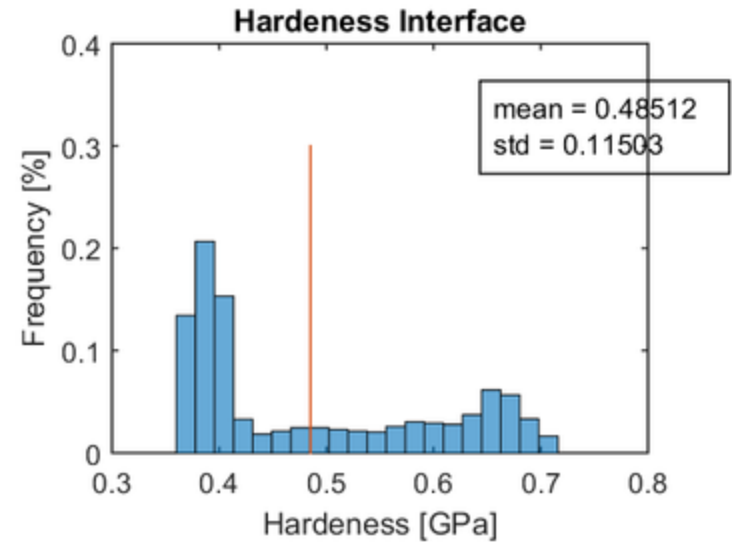
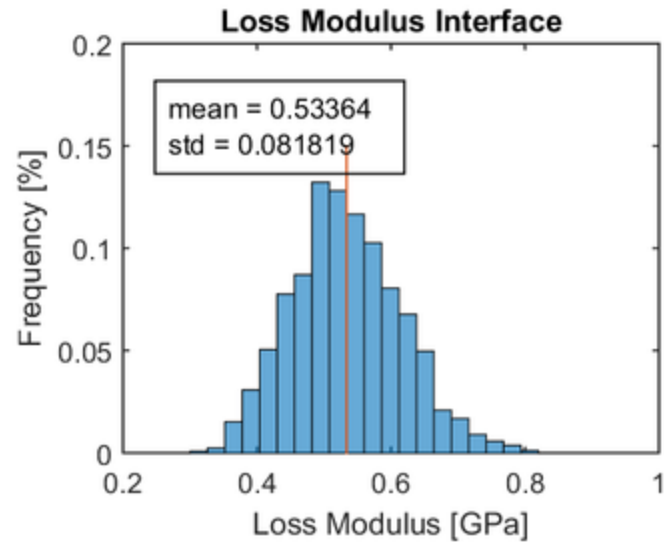
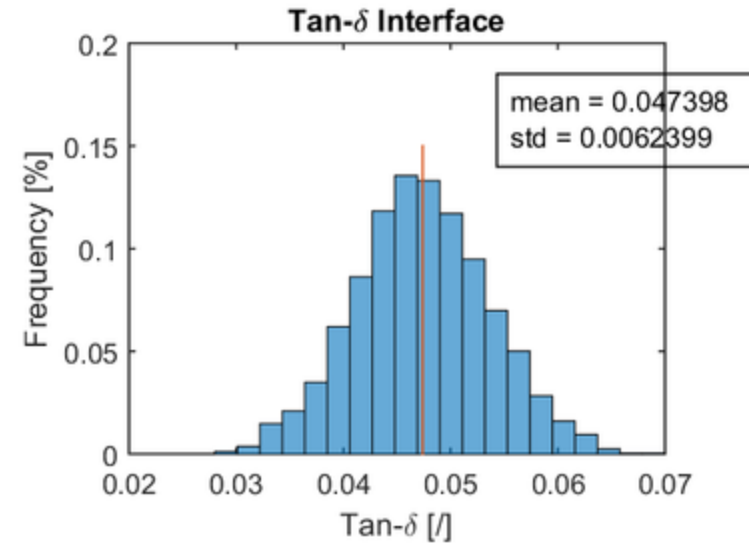
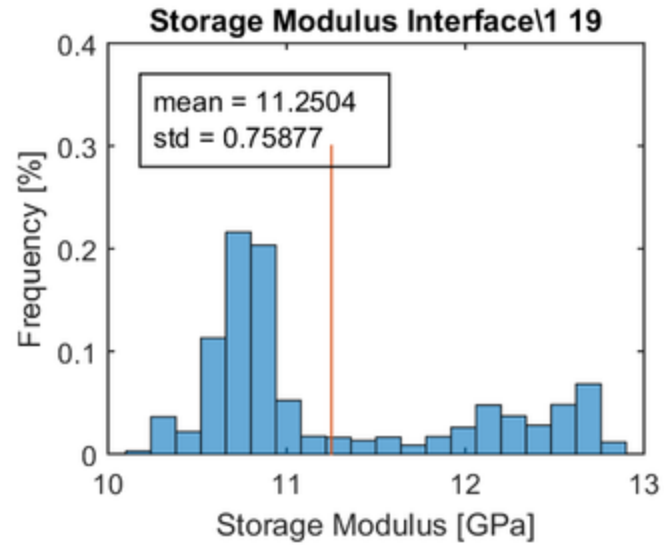
Interface A Point 17



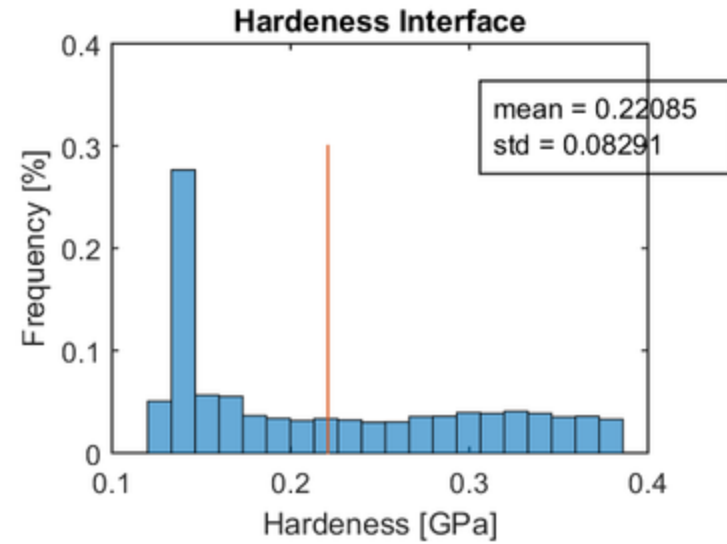
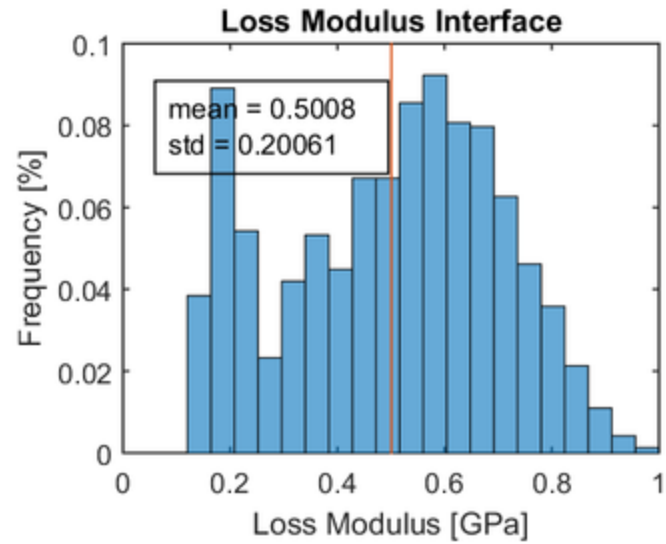
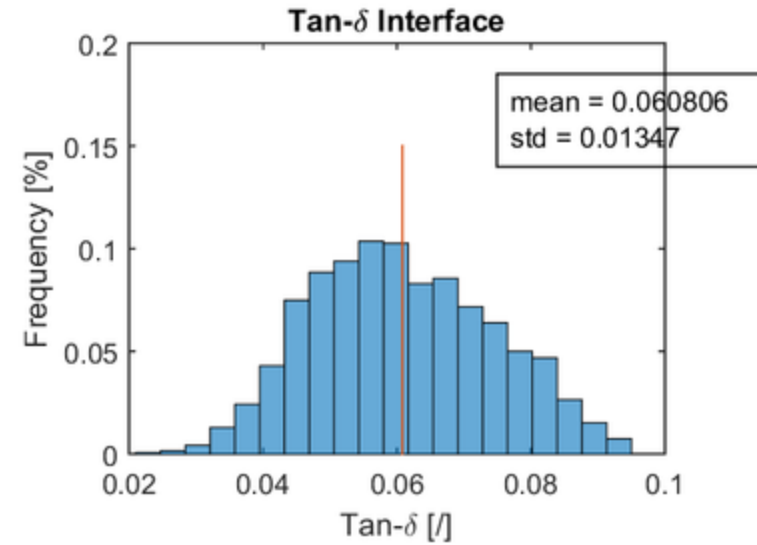
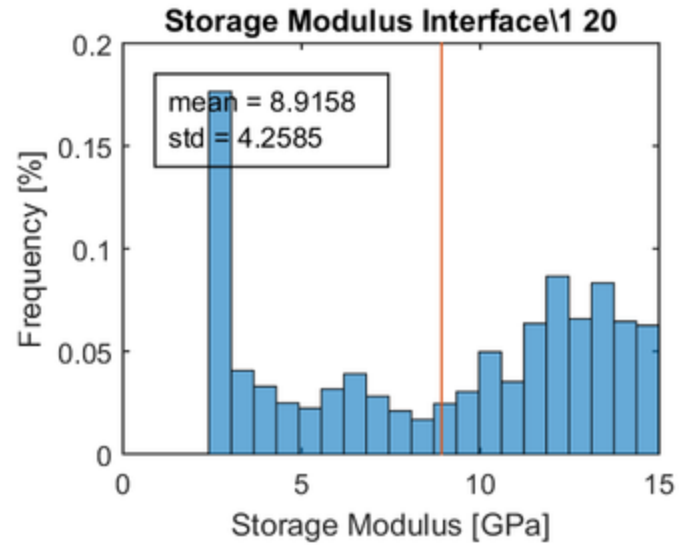
Interface A Point 18



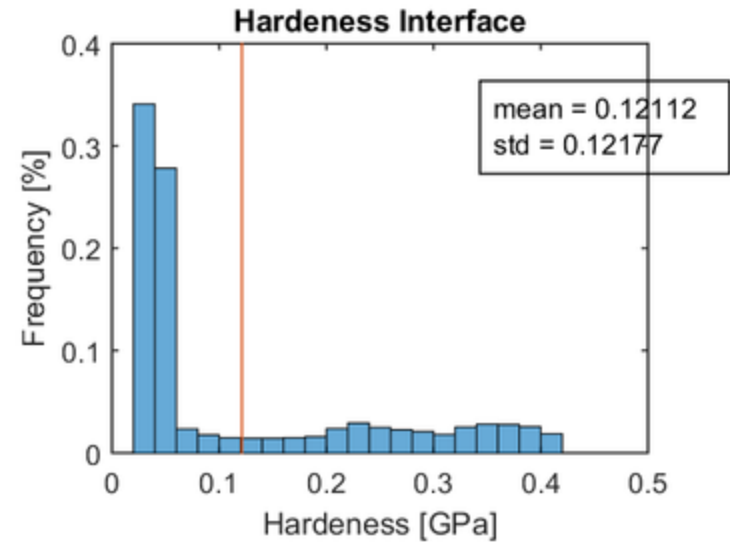
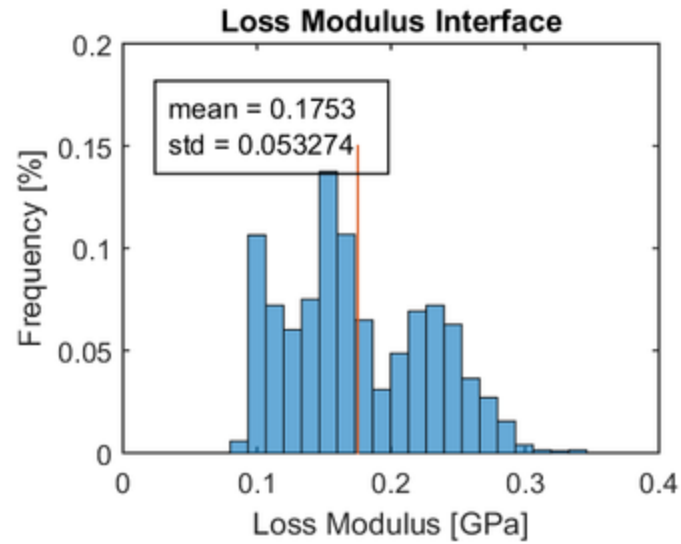
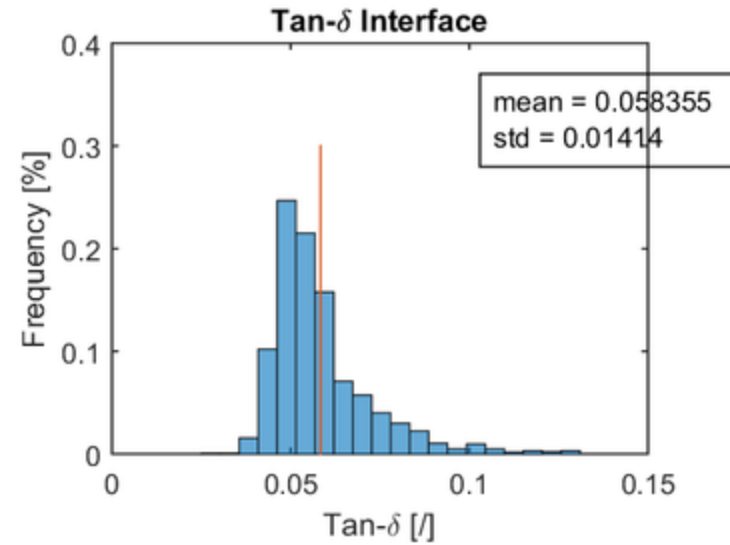
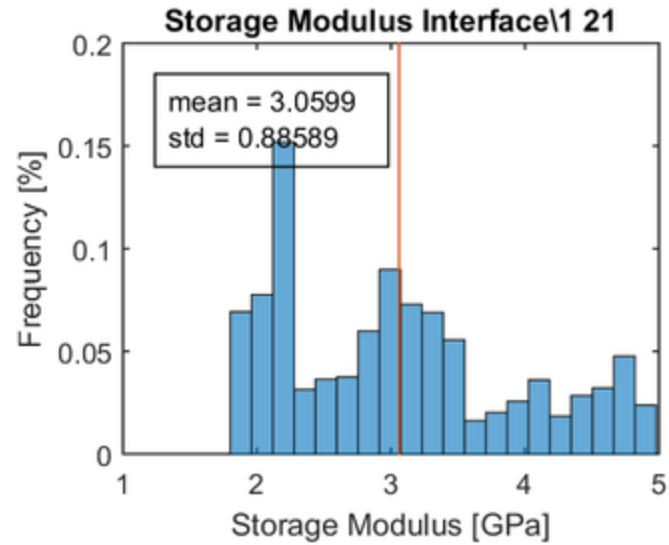
Interface A Point 19



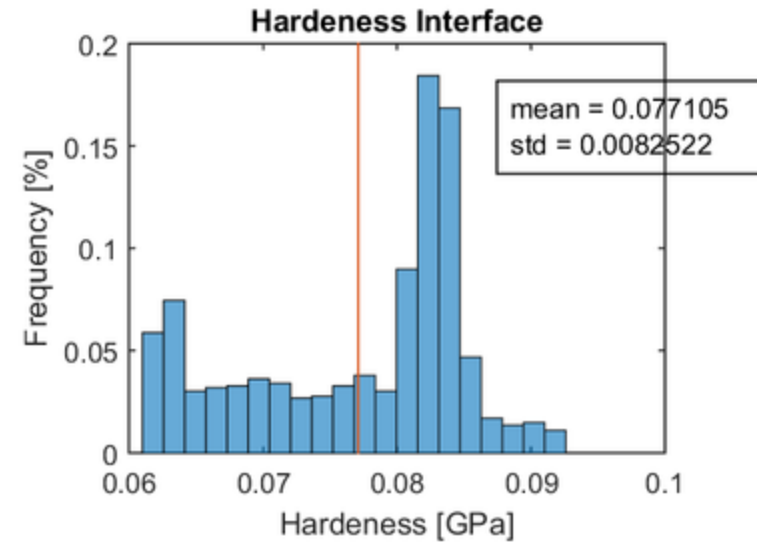
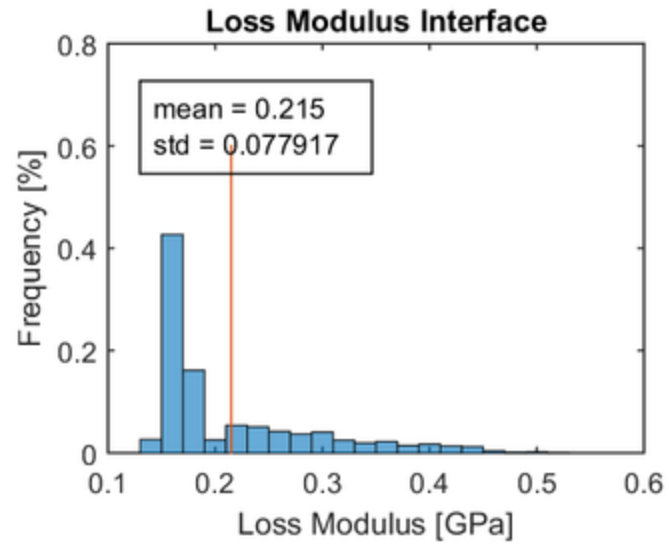
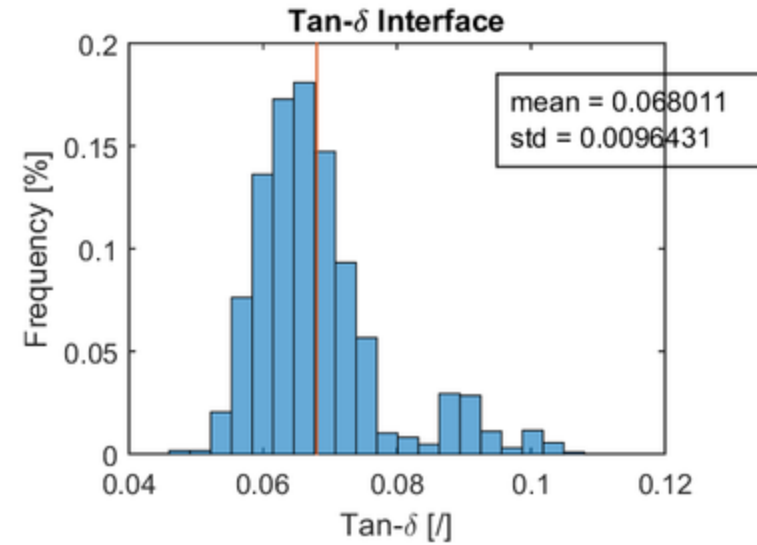
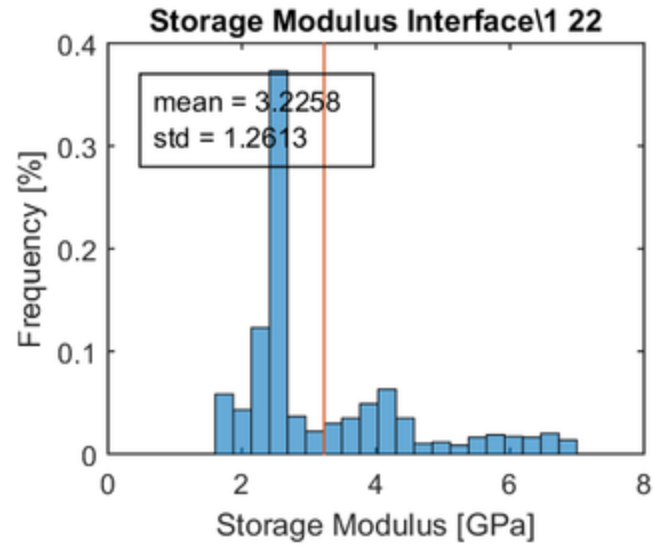
Interface A Point 20



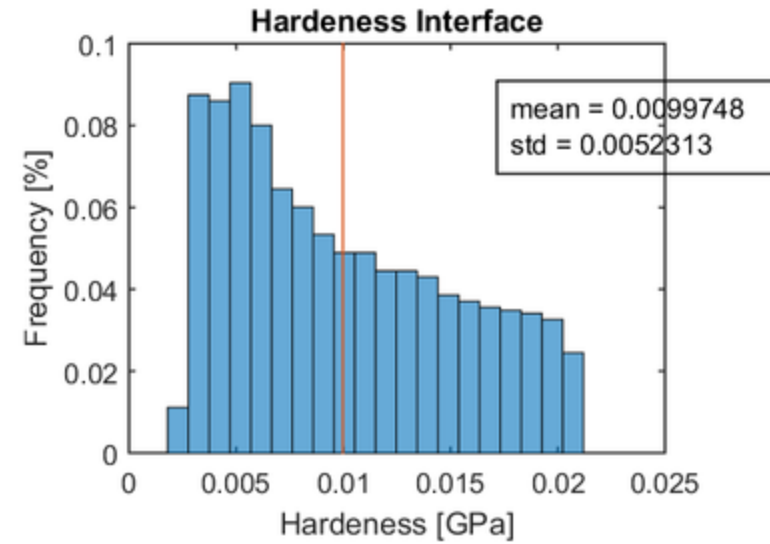
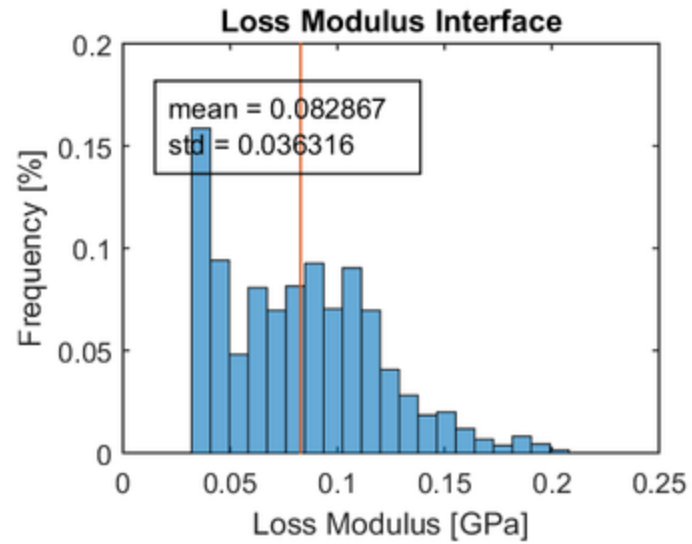
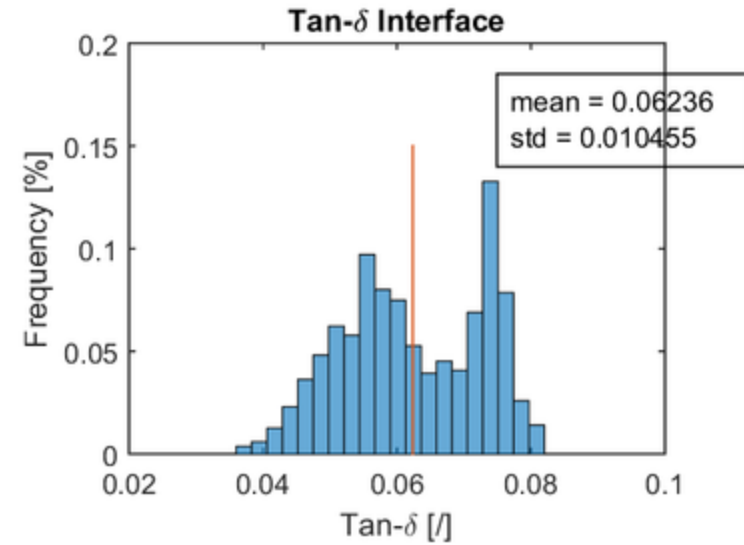
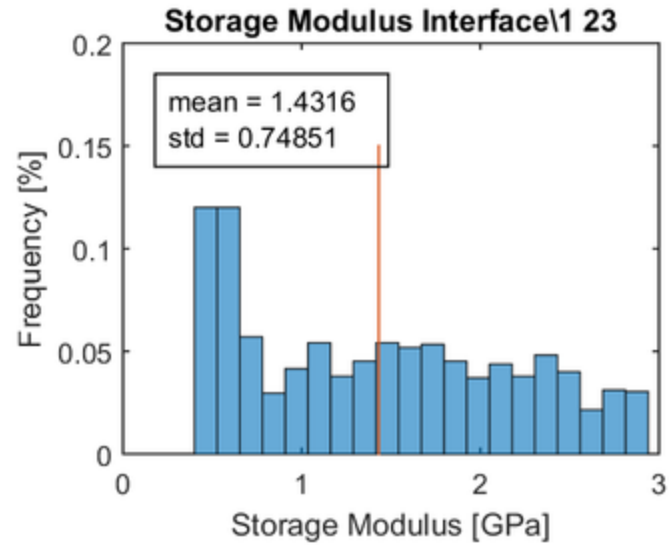
Interface A Point 21



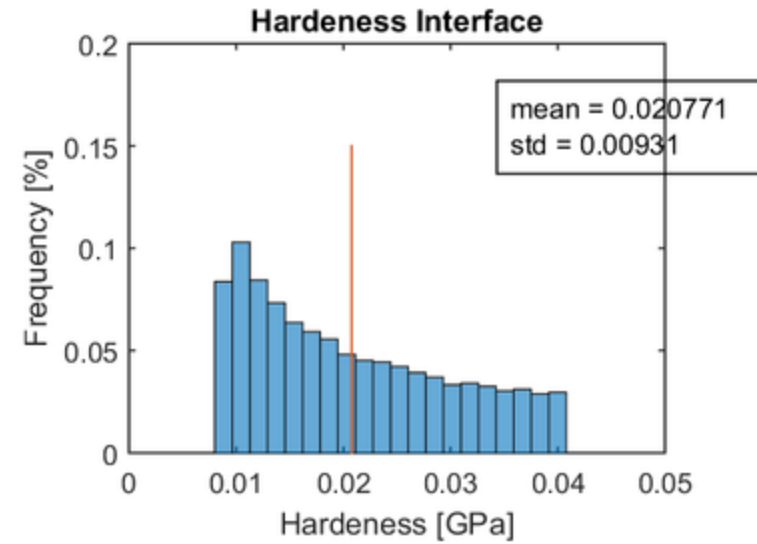
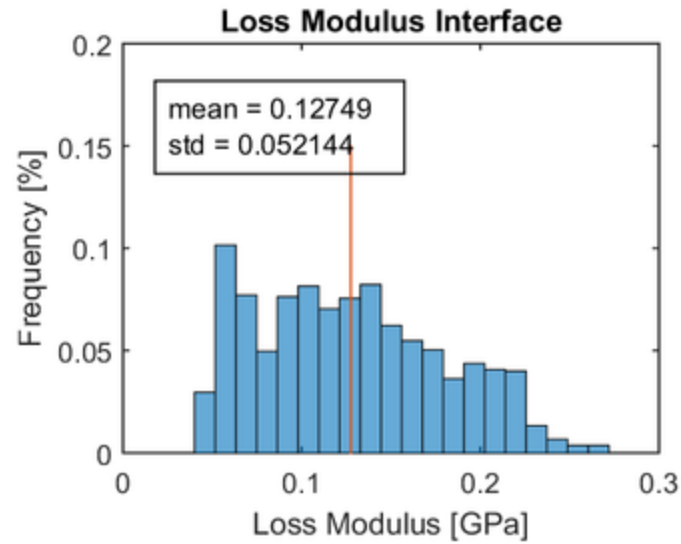
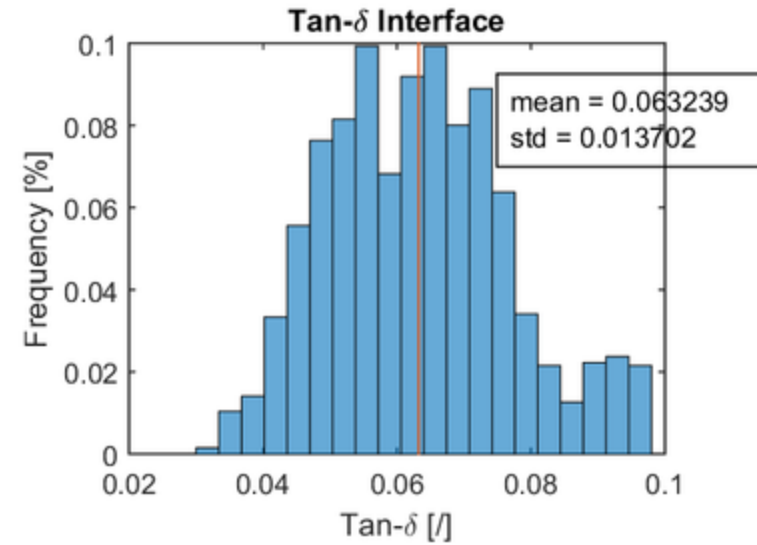
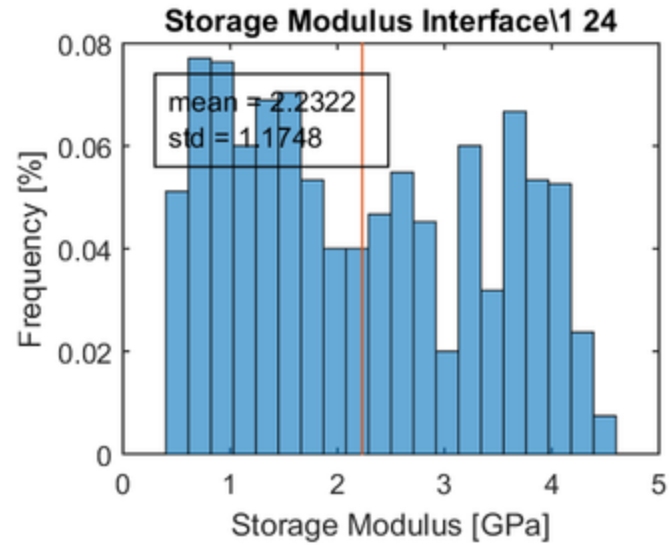
Interface A Point 22



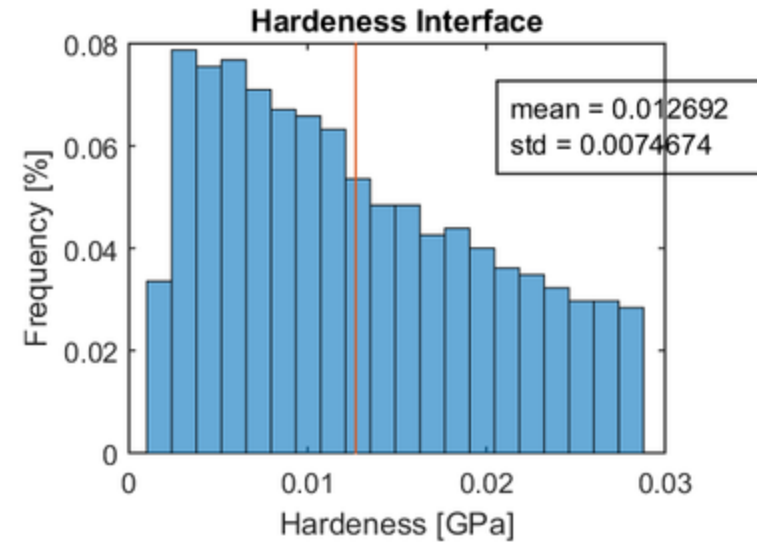
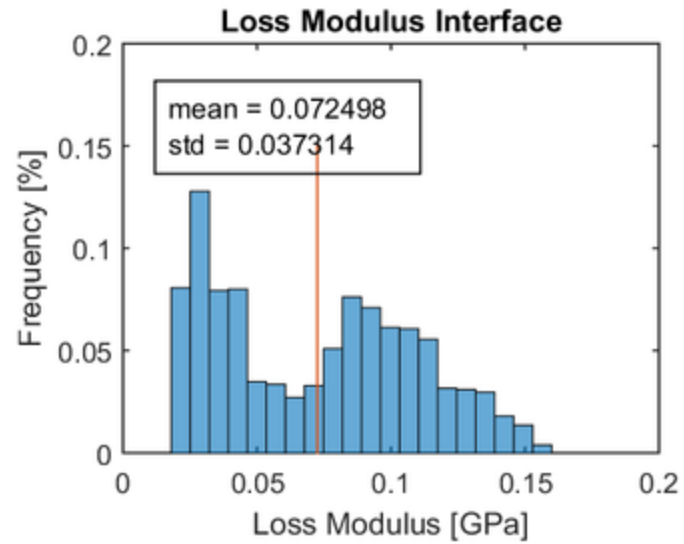
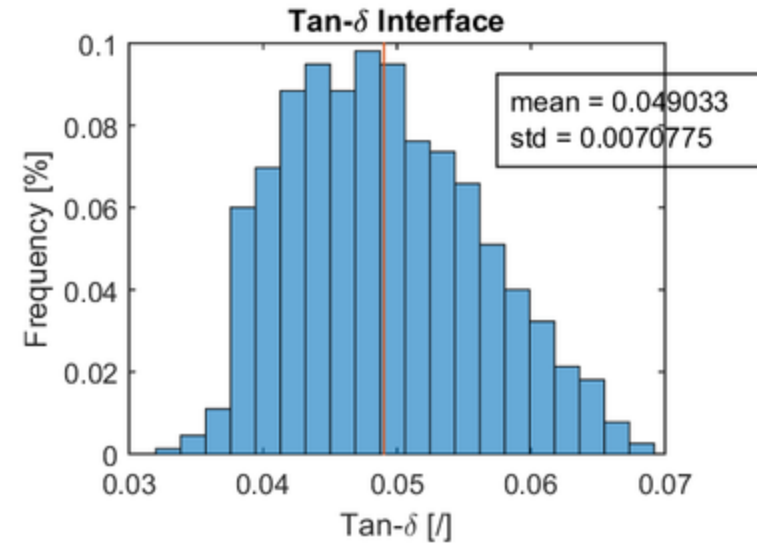
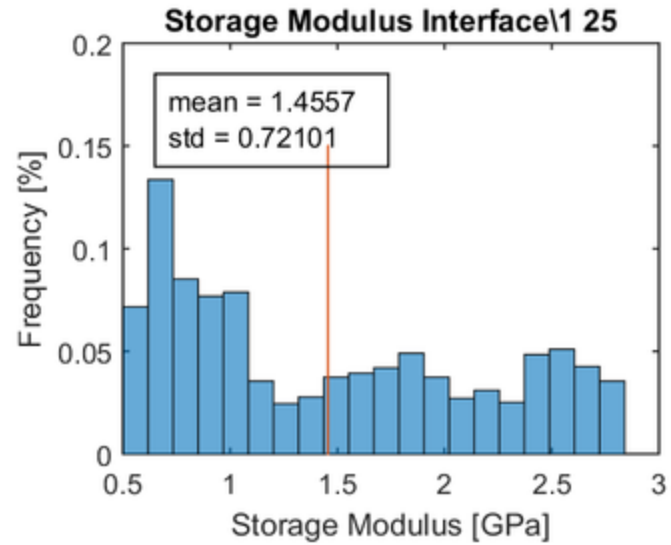
Interface A Point 23



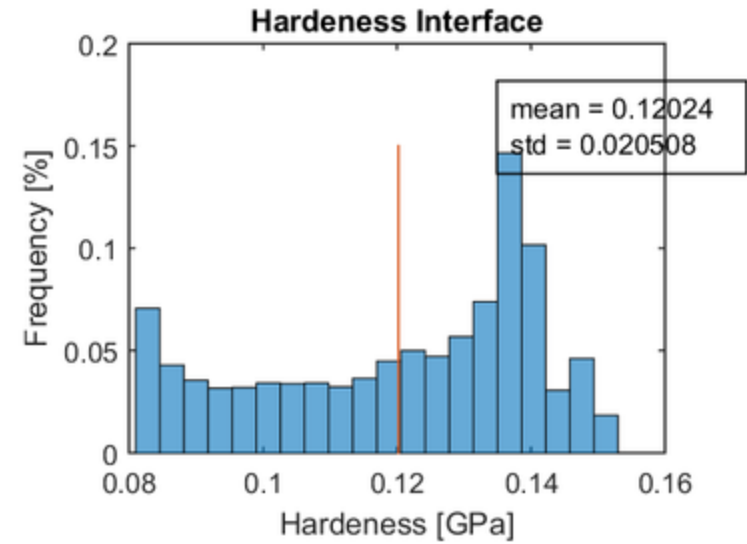
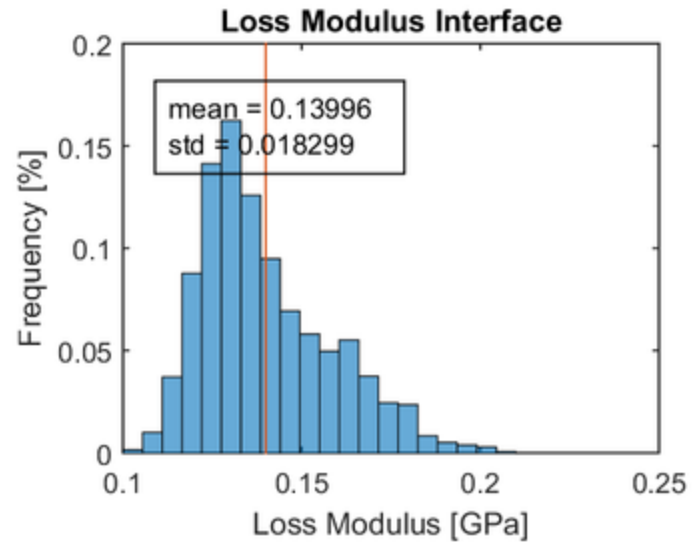
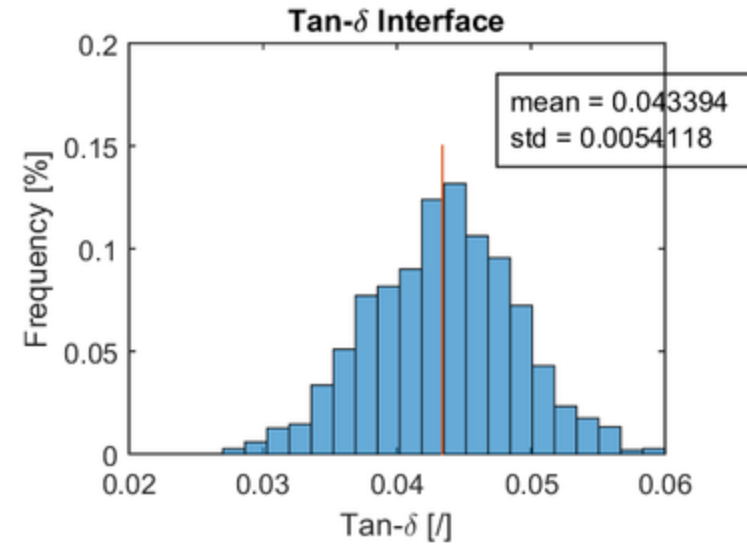
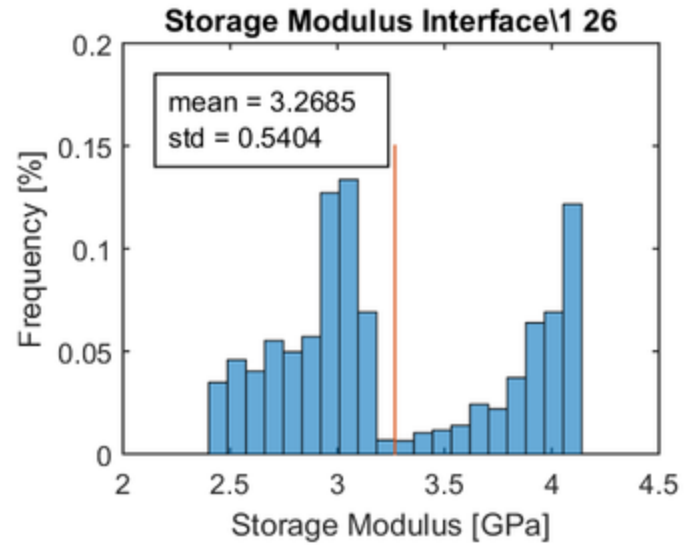
Interface A Point 24



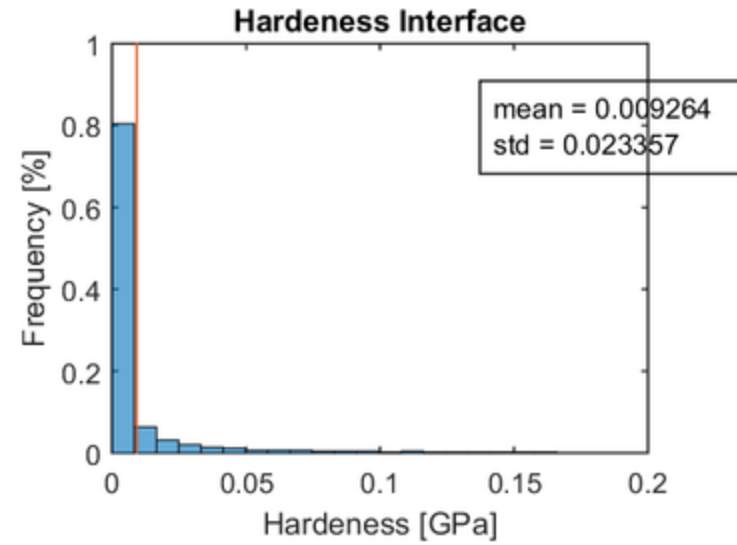
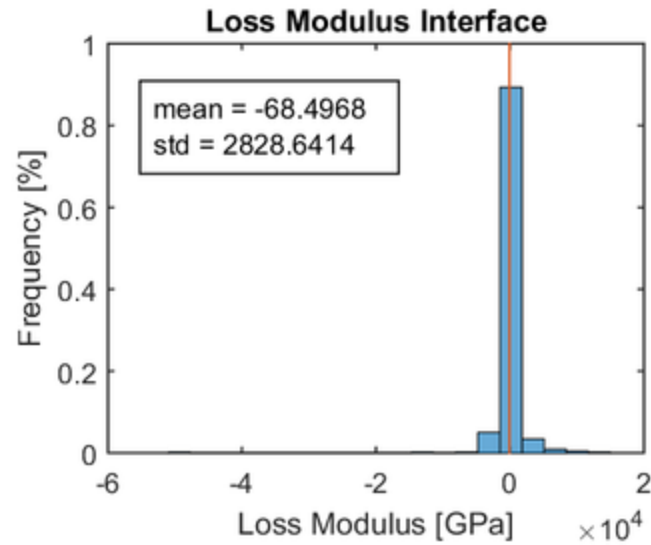
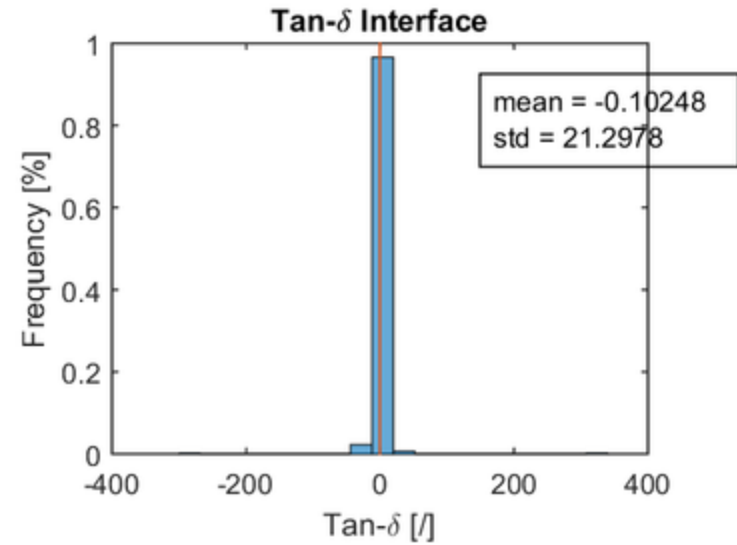
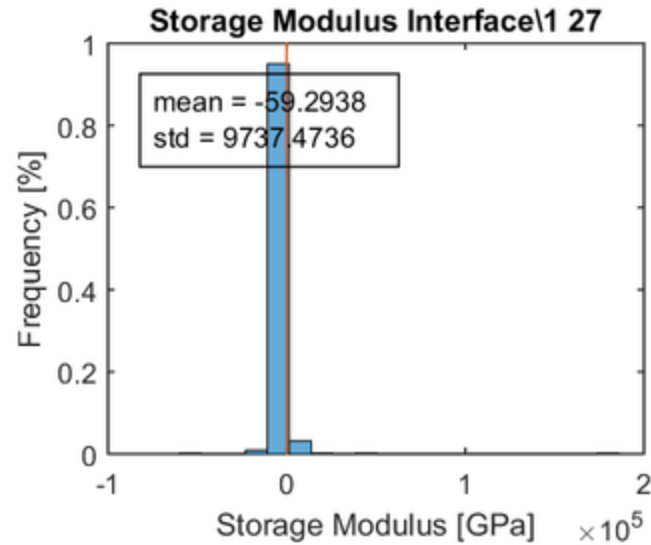
Interface A Point 25



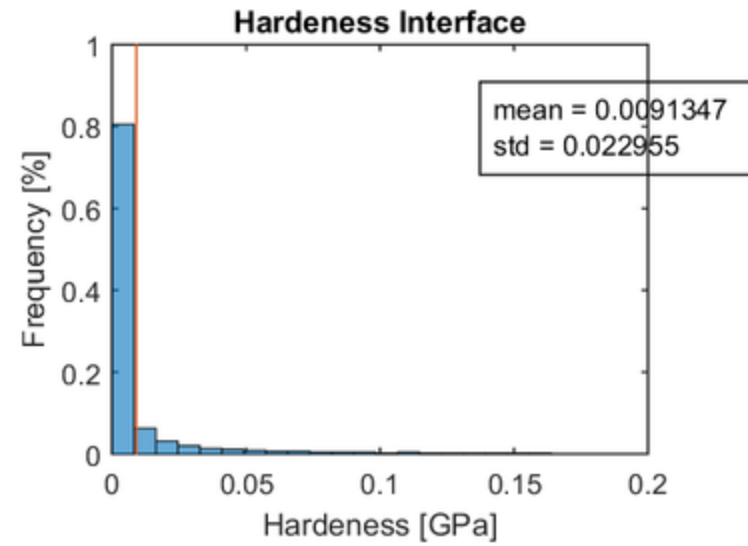
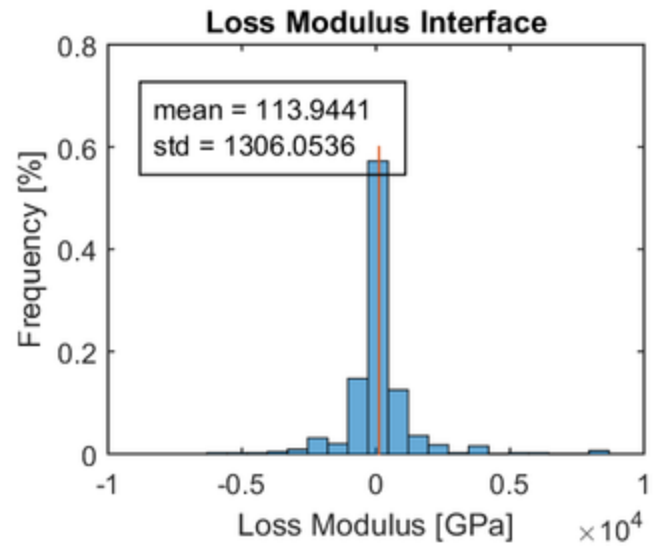
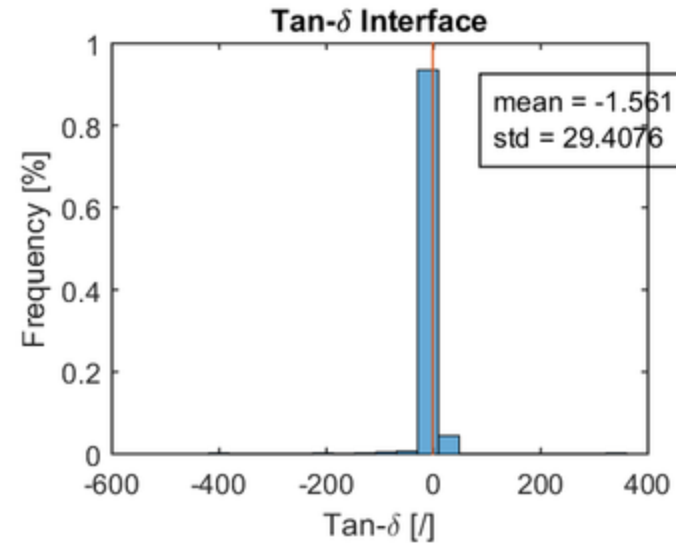
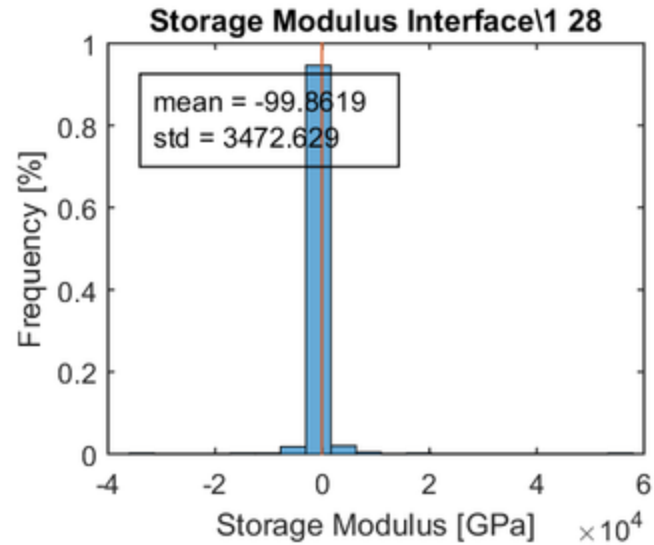
Interface A Point 26



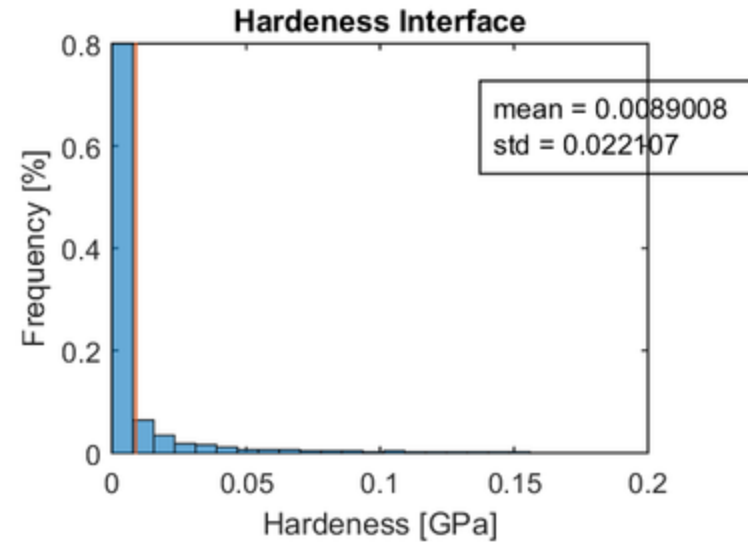
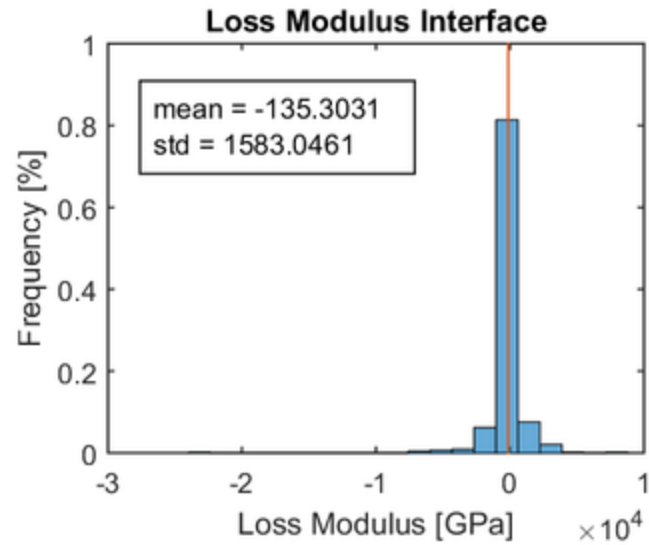
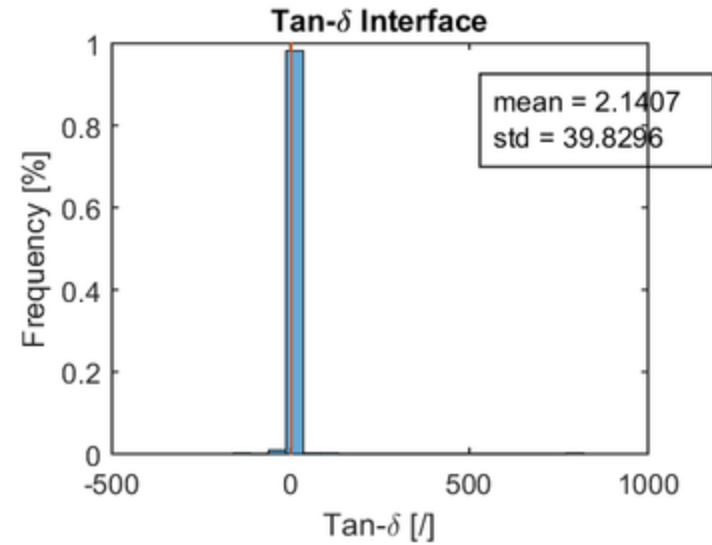
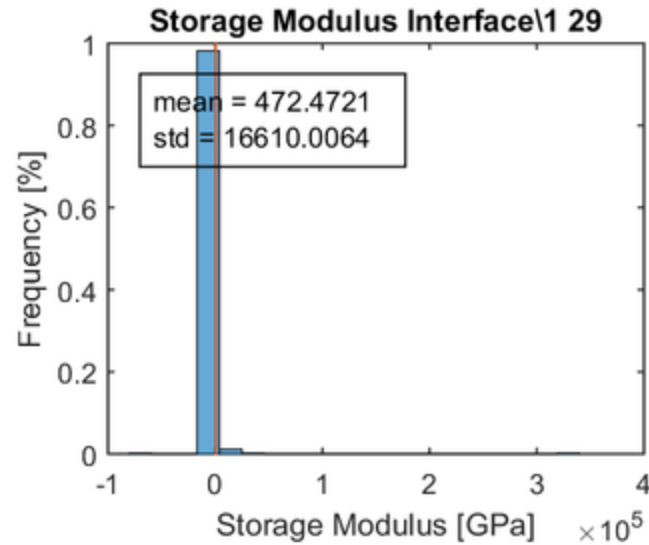
Interface A Point 27 Not used



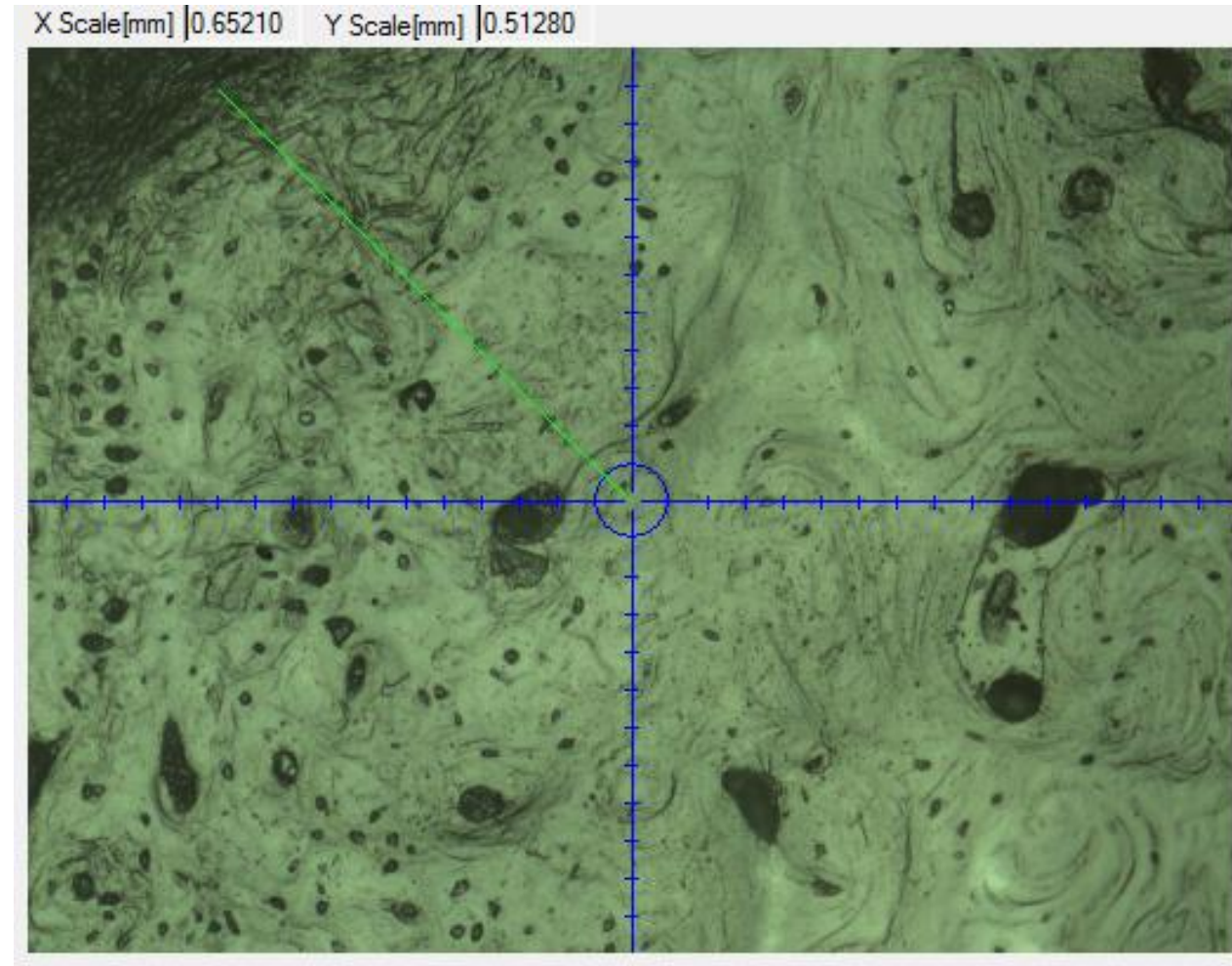
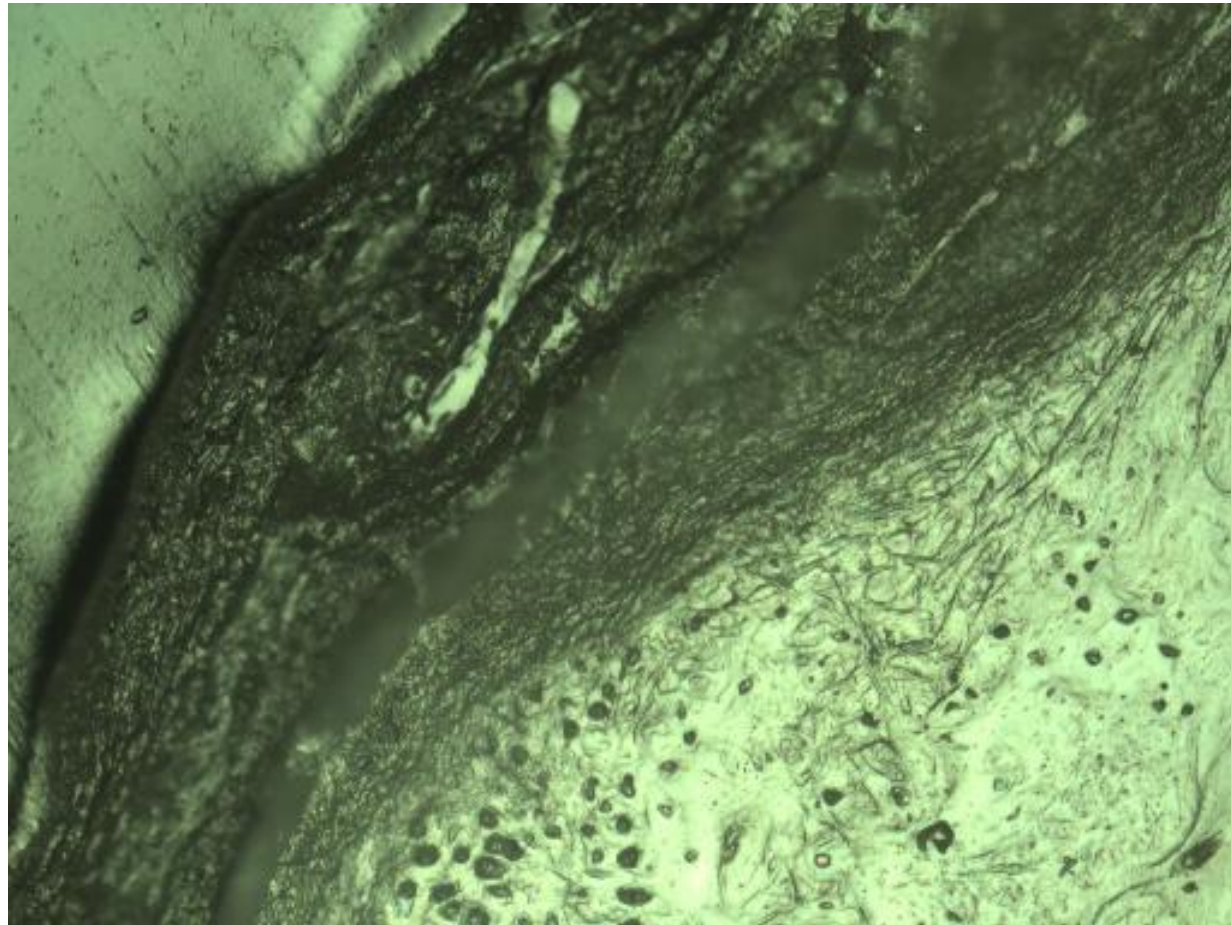
Interface A Point 28 Not used



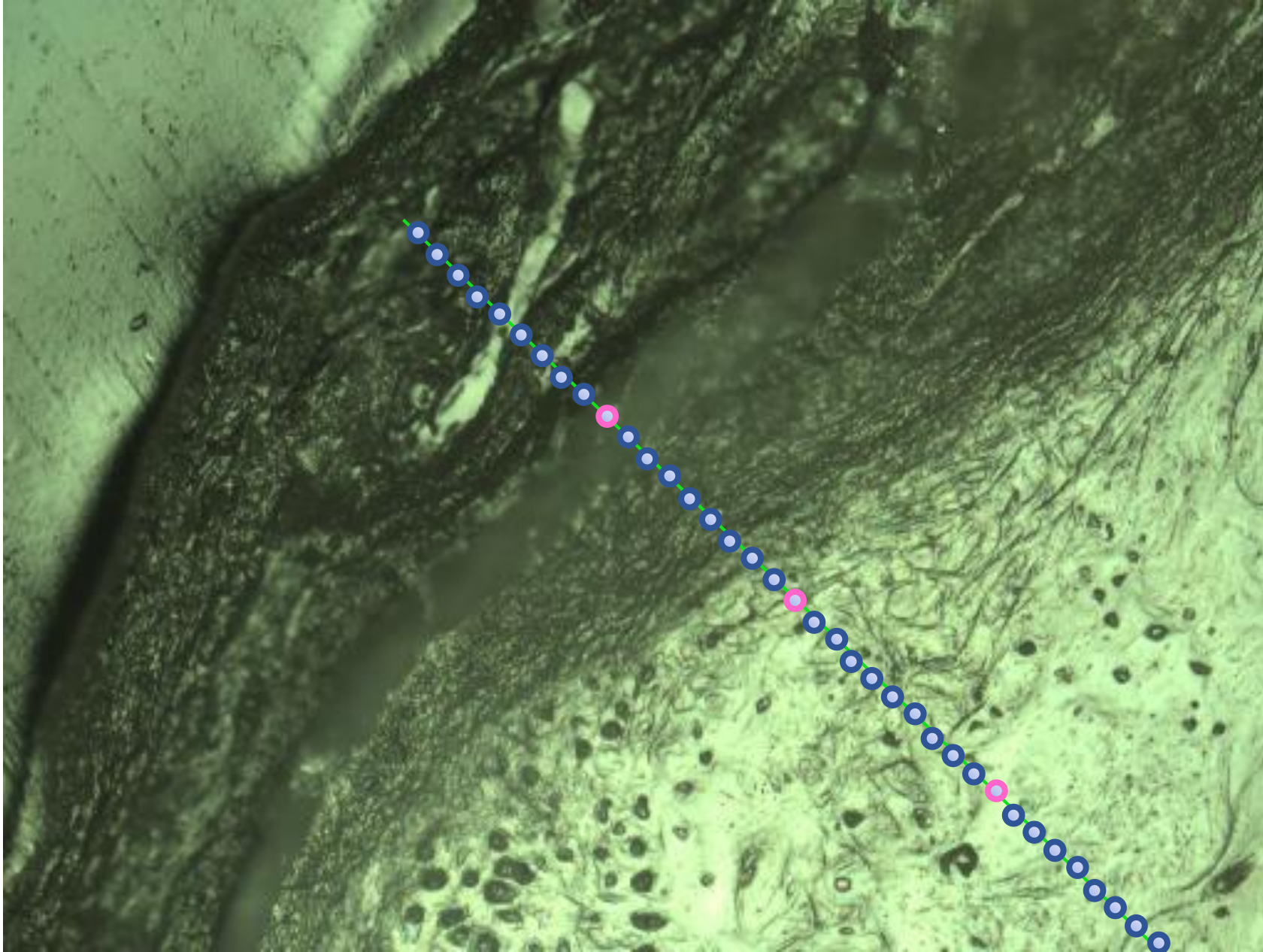
Interface A Point 29 Not used



B Interface D2



B Interface D2



Roughness

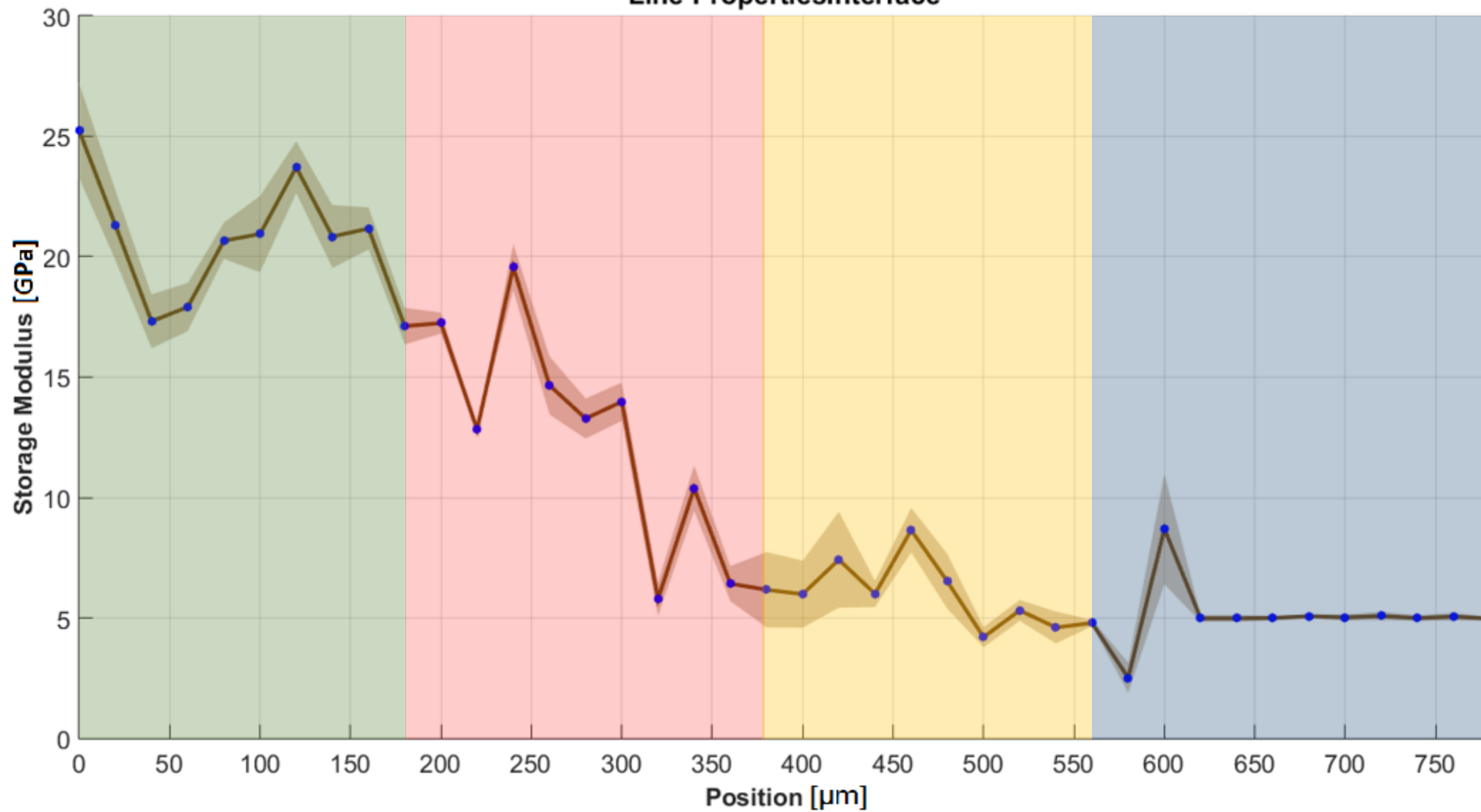
Good 1-9, 11, 13,
20, (23-30), (34-
40)

() Good but SPM
weird, we do not
trust these them

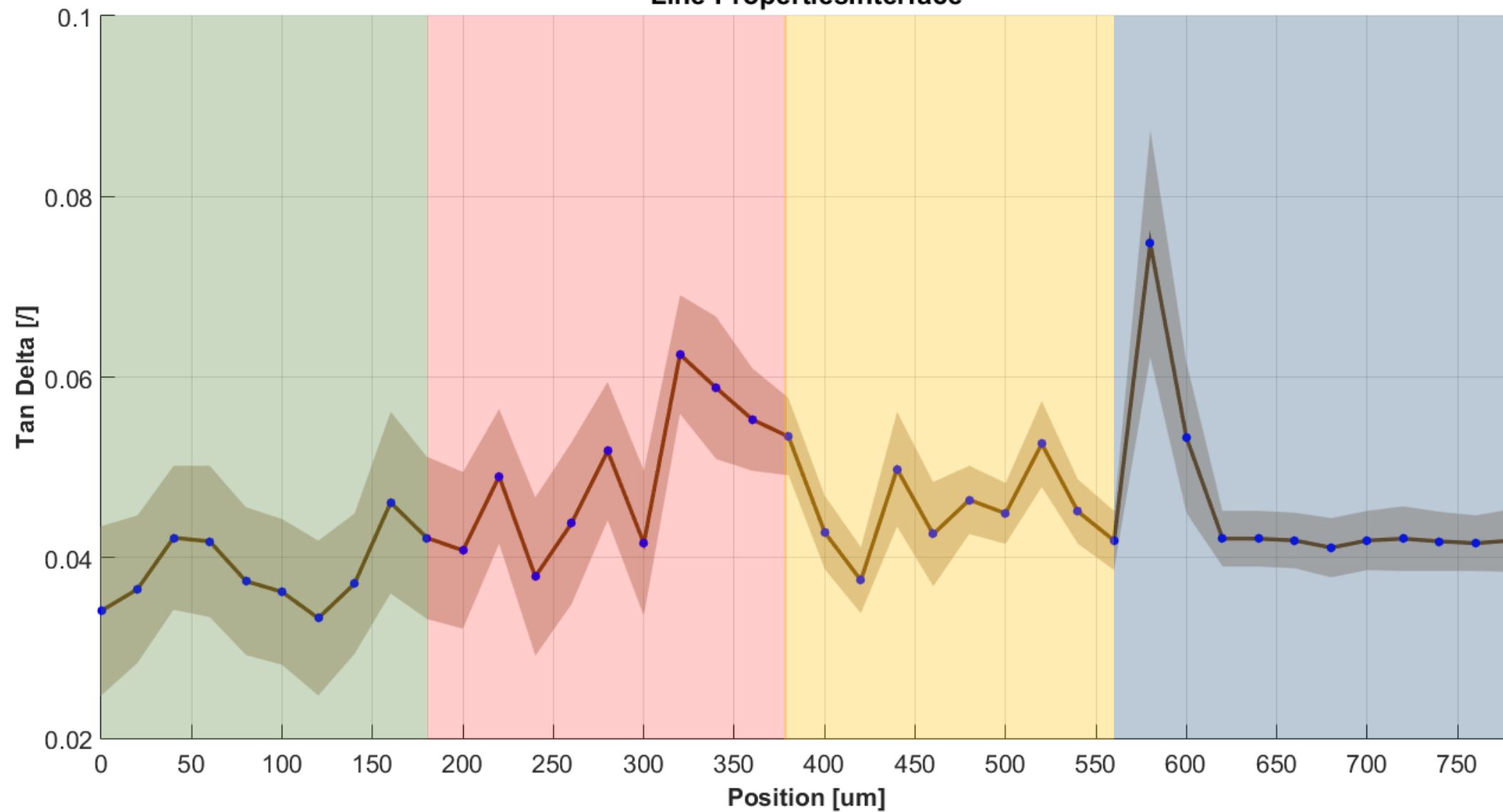
Ok 10,12,15-
16,21,31,33

Bad 14,17-
19,22,32

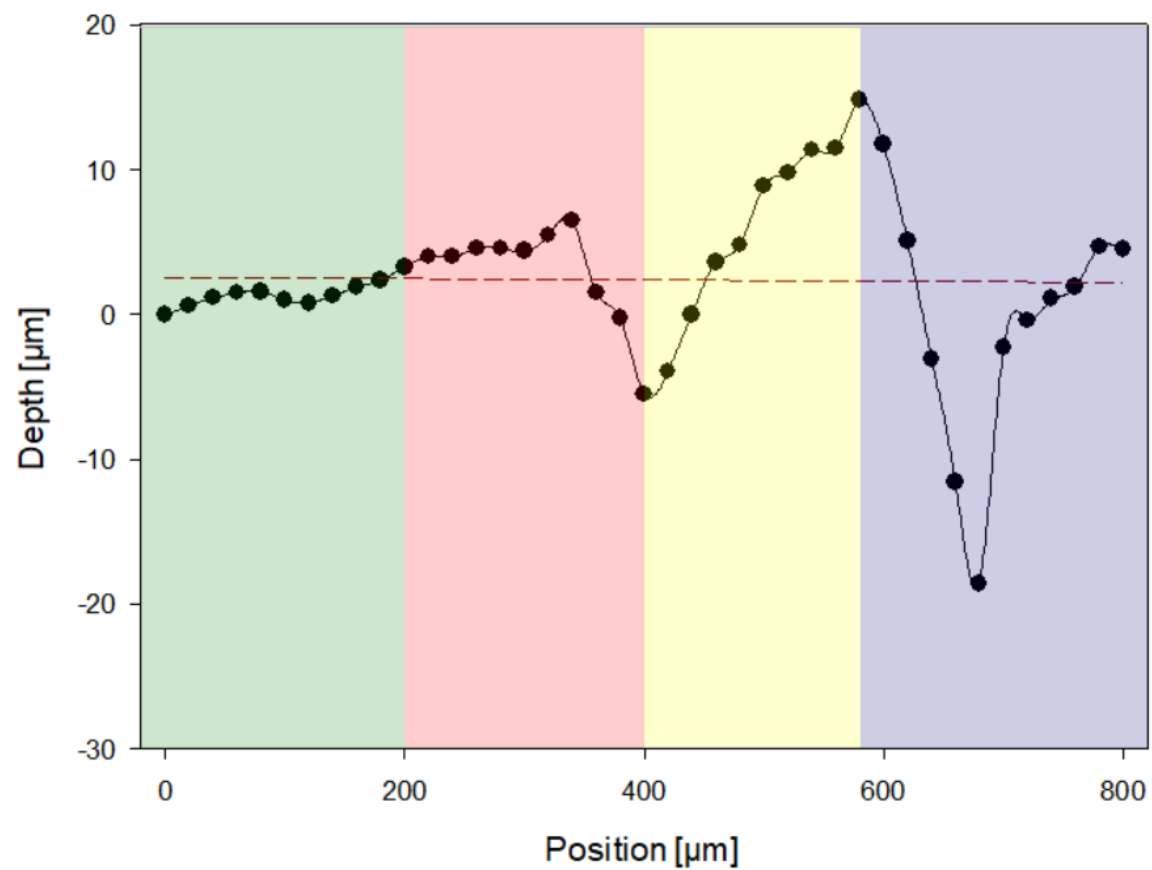
Line PropertiesInterface



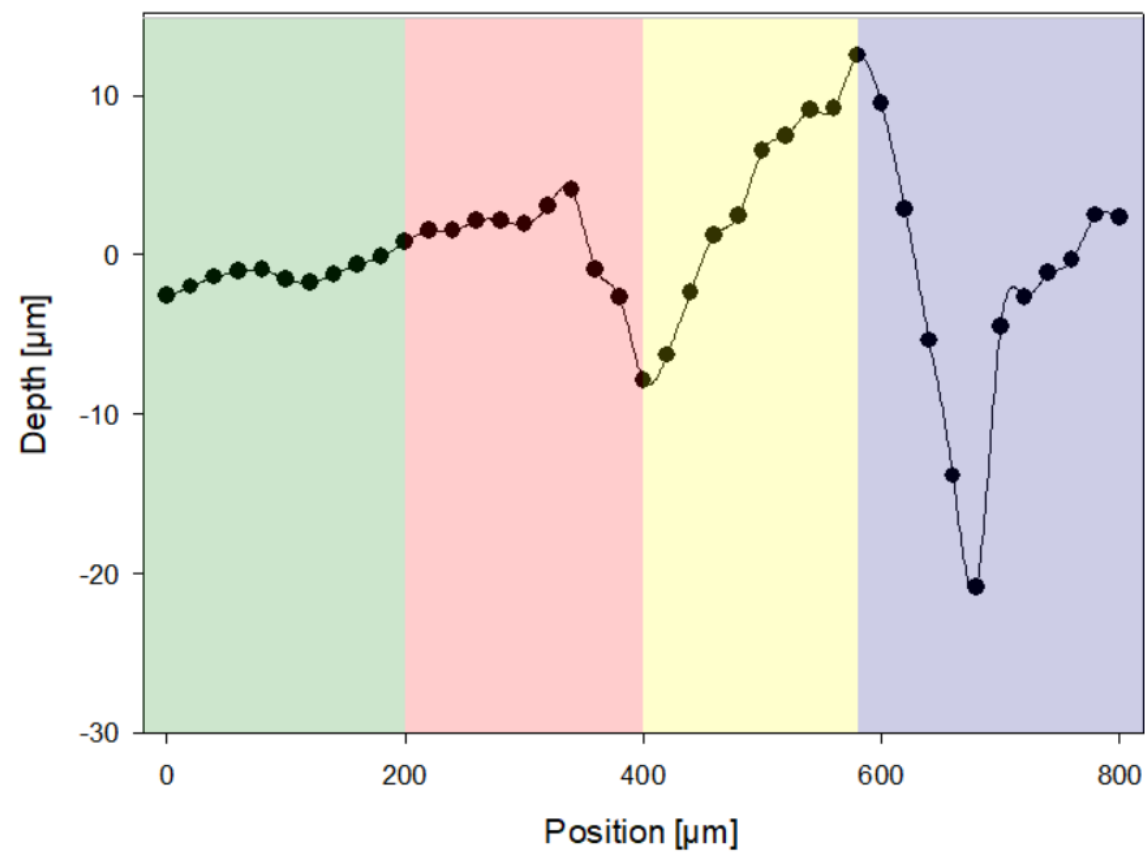
Line PropertiesInterface



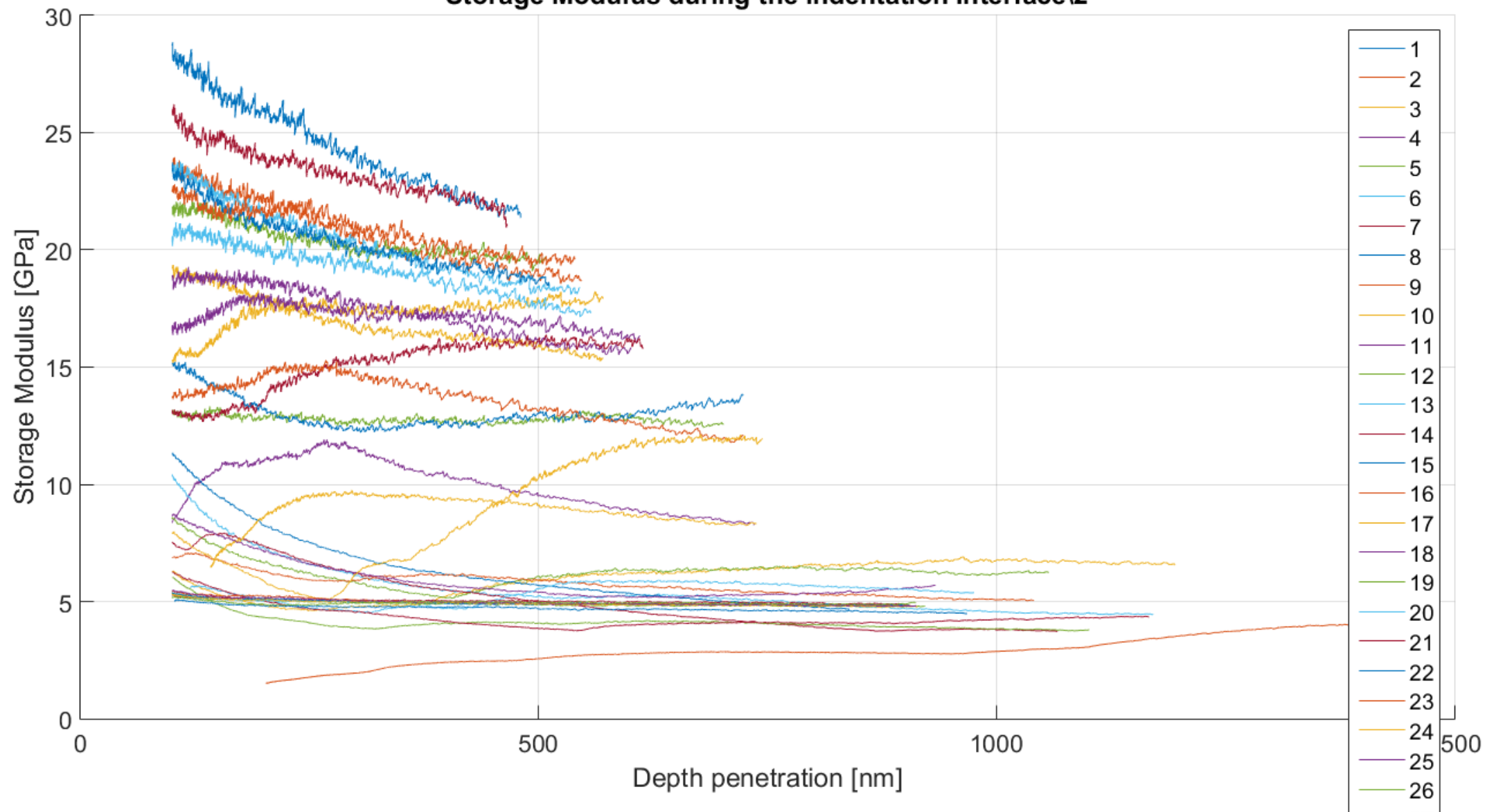
Interface B

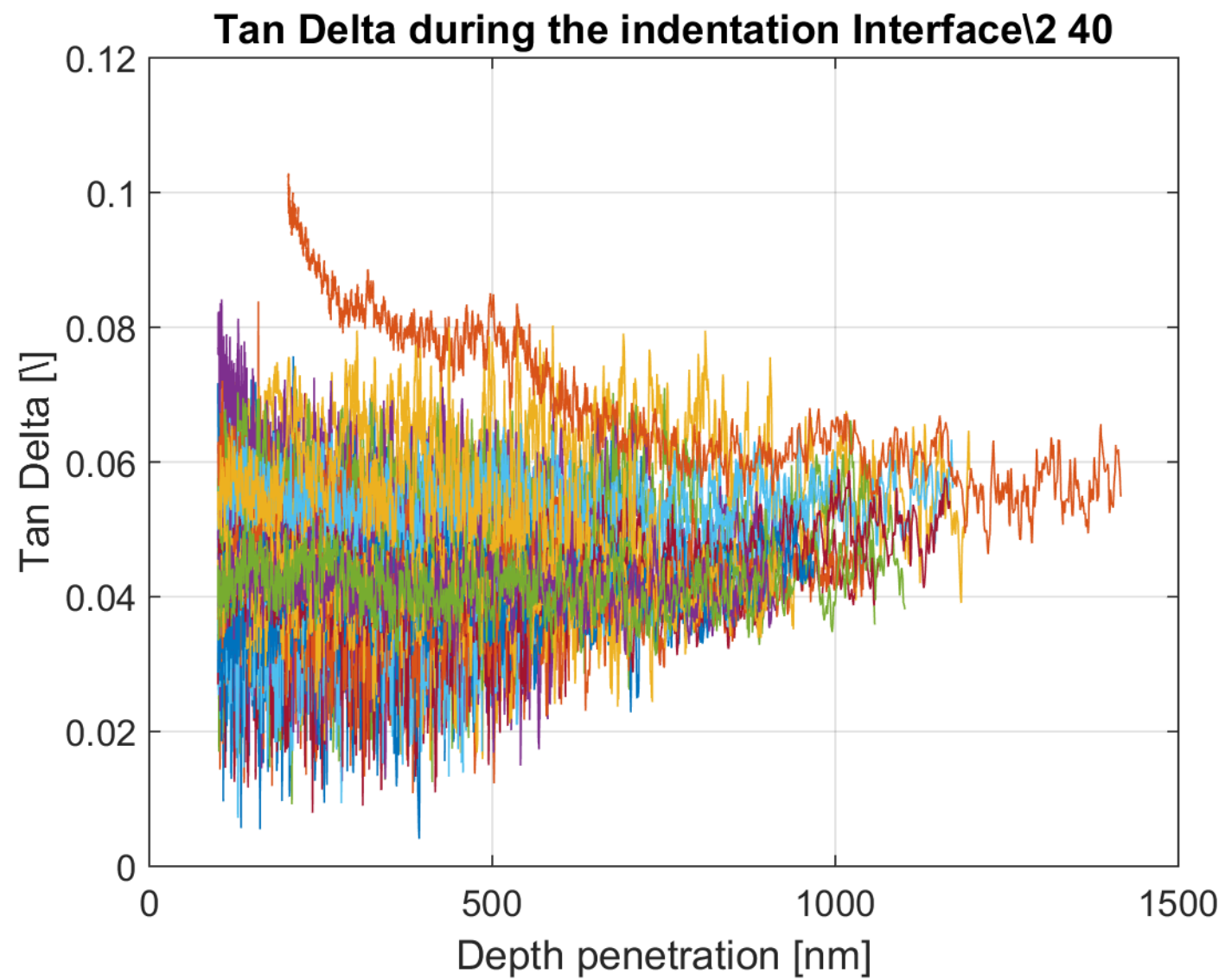


Interface B w/o tilde

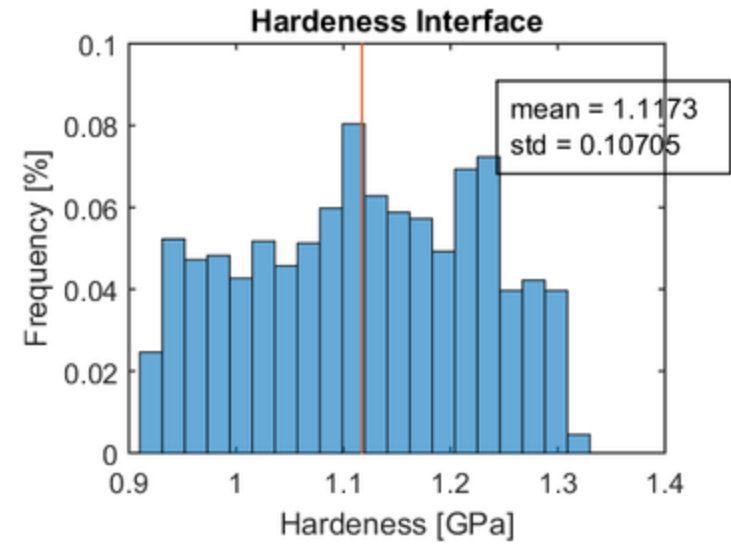
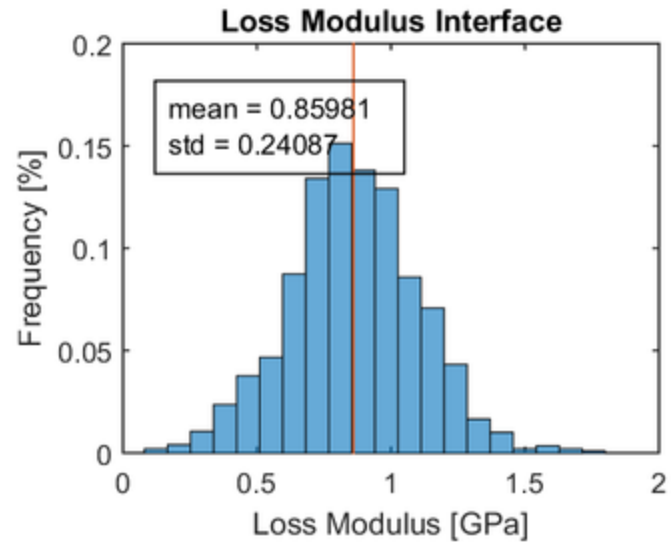
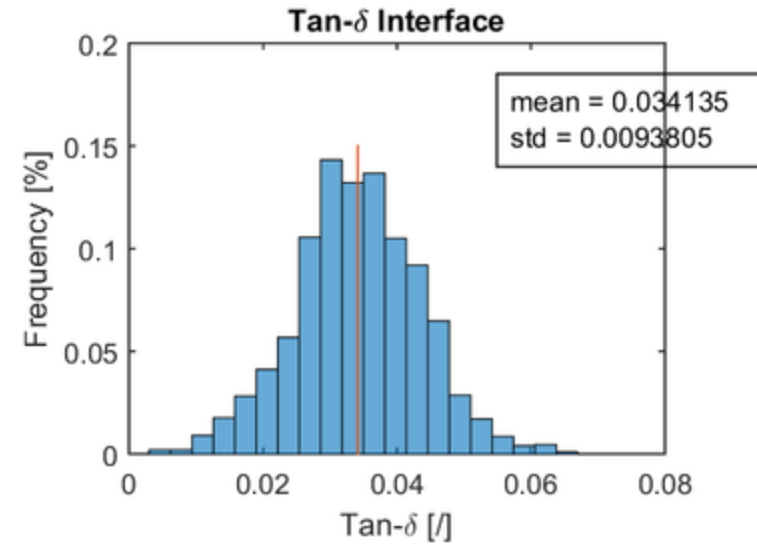
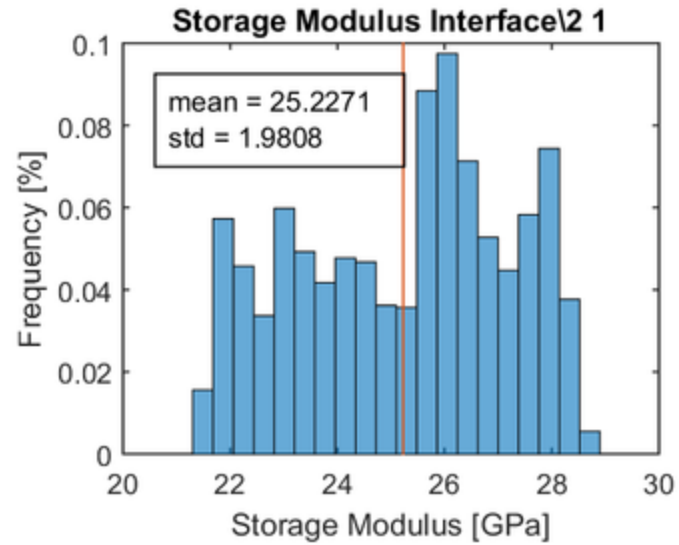


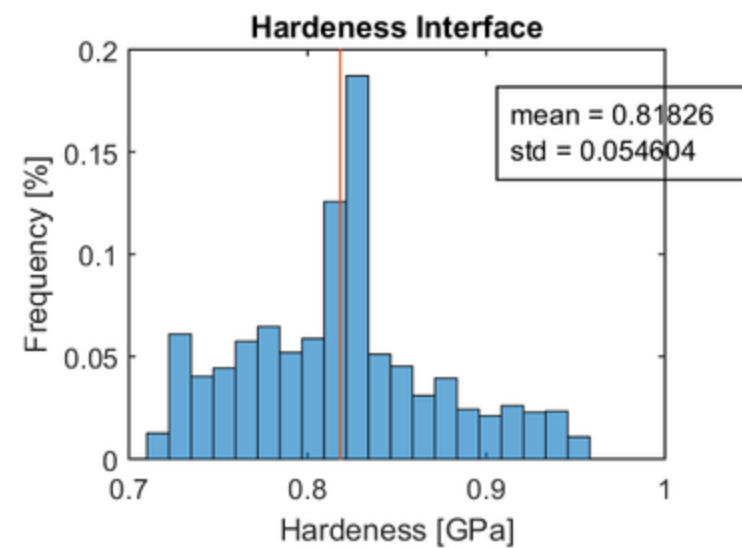
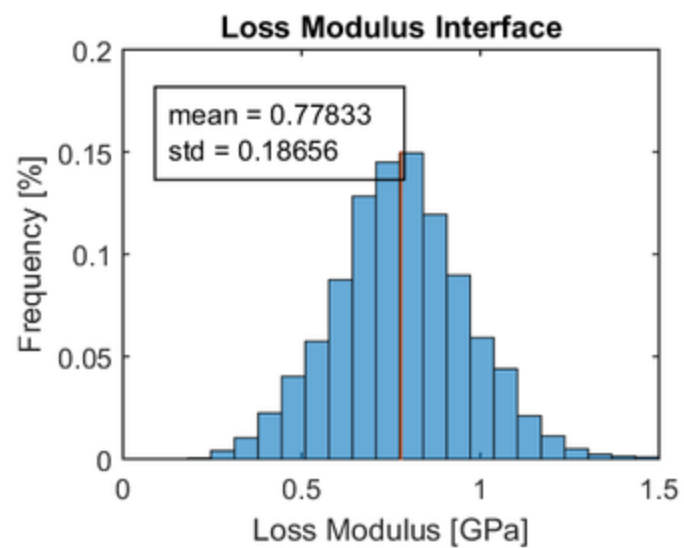
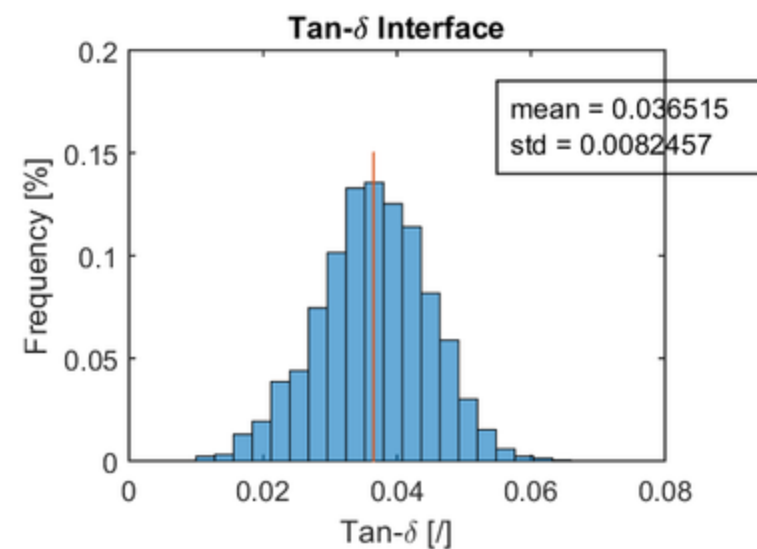
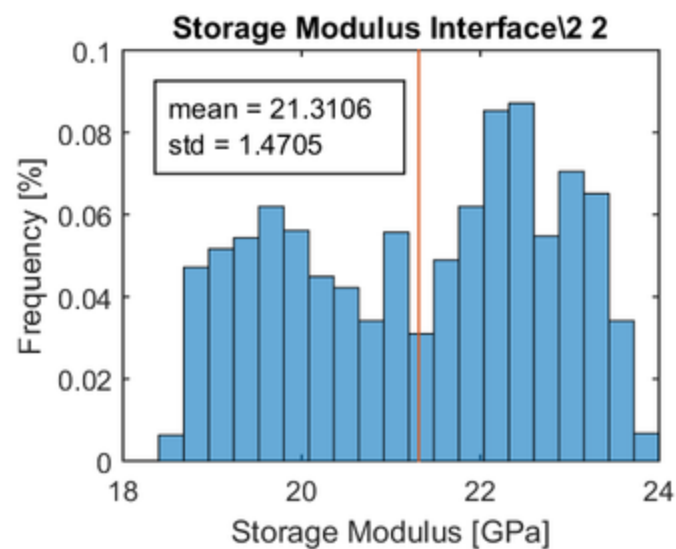
Storage Modulus during the indentation Interface\2

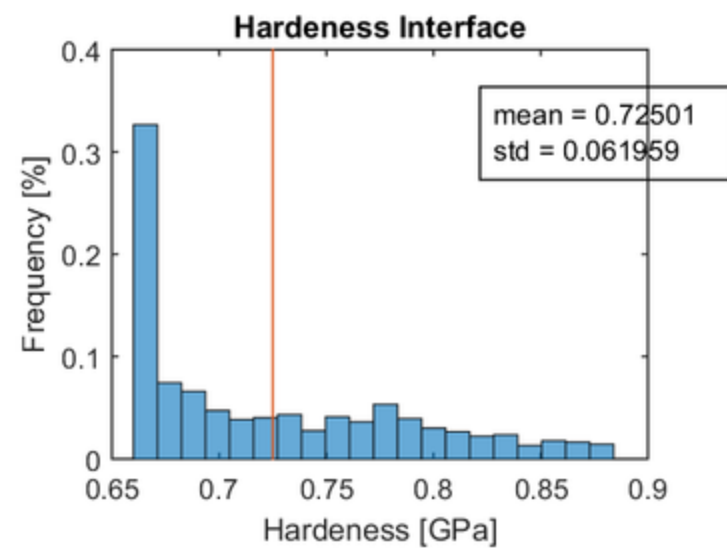
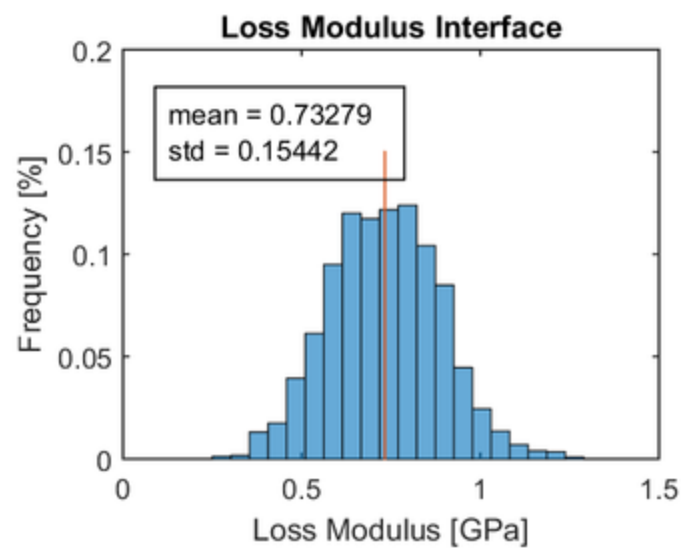
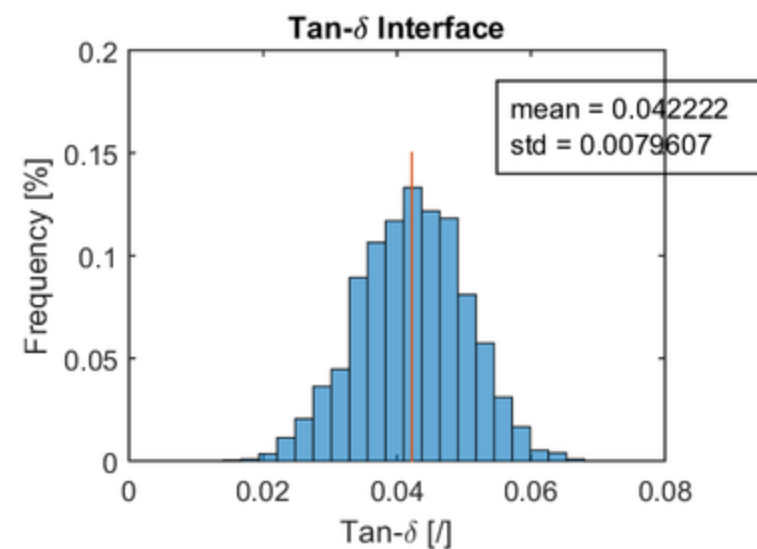
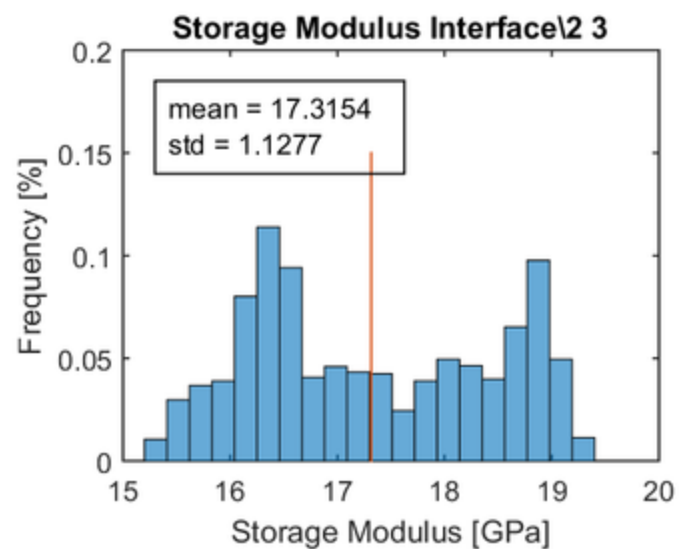


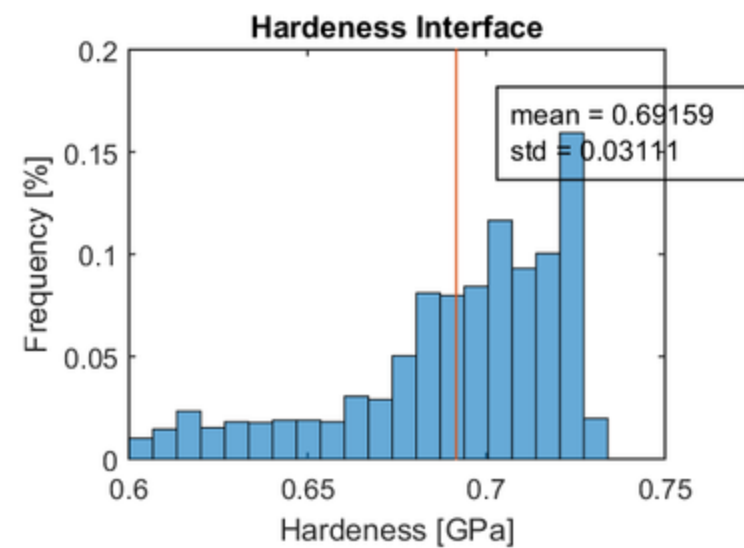
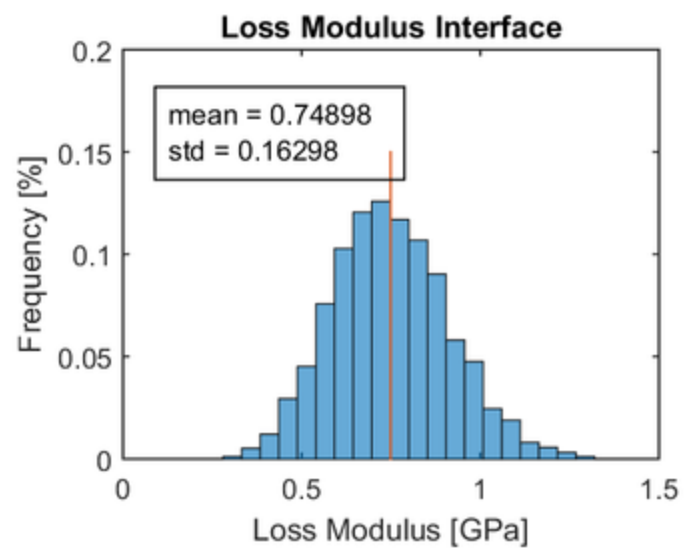
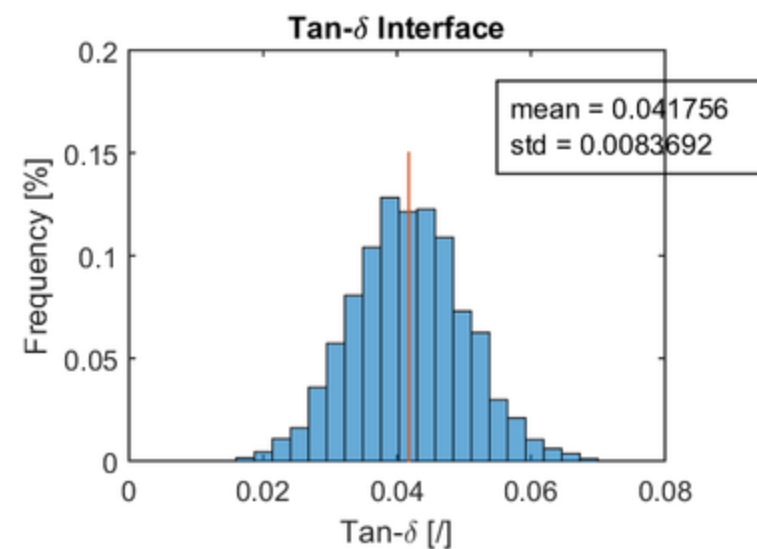
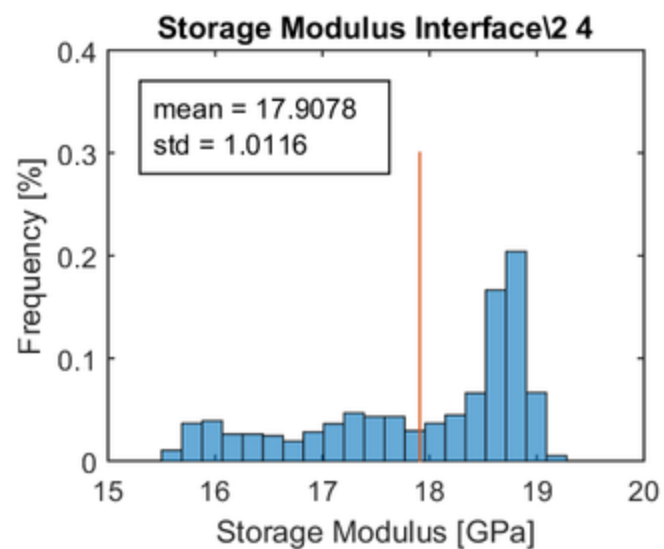


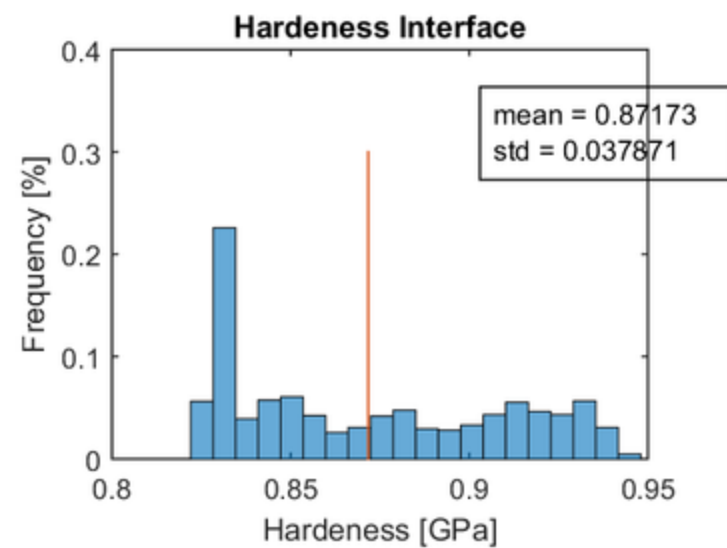
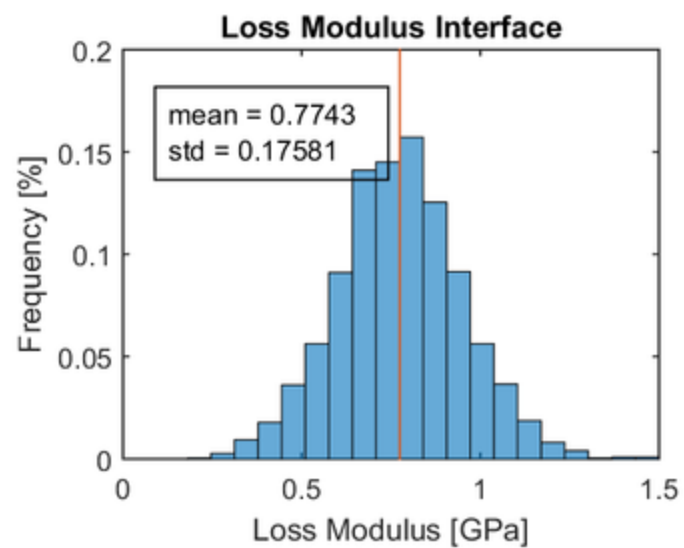
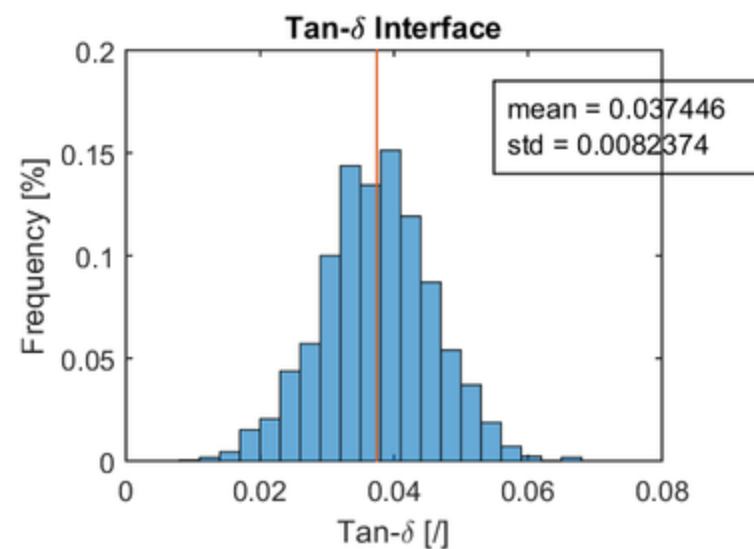
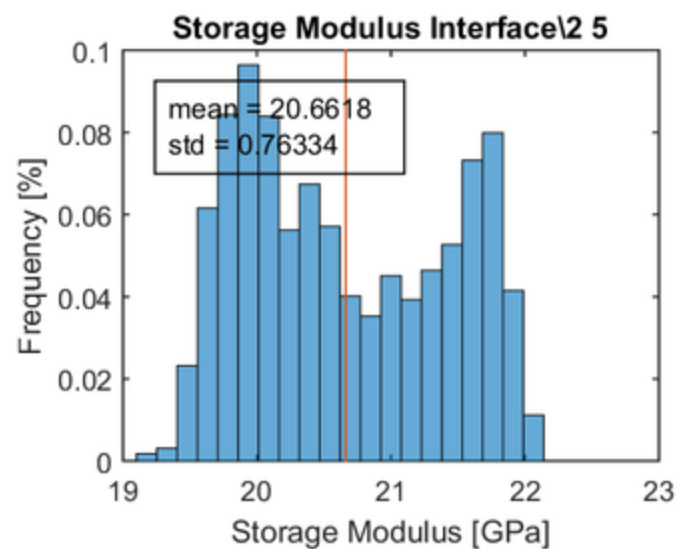
Interface B Point 1

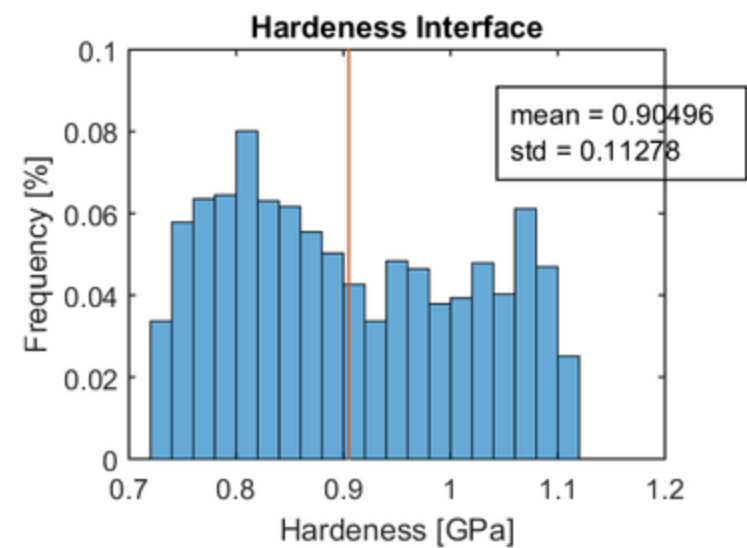
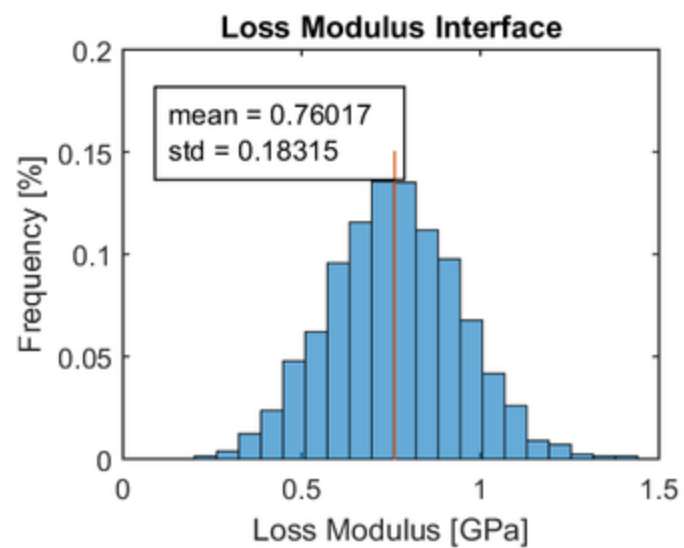
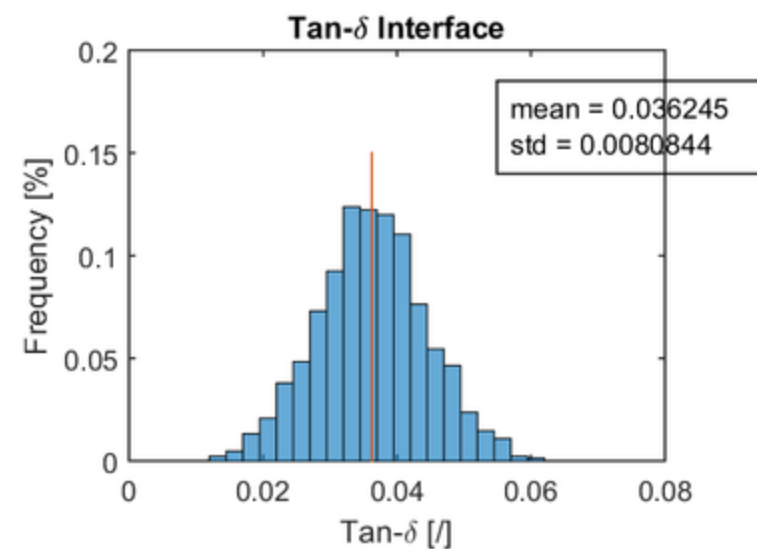
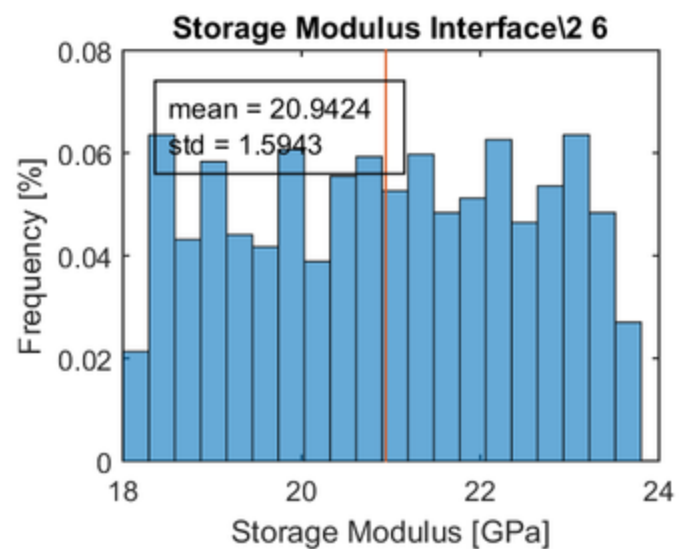


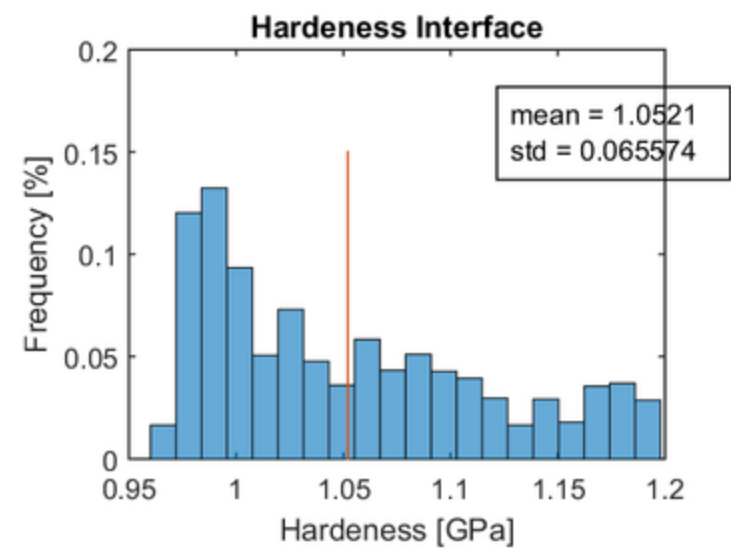
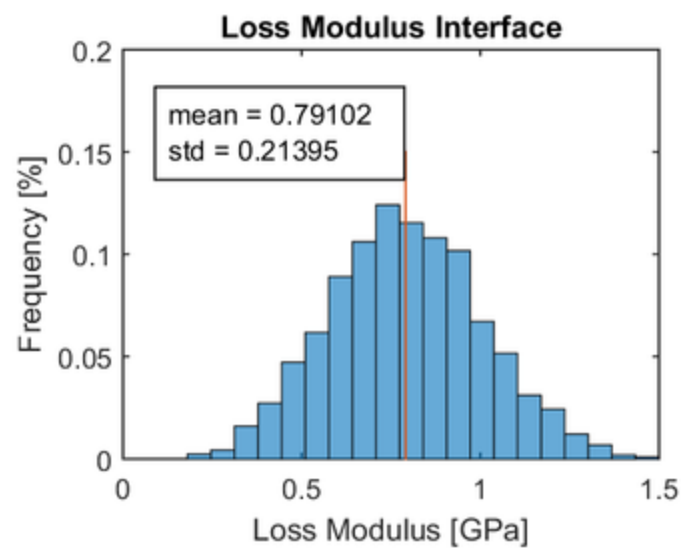
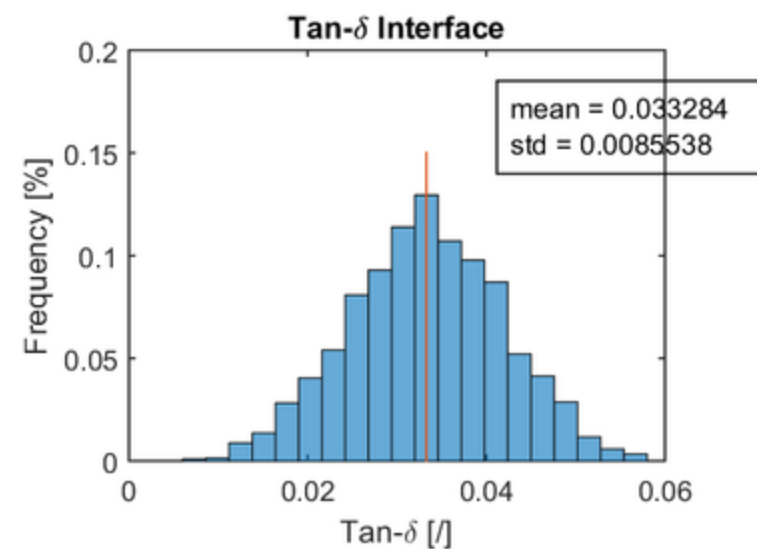
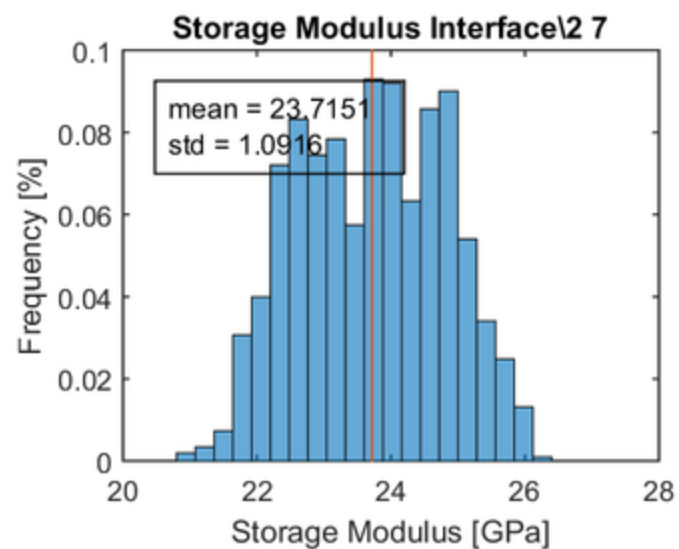


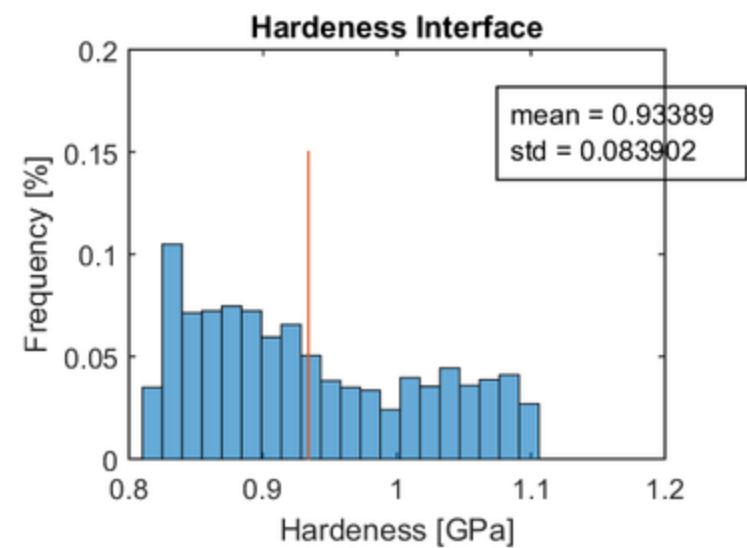
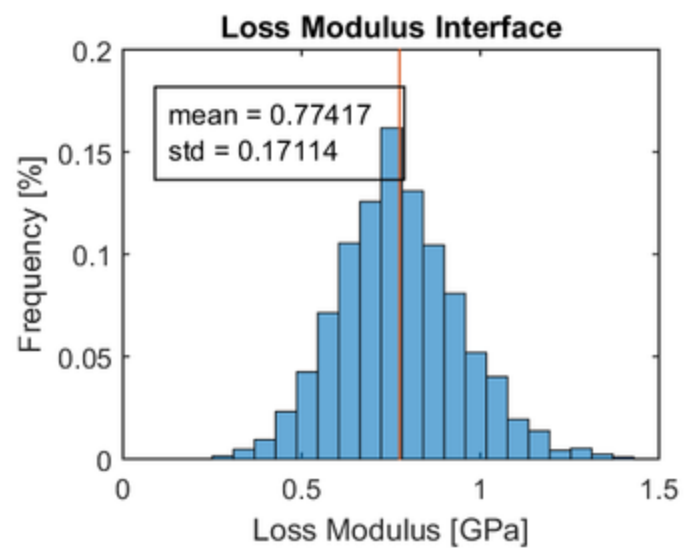
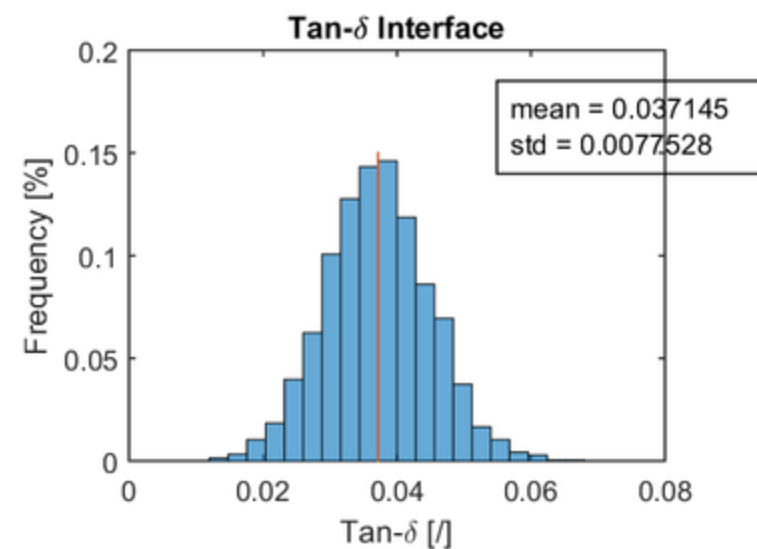
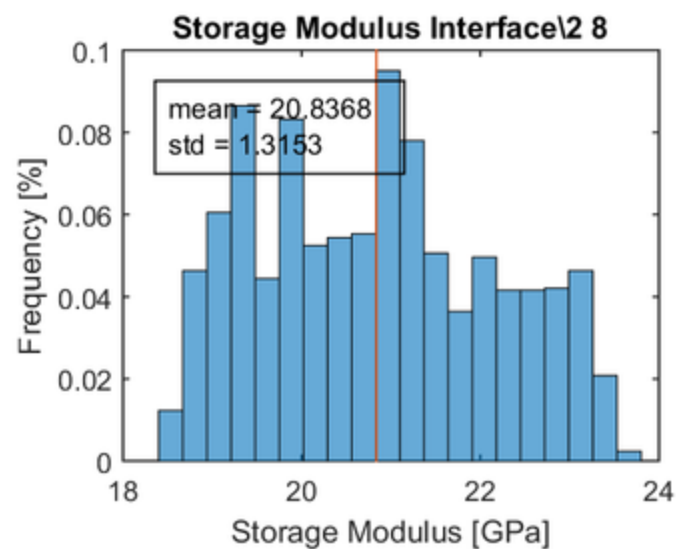


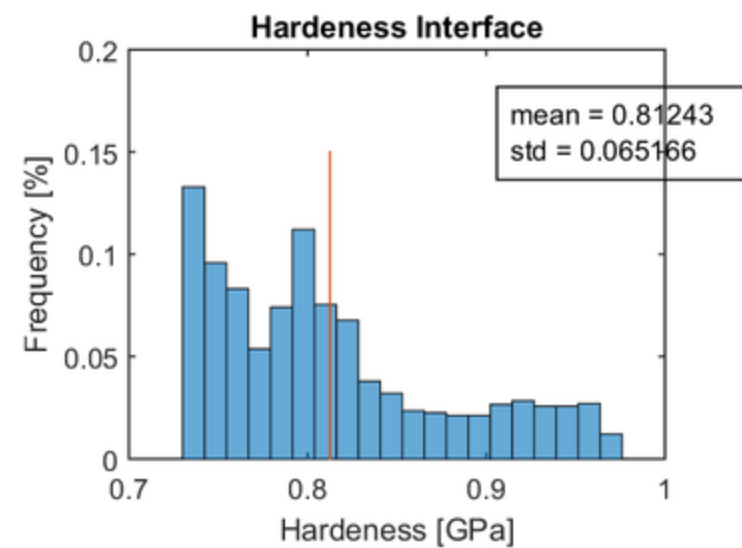
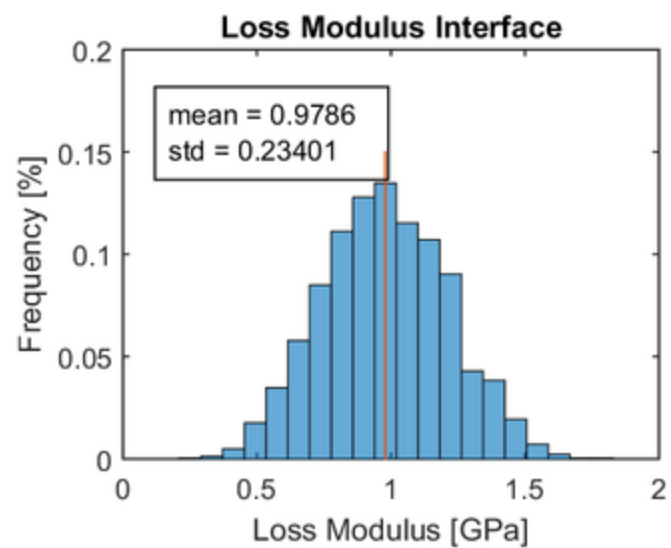
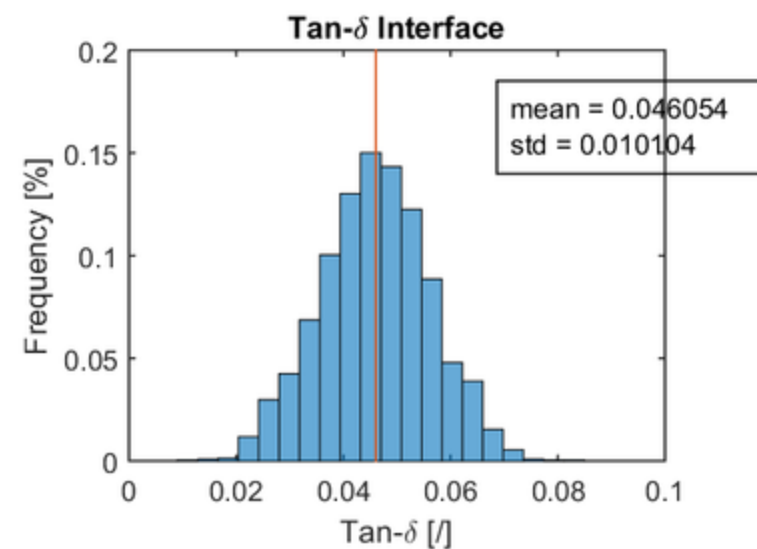
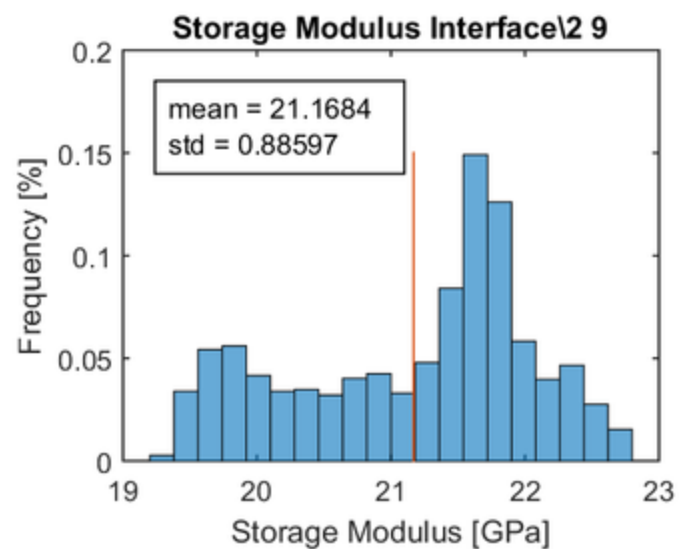


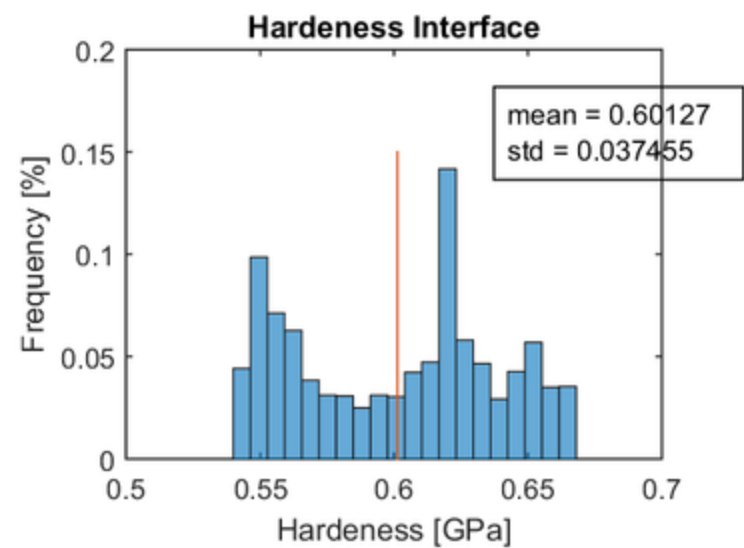
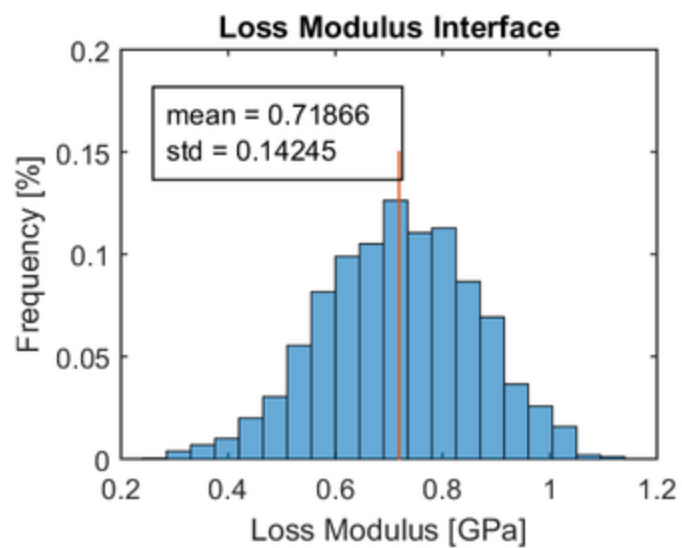
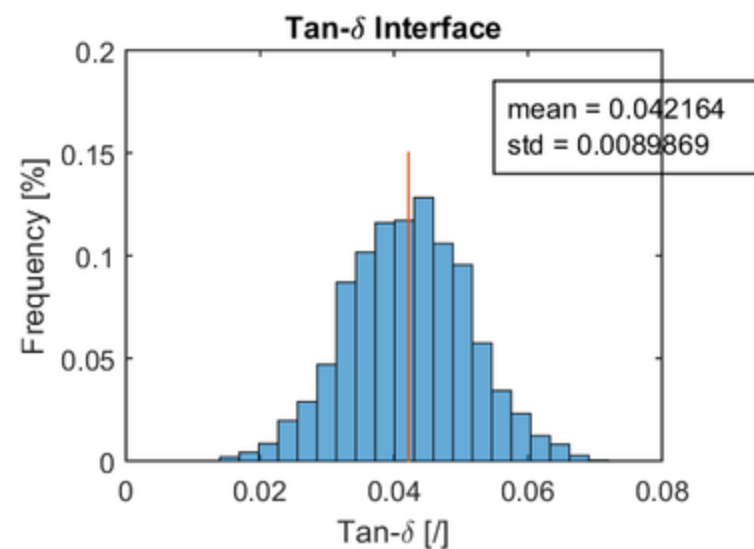
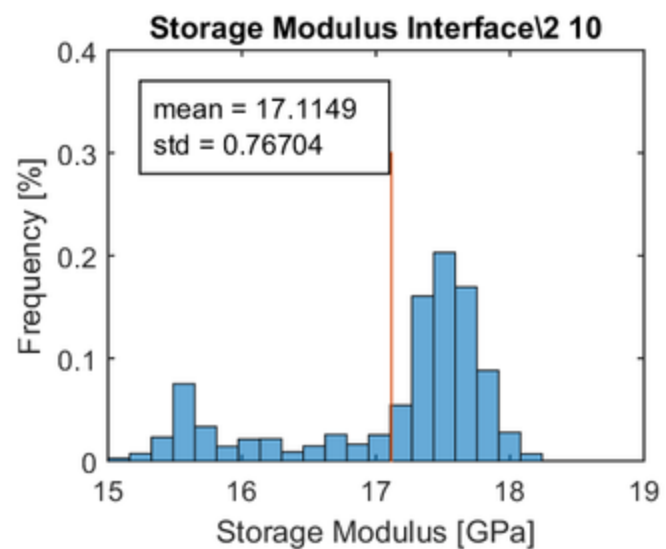


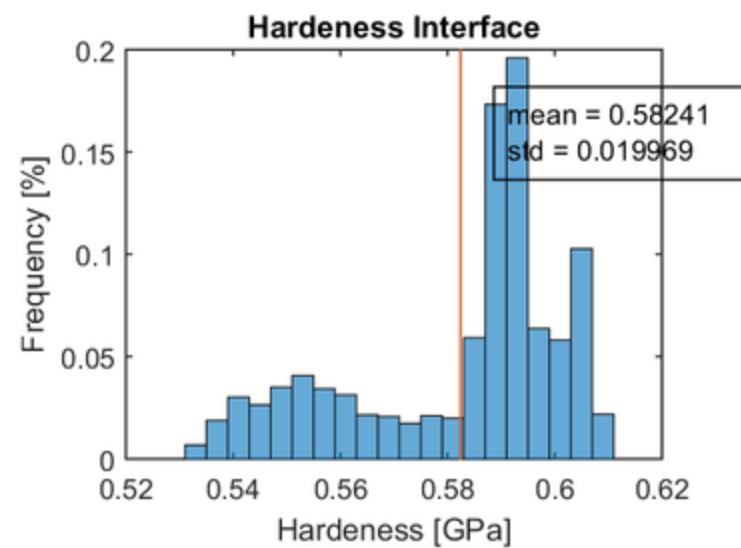
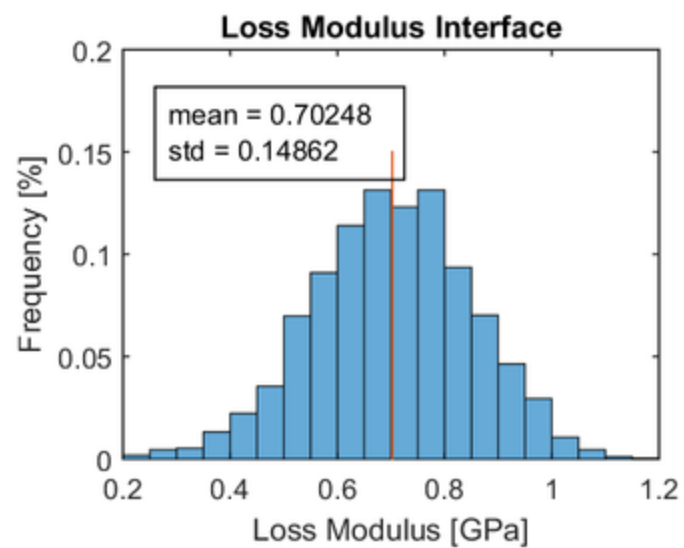
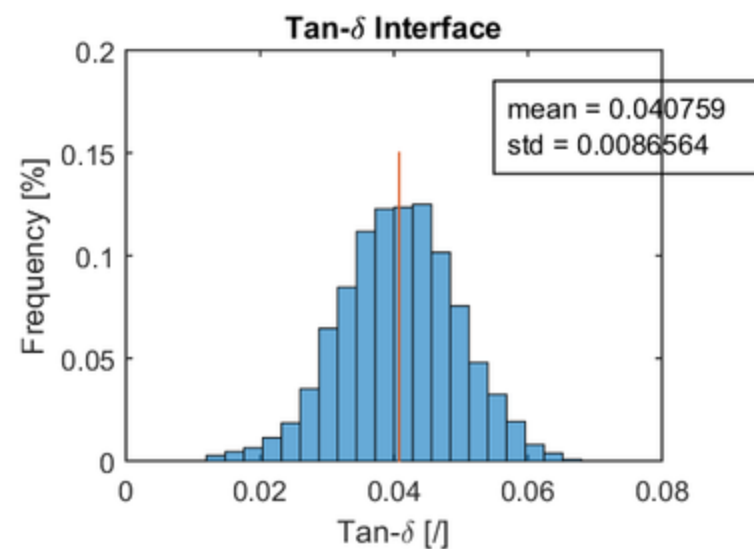
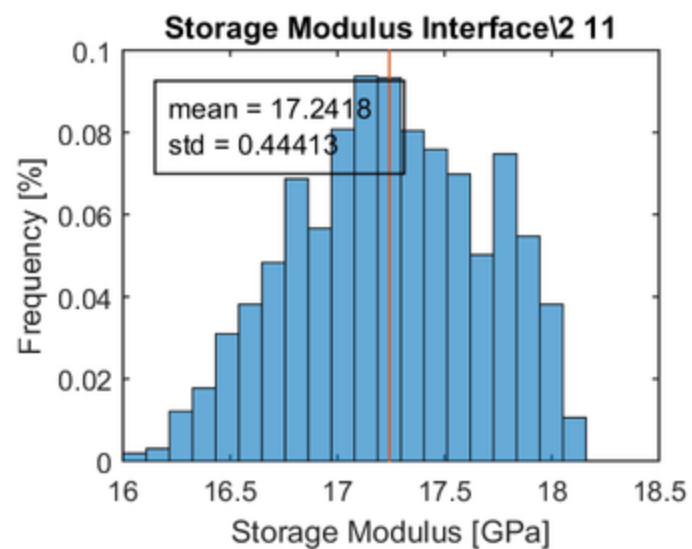


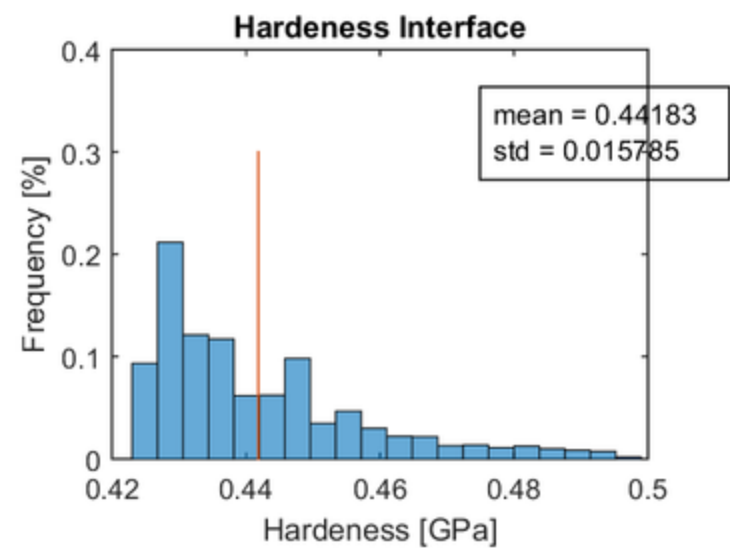
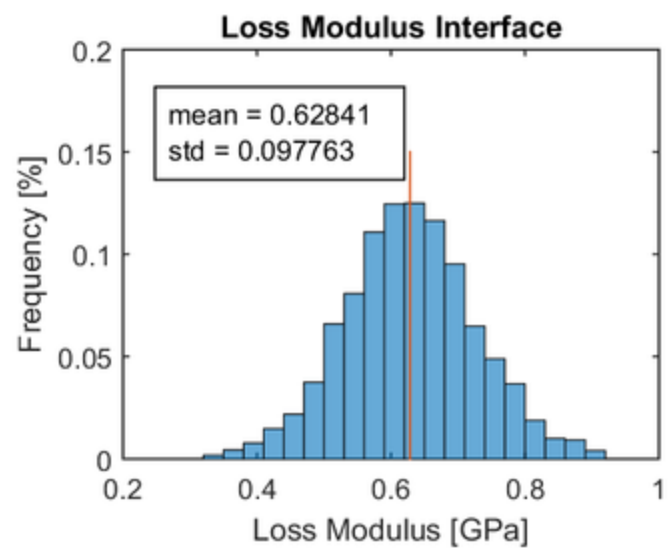
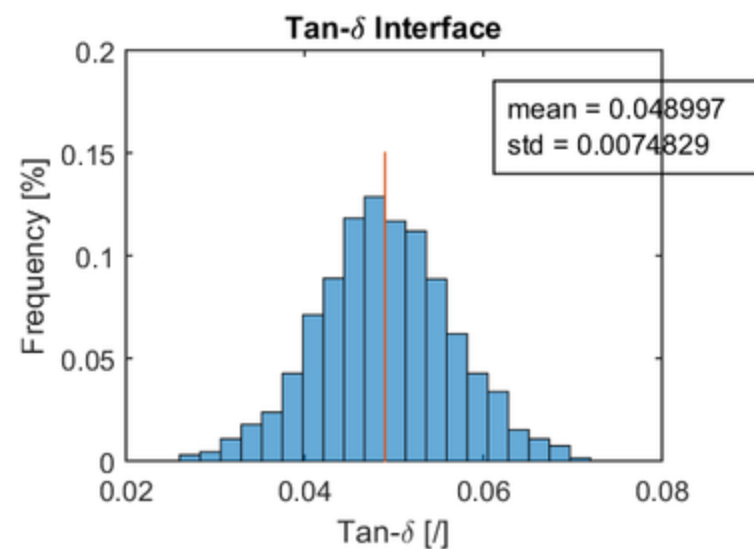
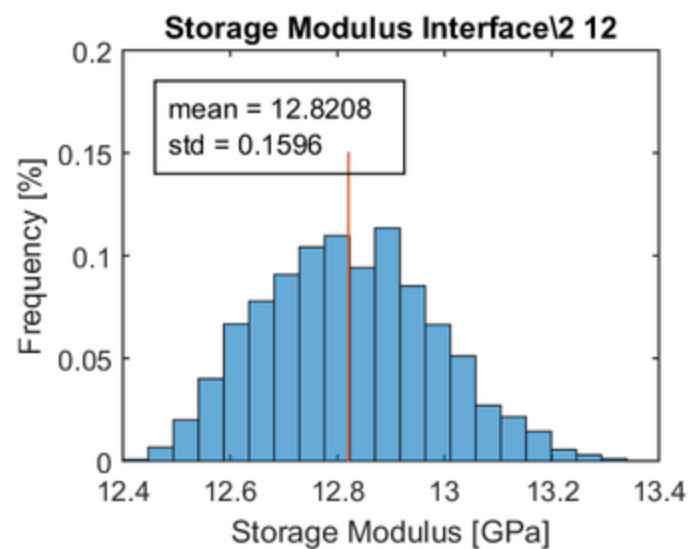


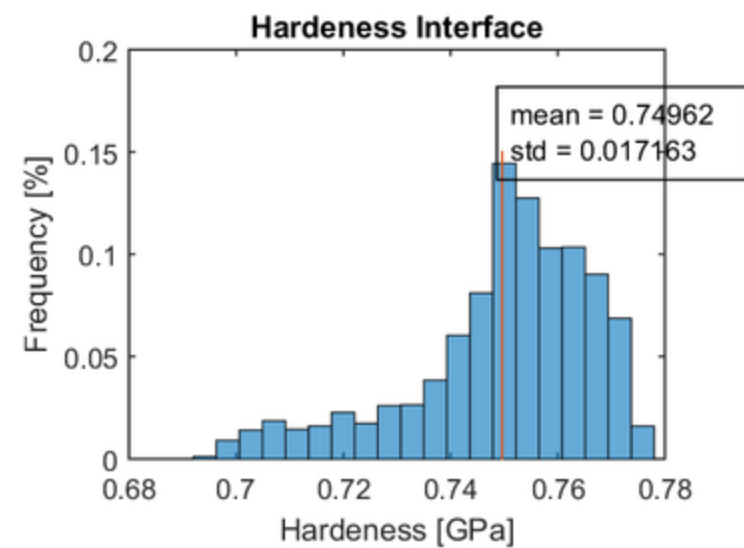
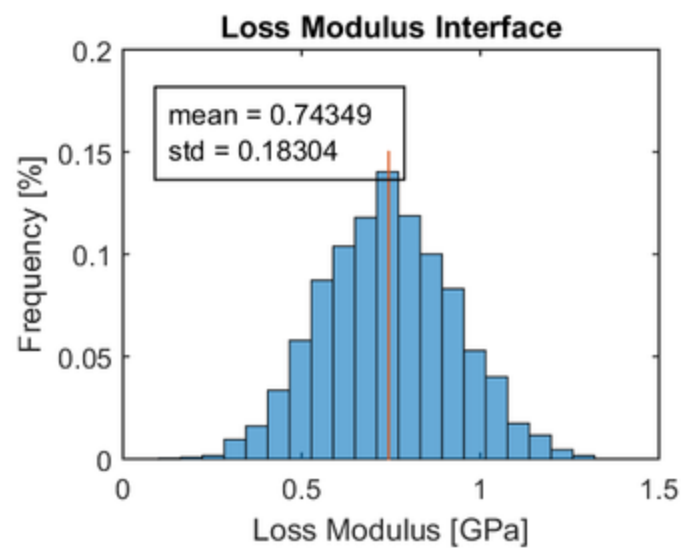
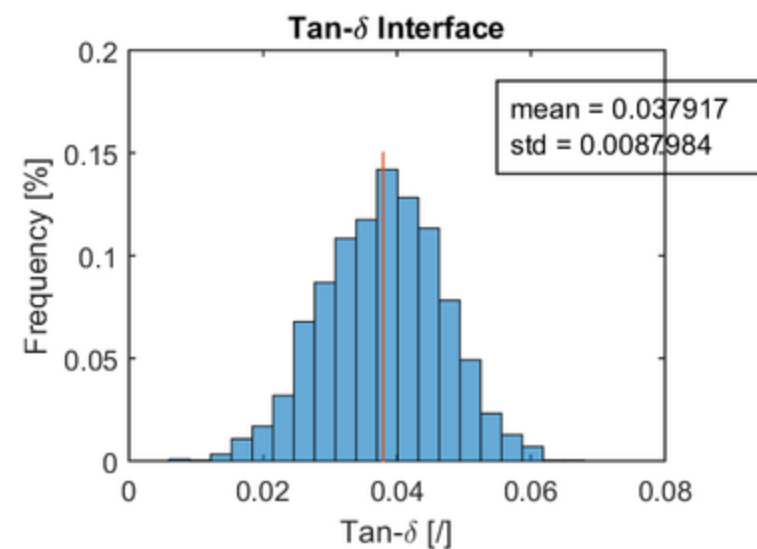
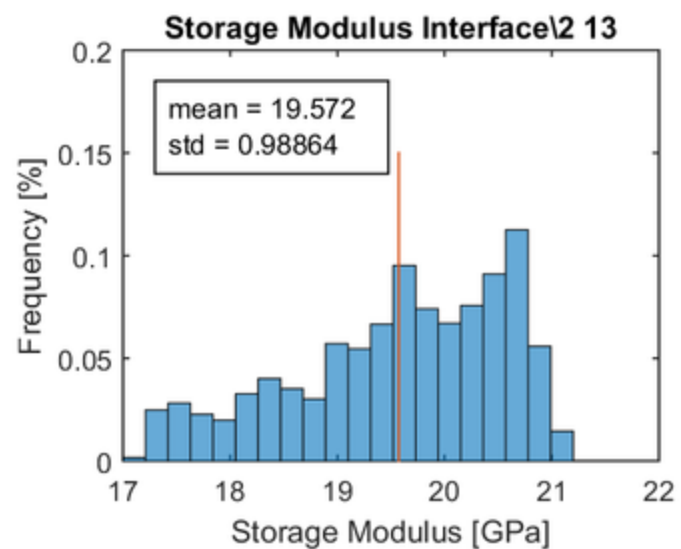


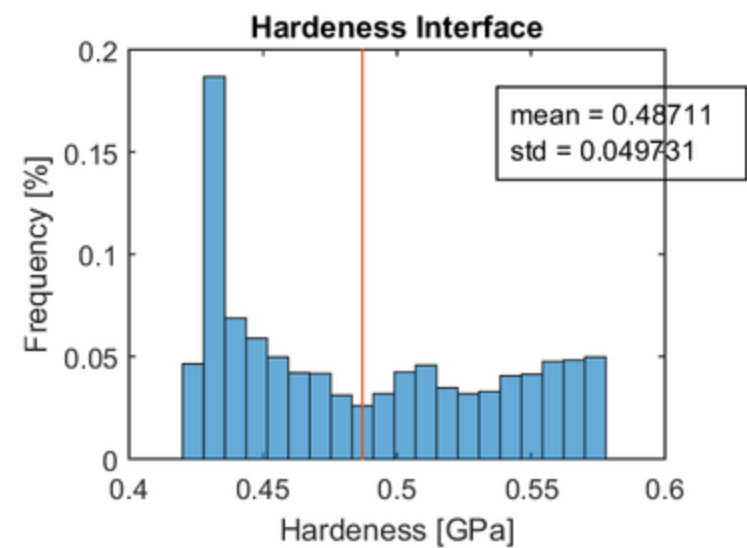
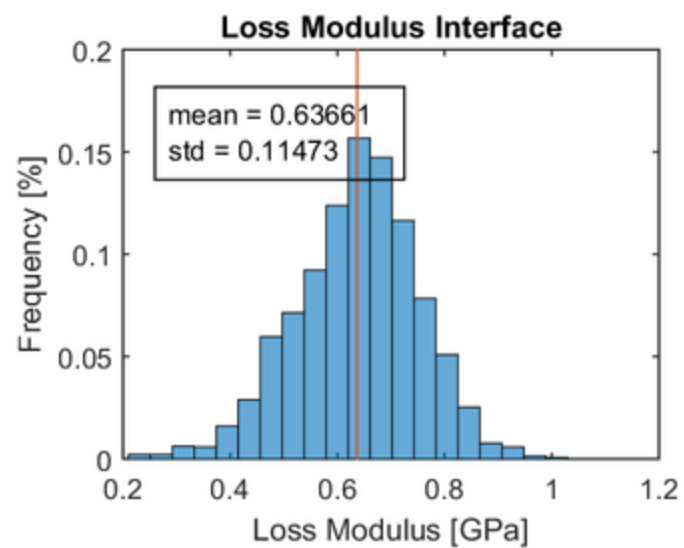
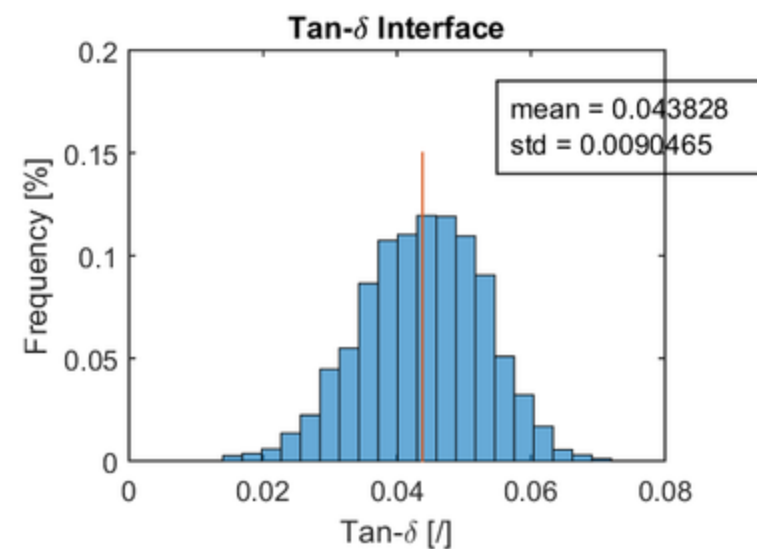
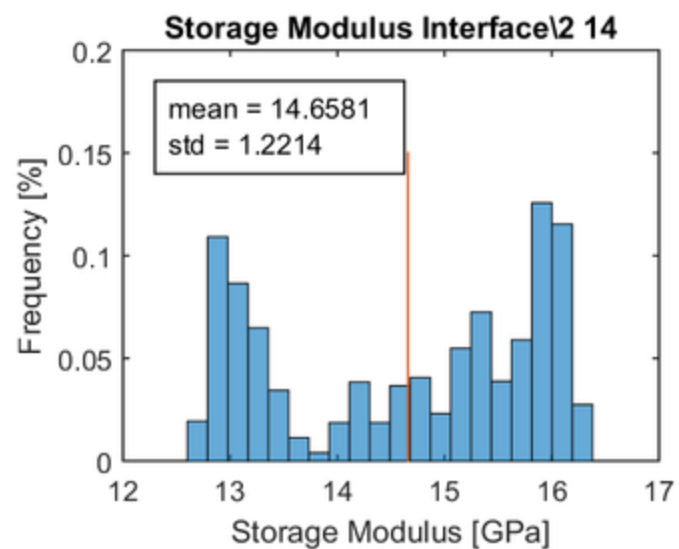


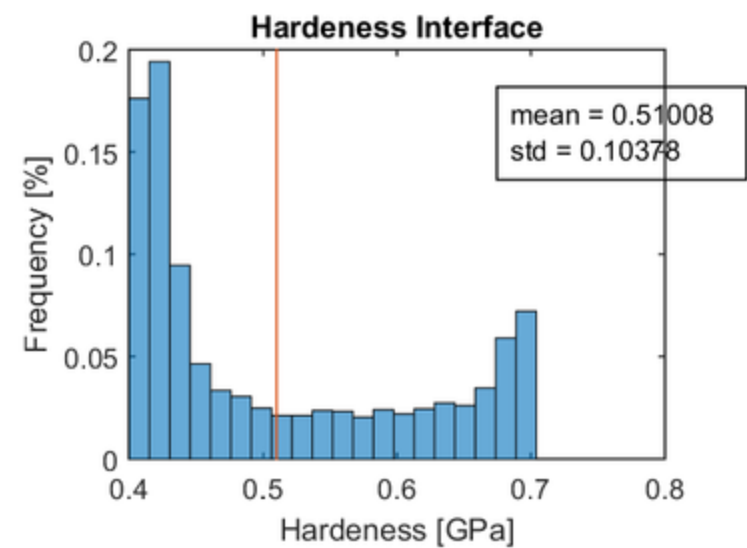
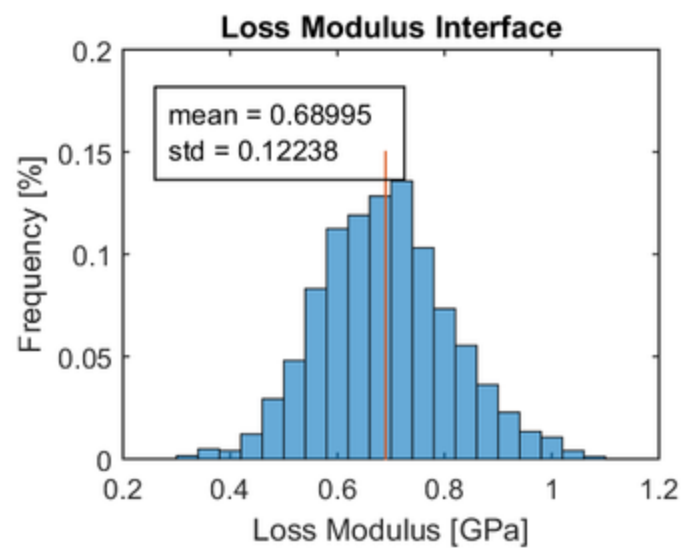
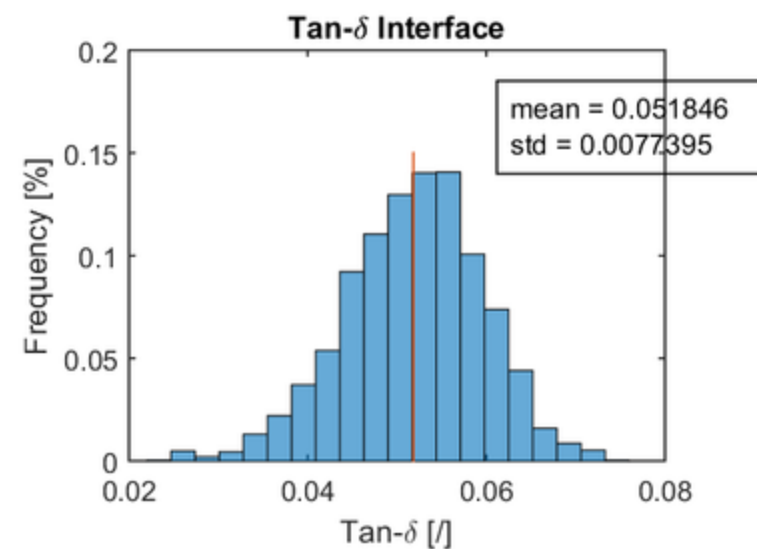
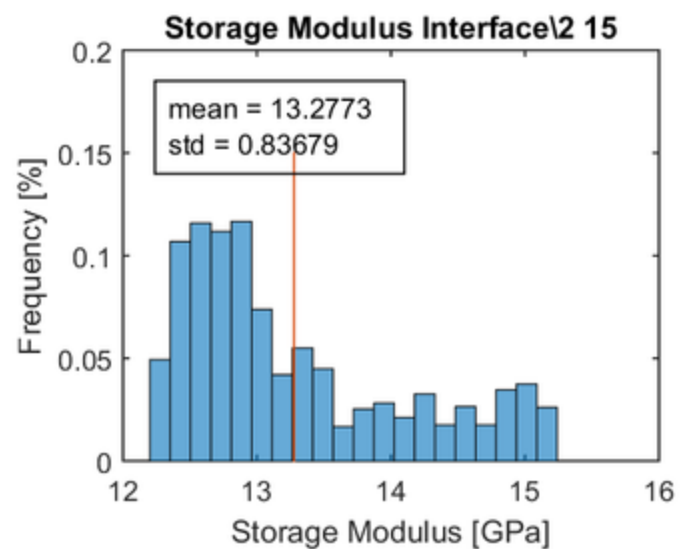


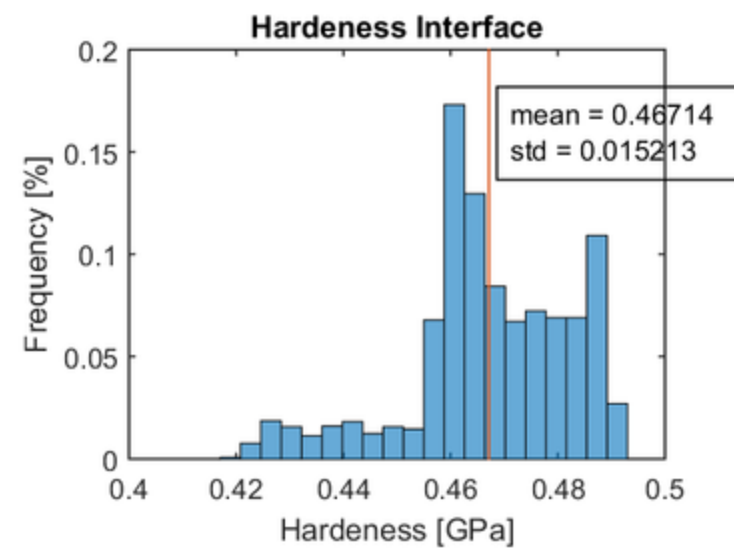
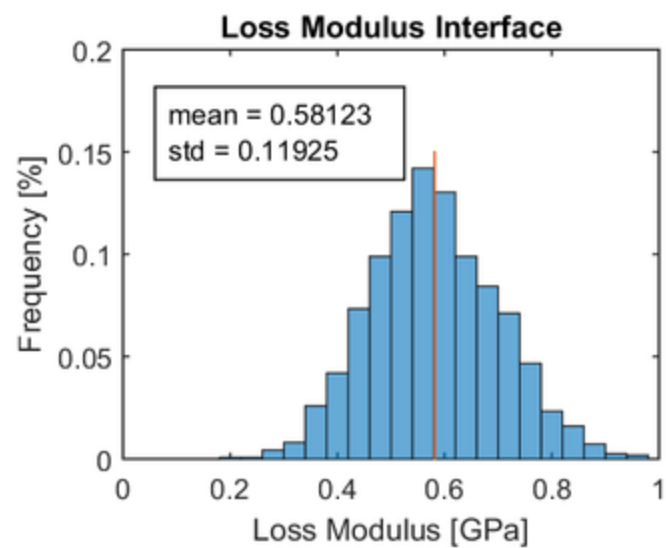
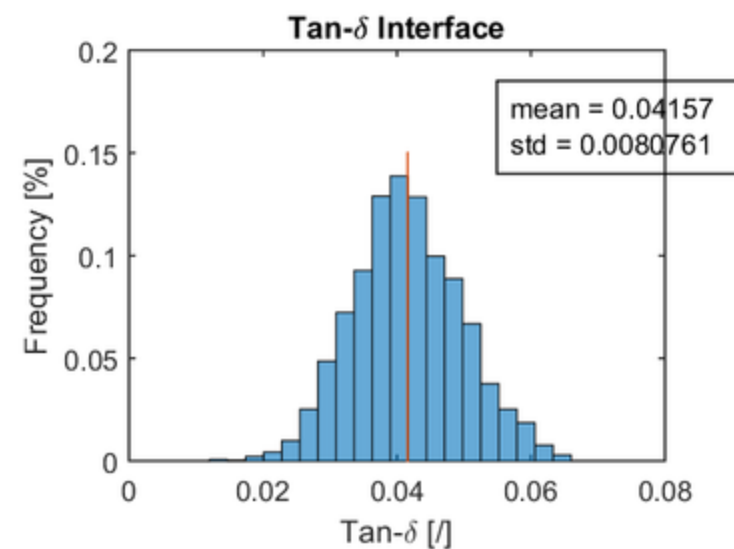
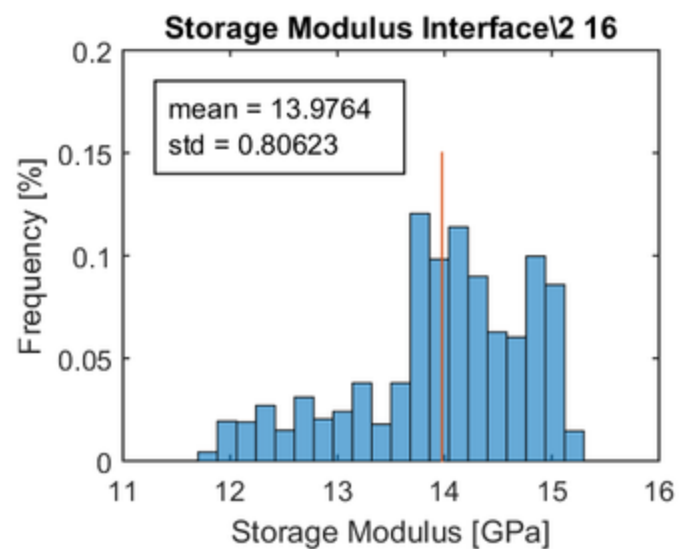


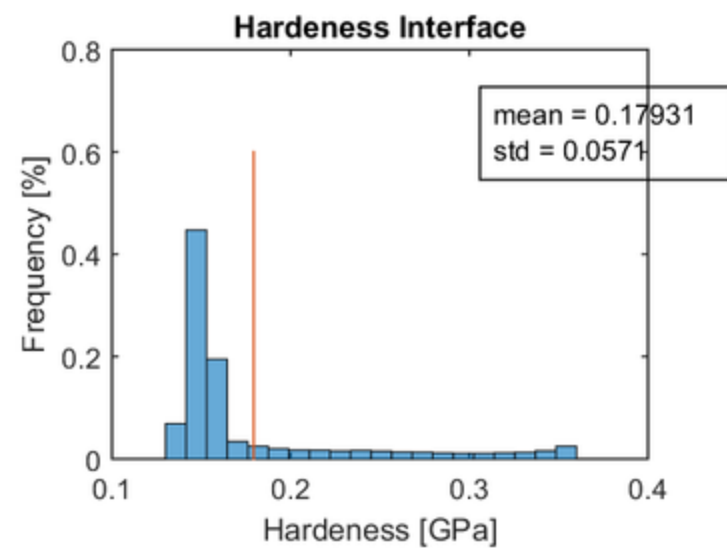
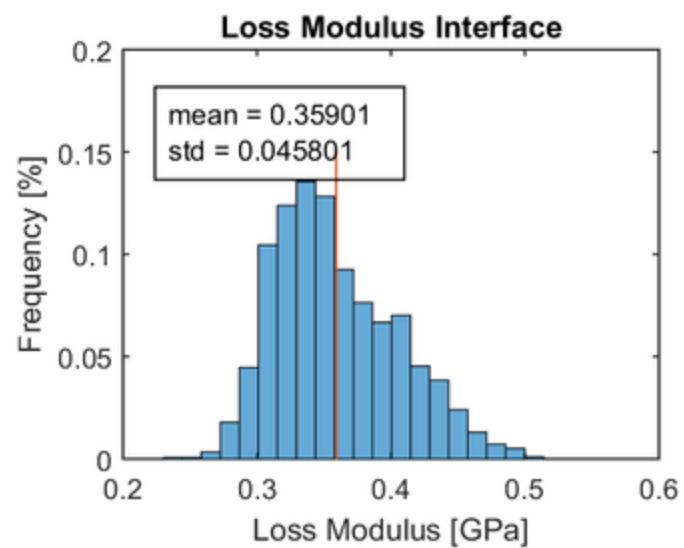
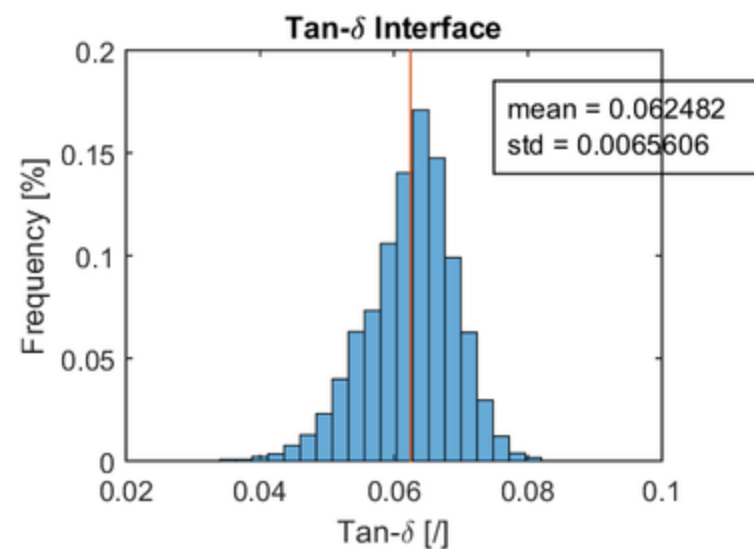
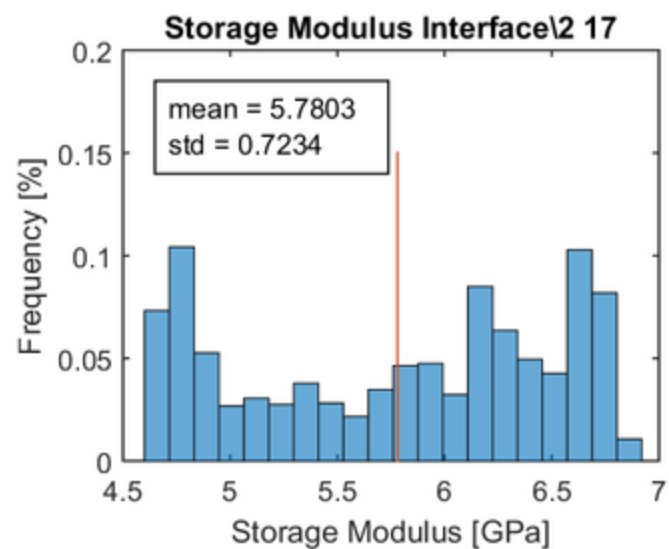


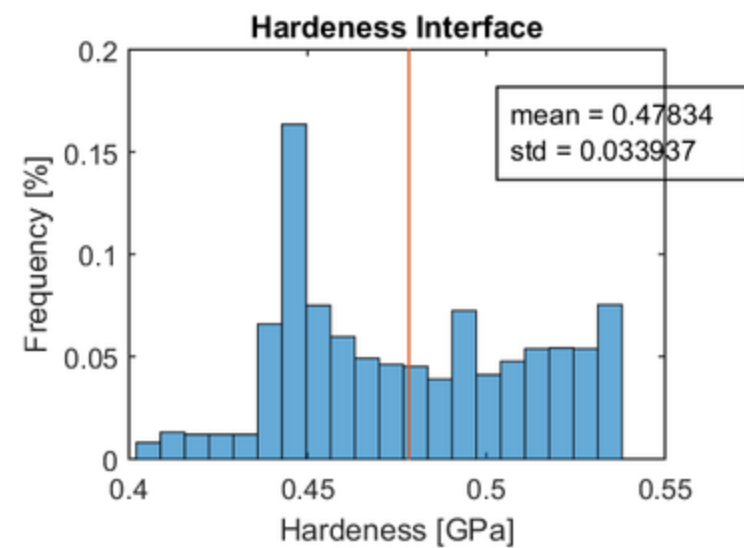
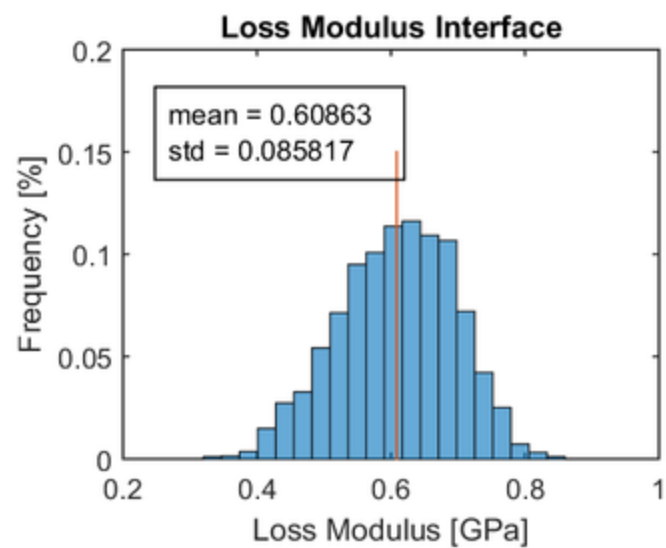
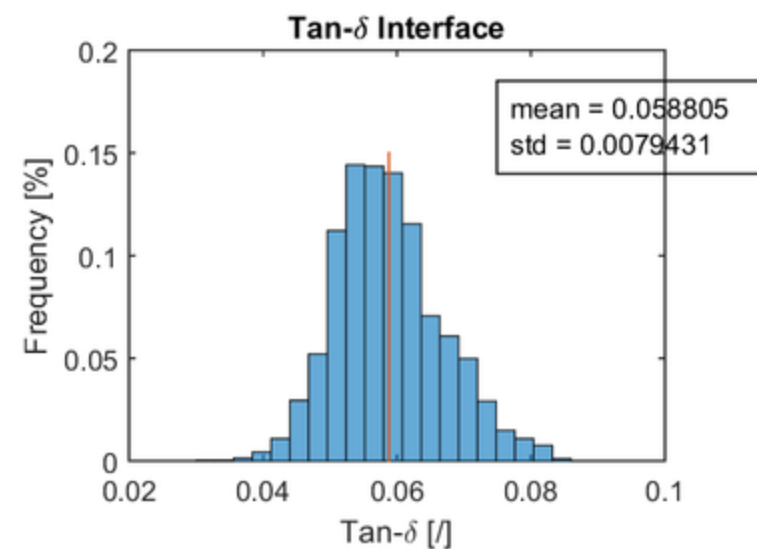
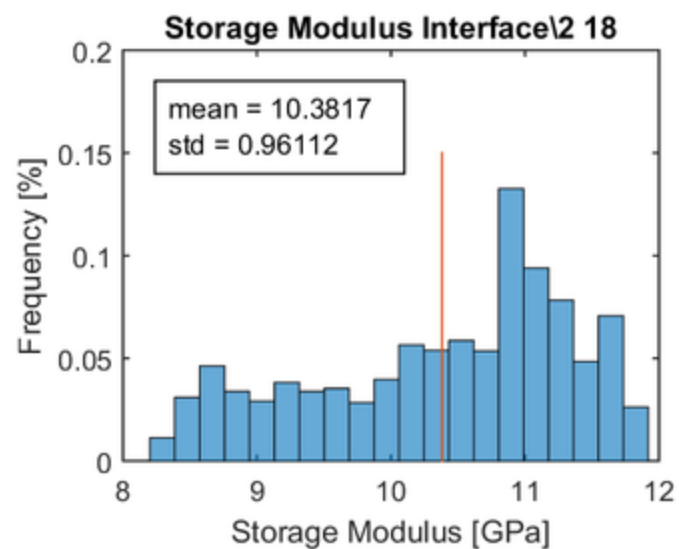


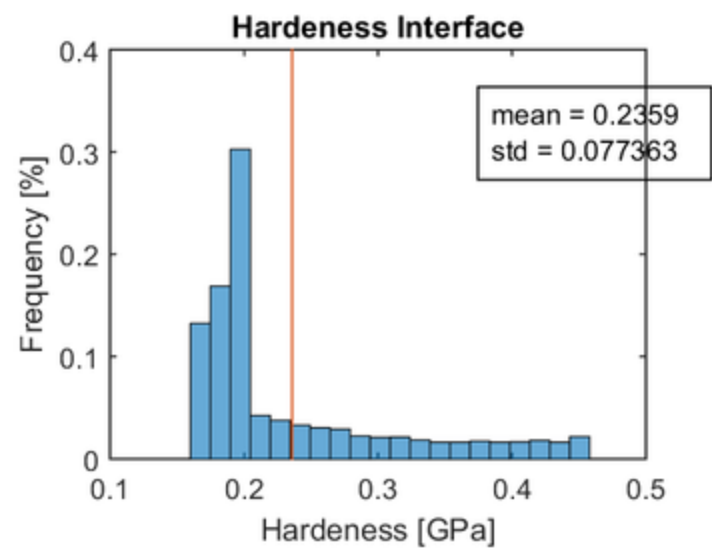
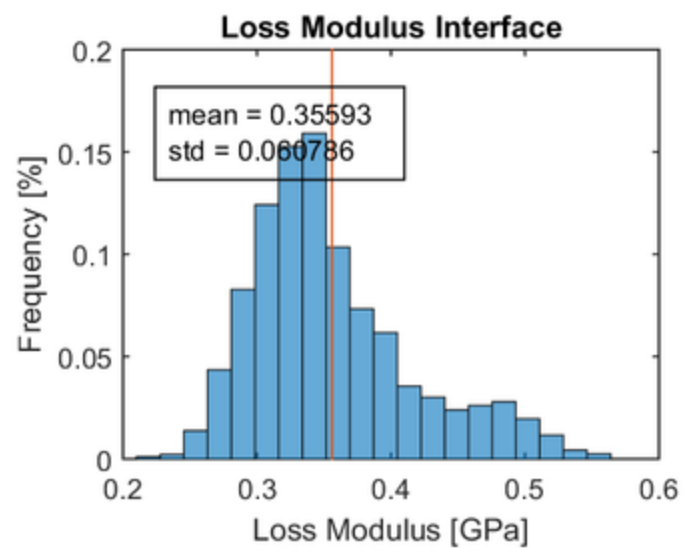
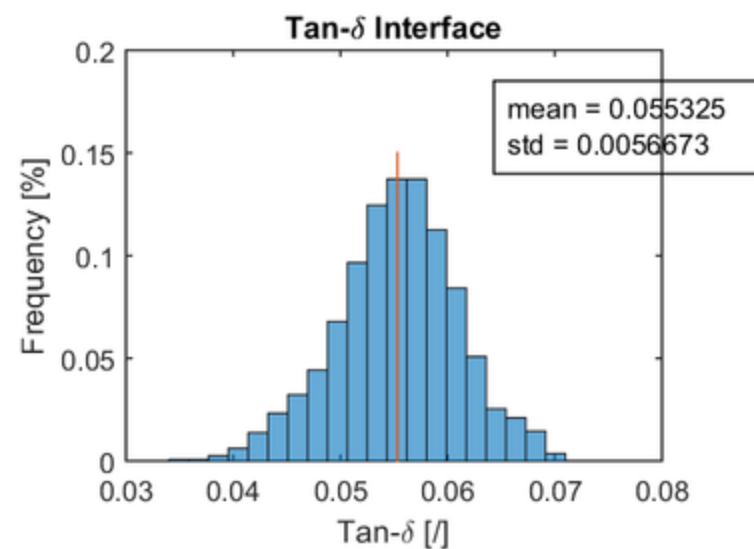
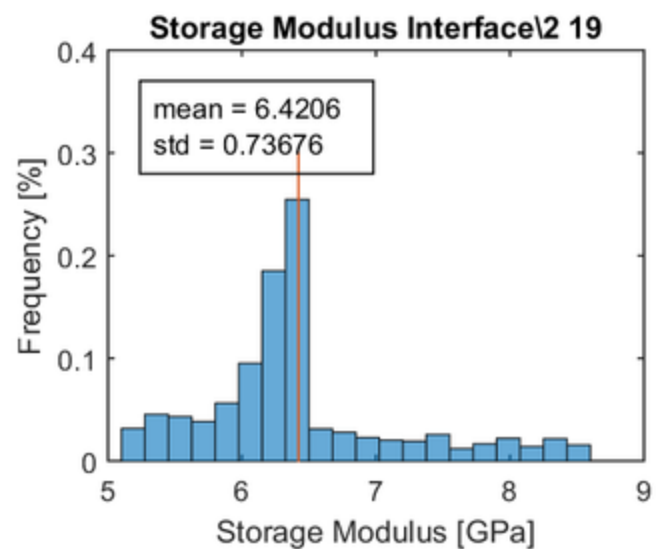


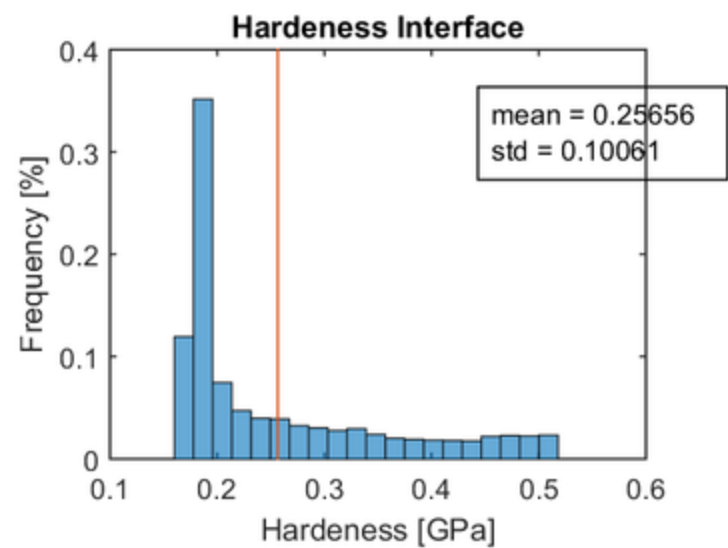
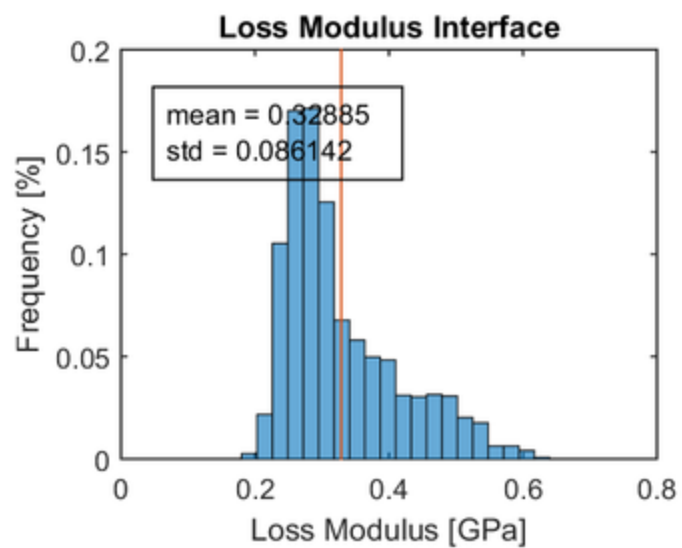
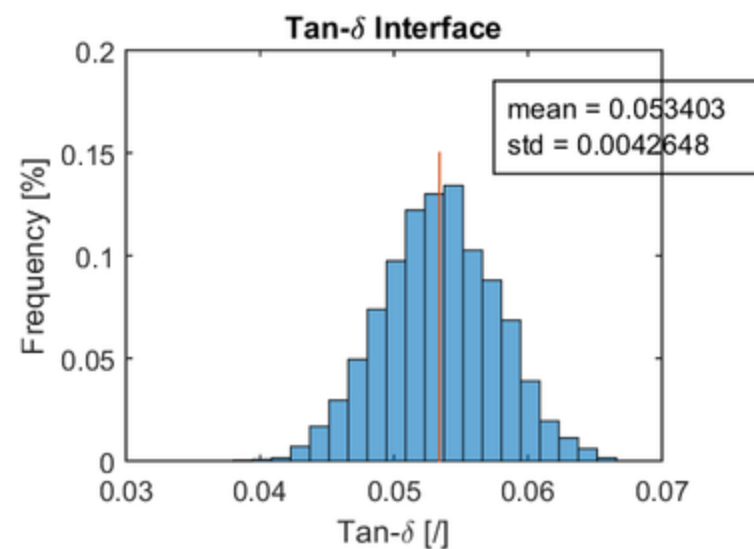
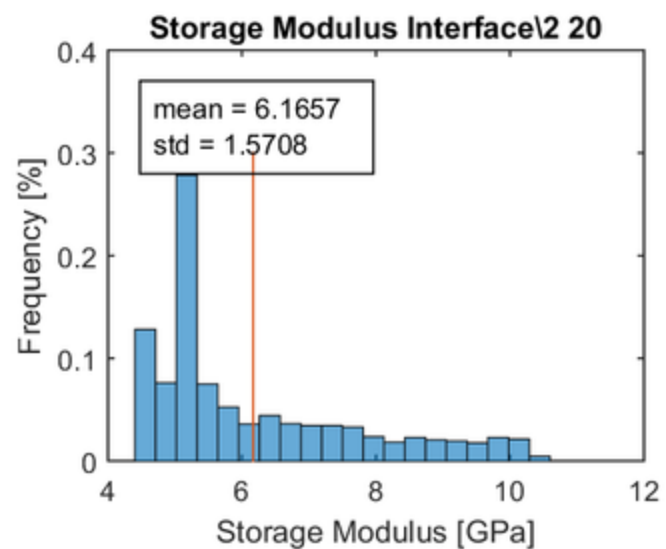


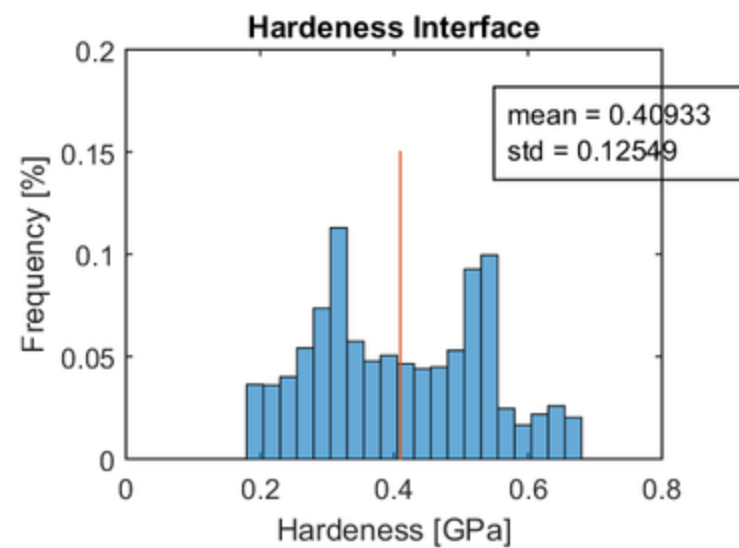
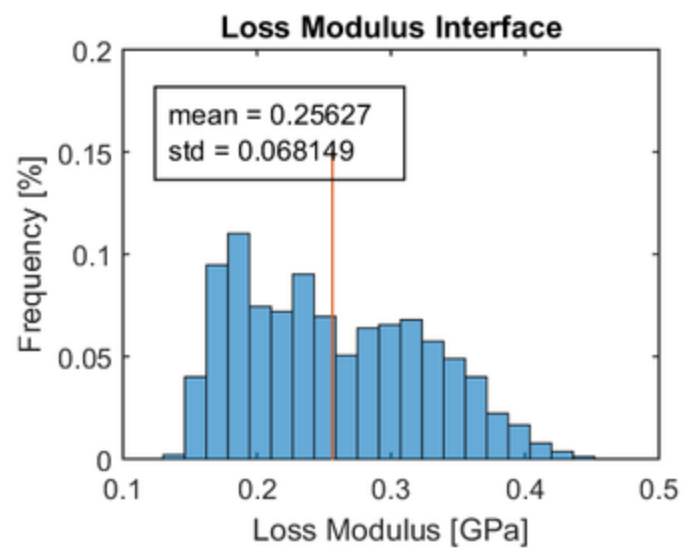
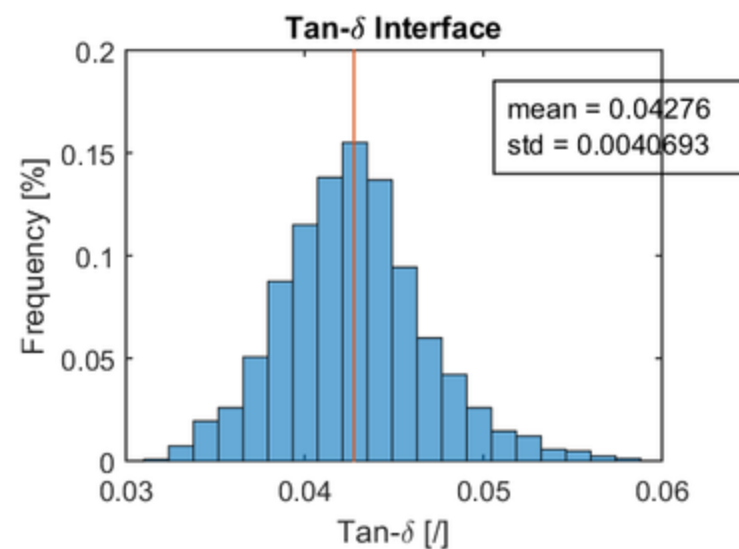
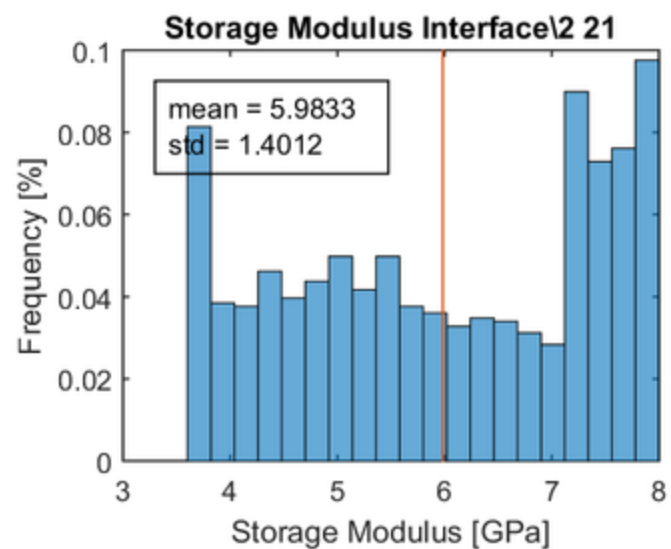


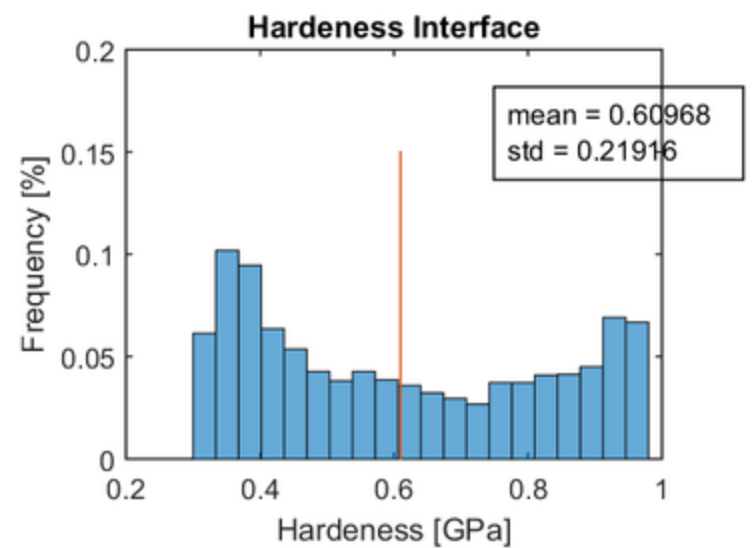
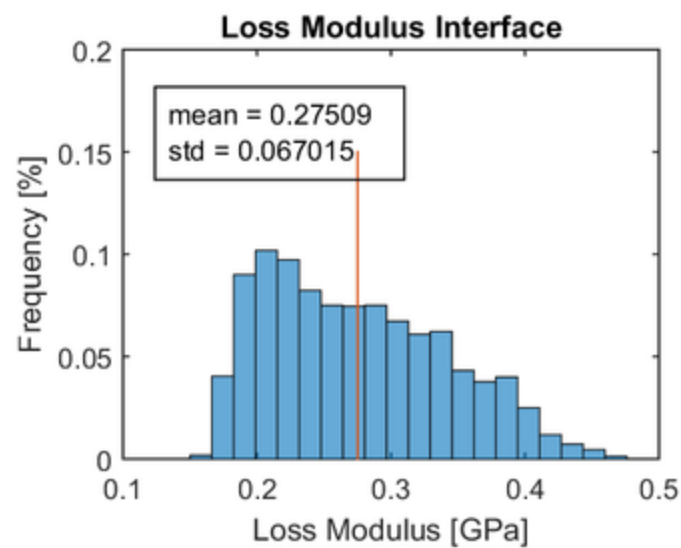
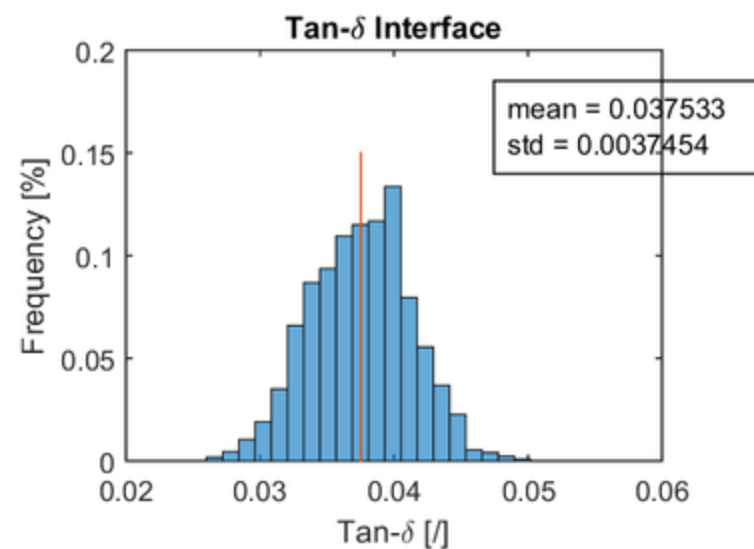
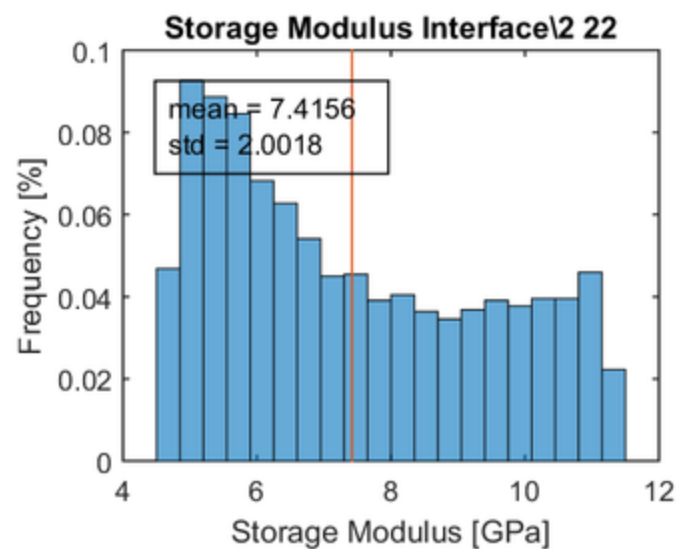


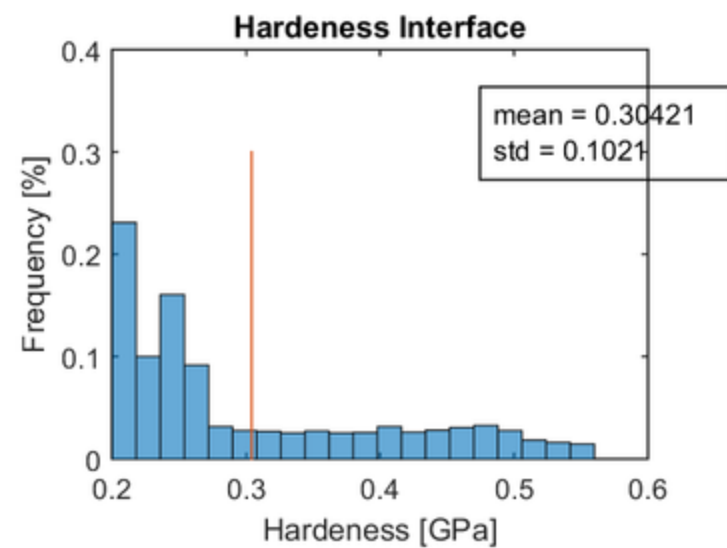
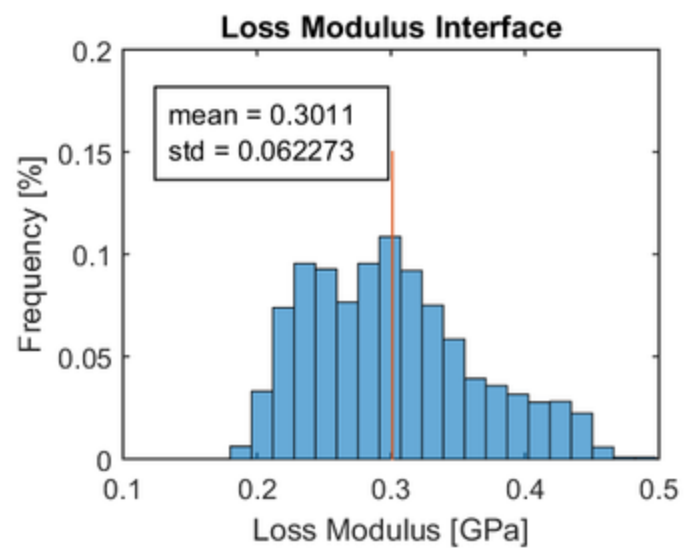
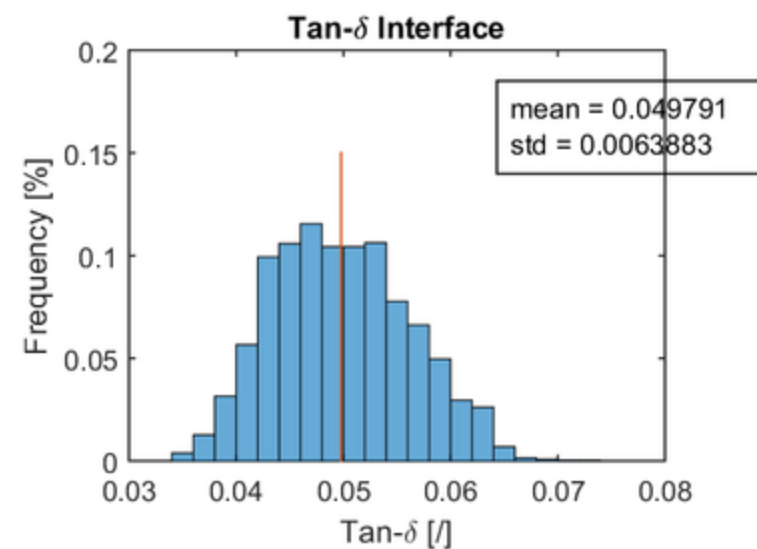
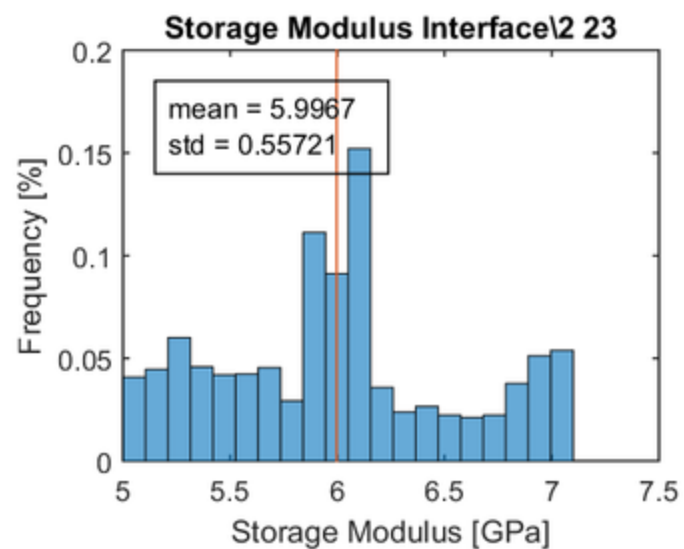


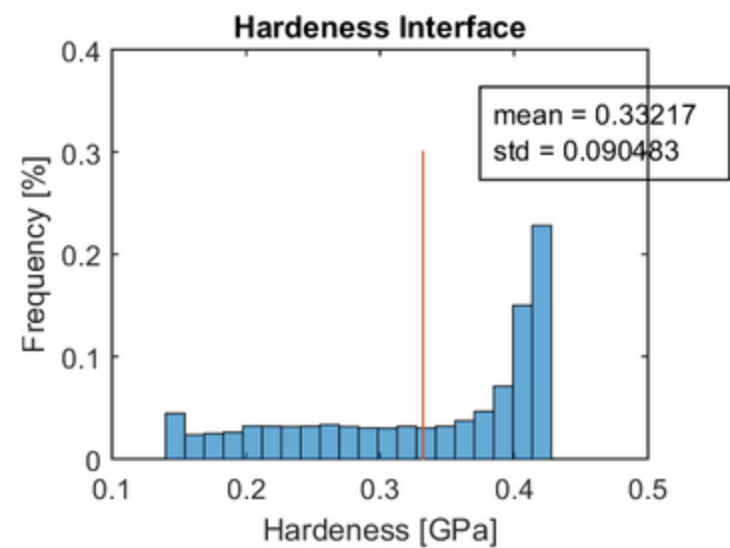
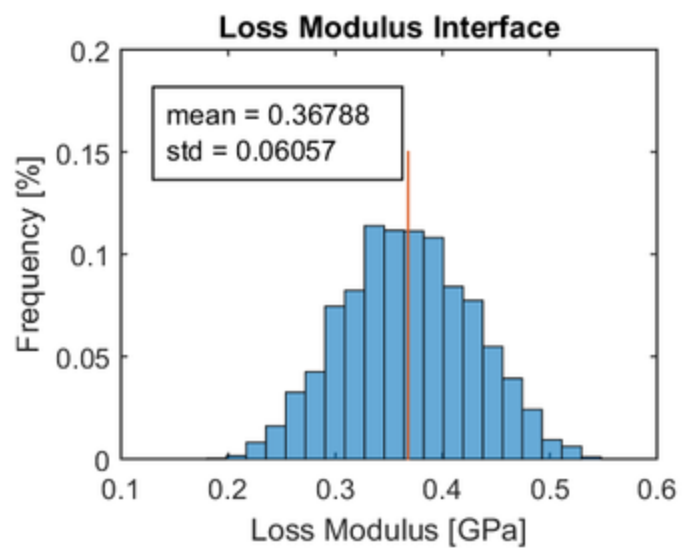
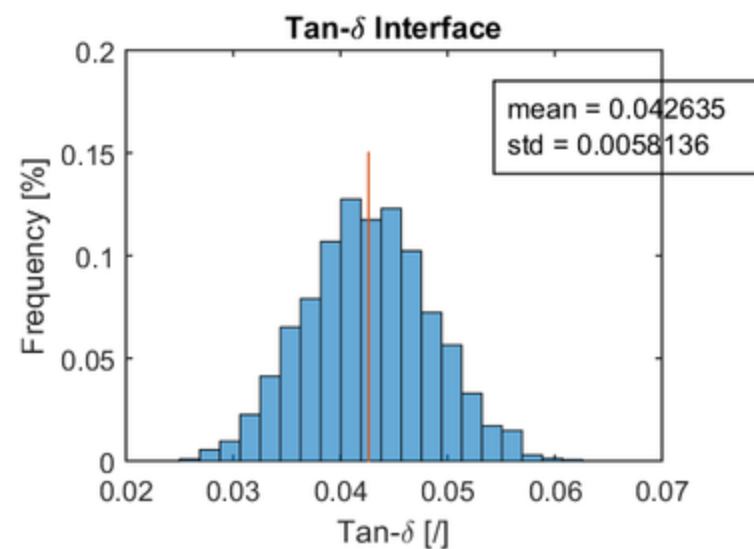
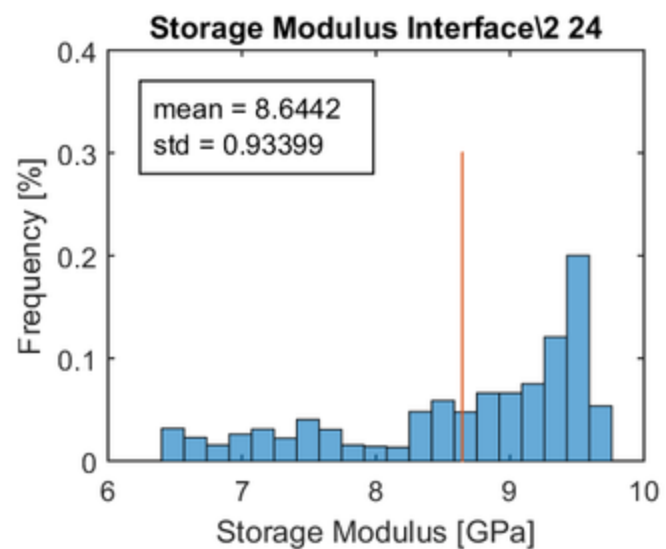


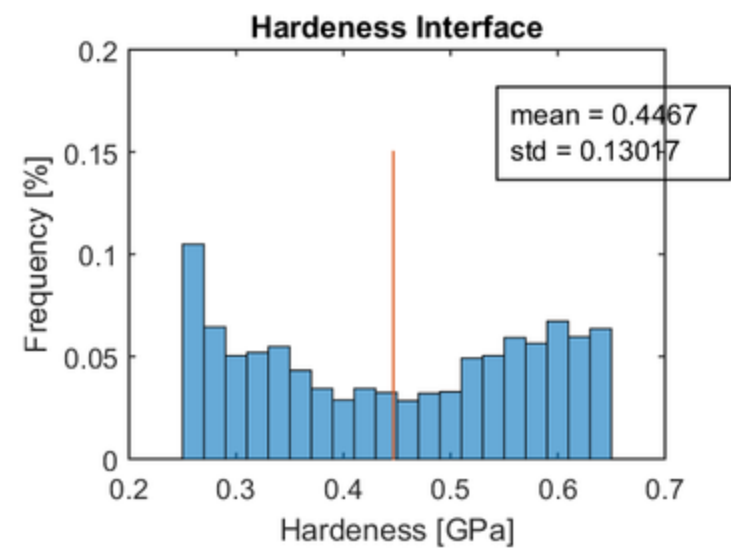
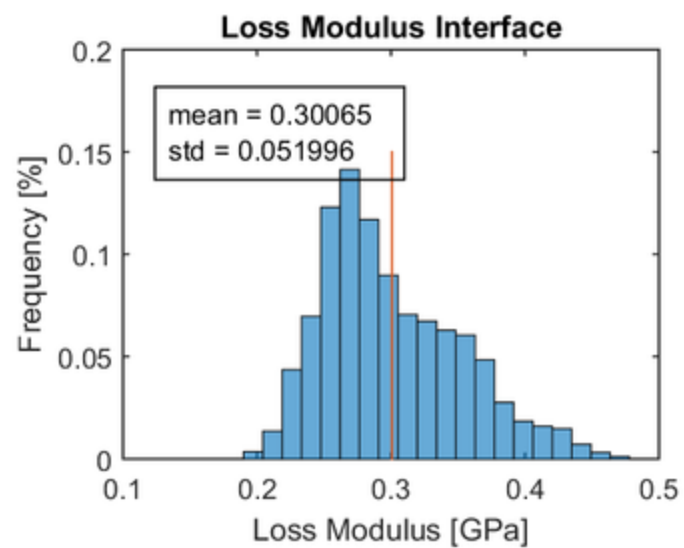
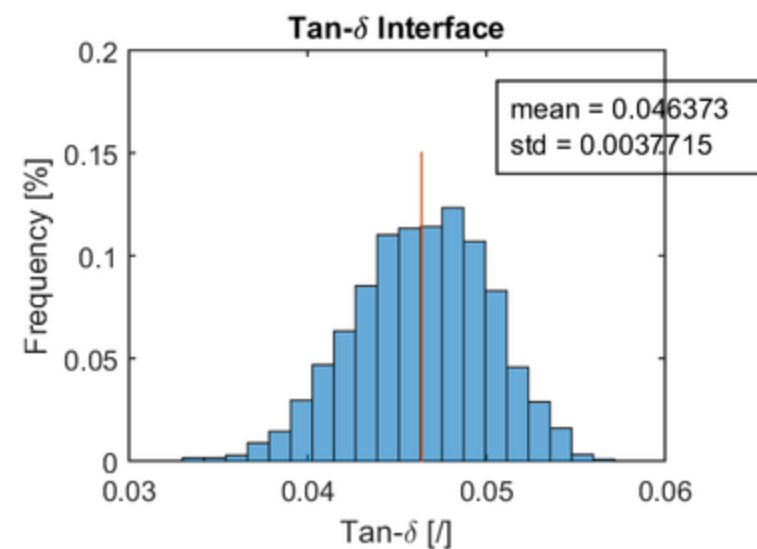
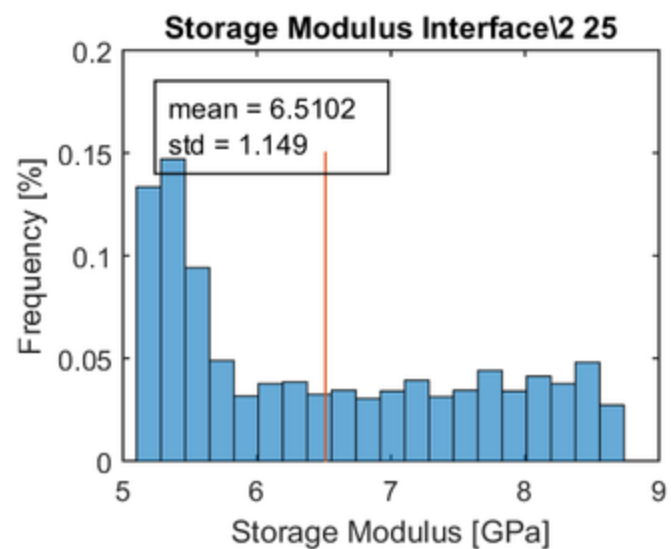


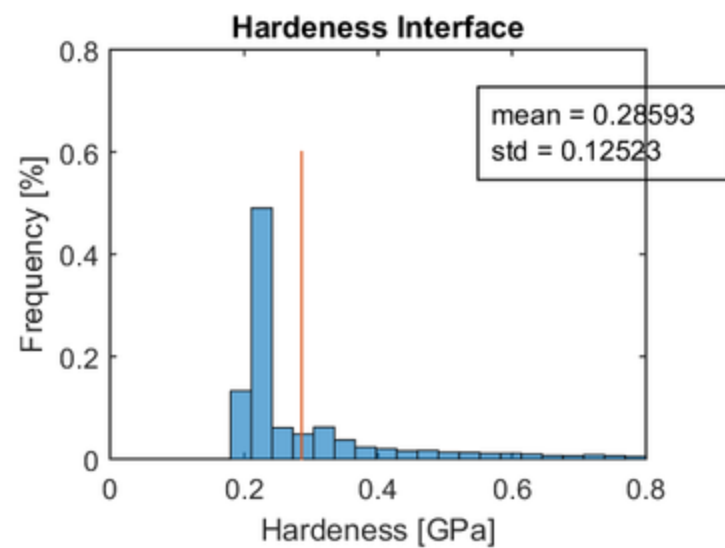
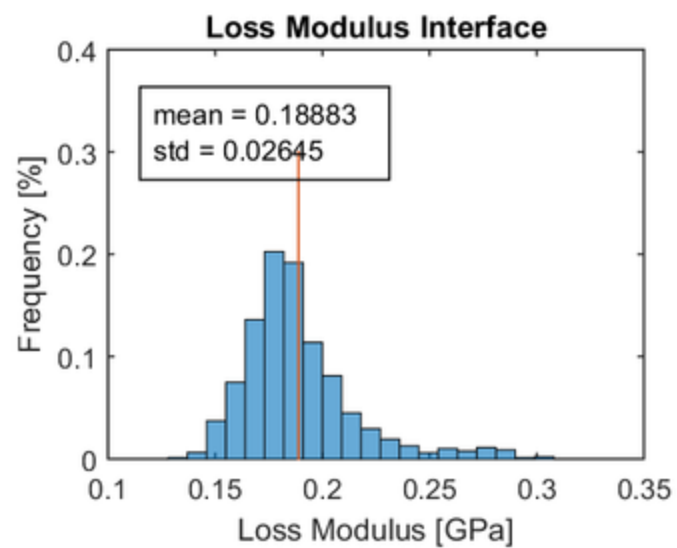
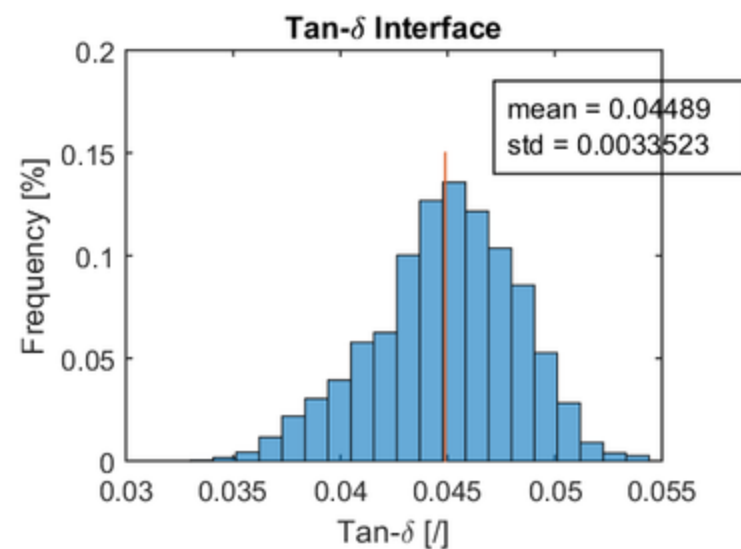
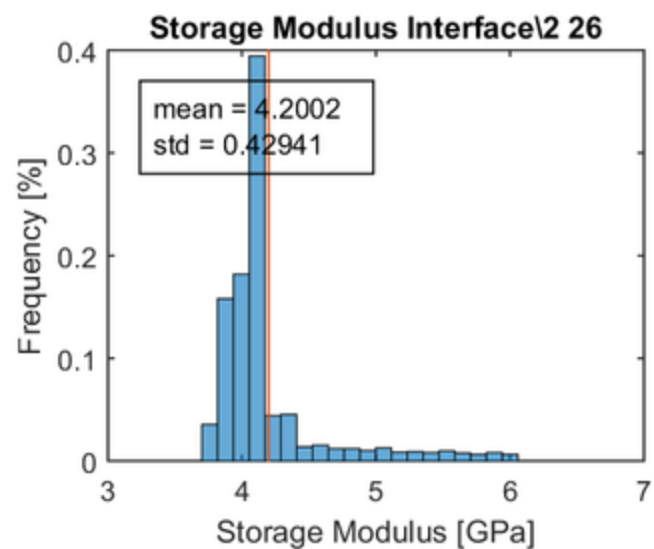


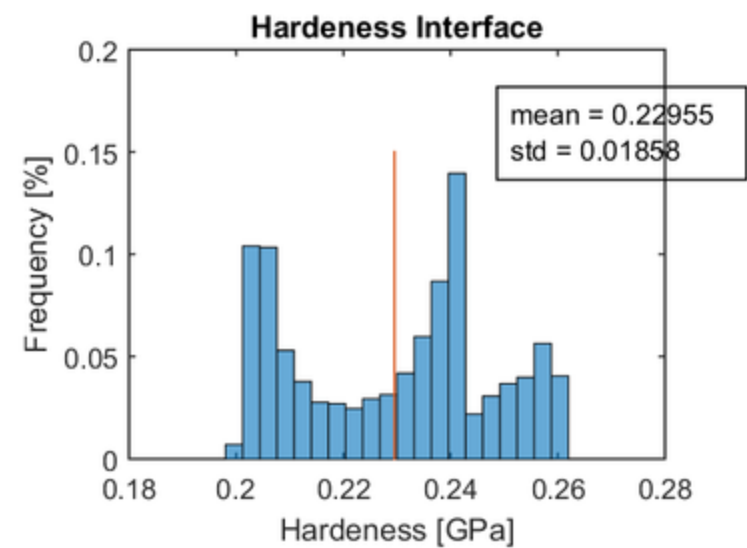
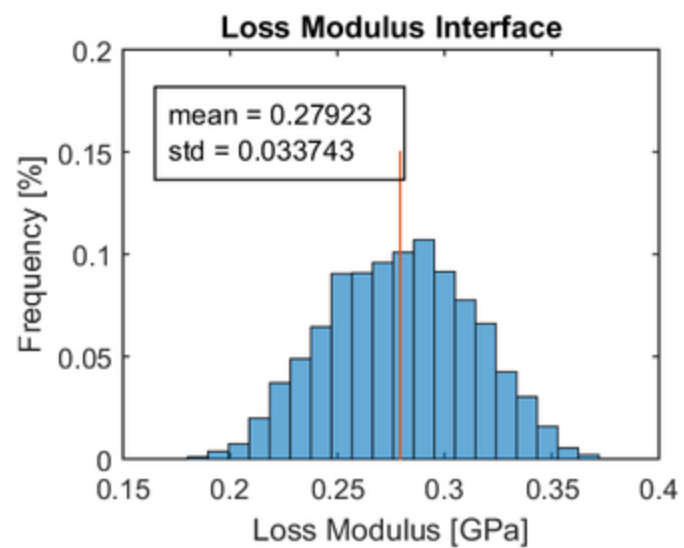
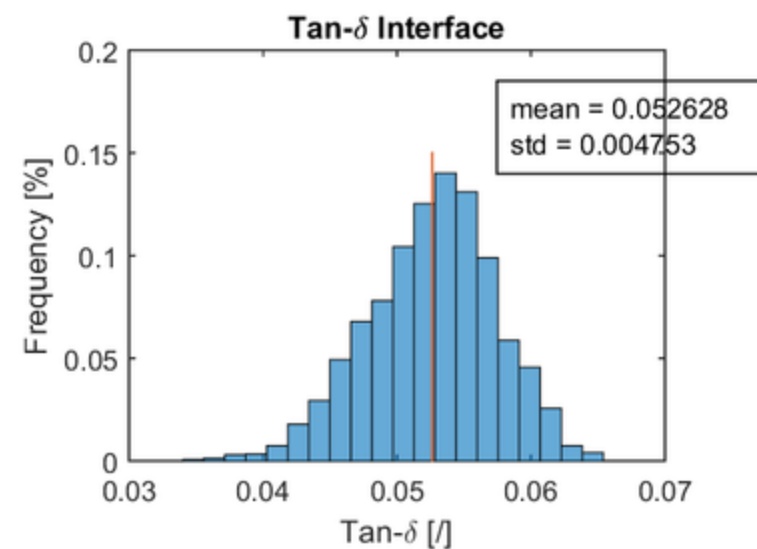
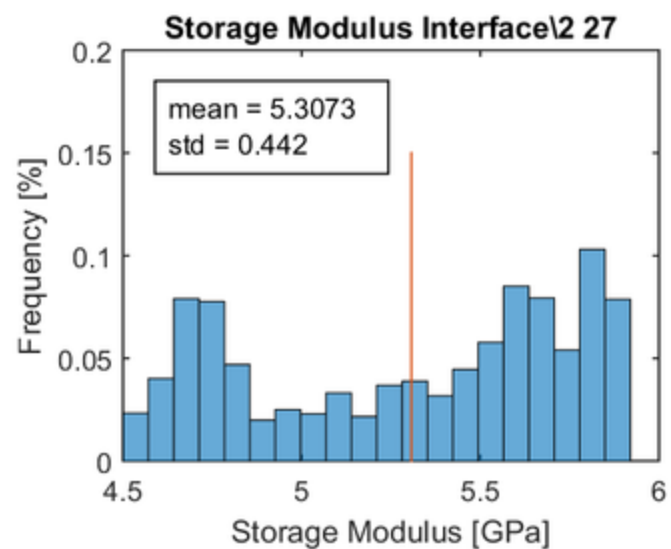


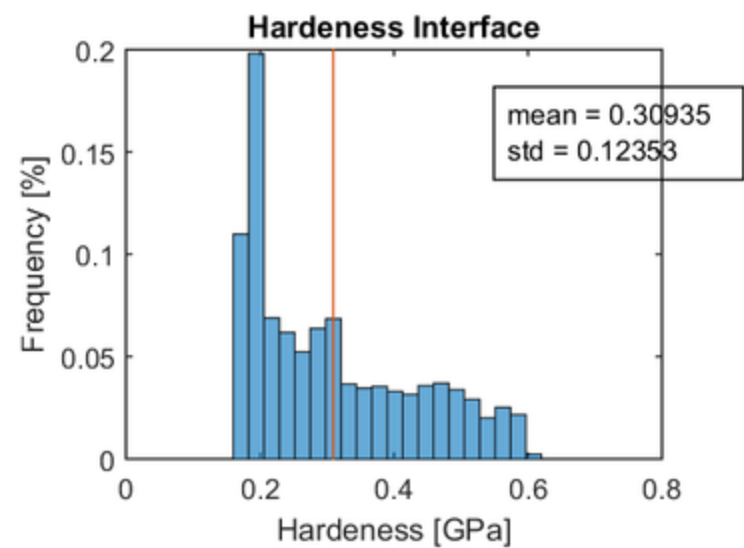
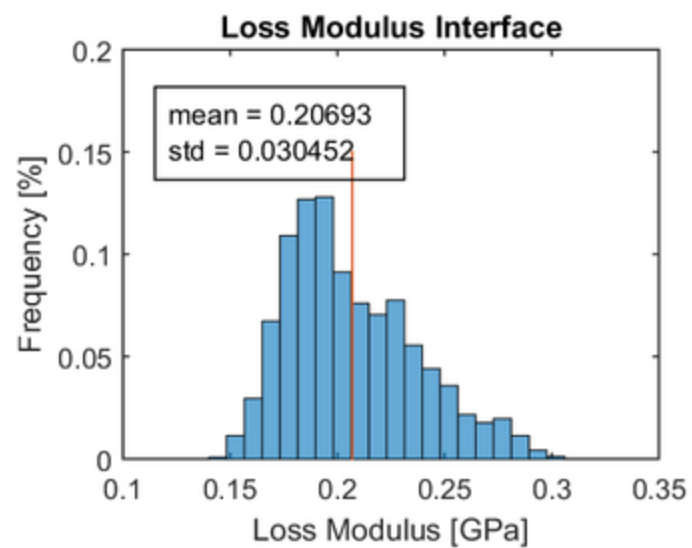
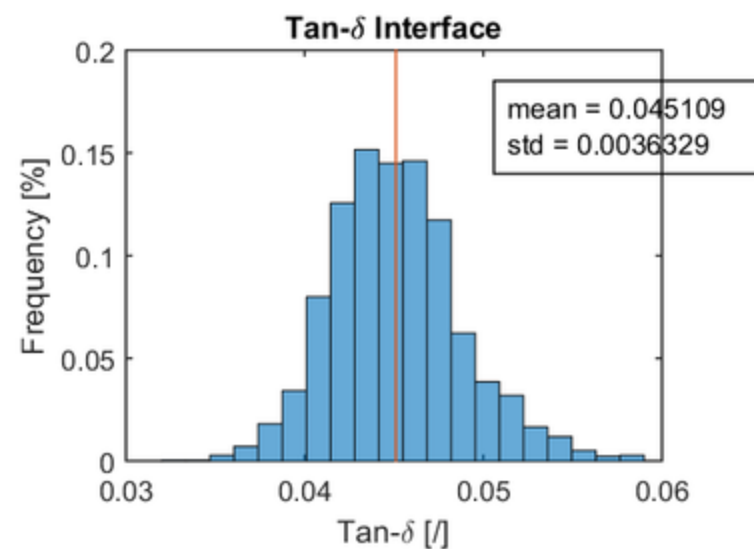
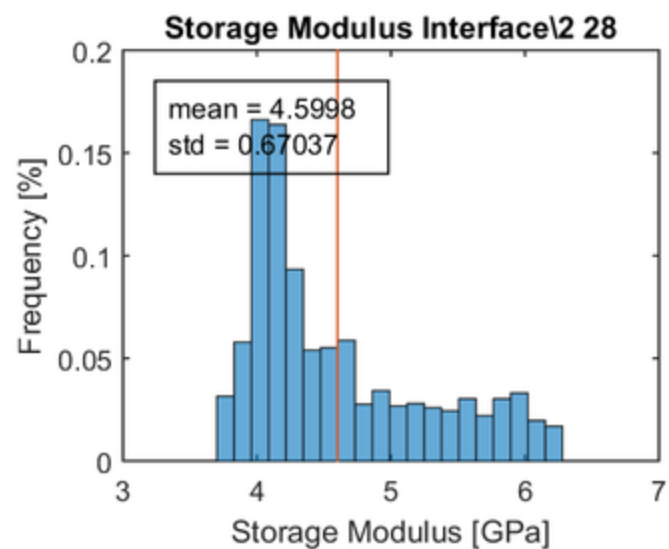


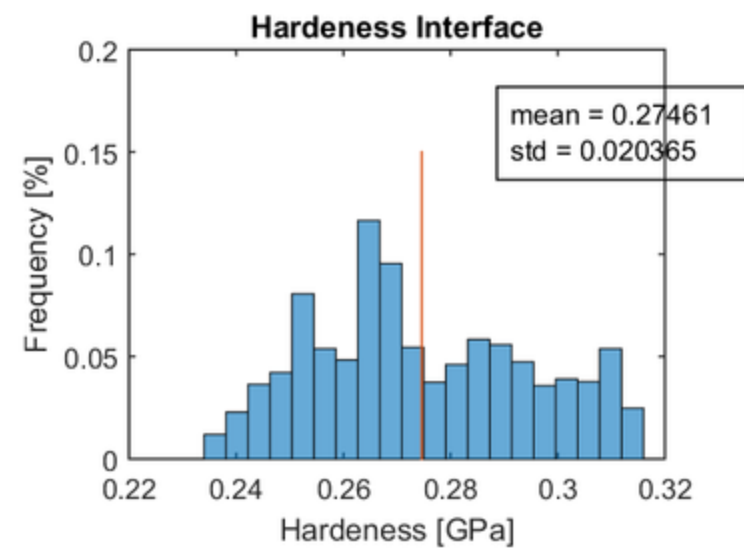
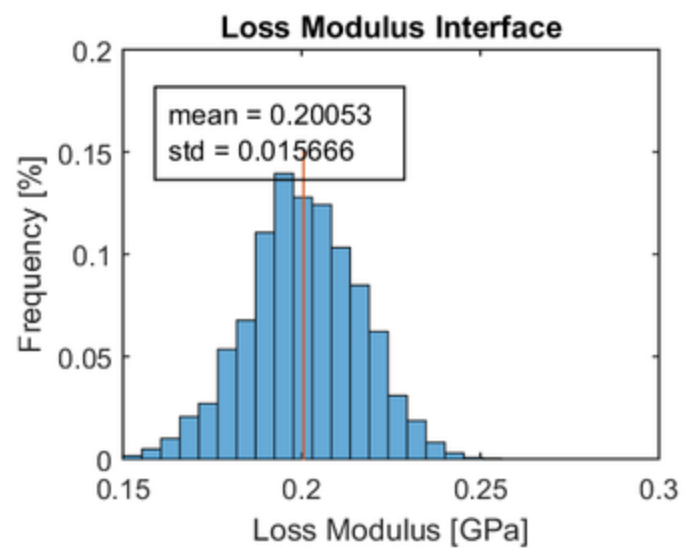
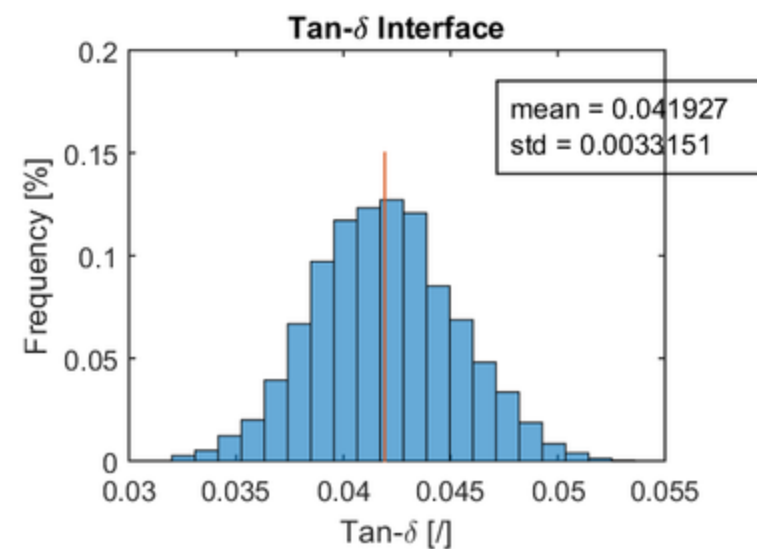
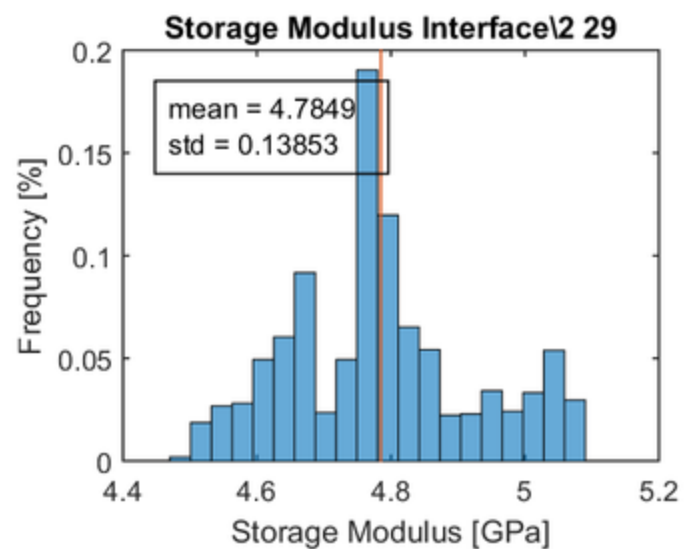


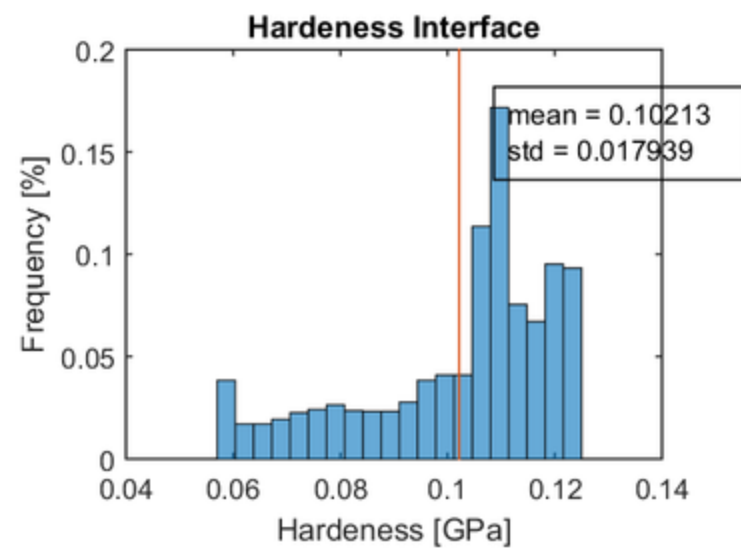
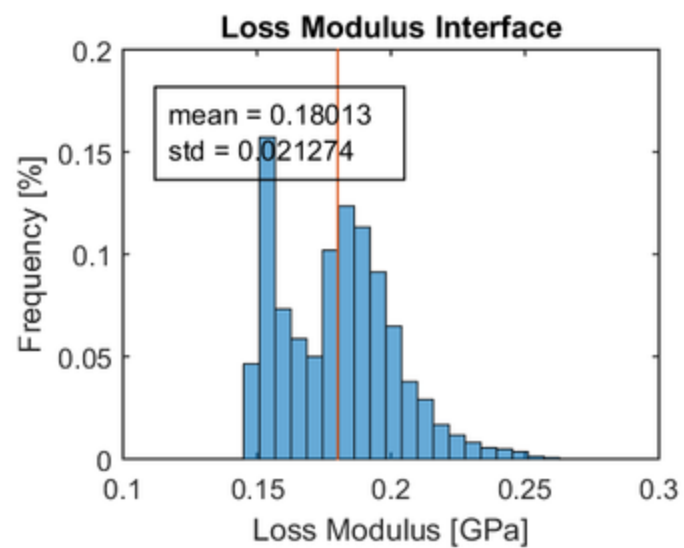
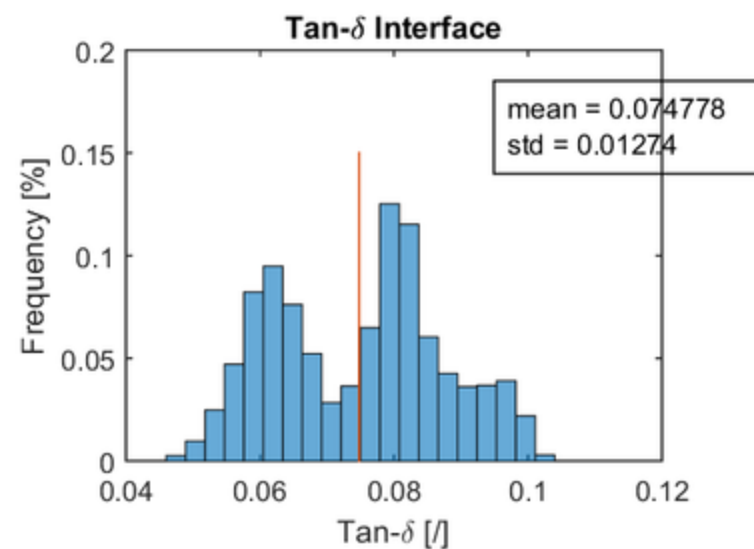
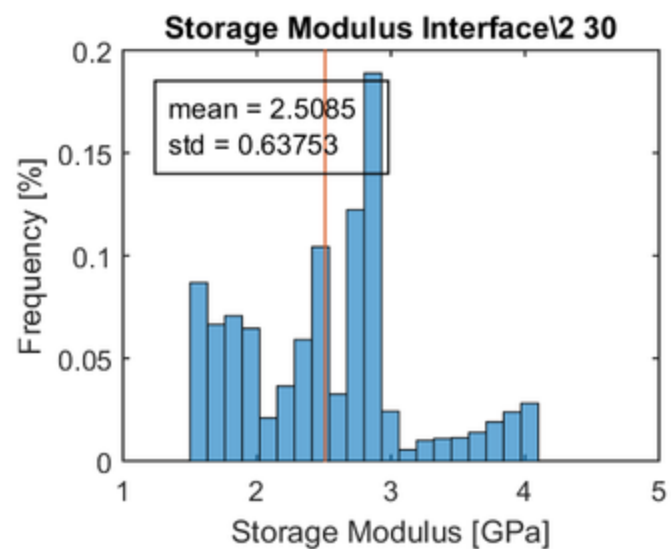


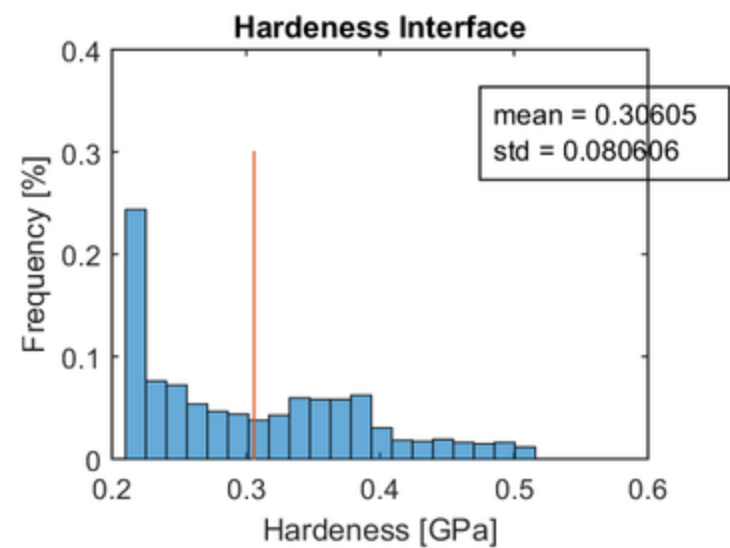
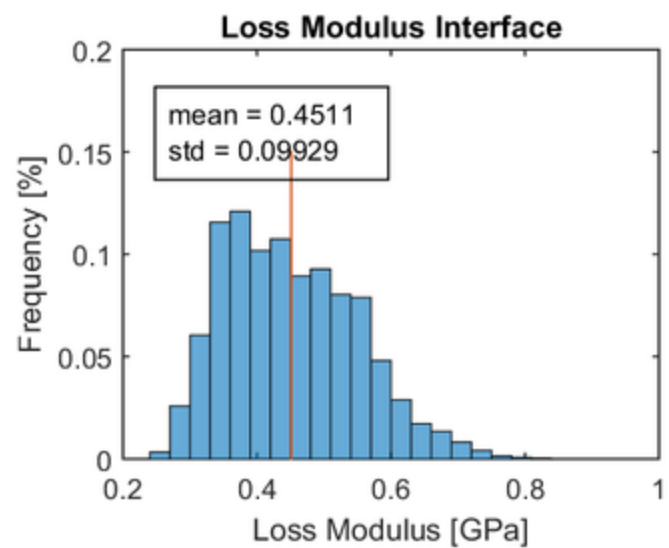
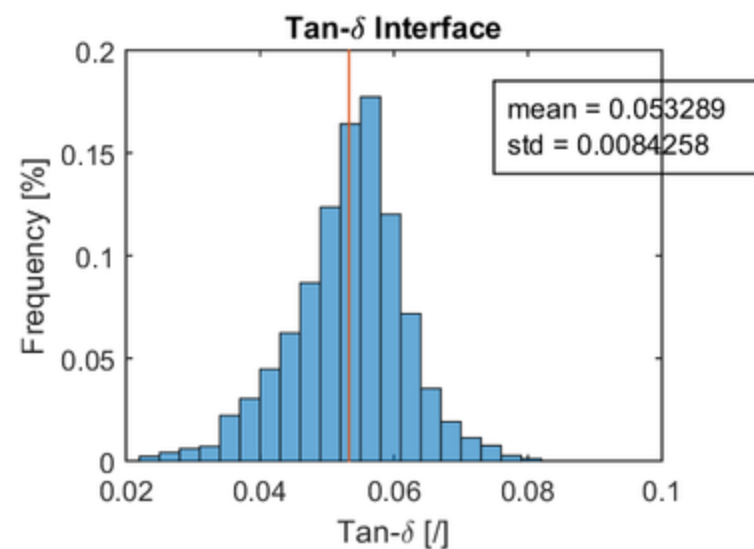
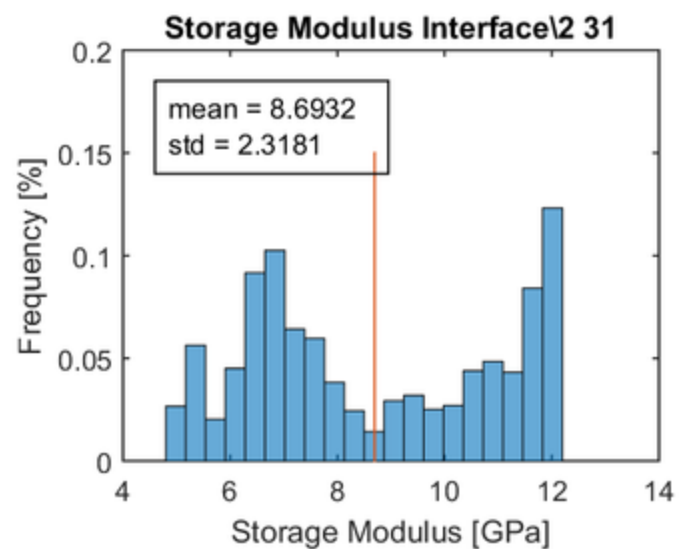


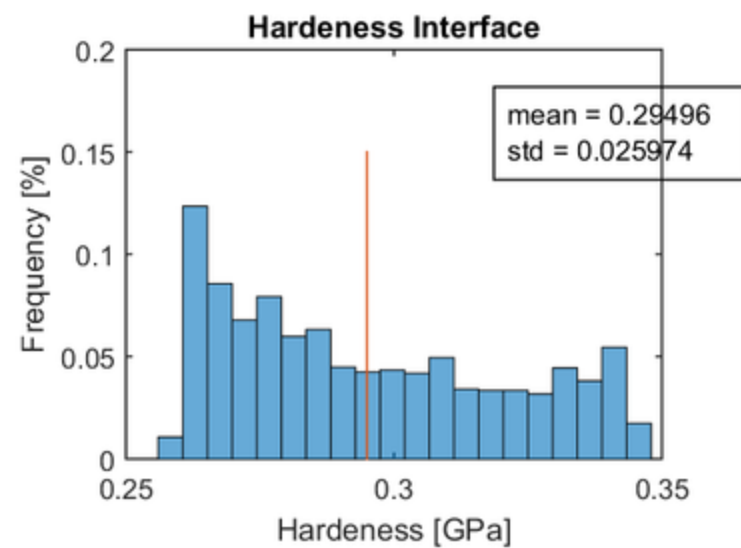
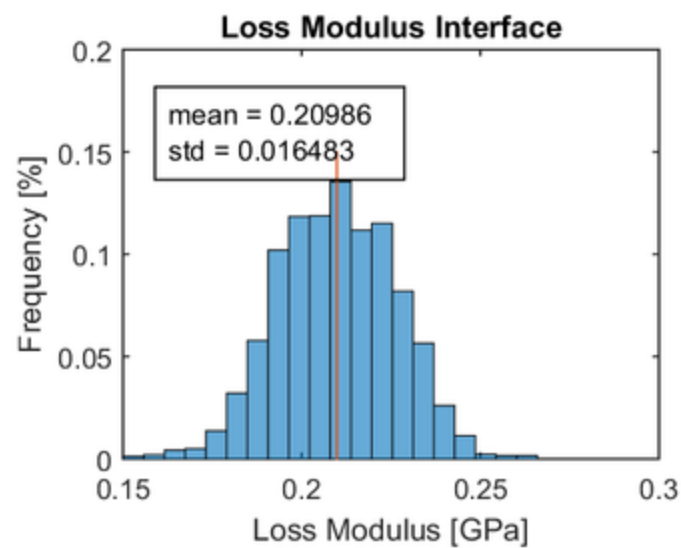
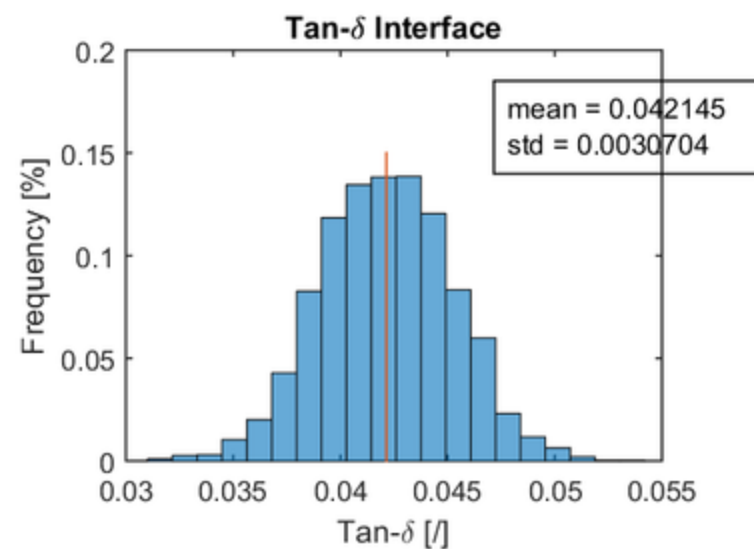
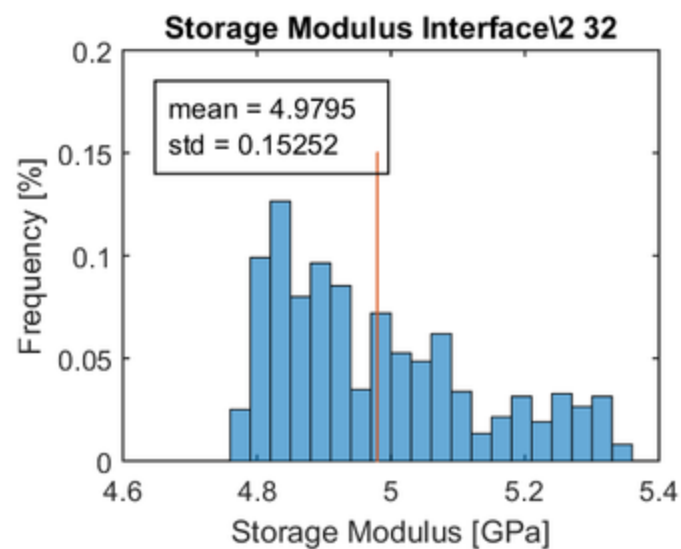


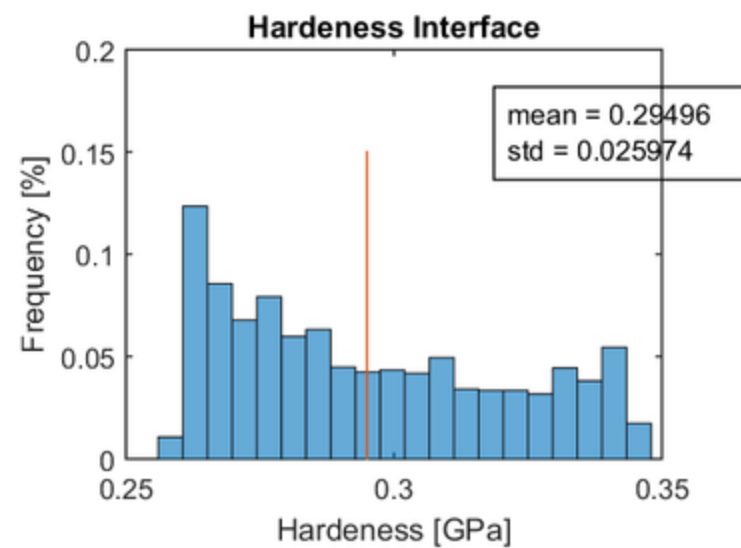
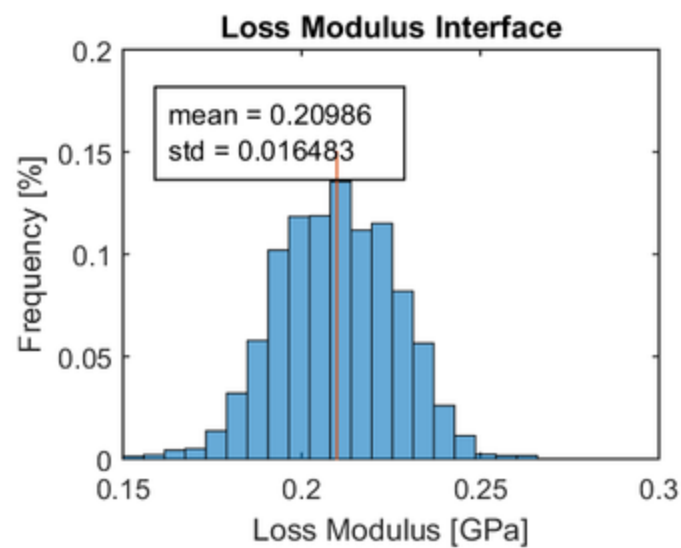
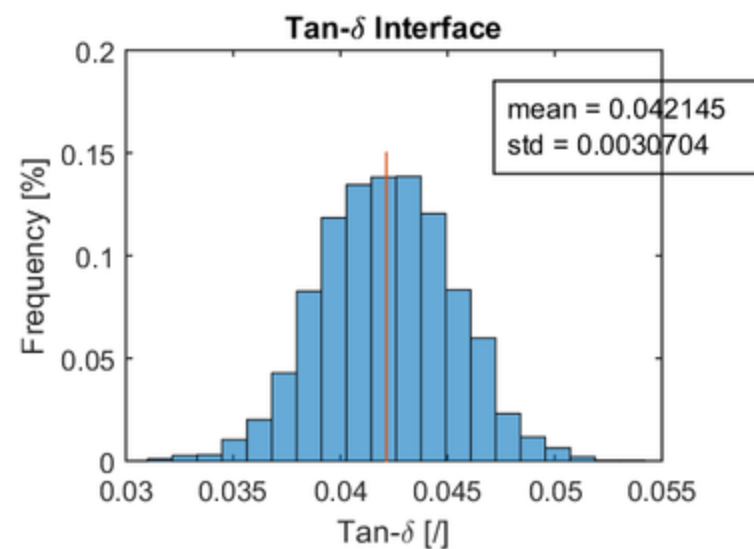
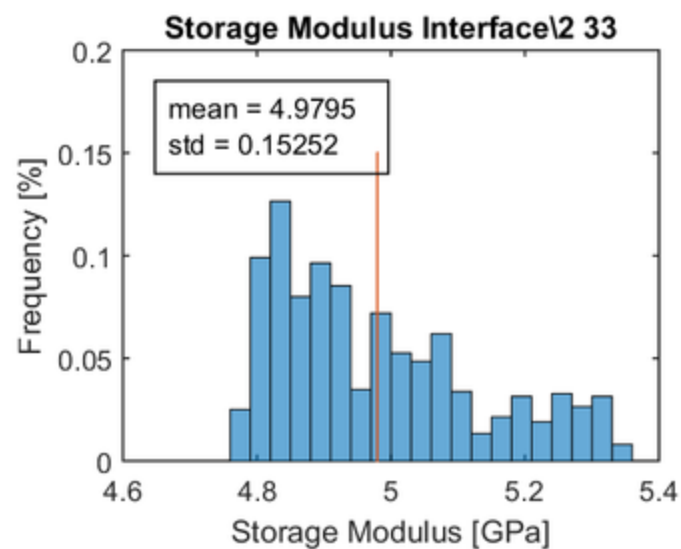


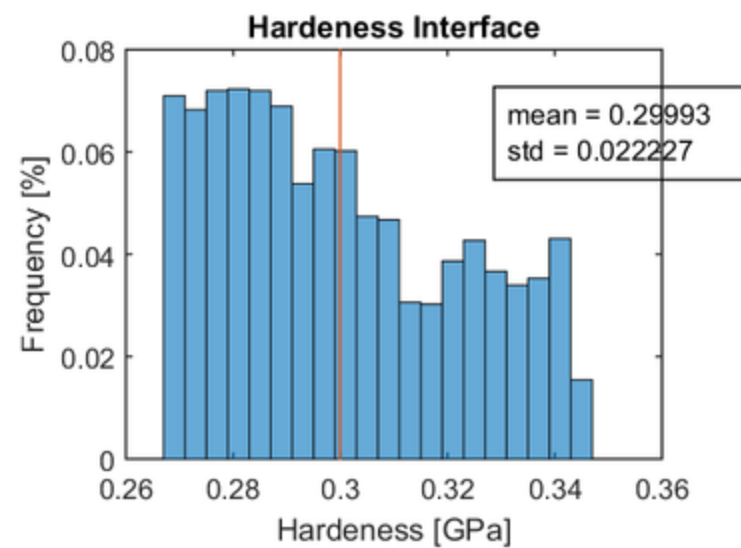
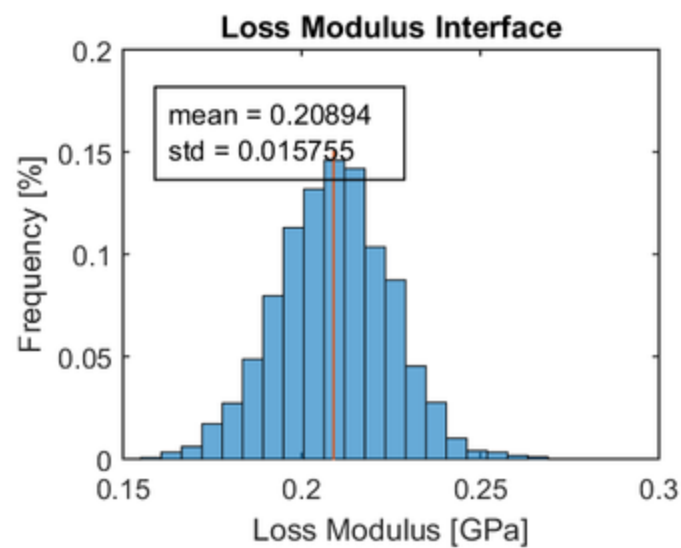
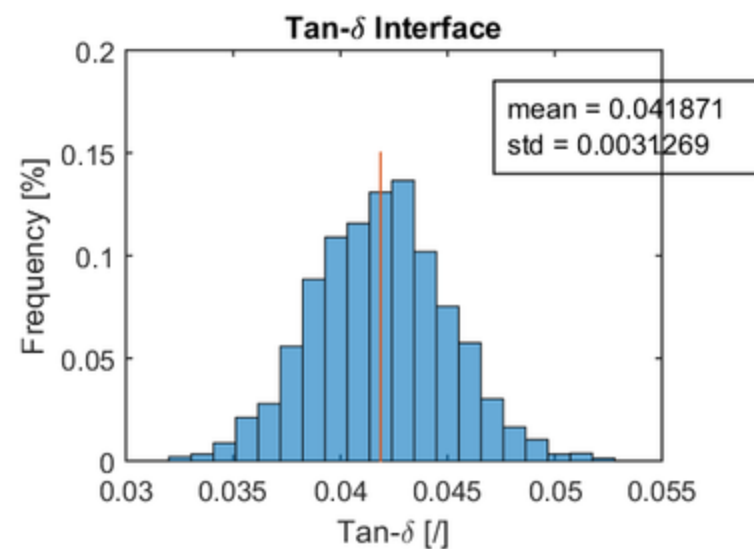
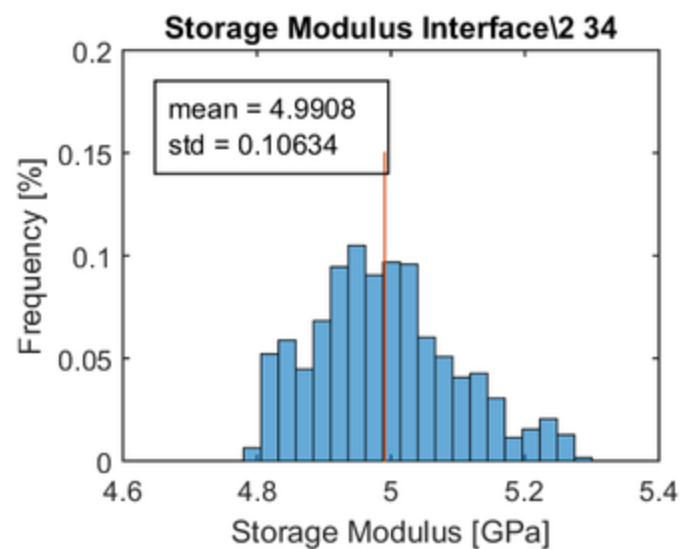


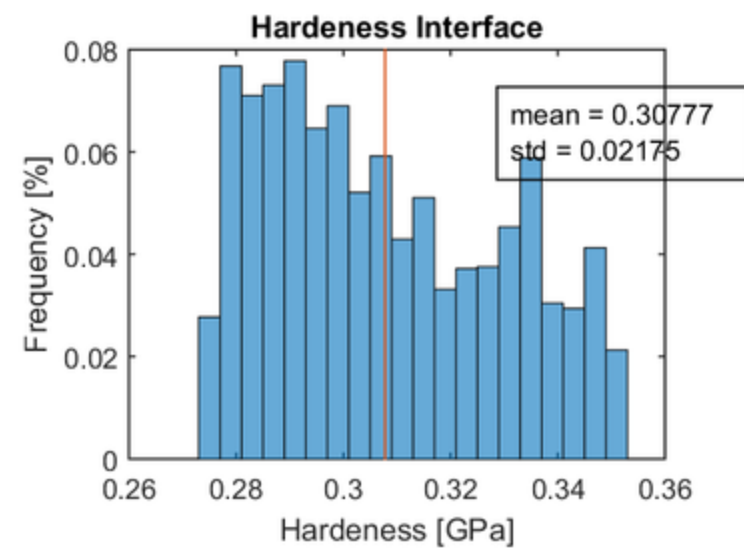
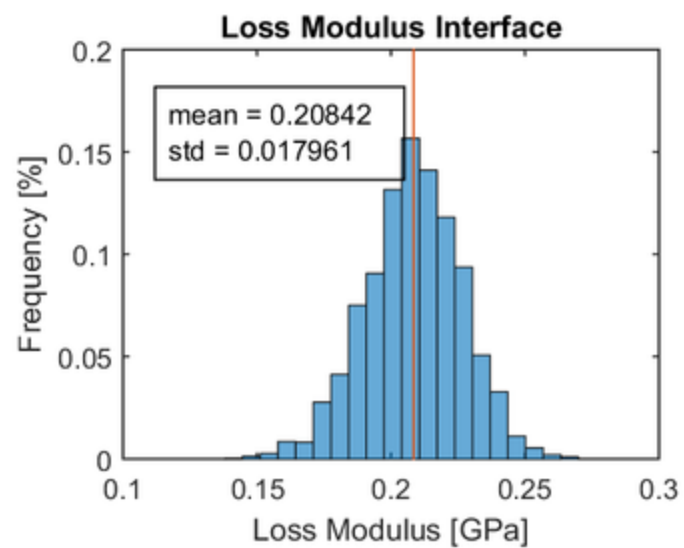
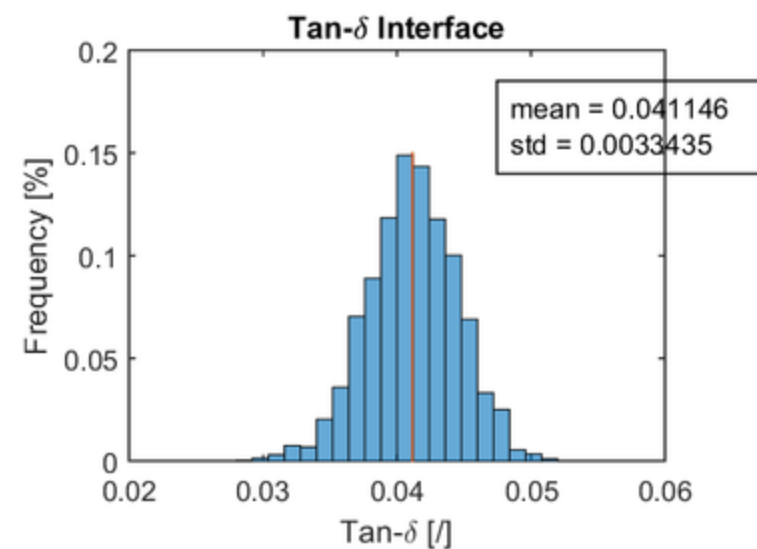
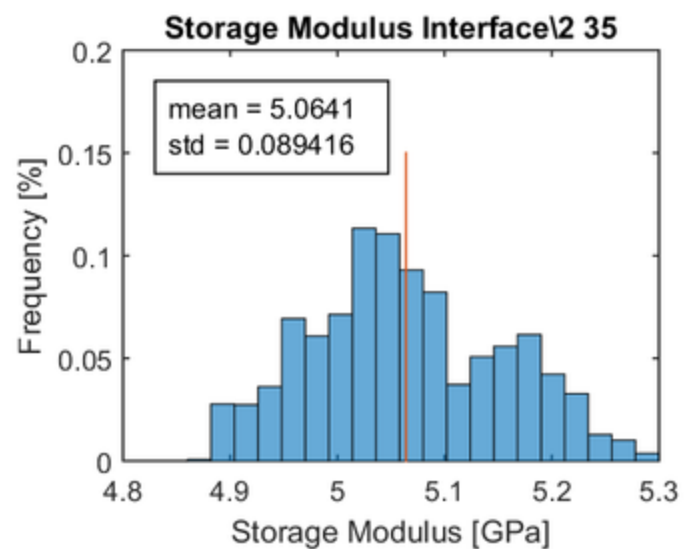


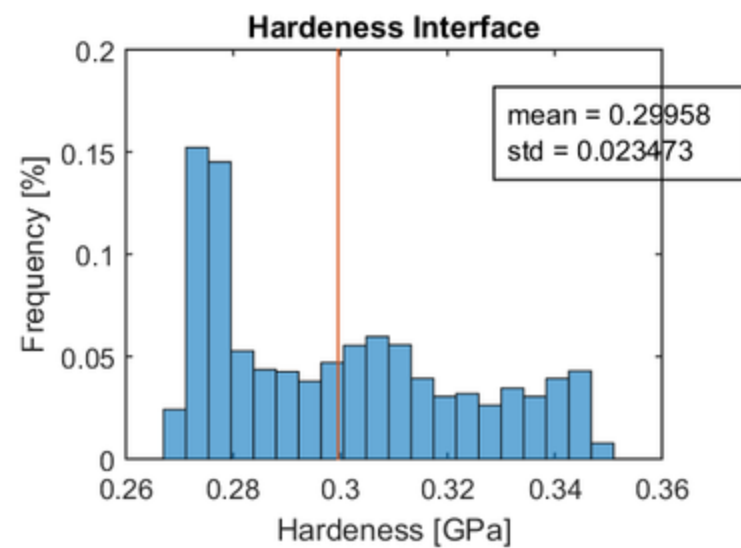
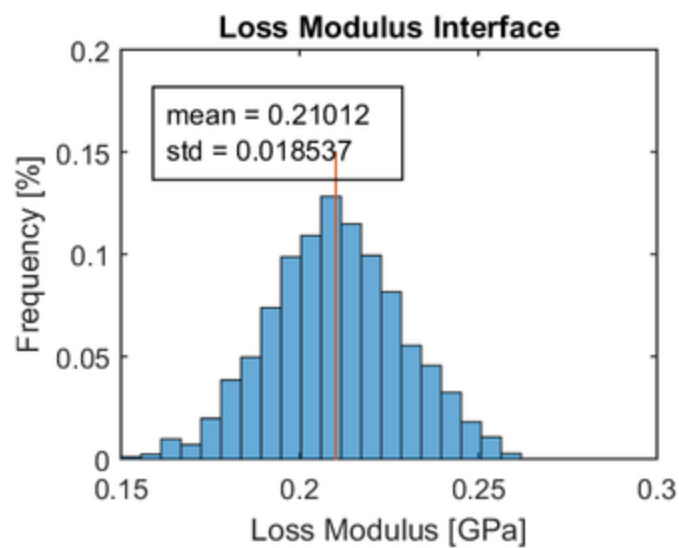
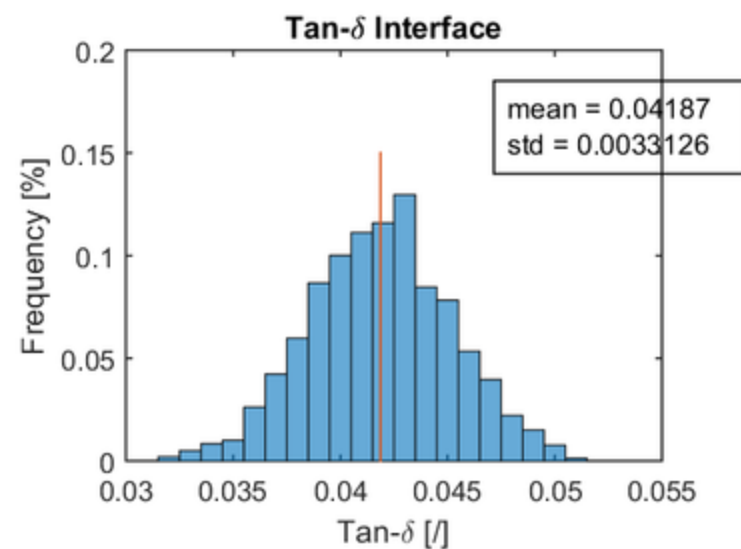
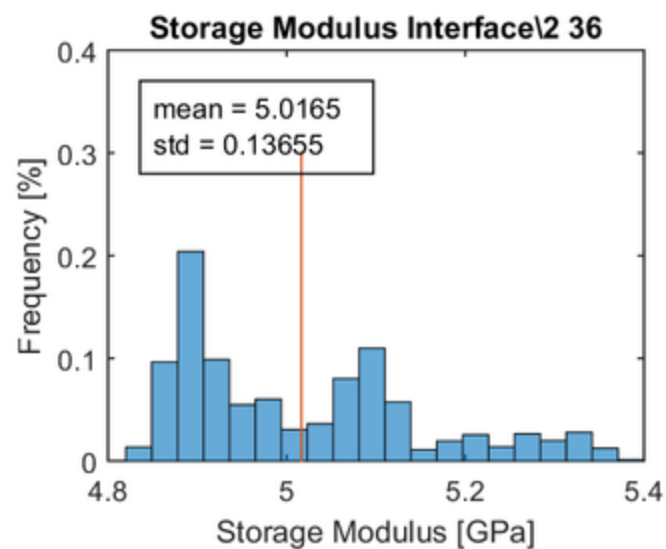


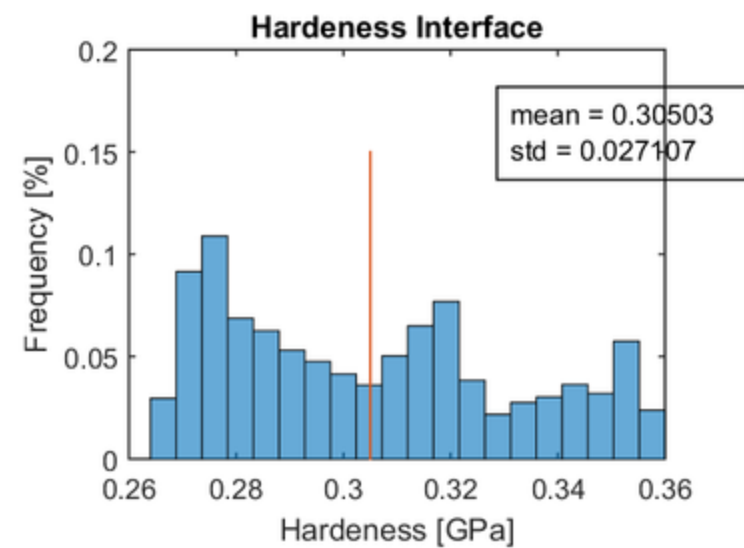
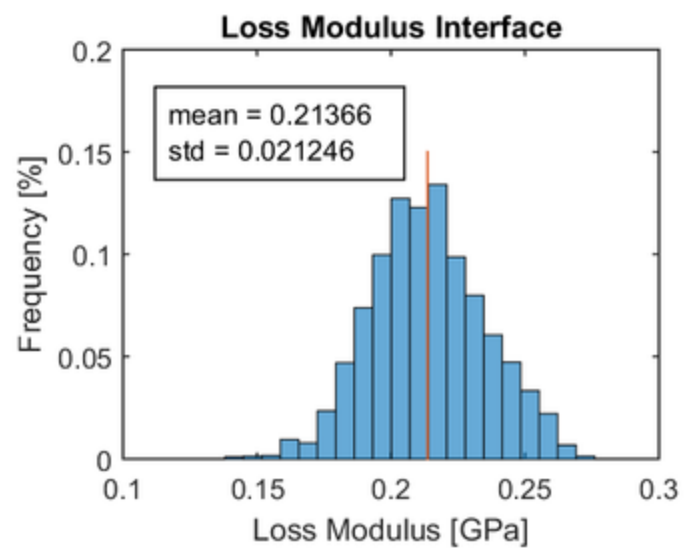
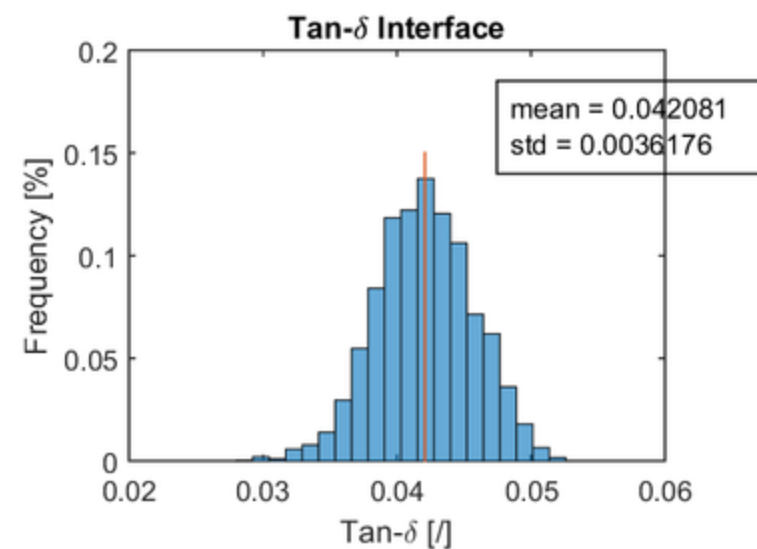
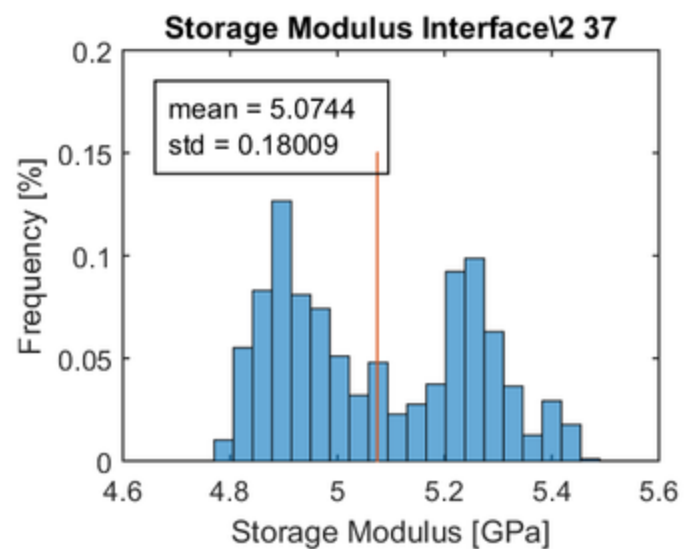


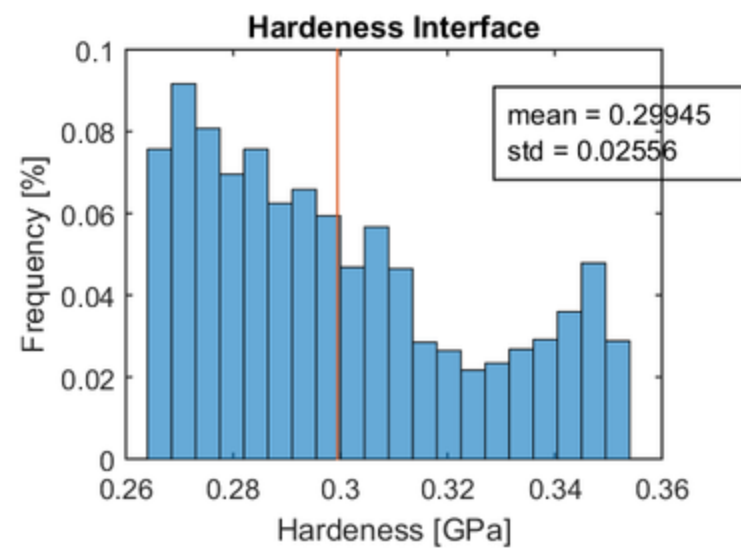
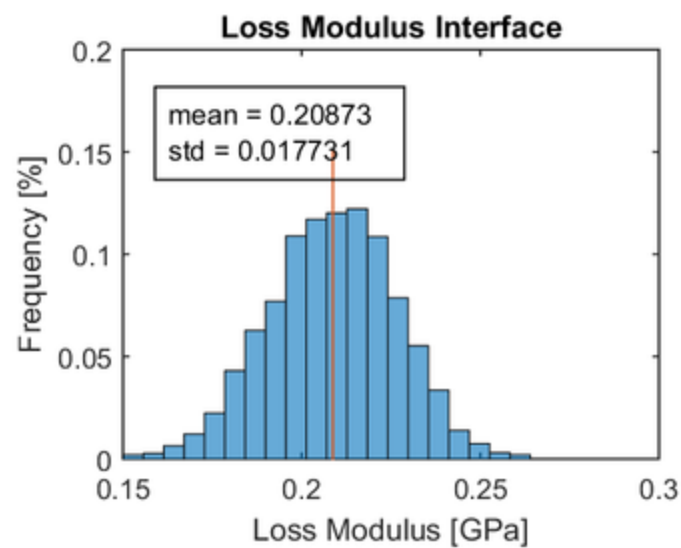
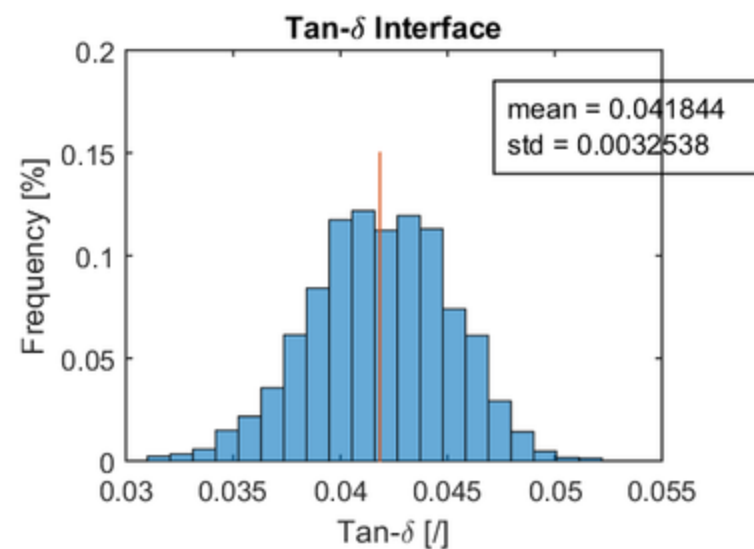
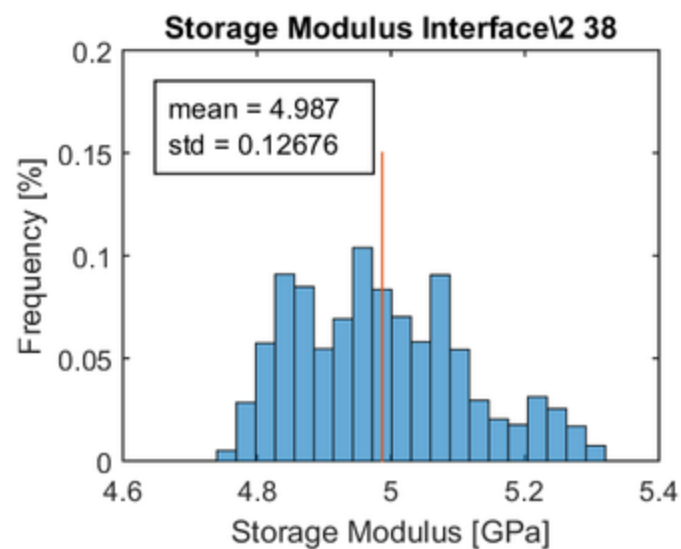


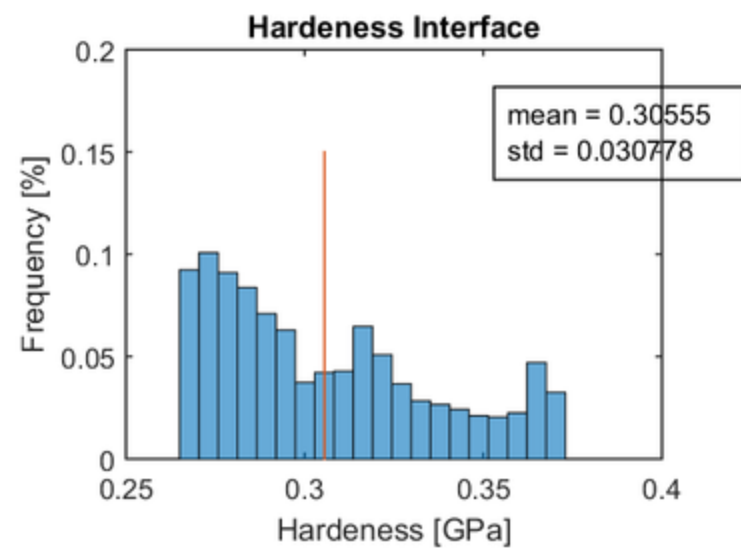
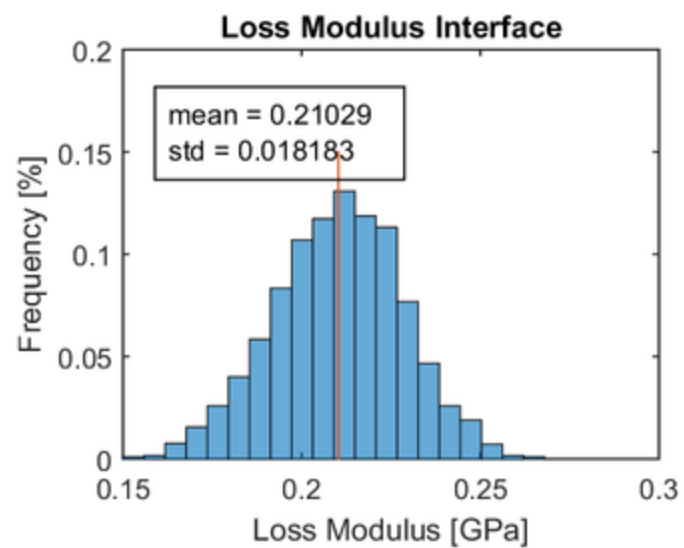
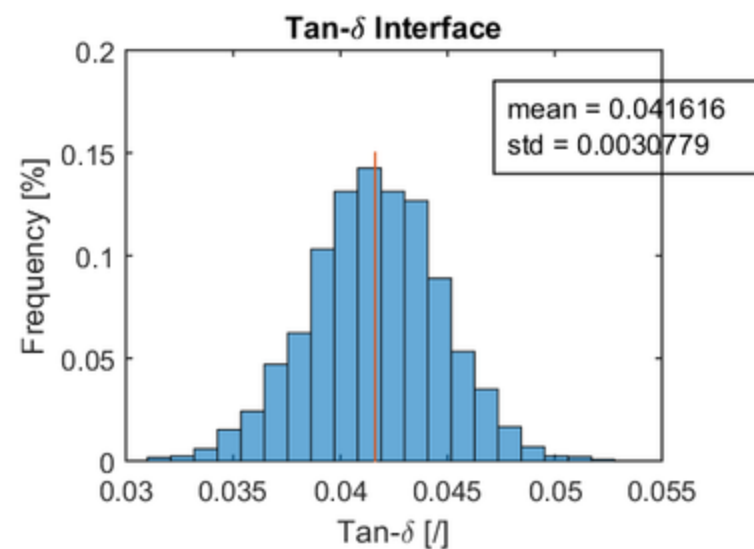
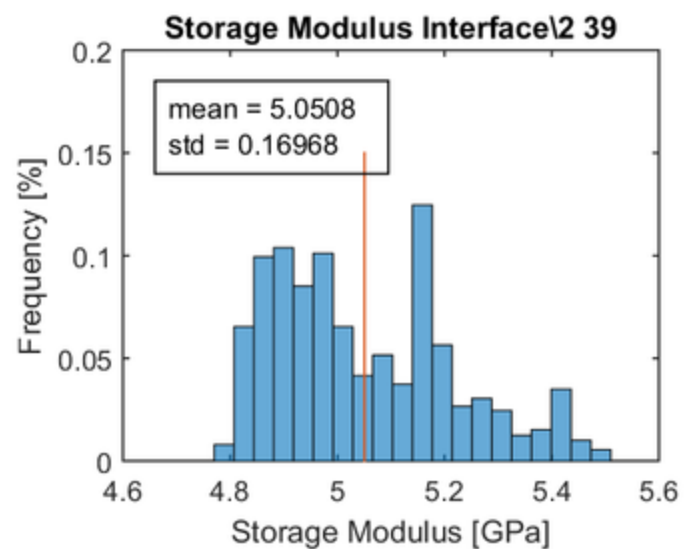


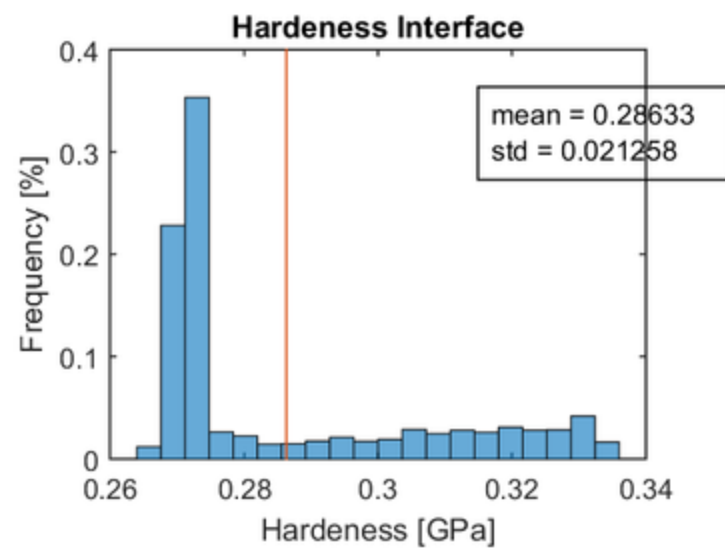
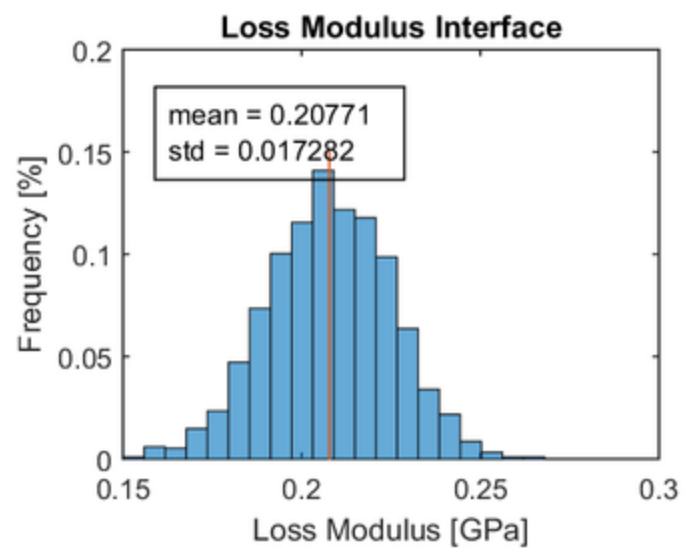
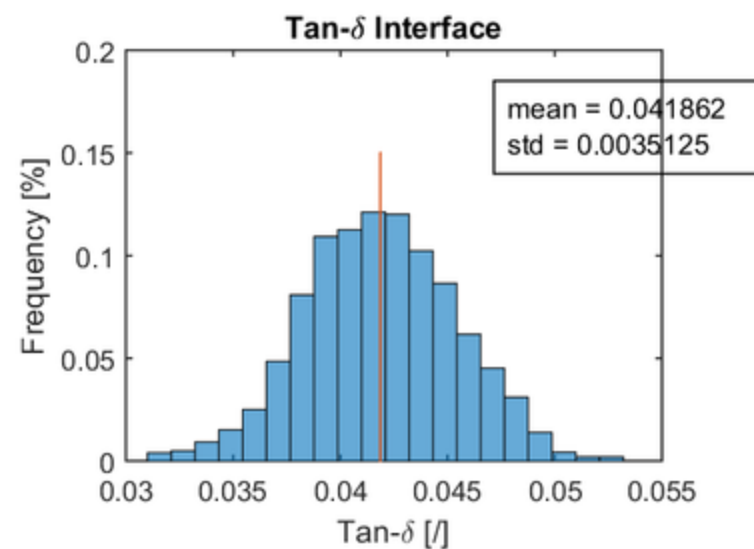
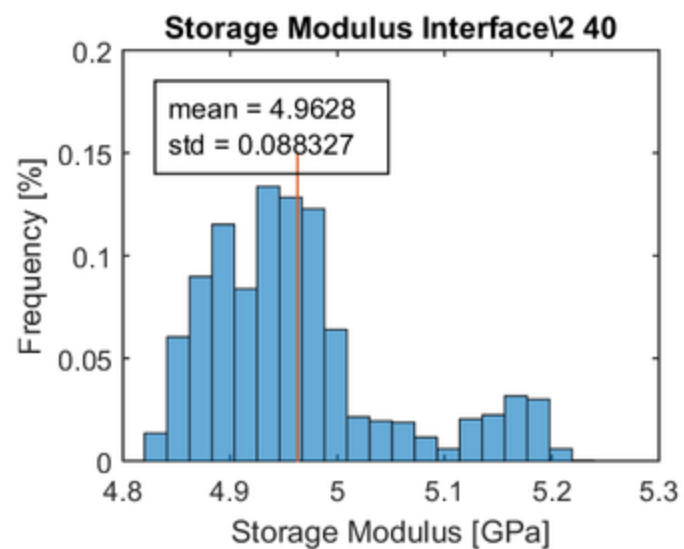




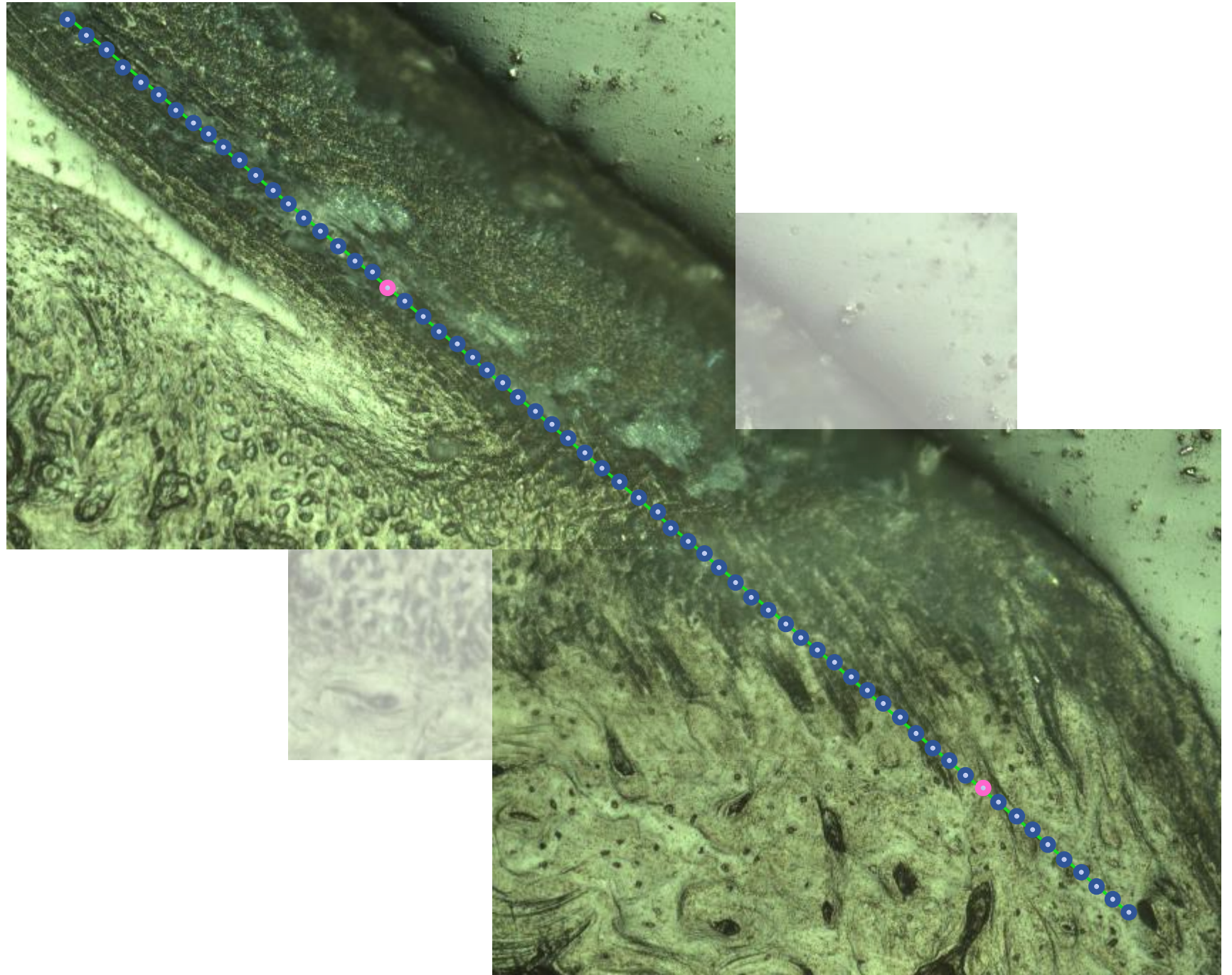




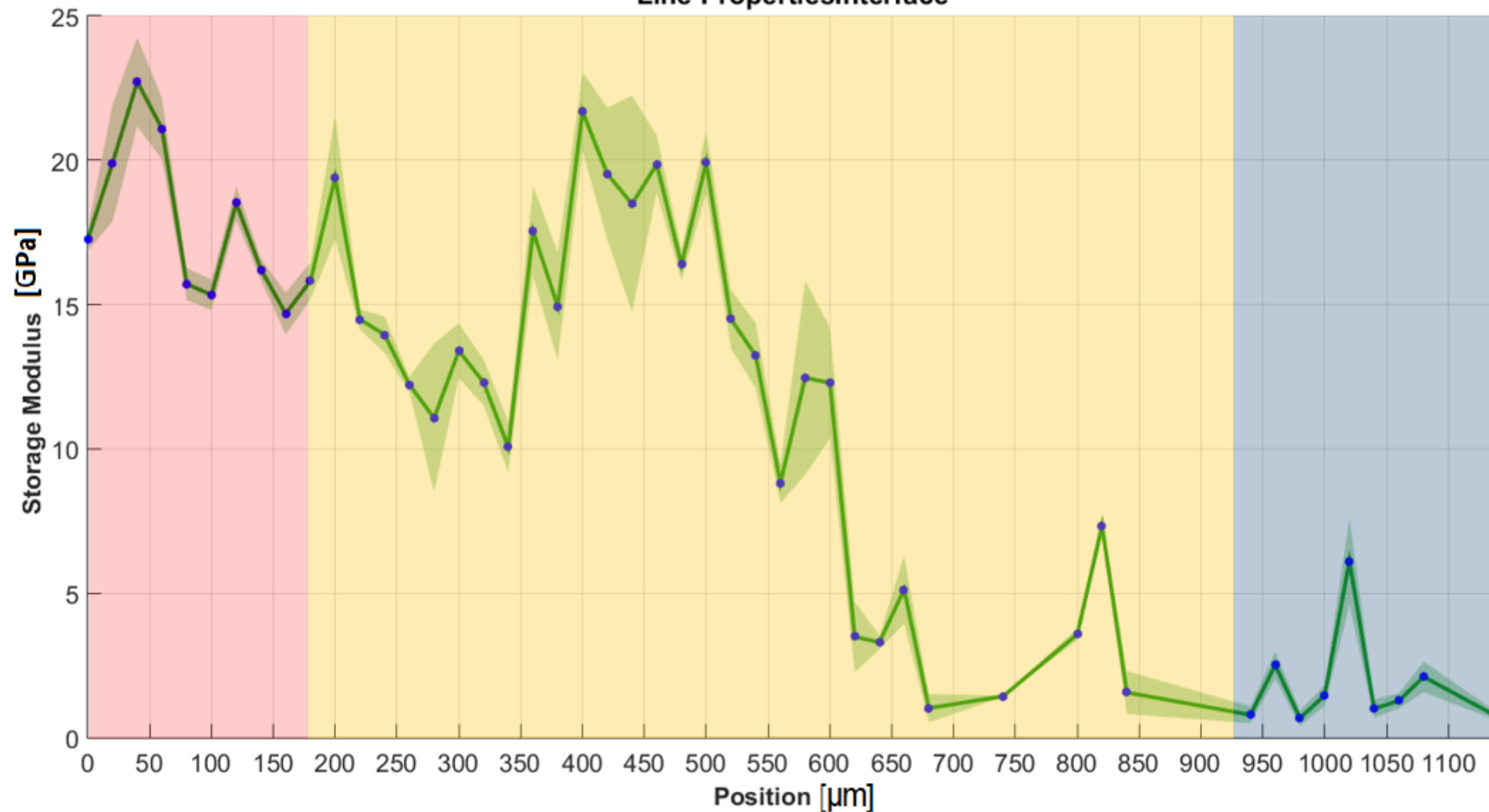




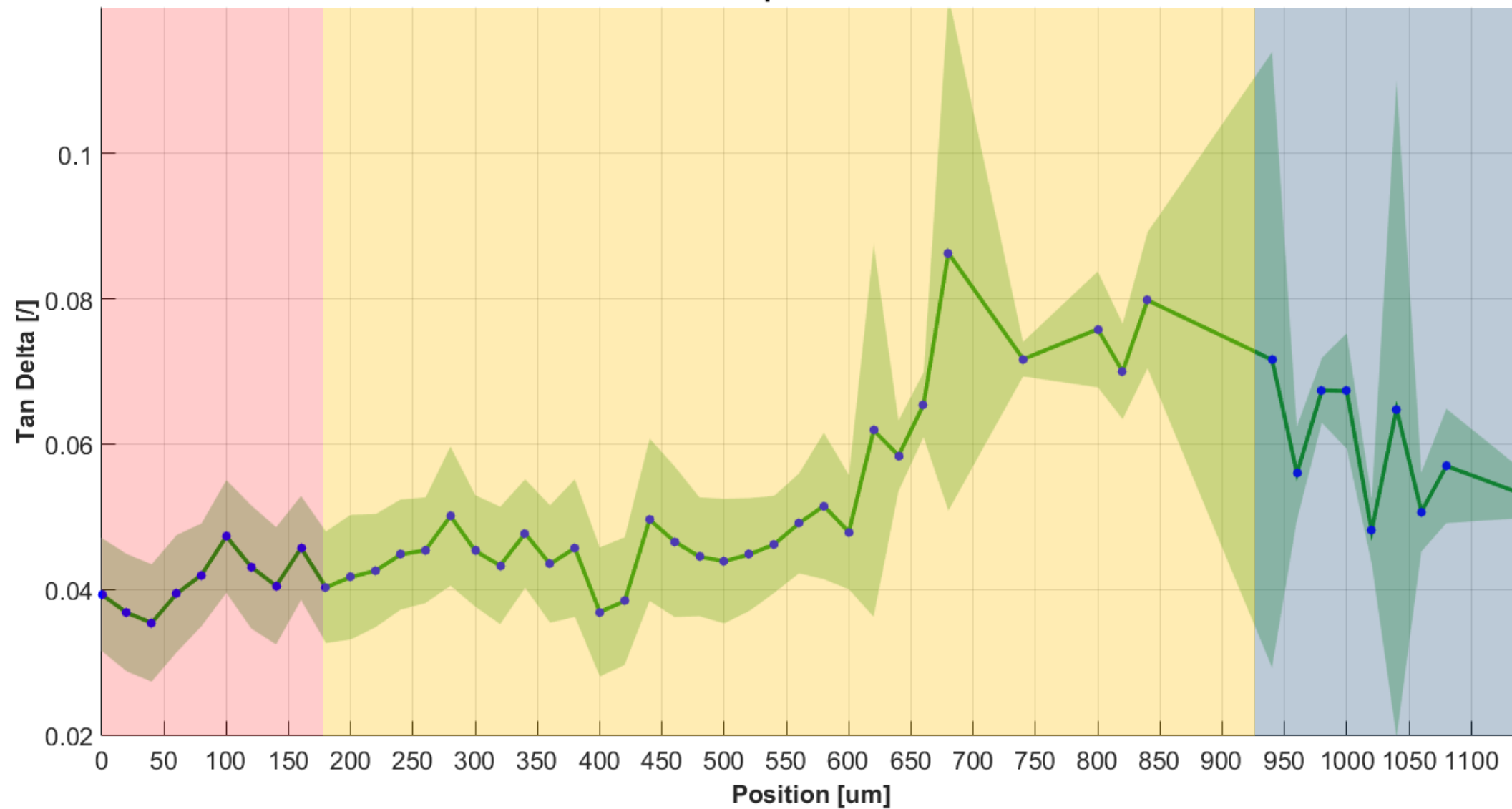
C Interface D3



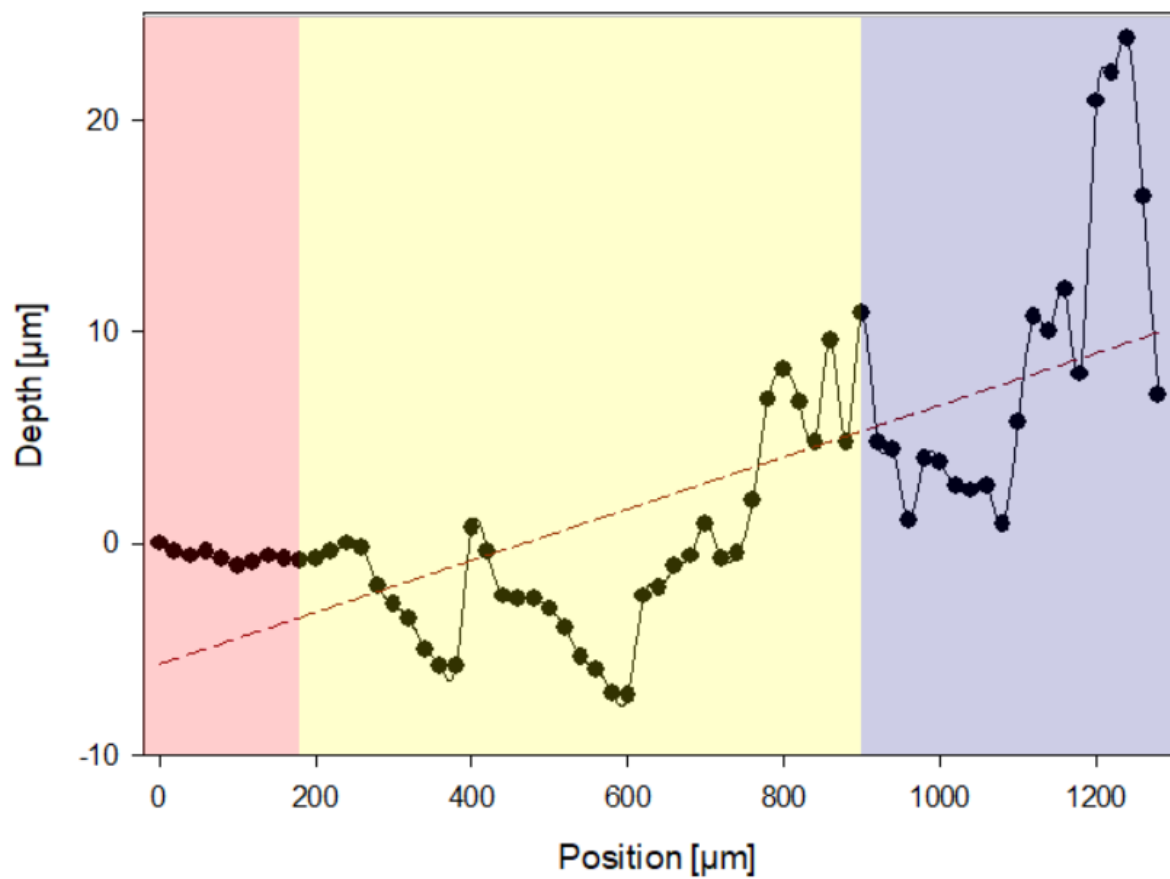
Line PropertiesInterface



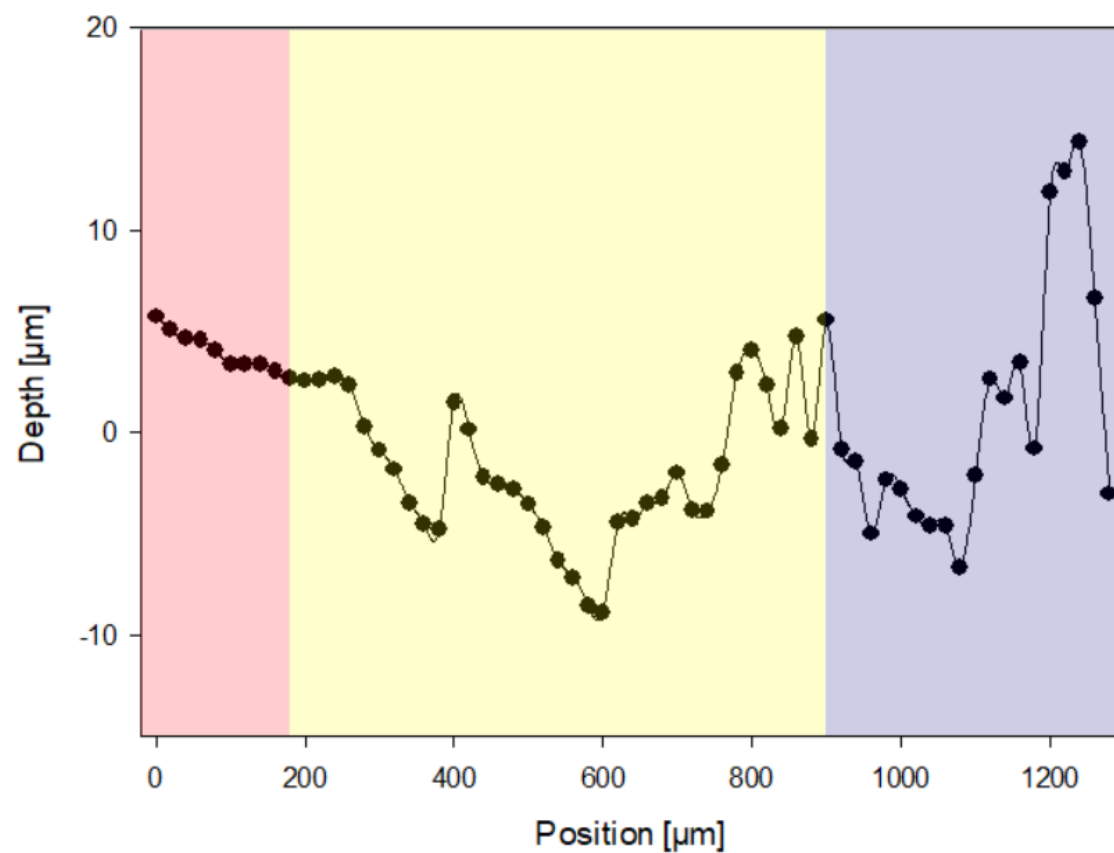
Line PropertiesInterface



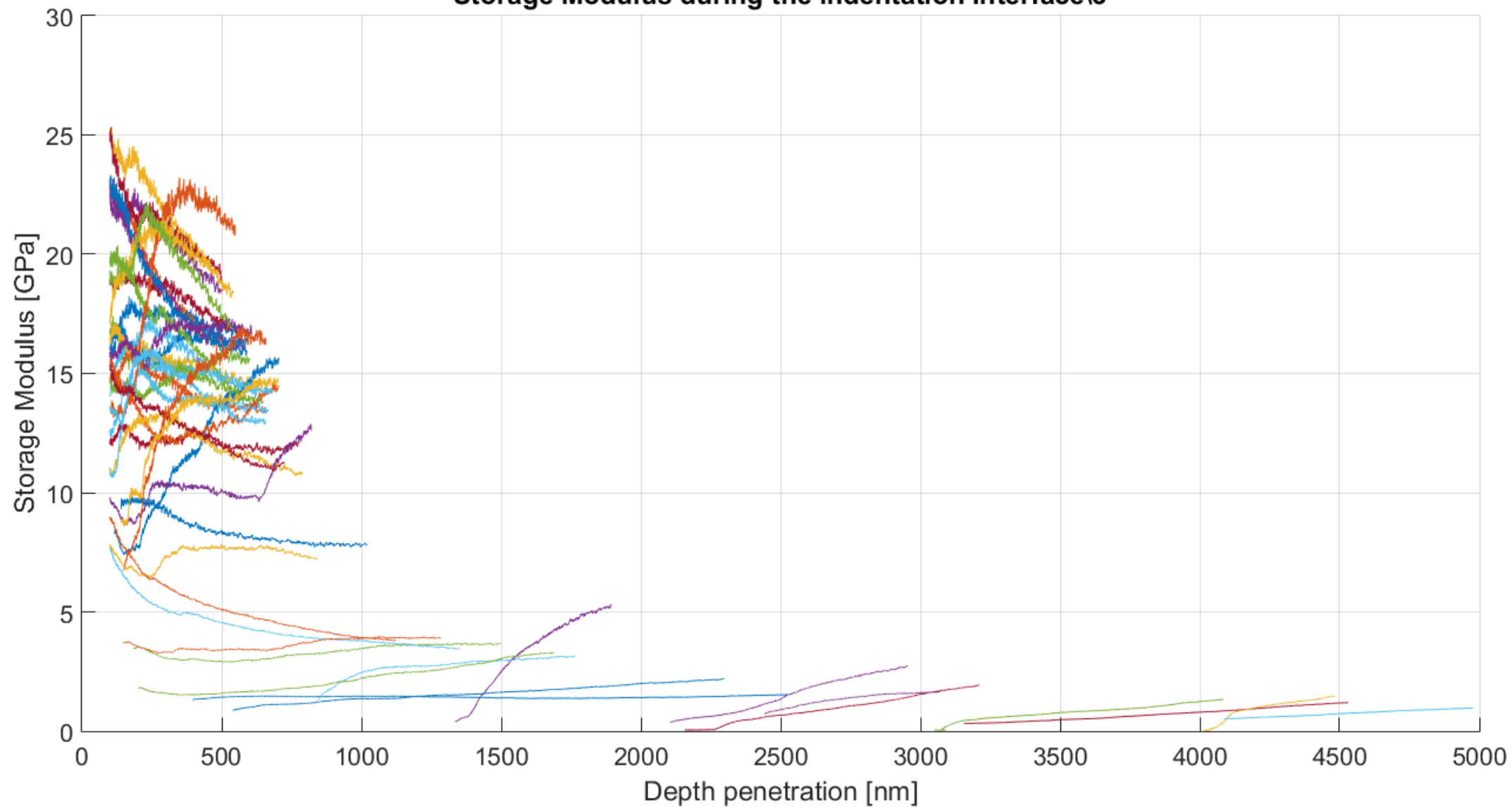
Interface C

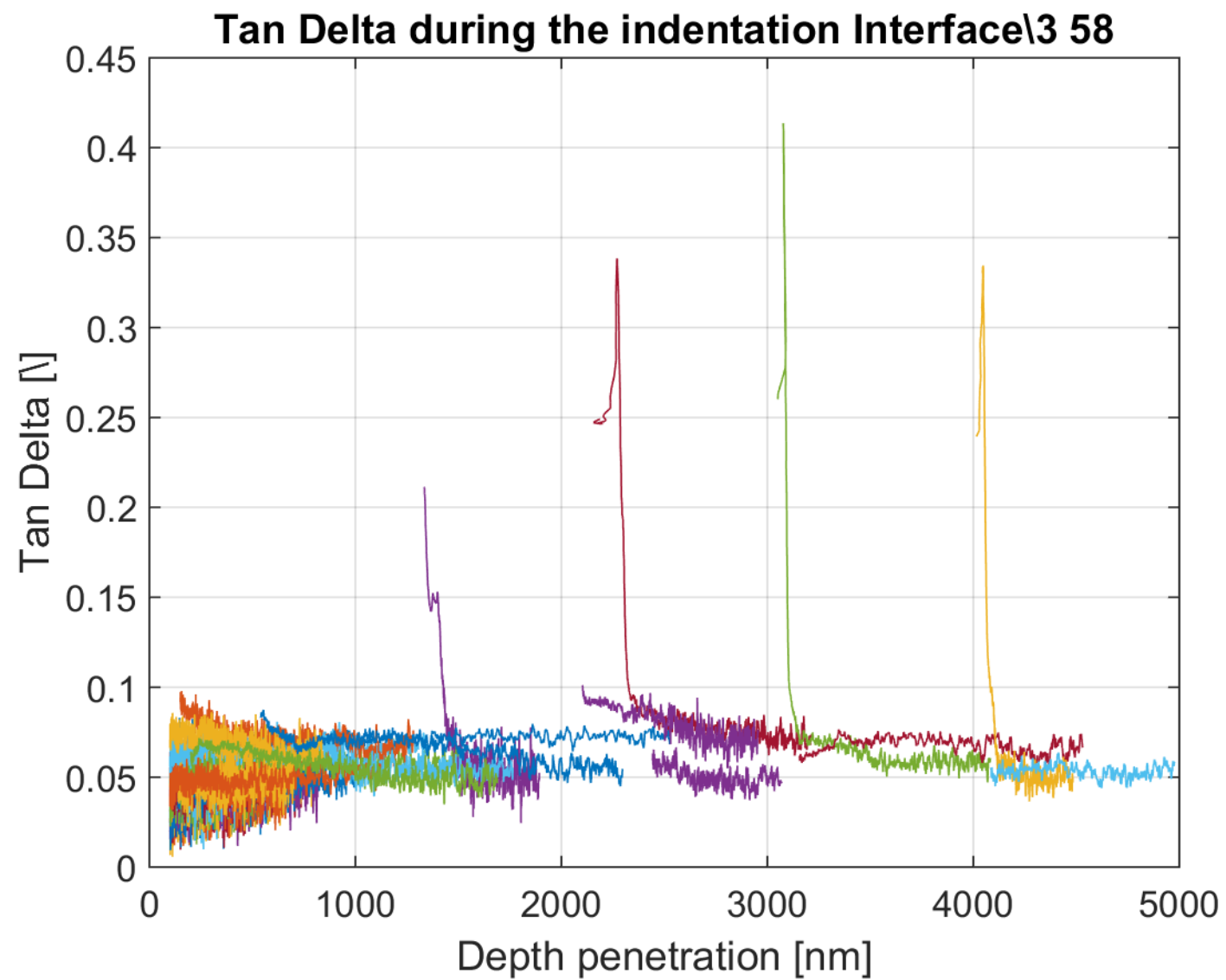


Interface C w/o tilde

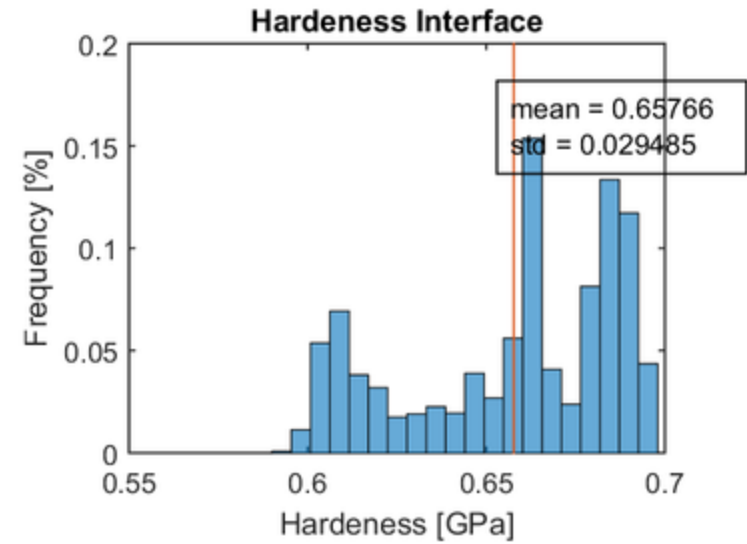
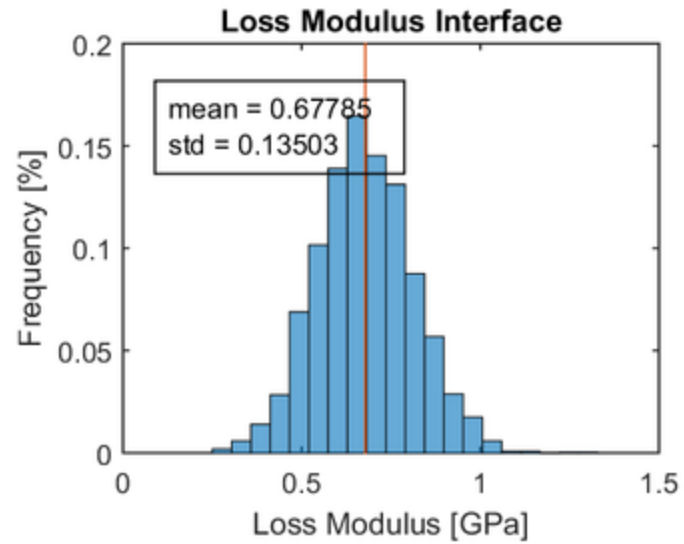
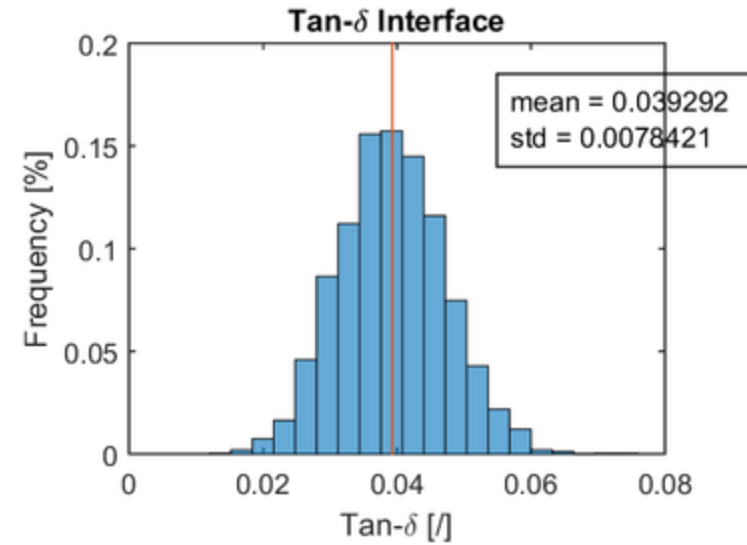
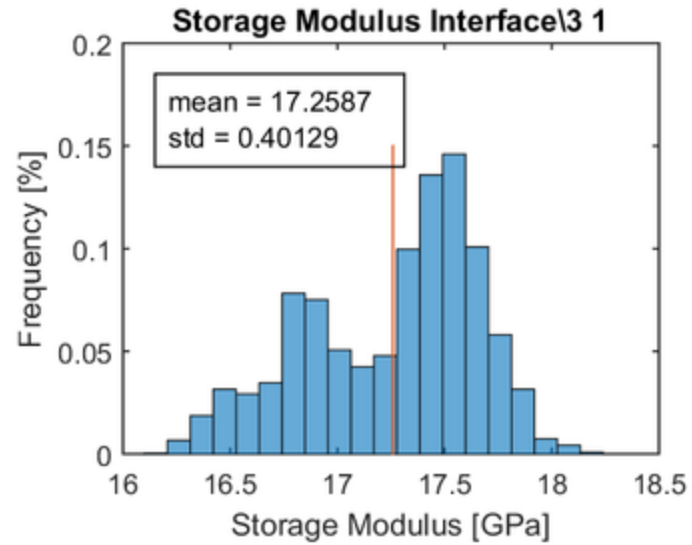


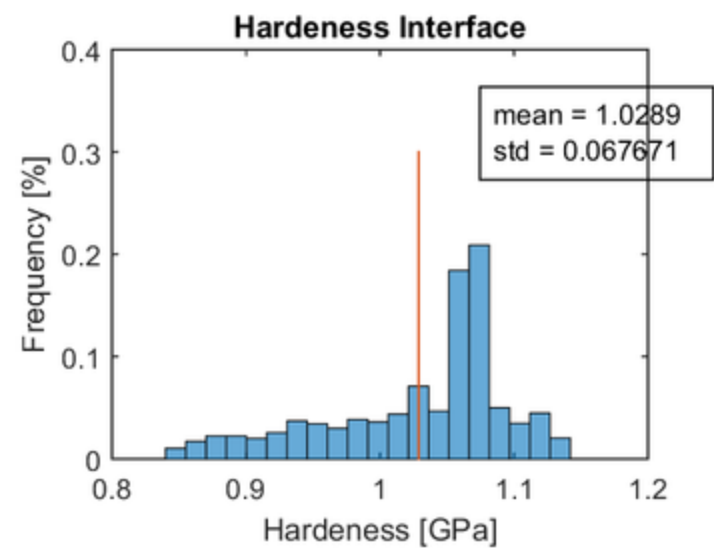
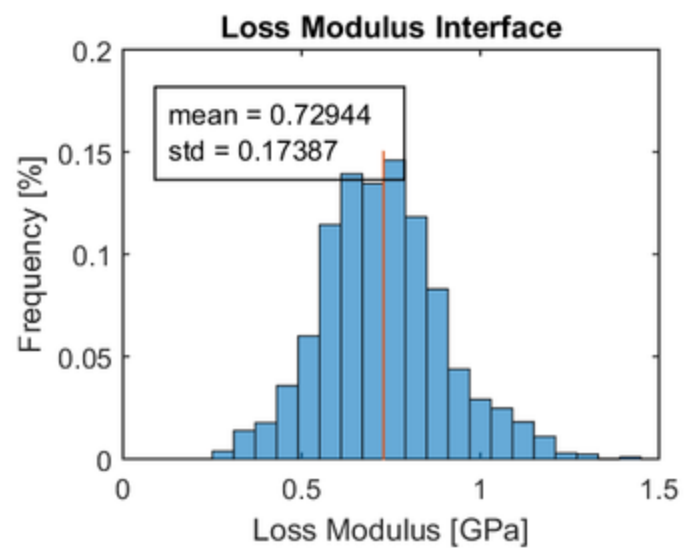
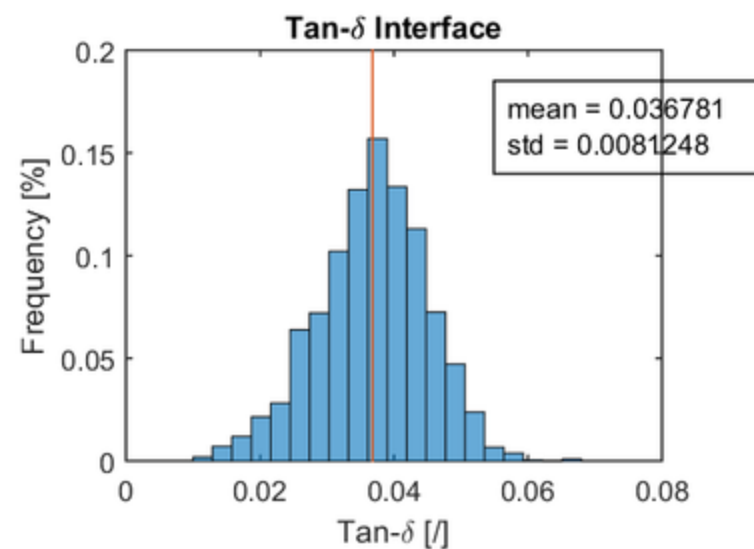
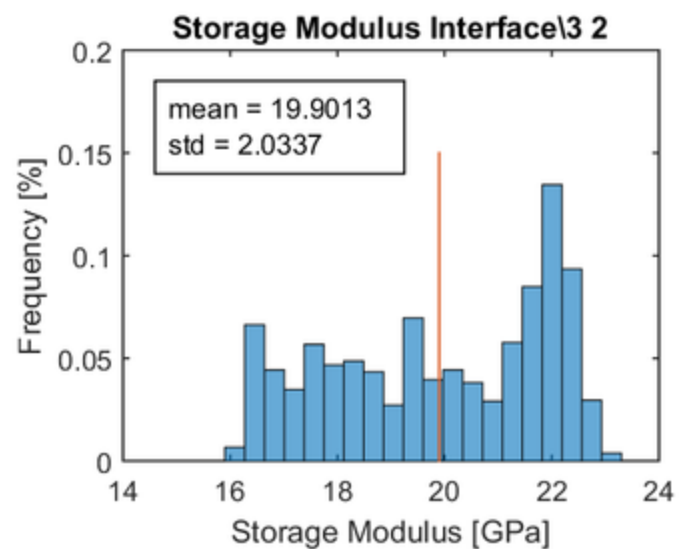
Storage Modulus during the indentation Interface\3

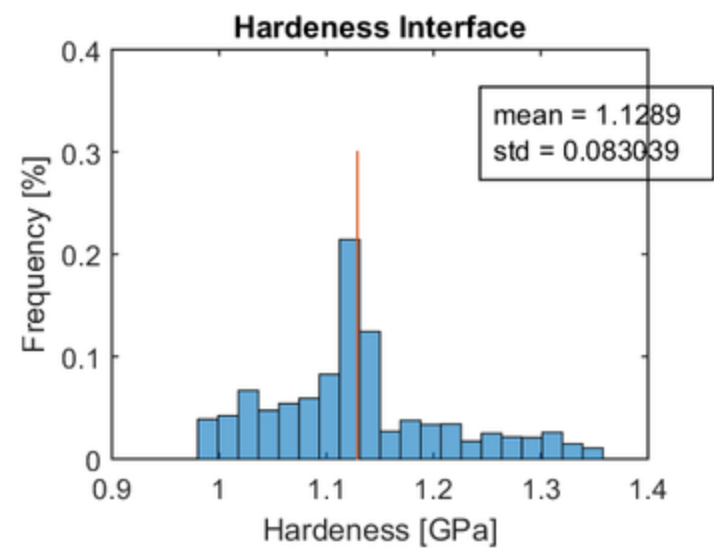
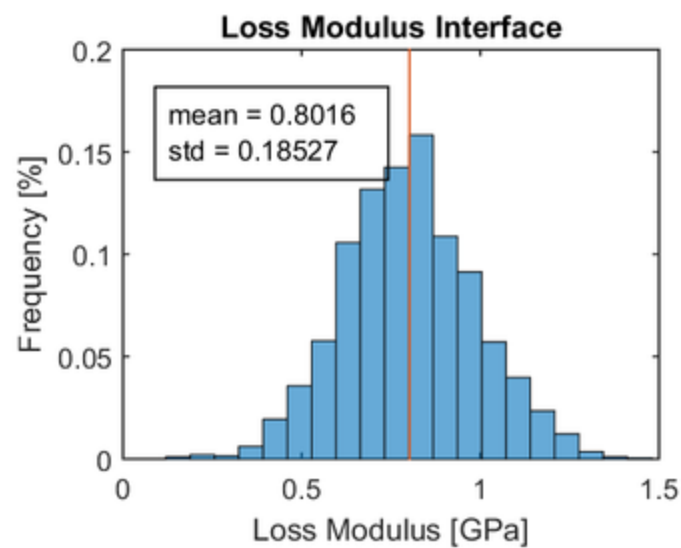
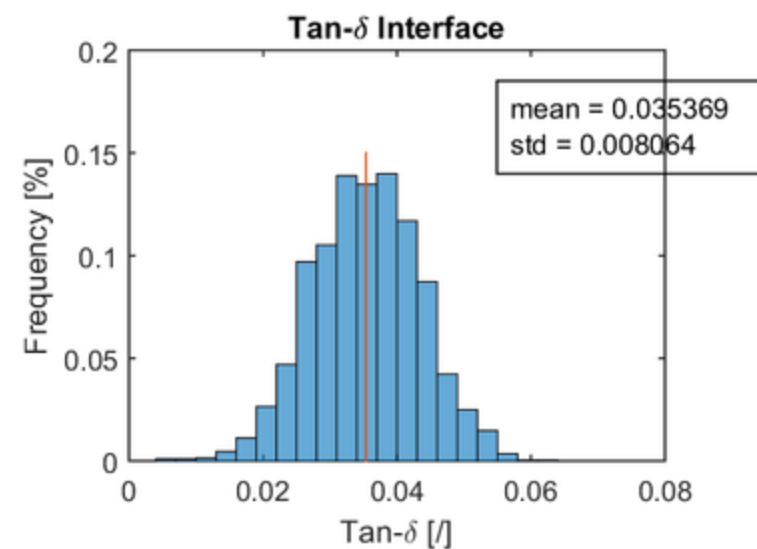
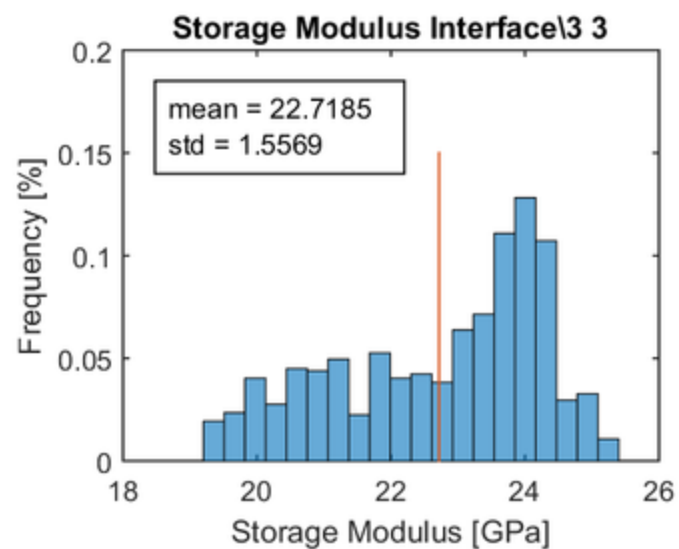


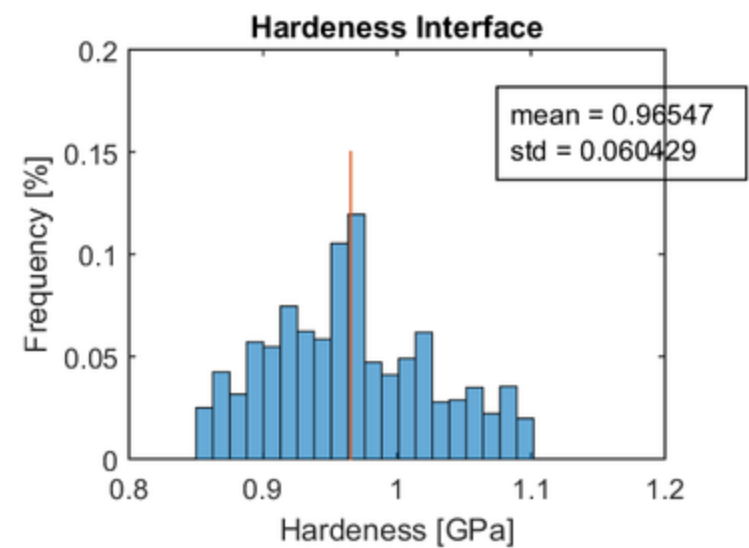
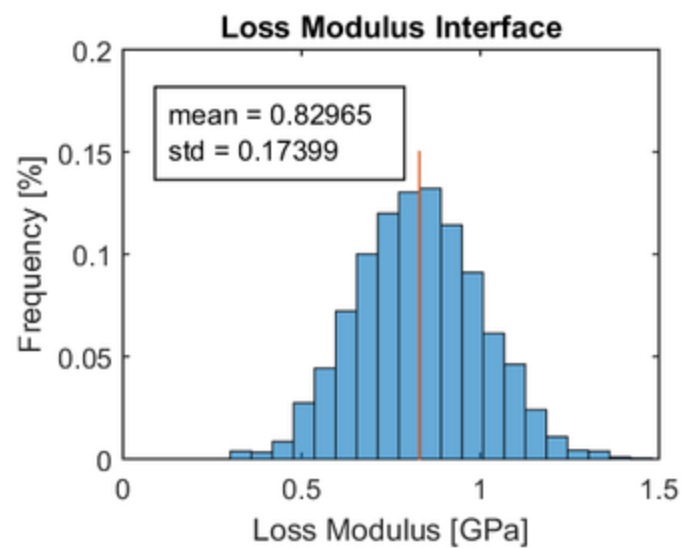
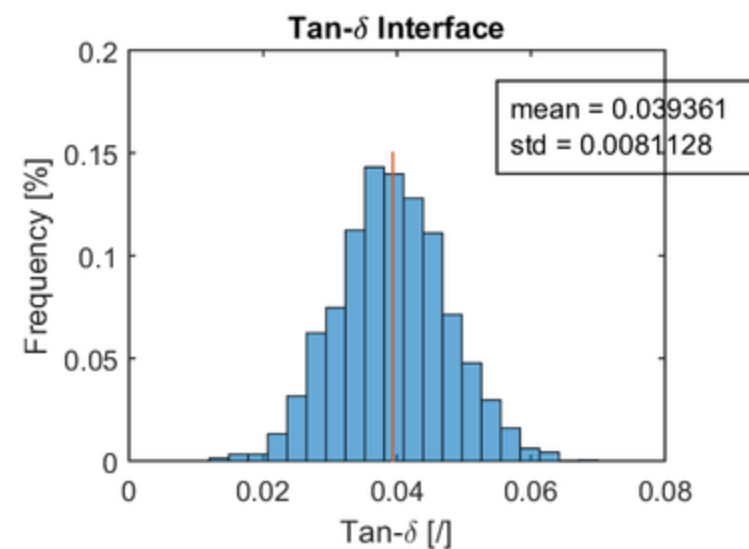
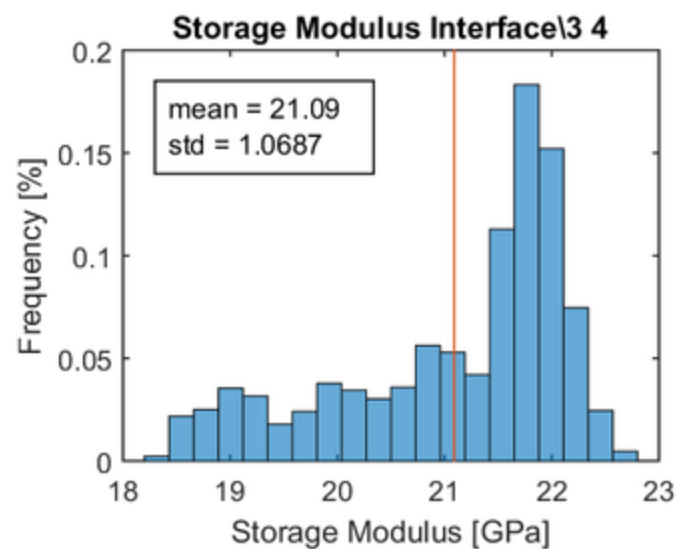


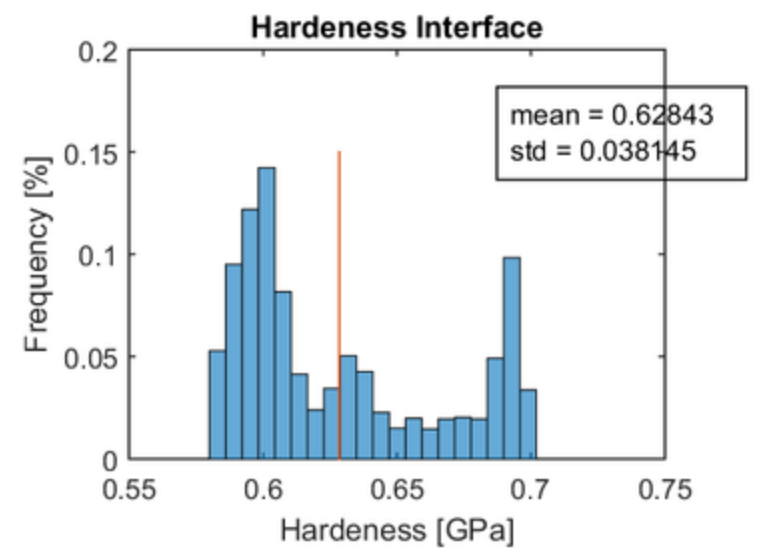
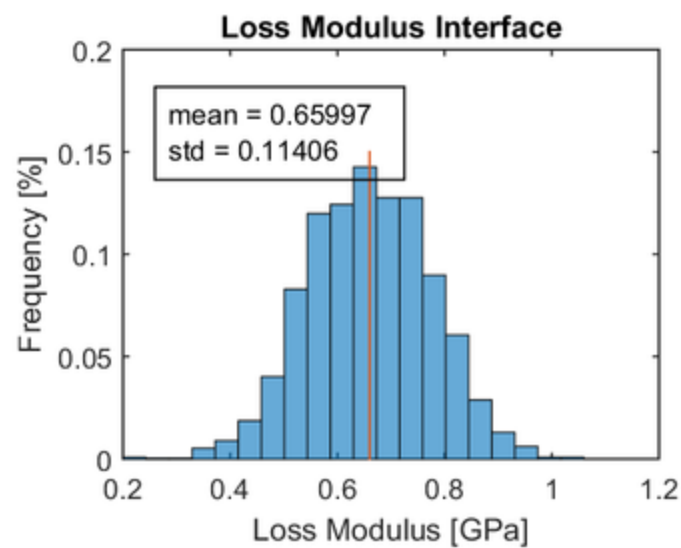
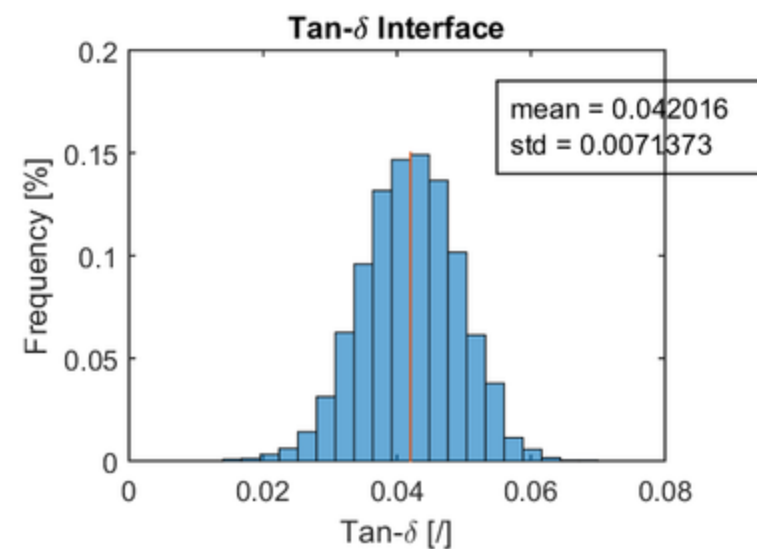
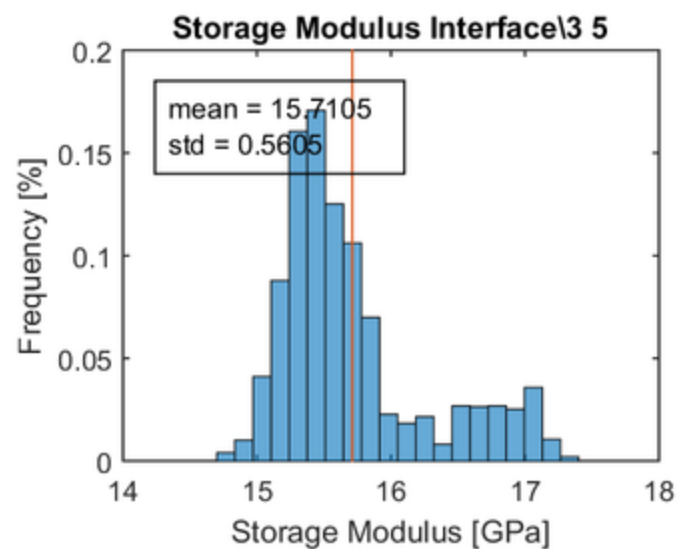
Interface C Point 1

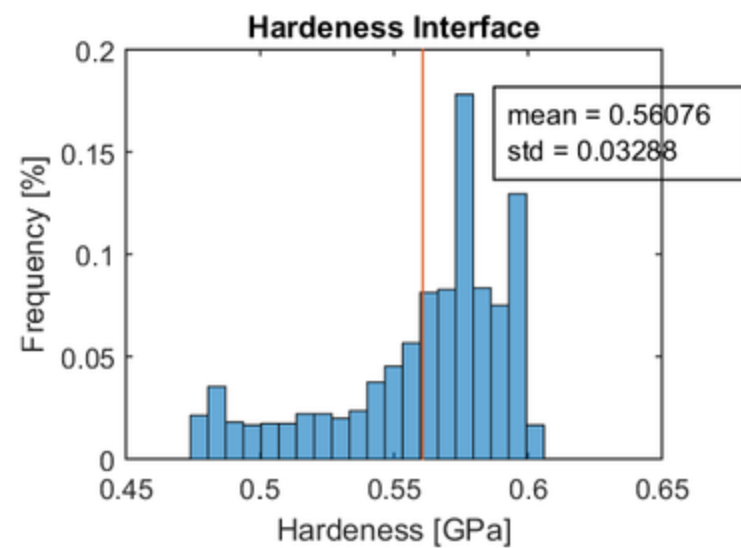
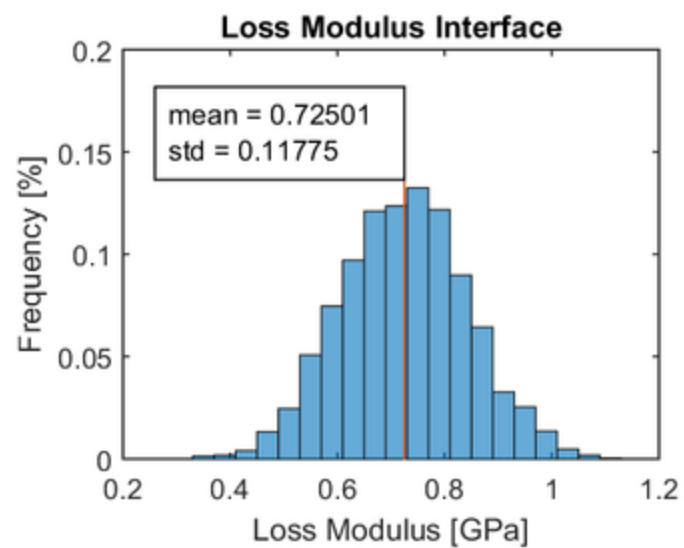
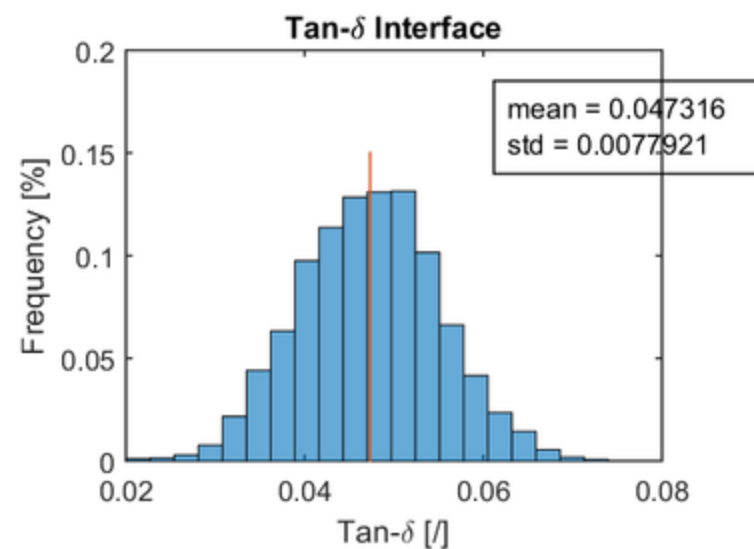
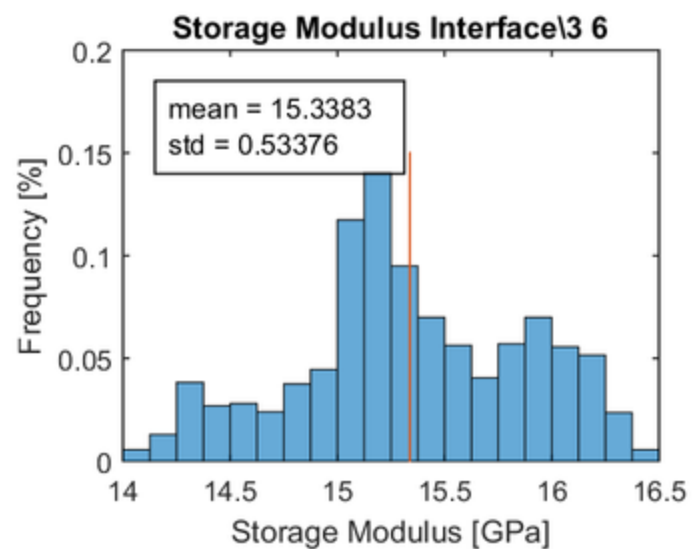


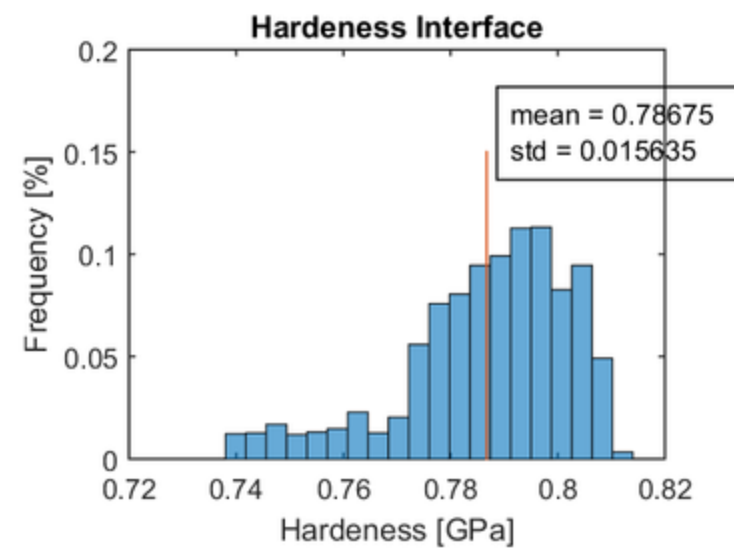
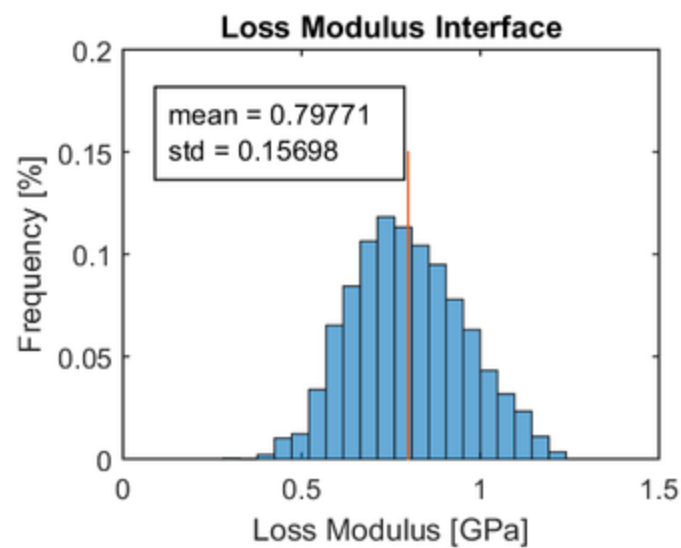
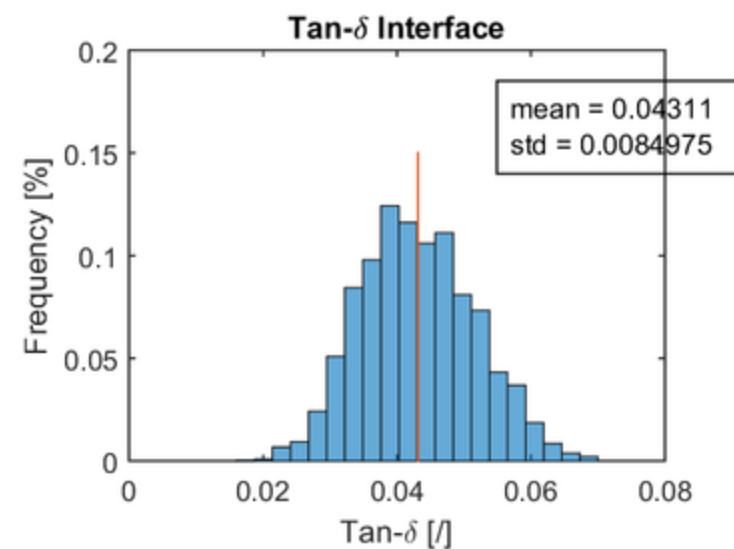
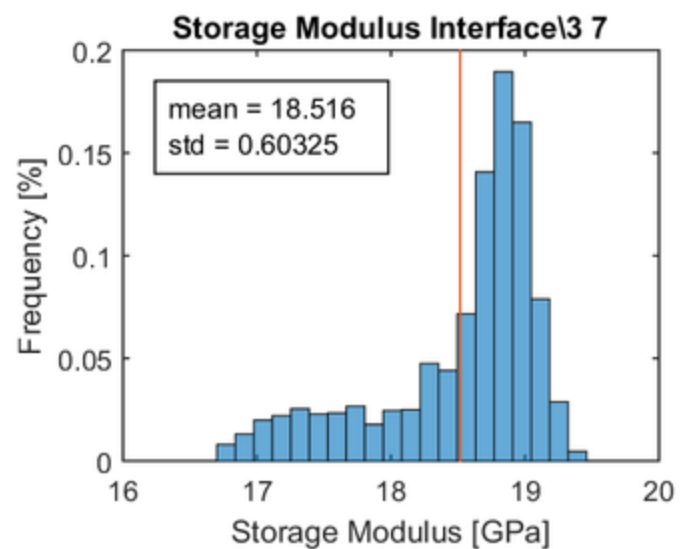


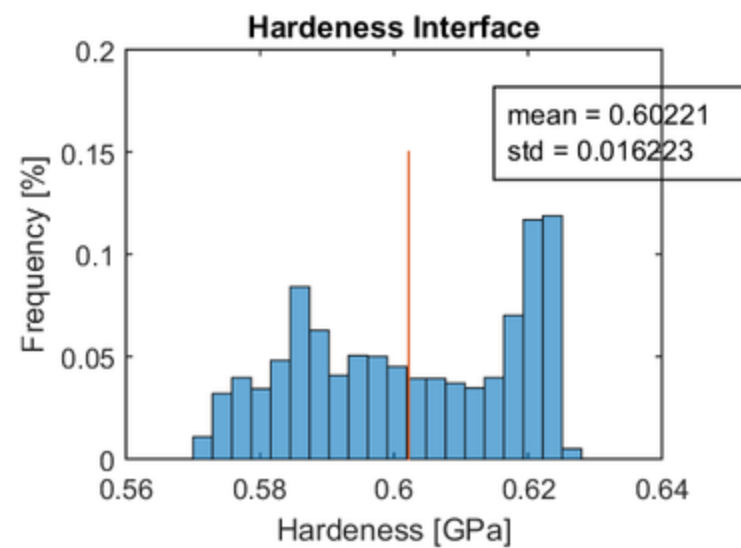
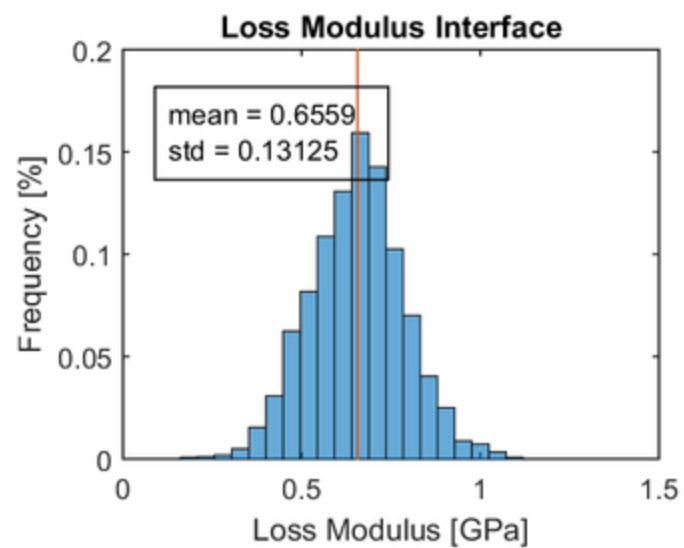
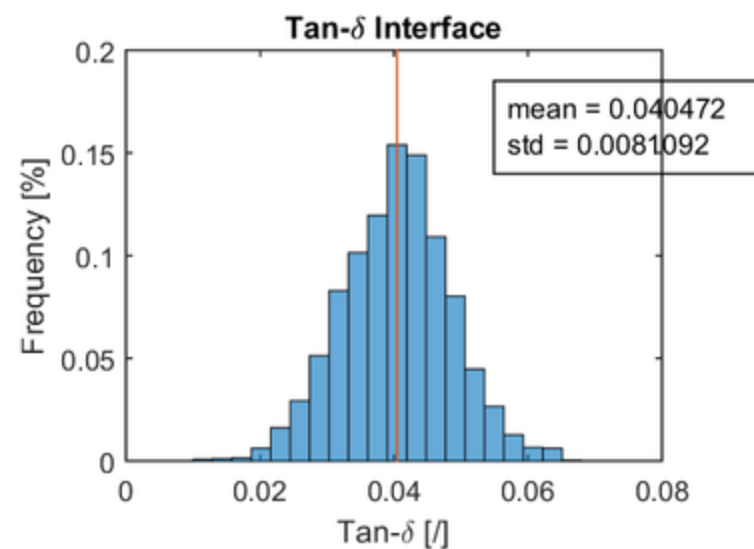
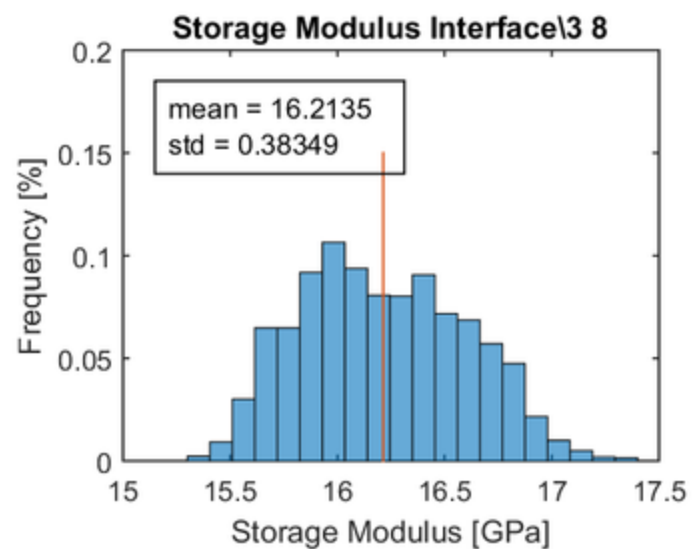


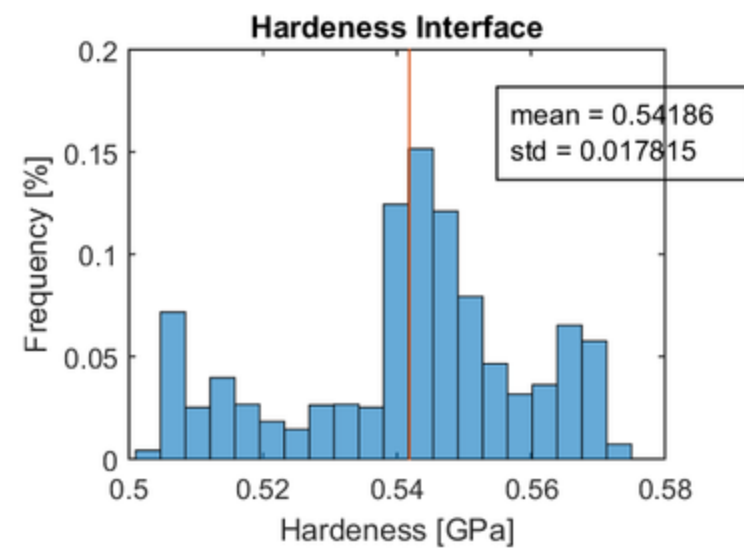
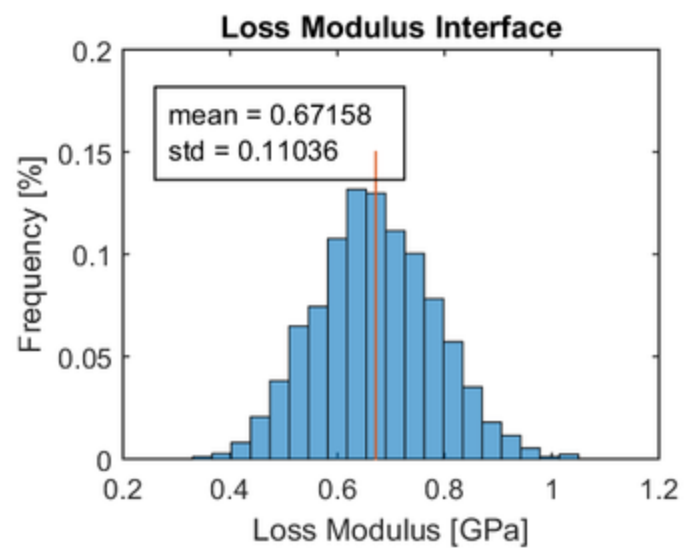
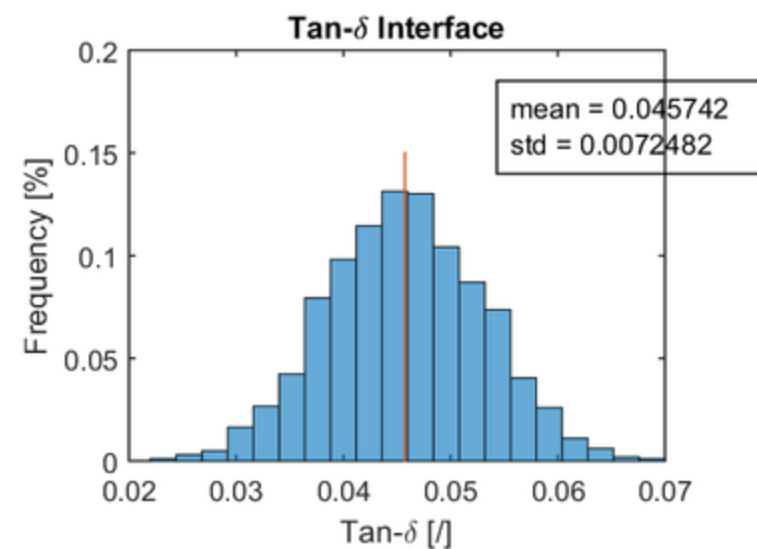
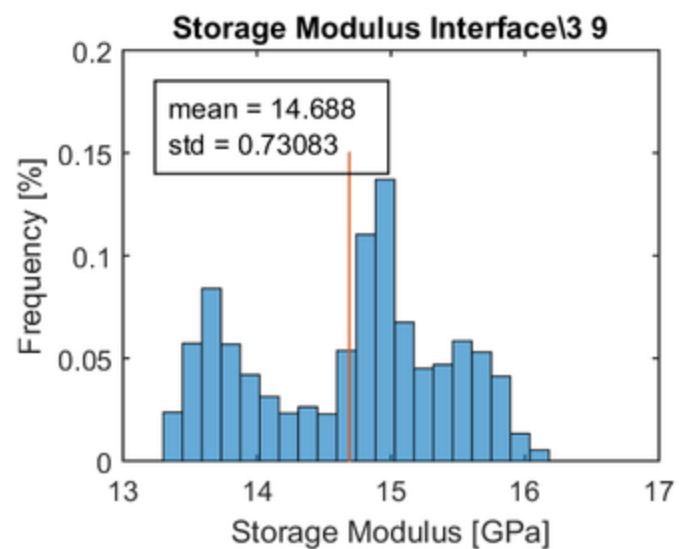


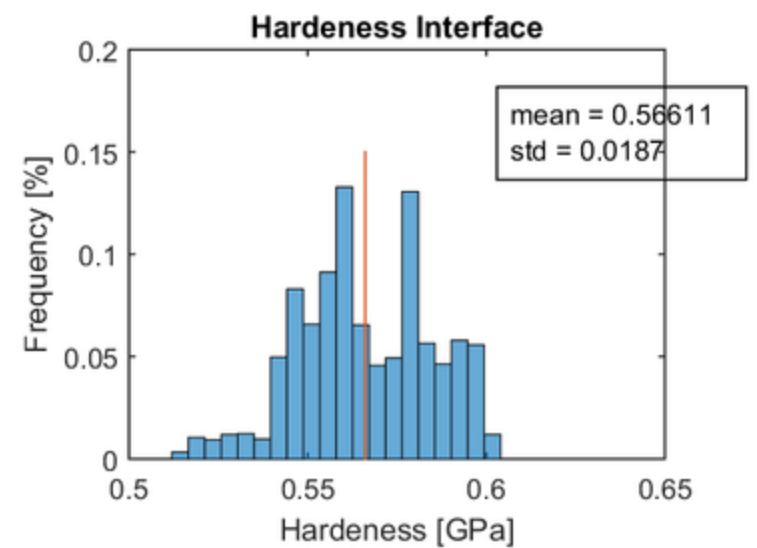
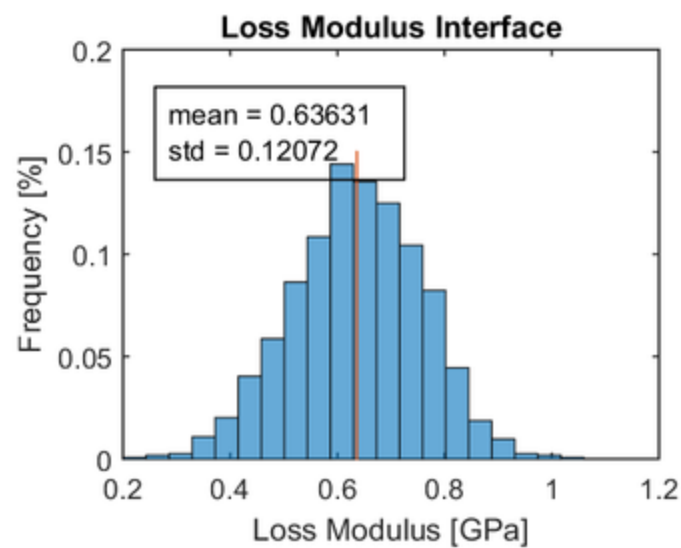
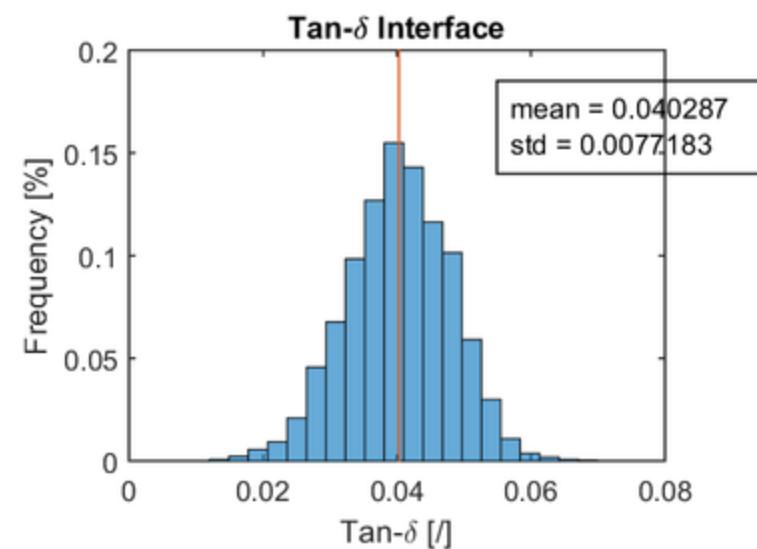
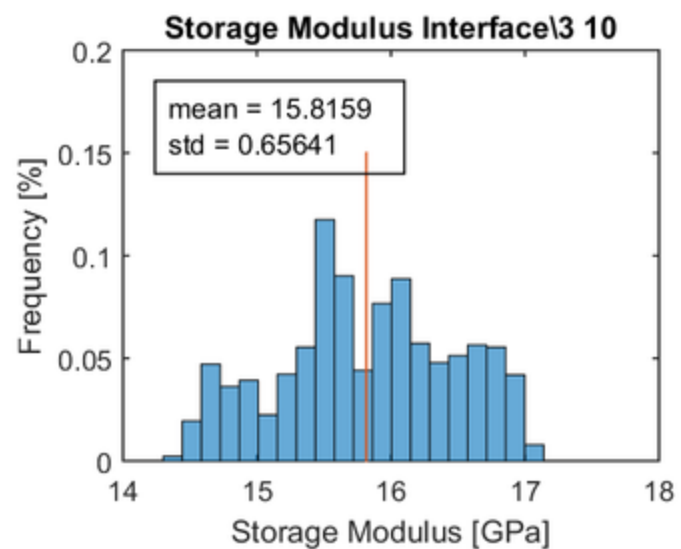


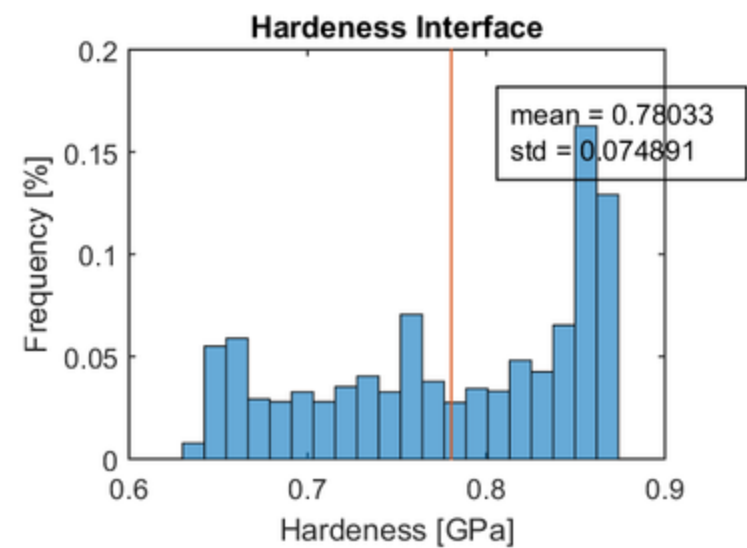
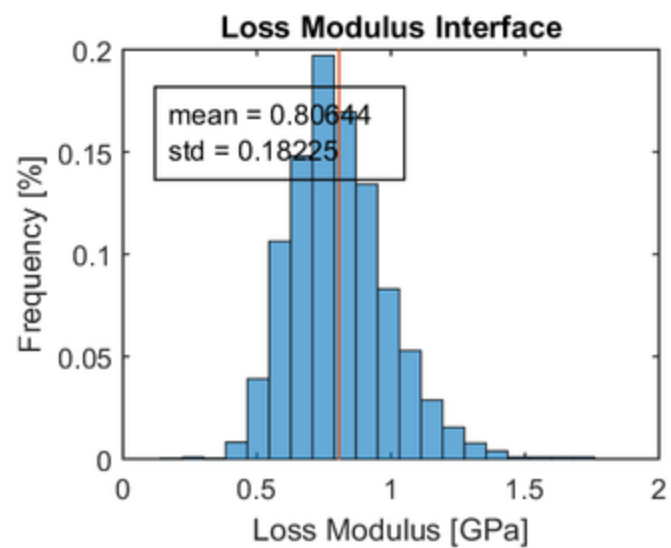
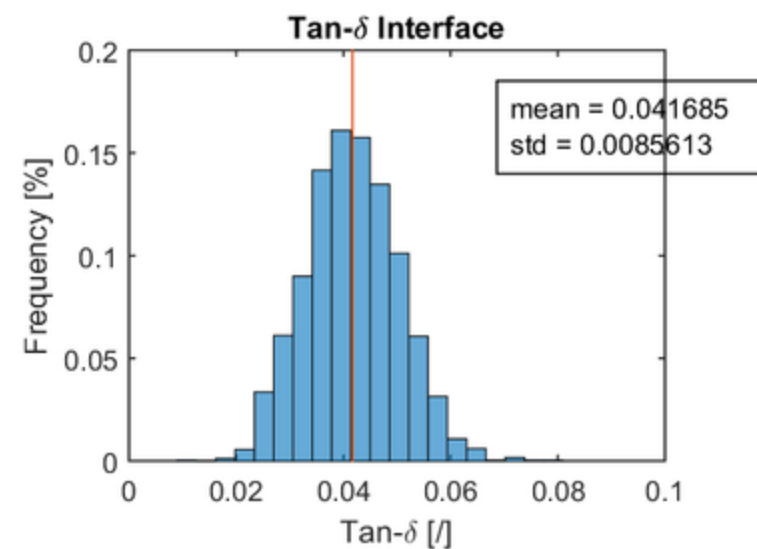
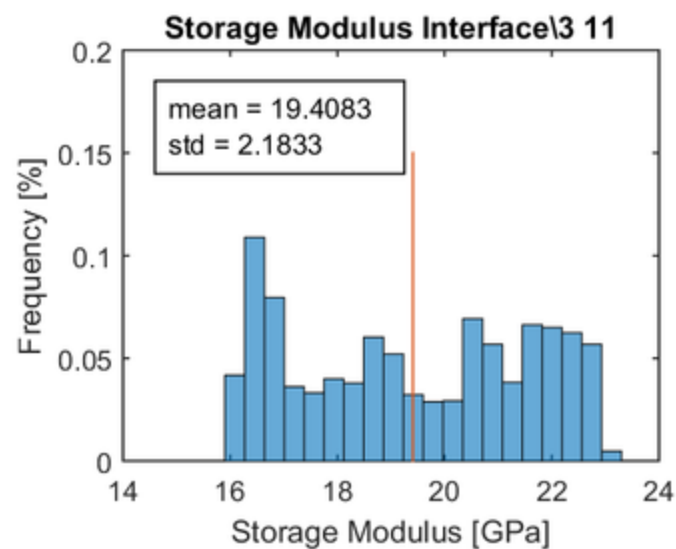


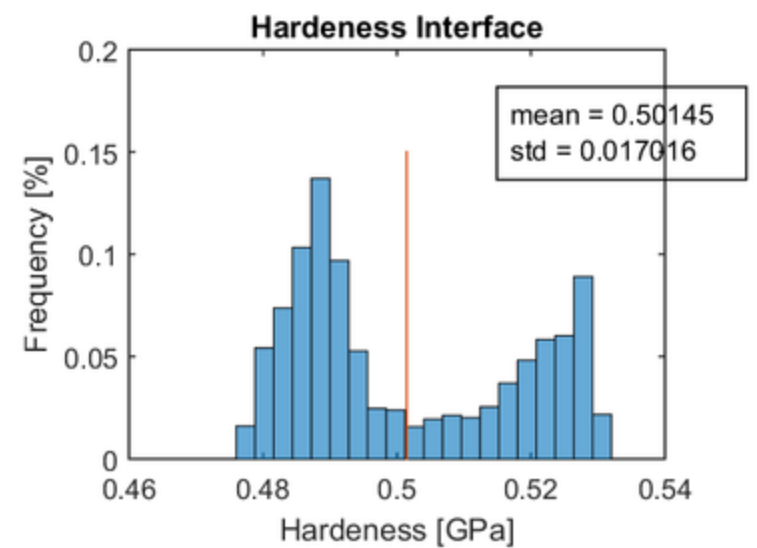
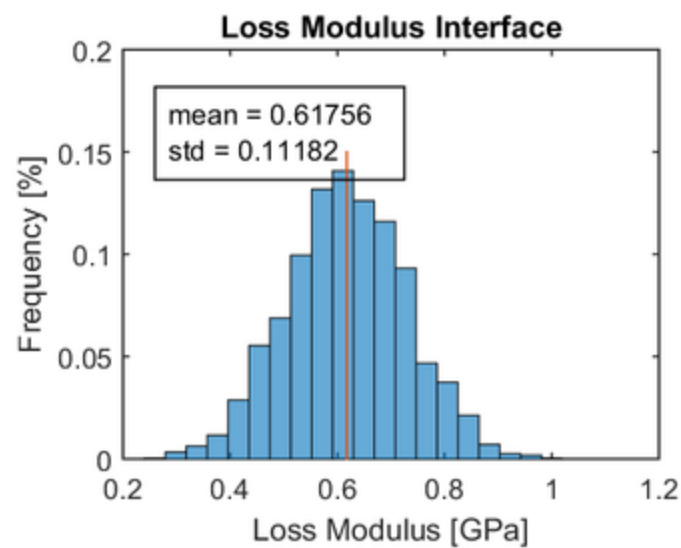
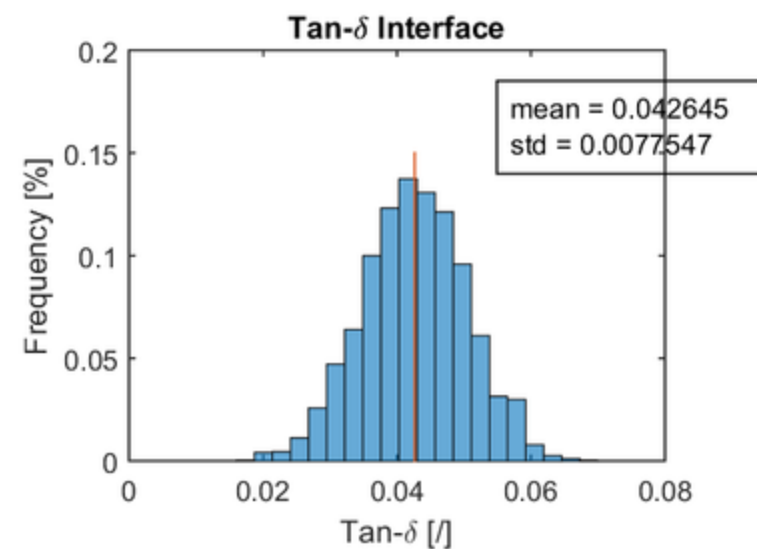
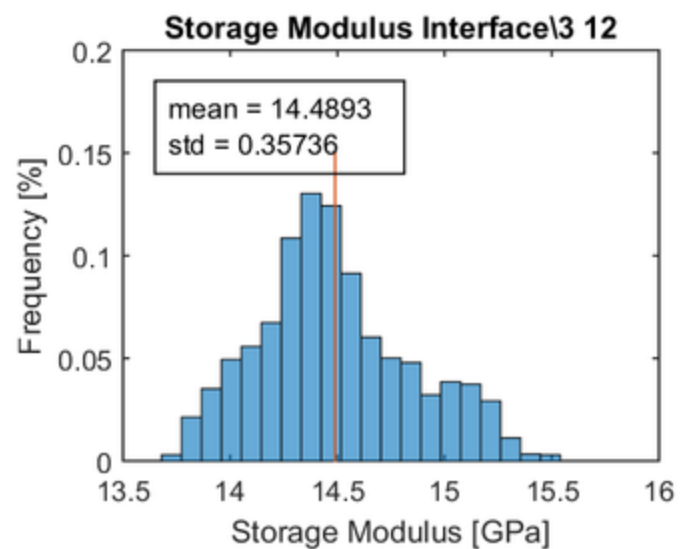


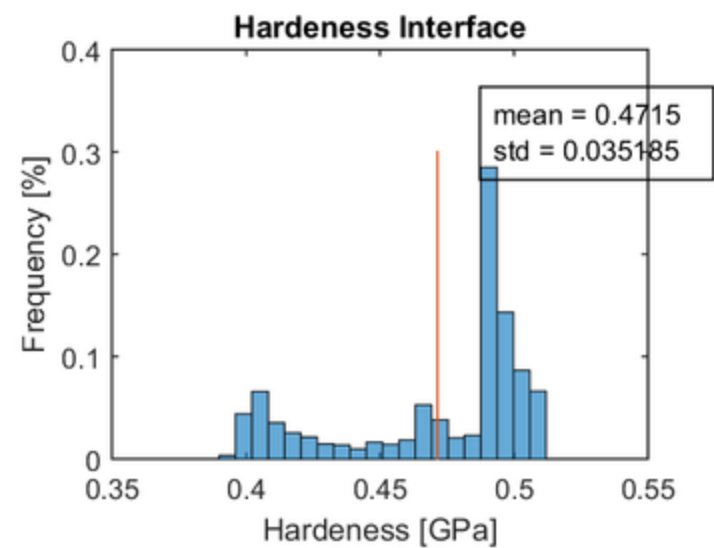
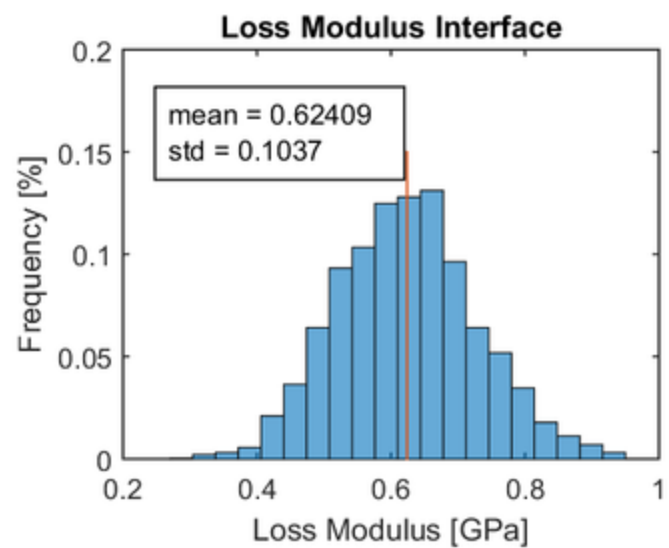
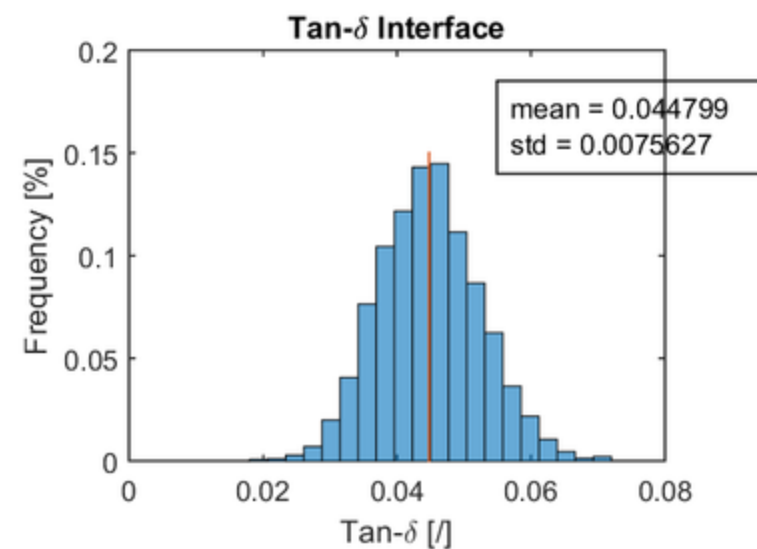
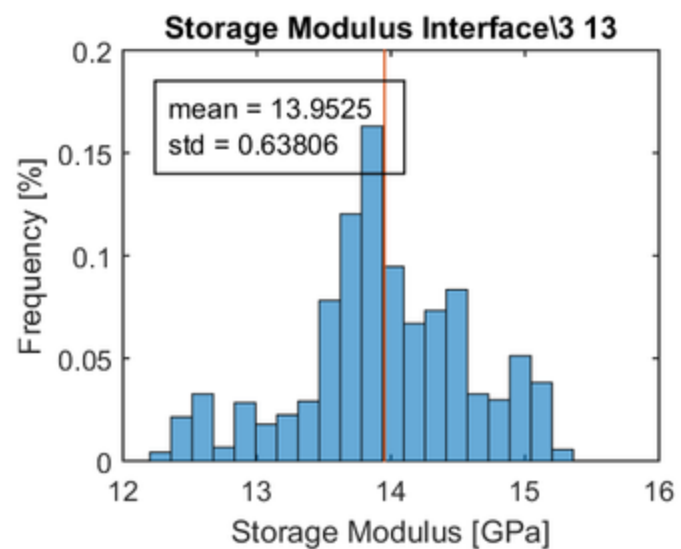


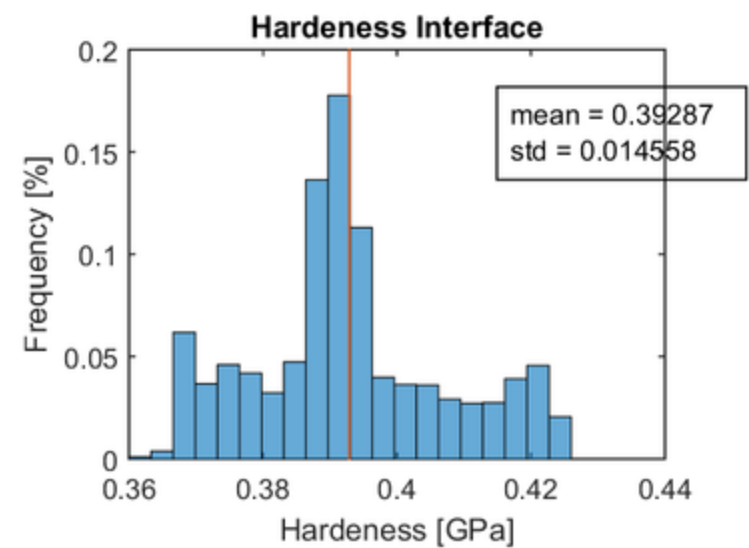
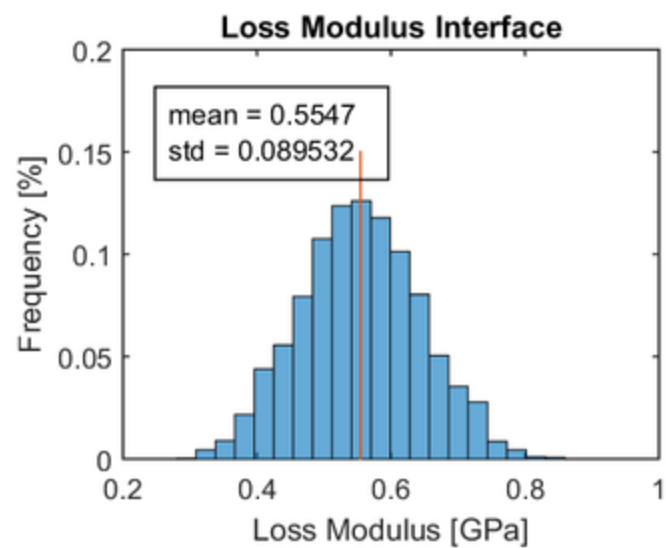
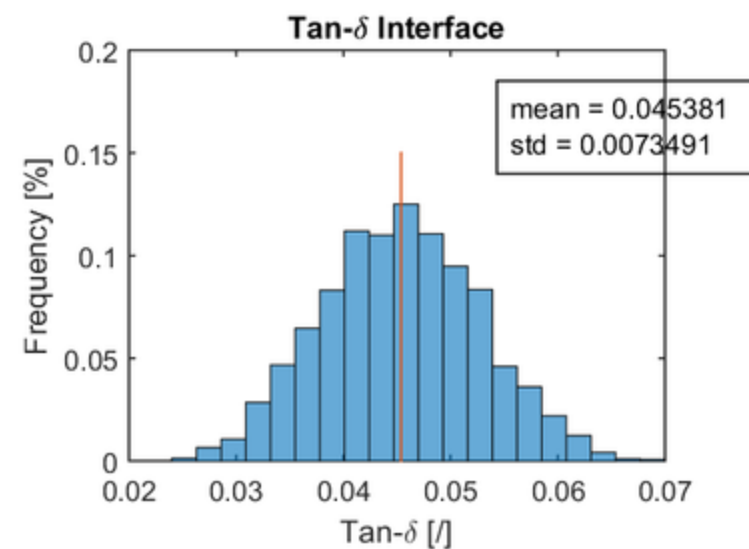
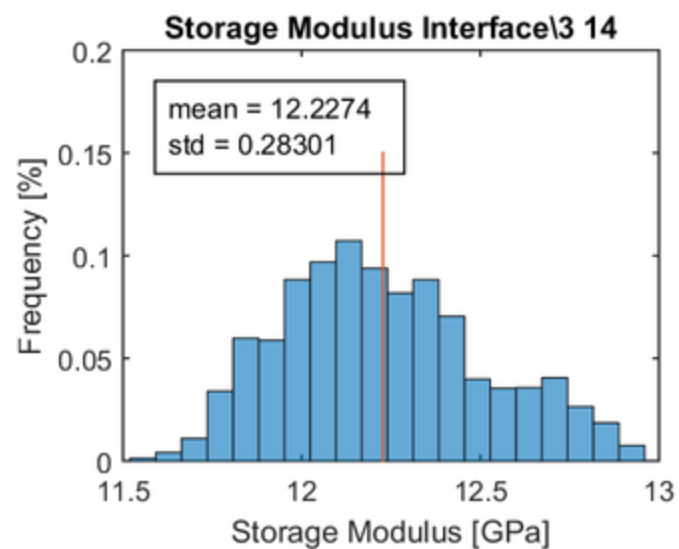


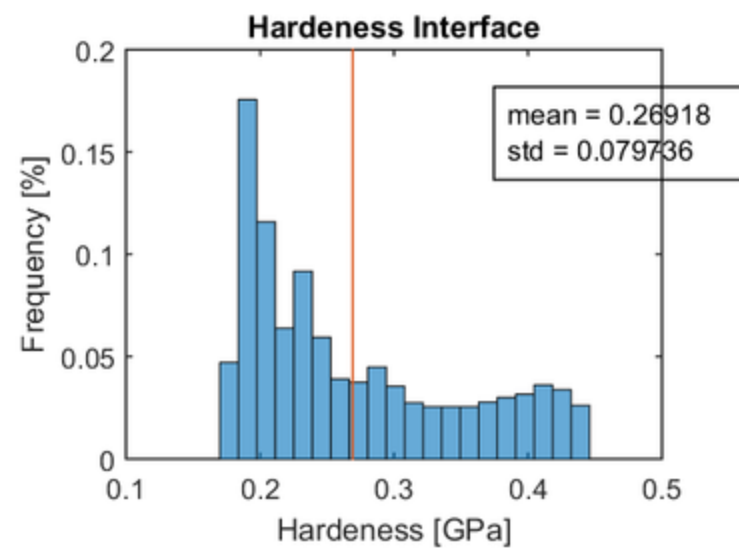
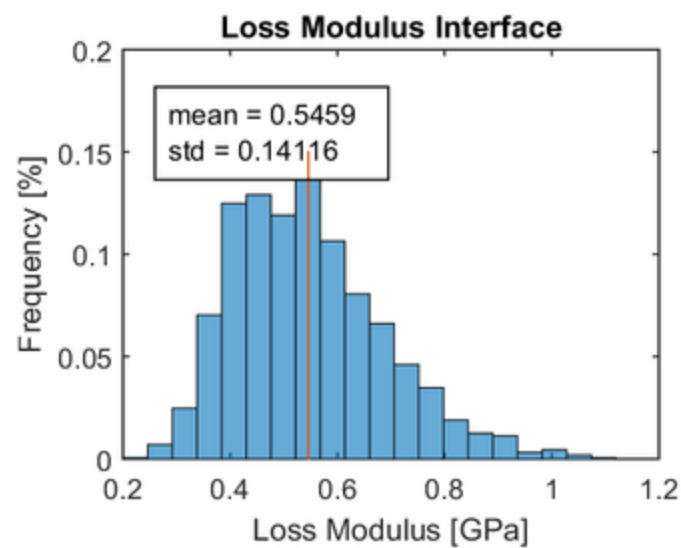
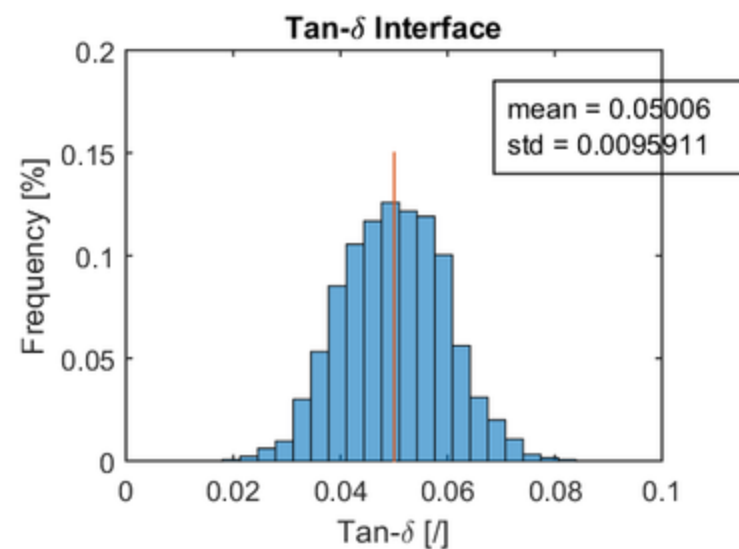
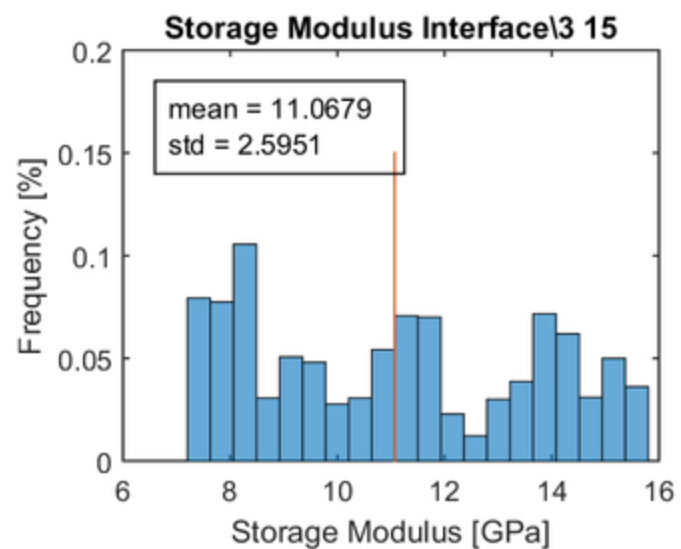


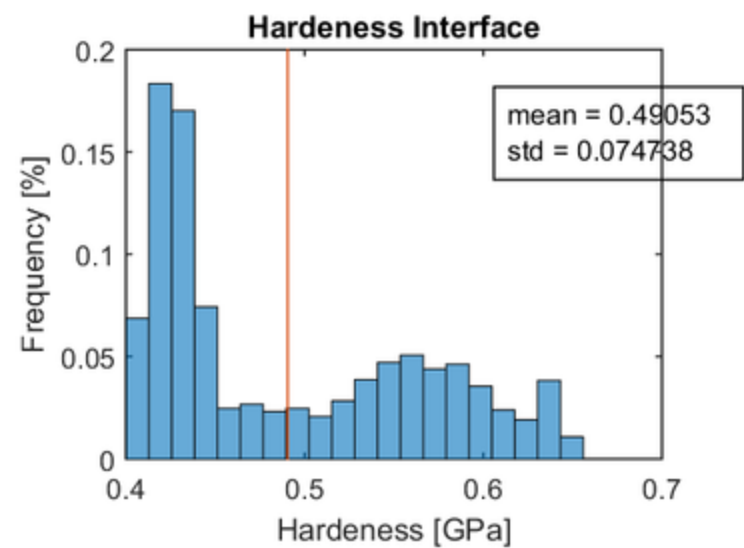
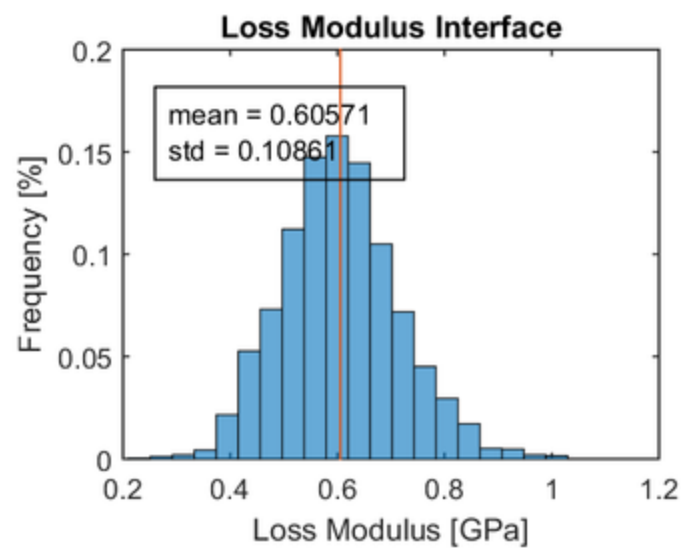
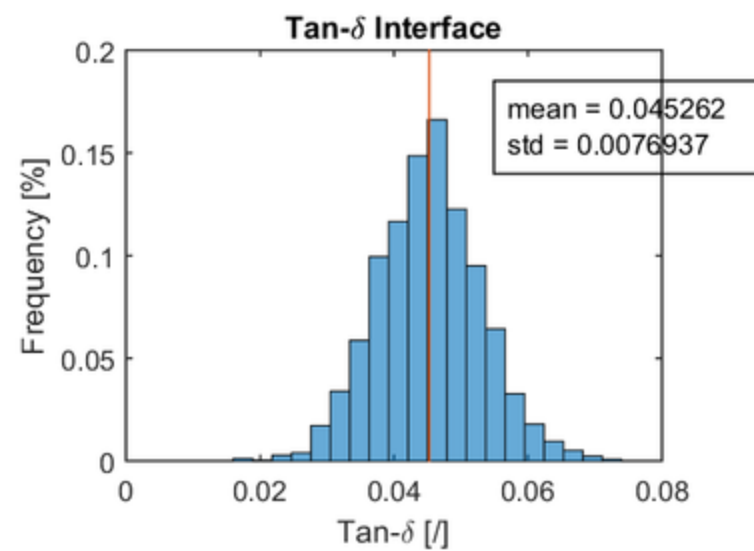
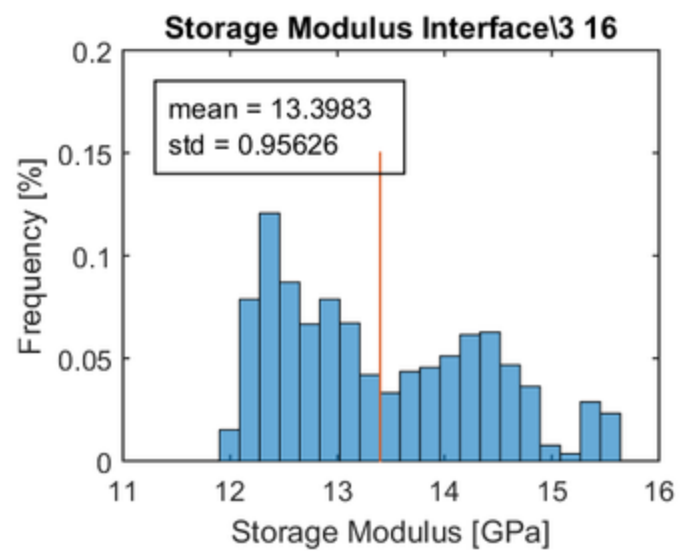


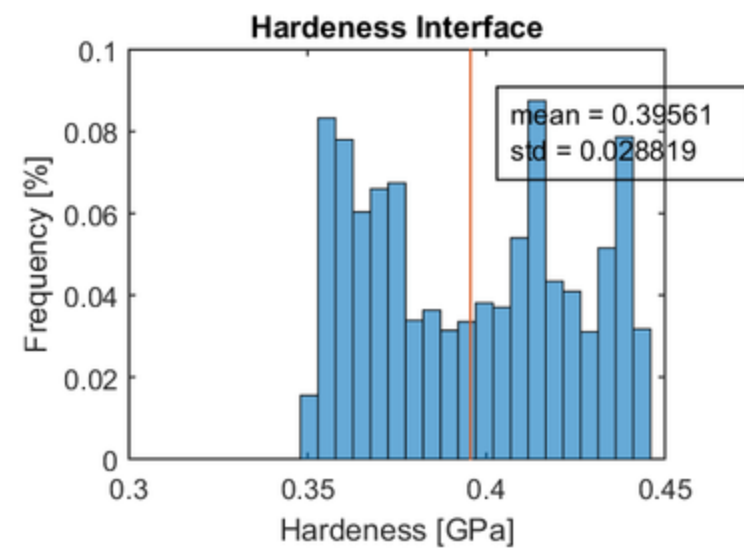
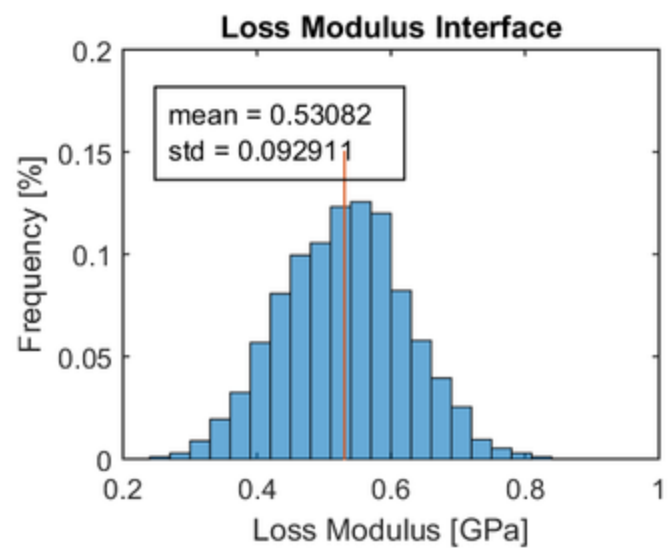
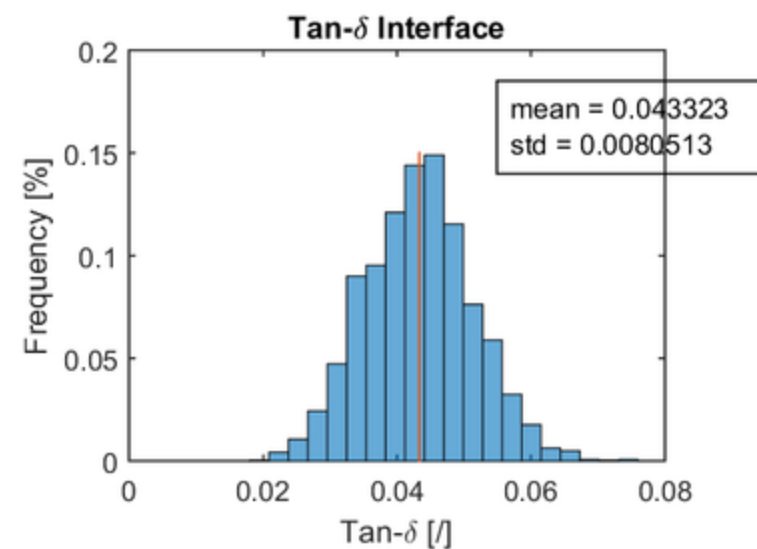
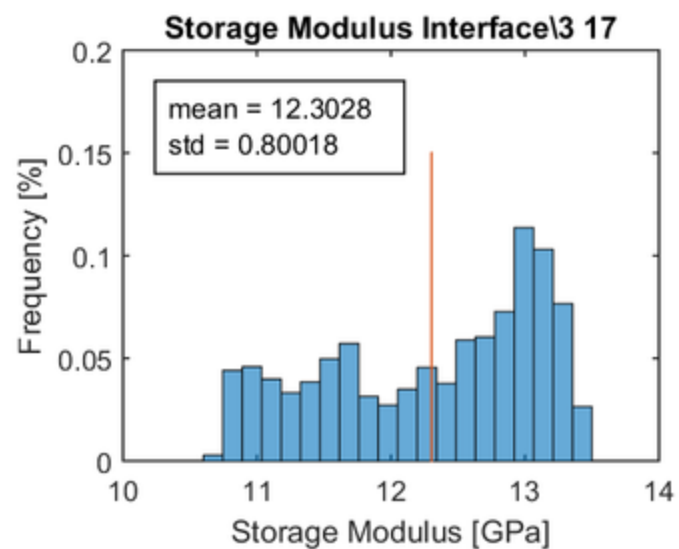


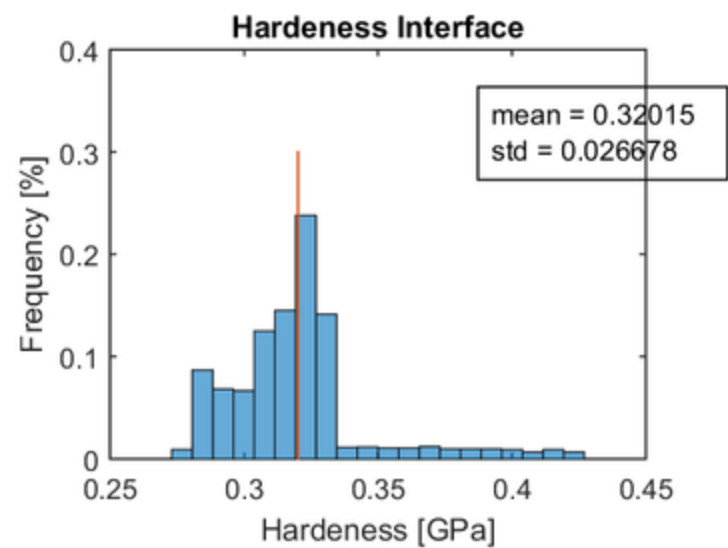
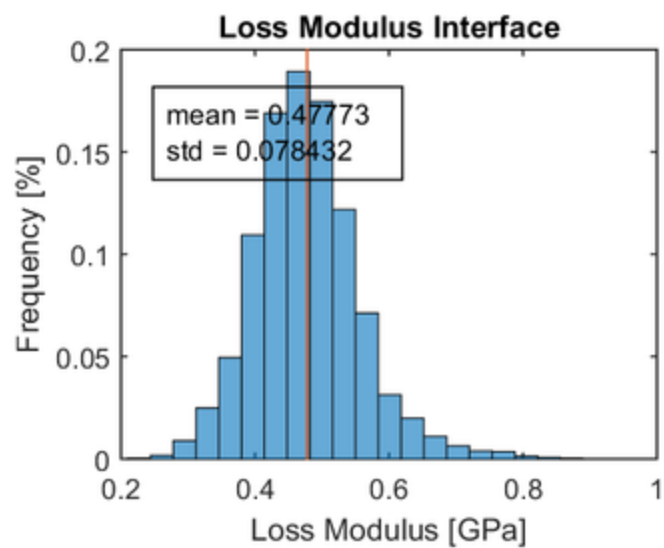
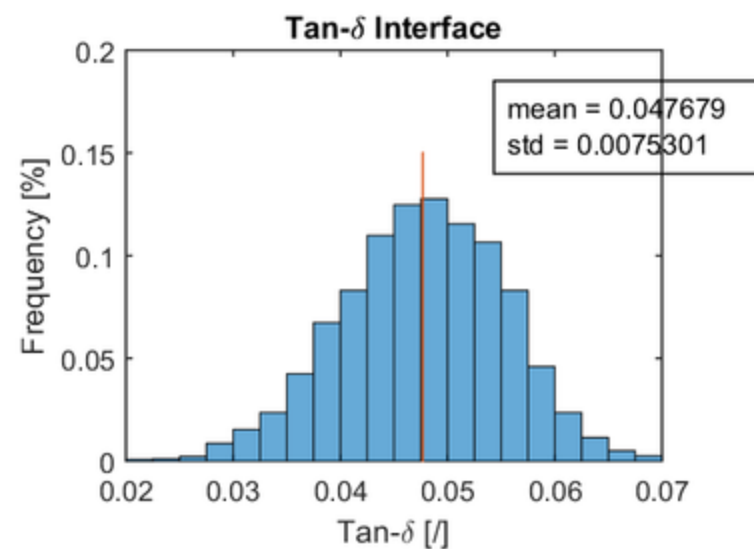
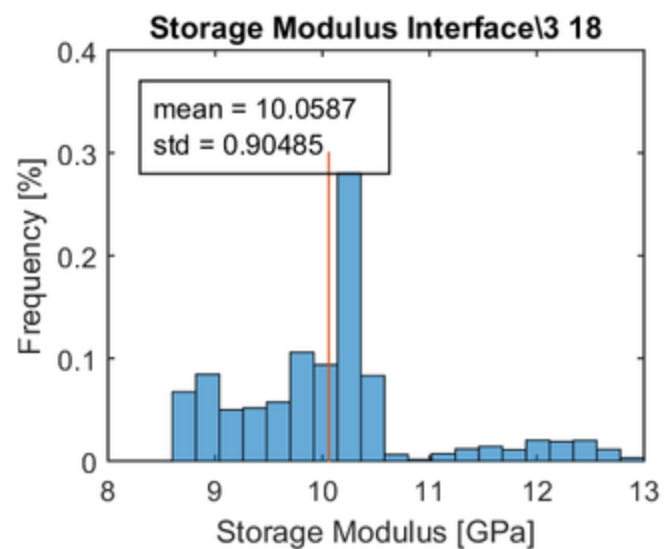


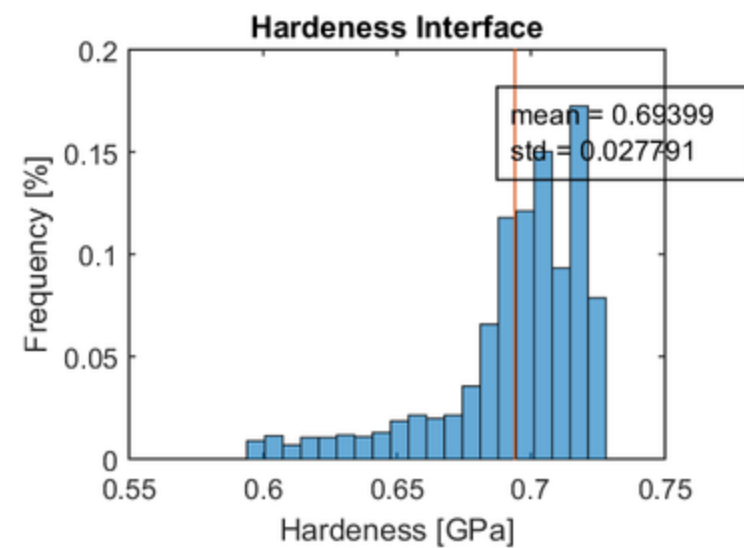
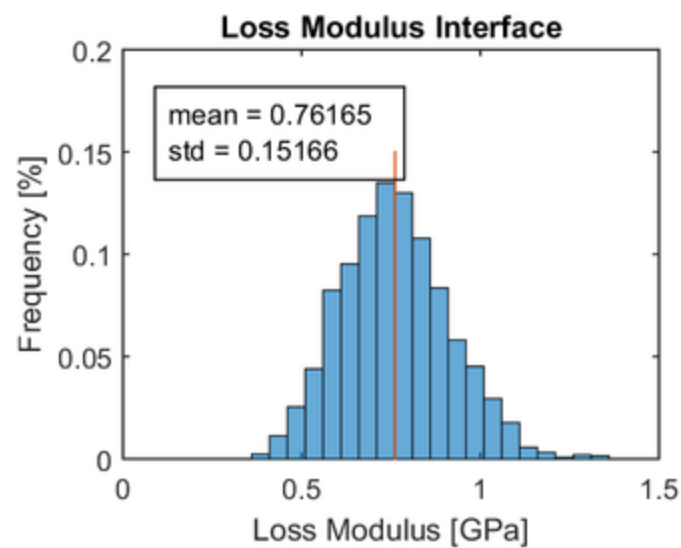
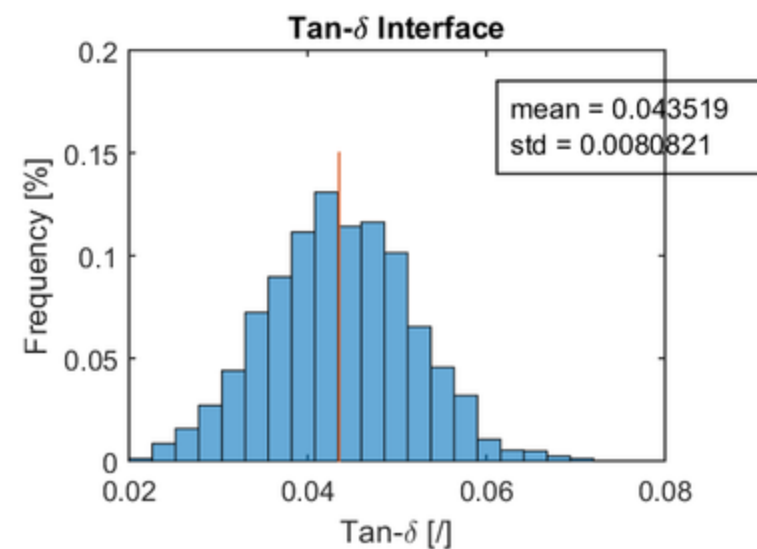
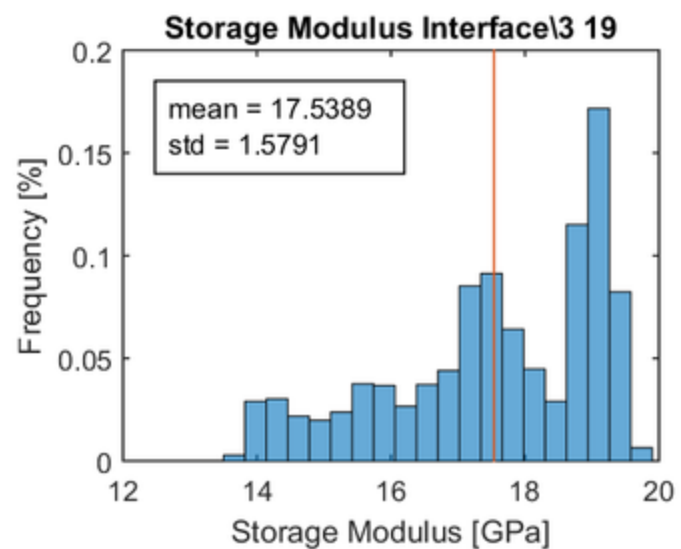


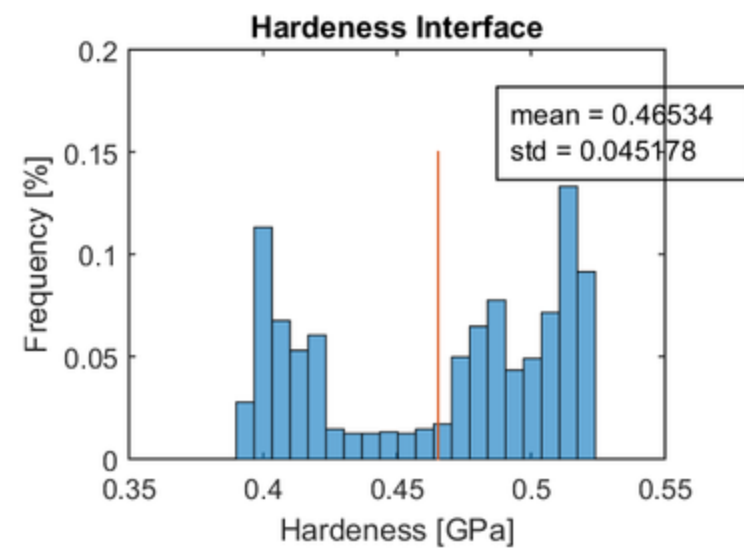
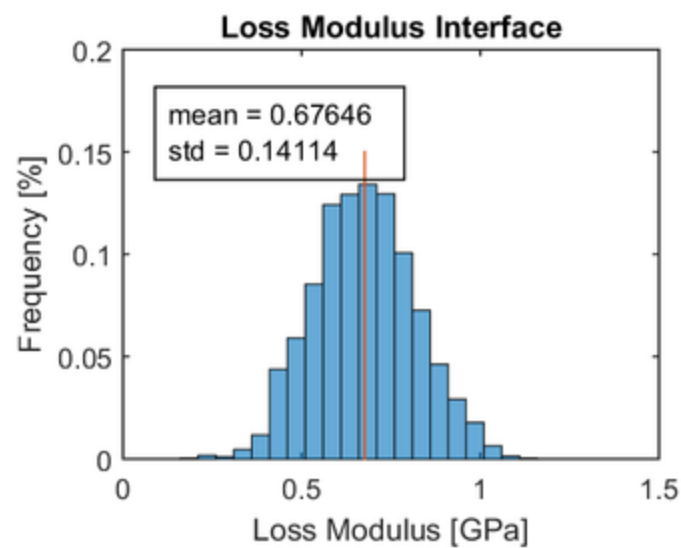
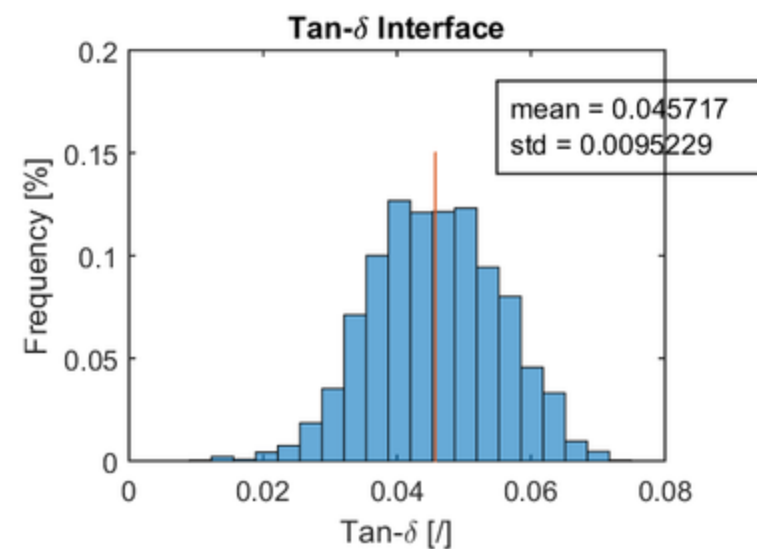
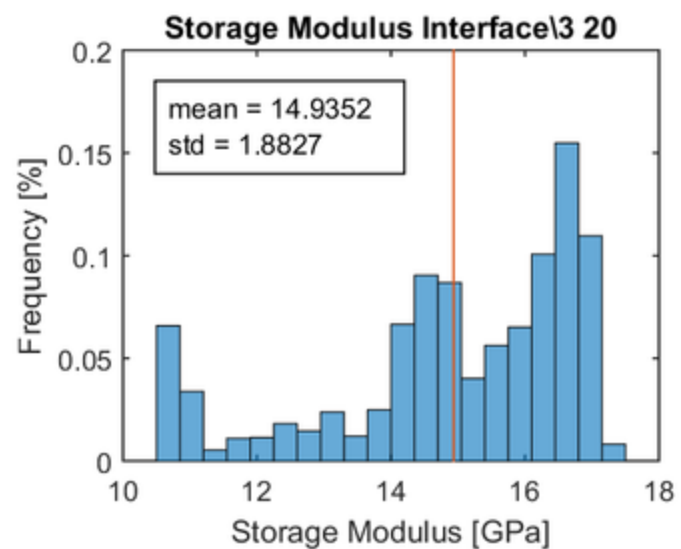


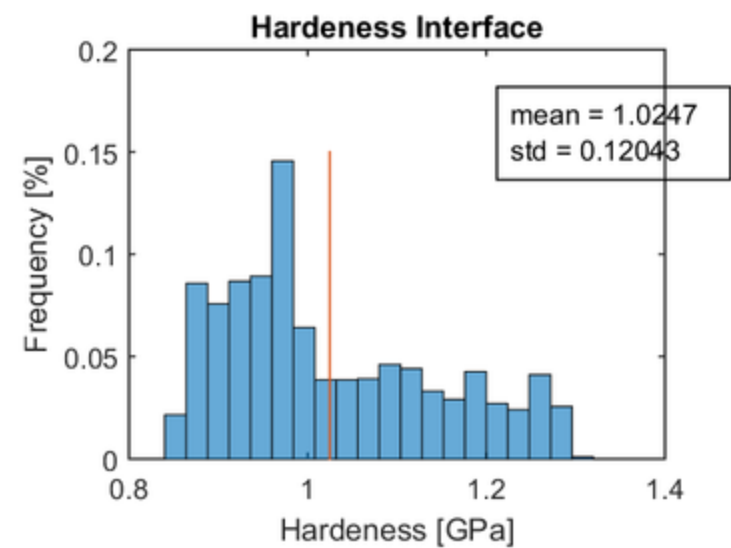
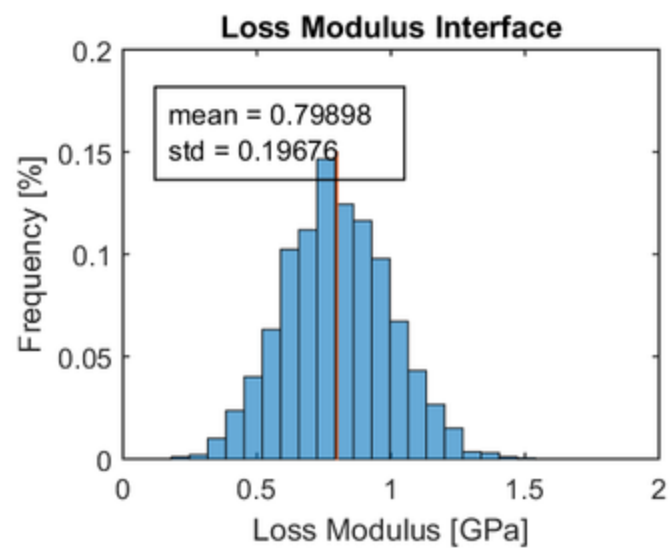
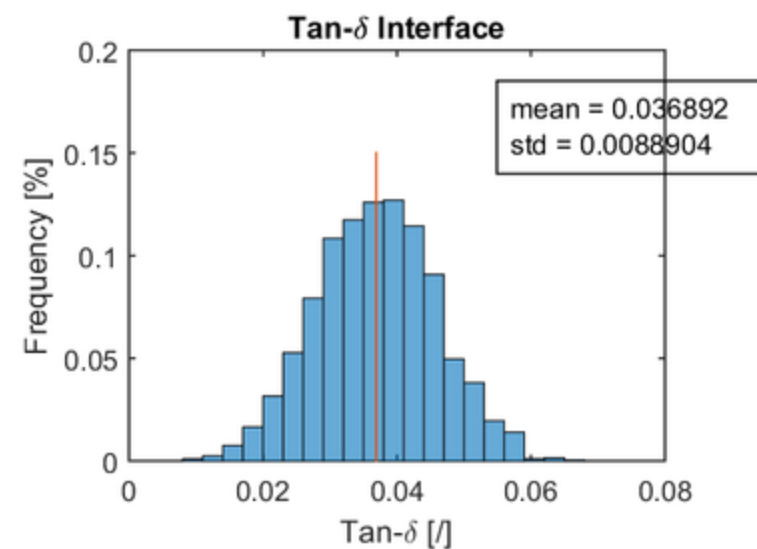
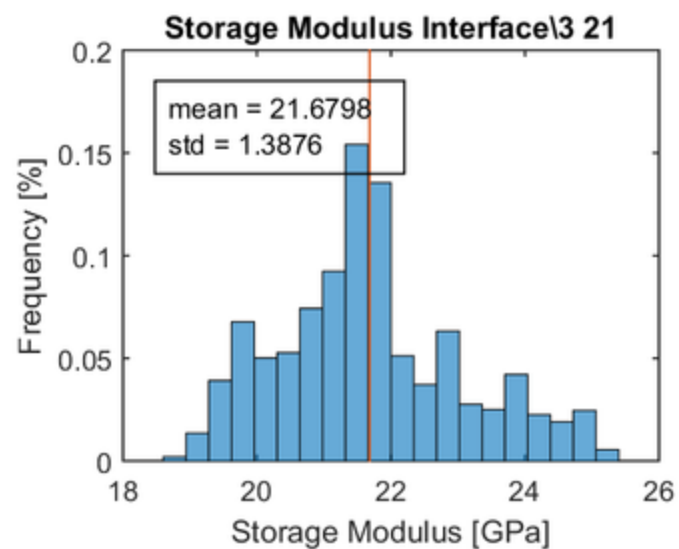


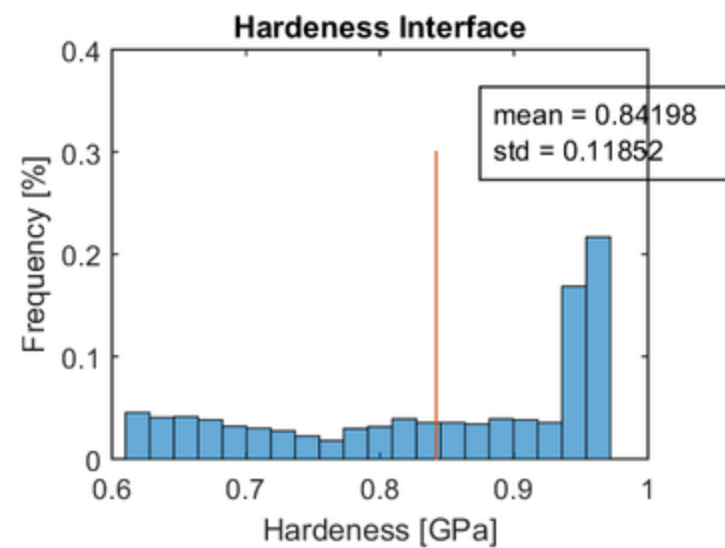
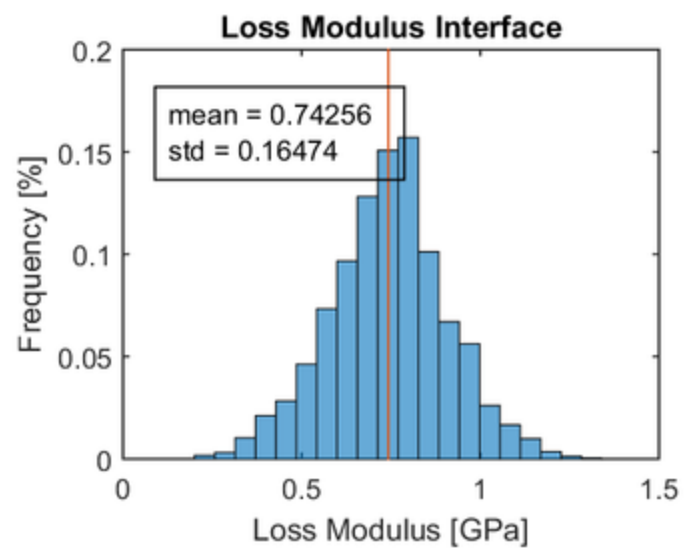
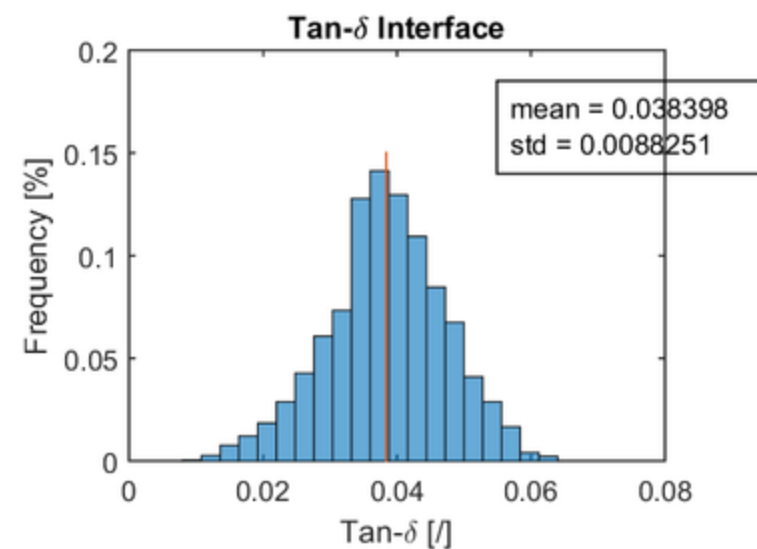
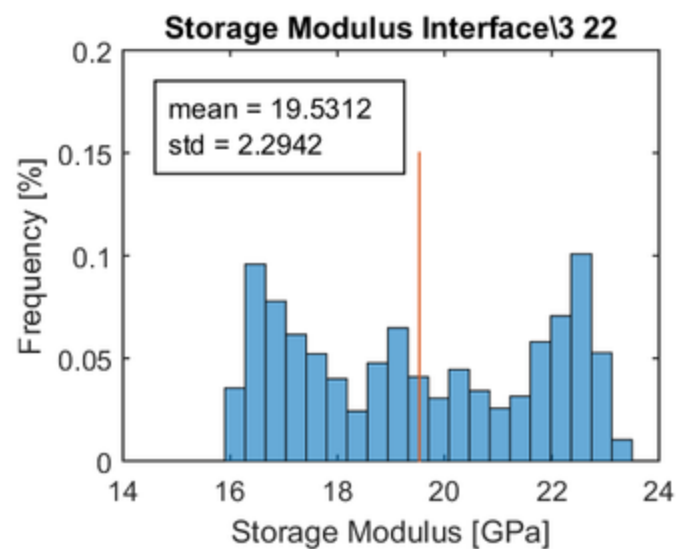


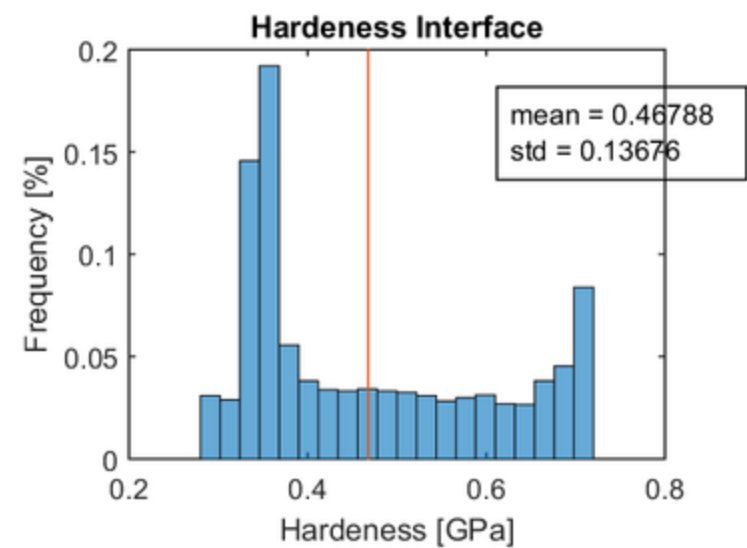
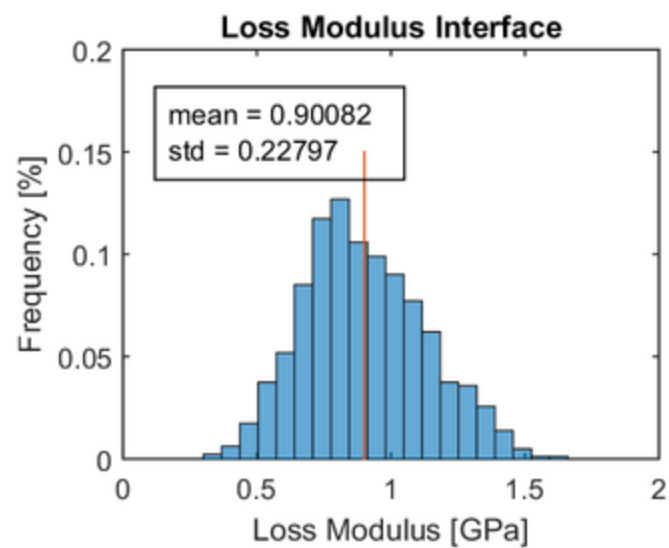
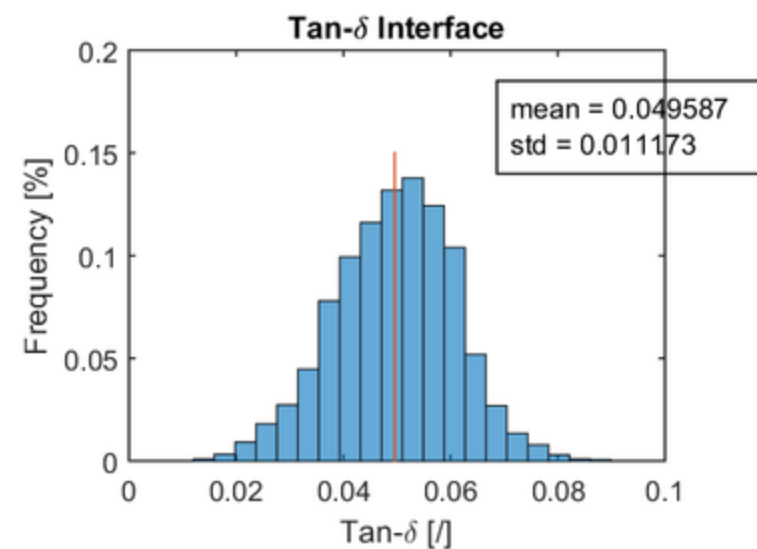
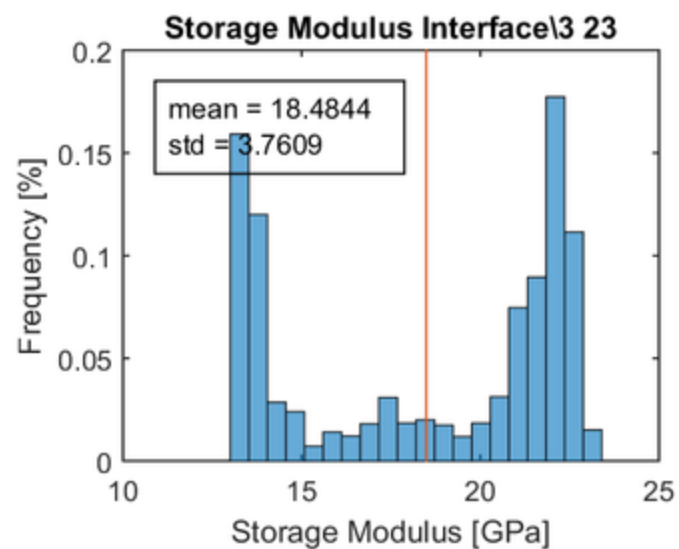


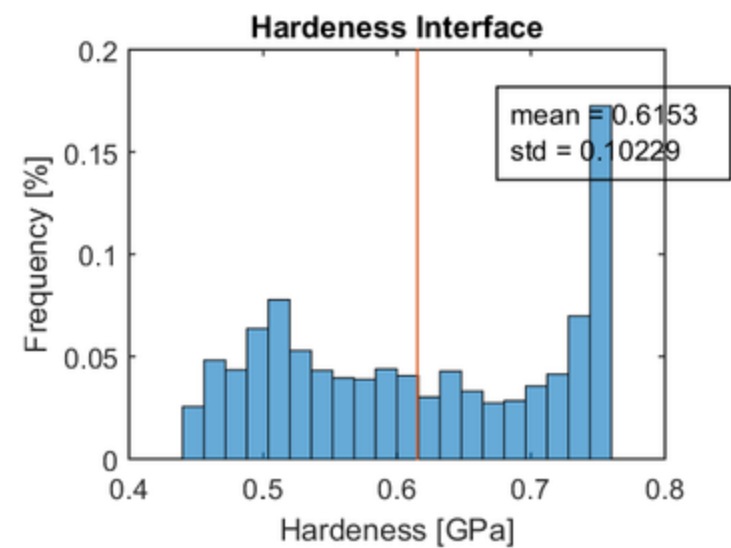
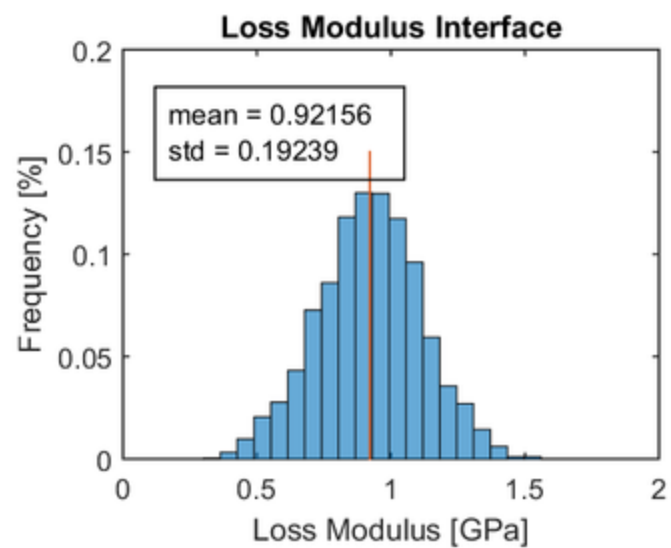
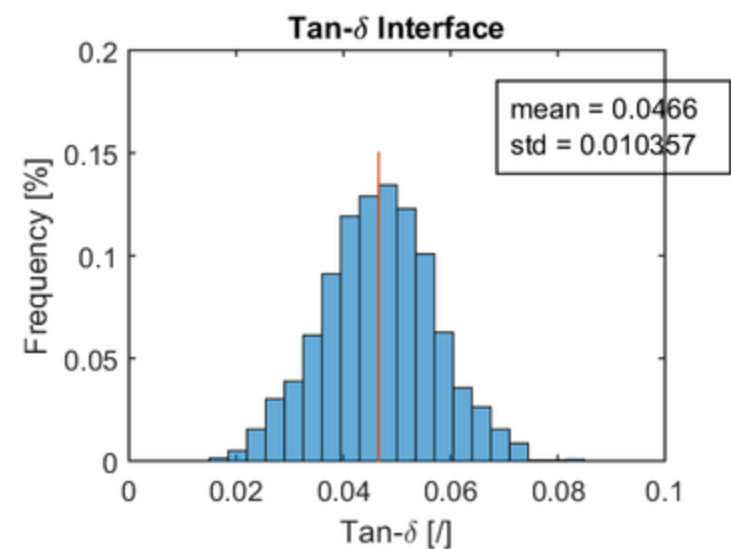
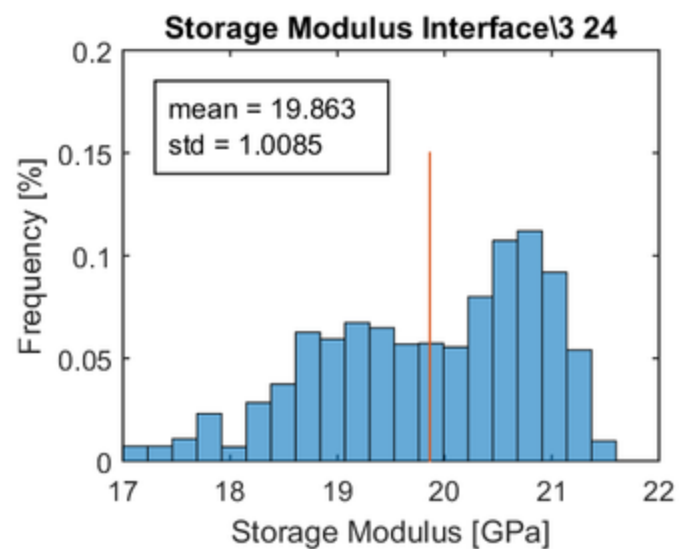


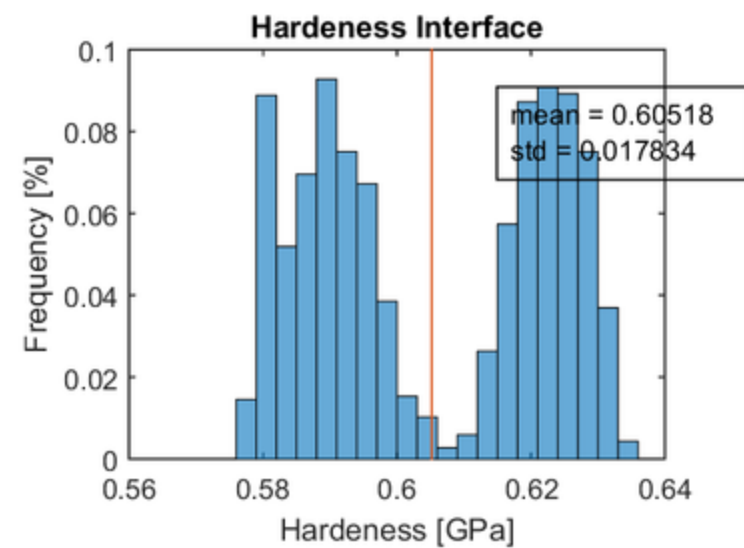
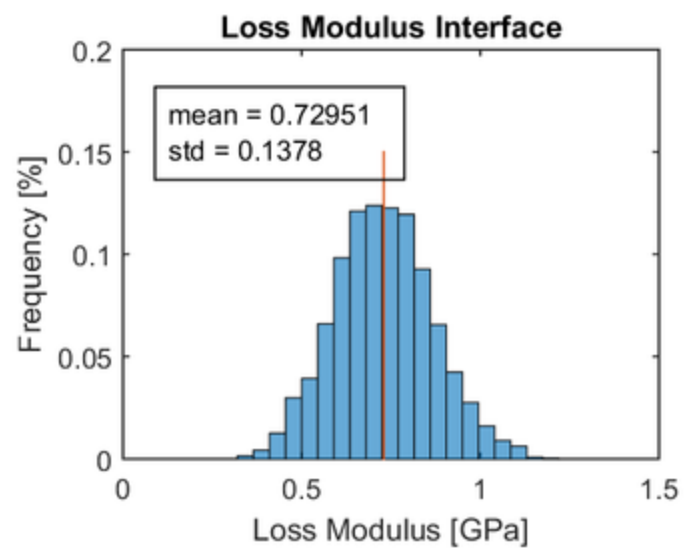
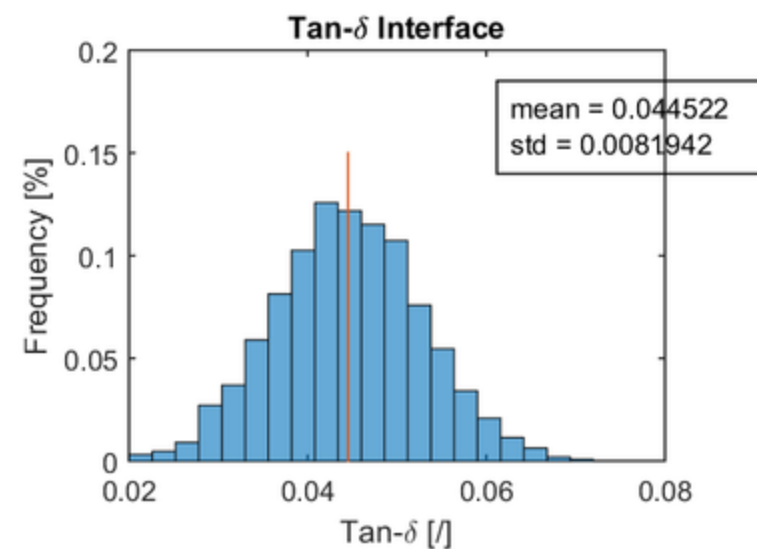
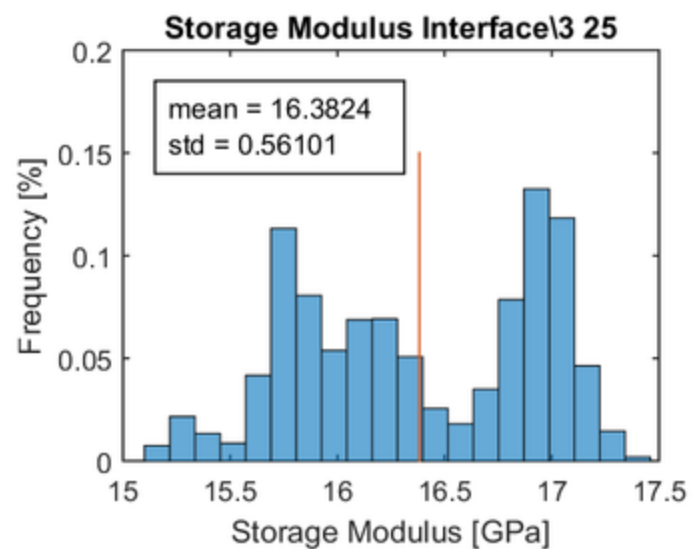


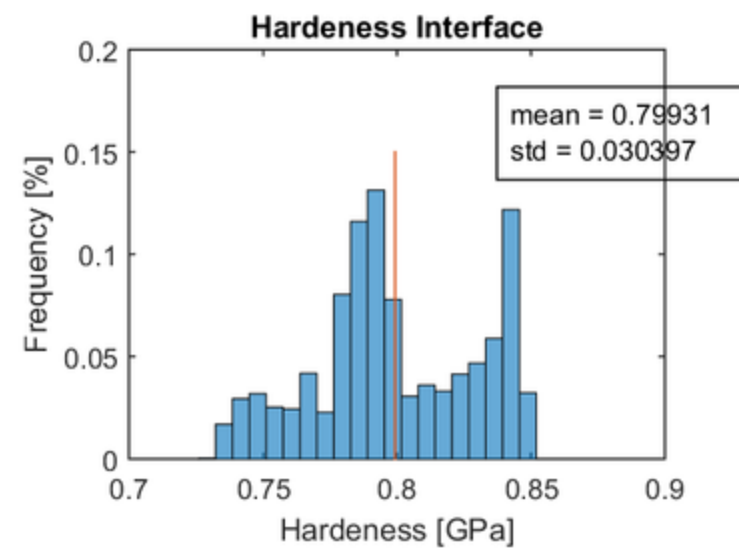
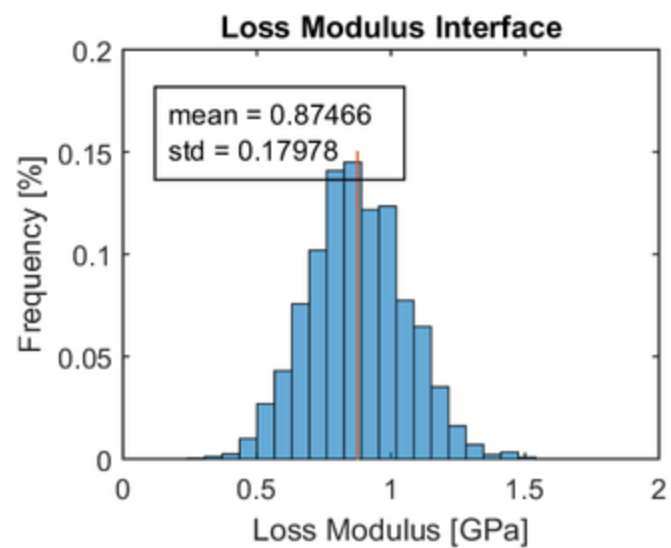
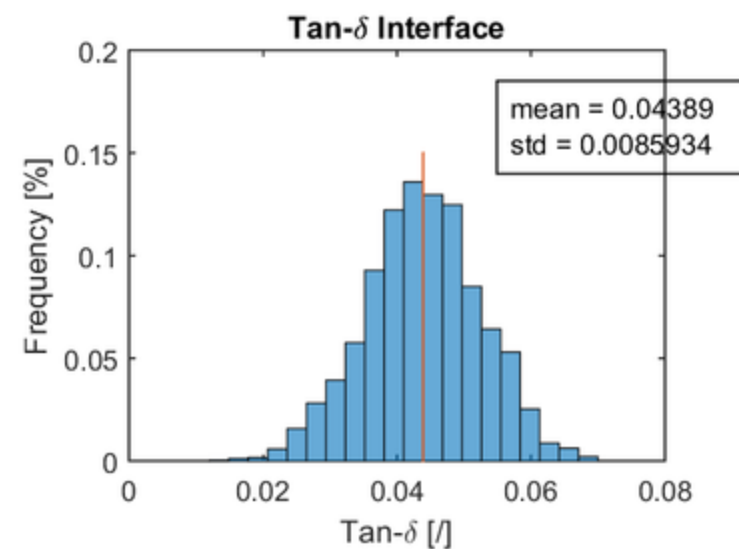
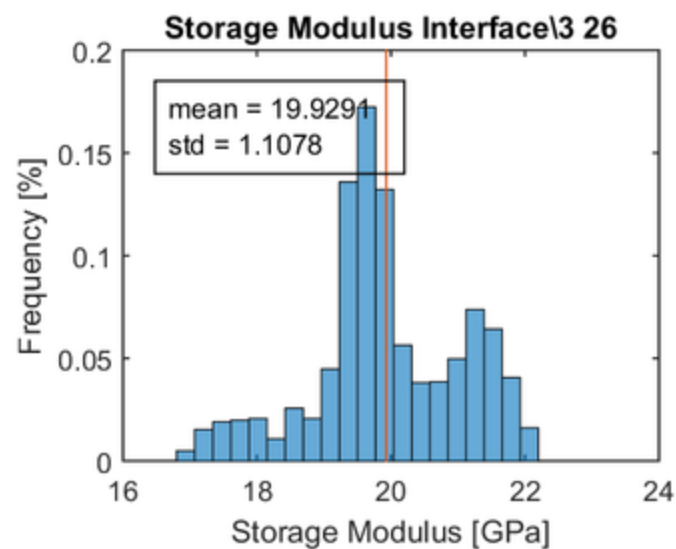


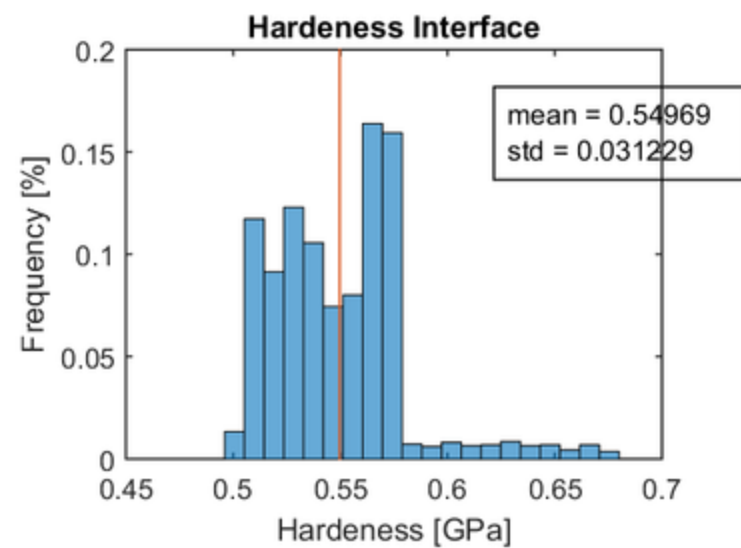
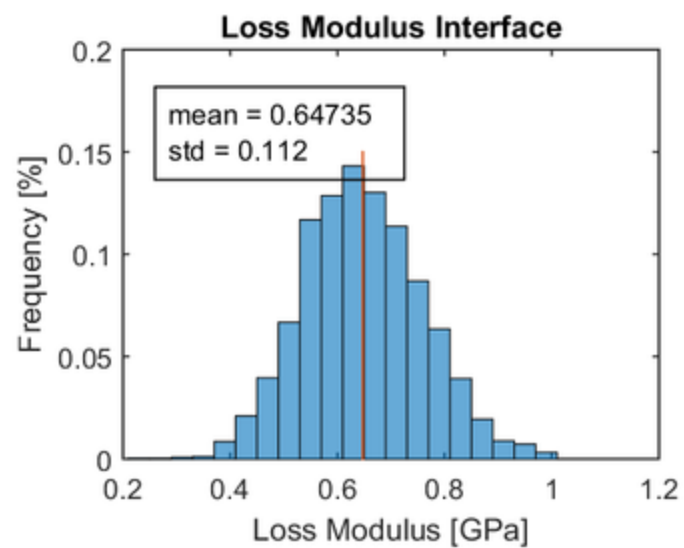
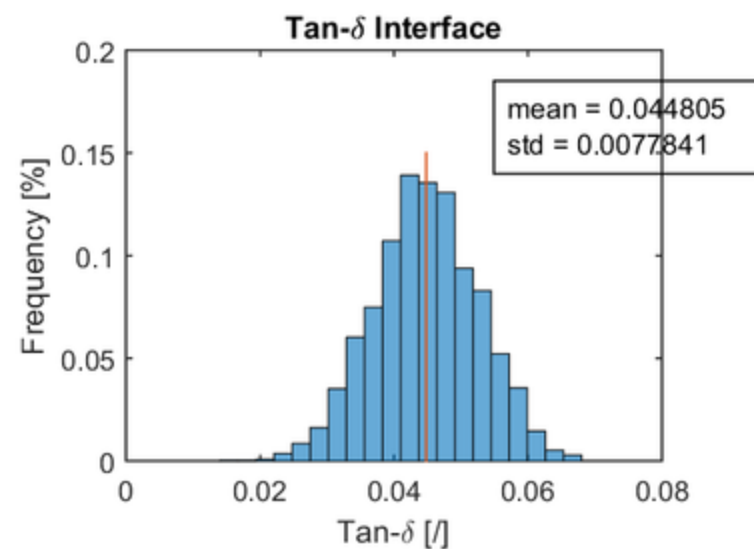
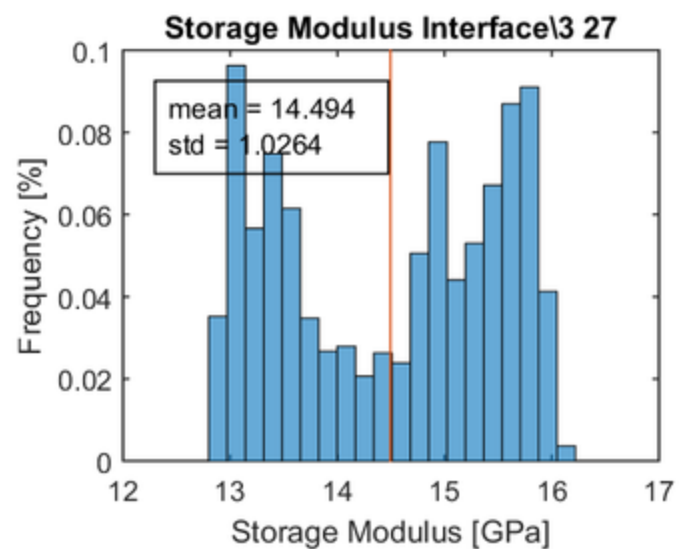


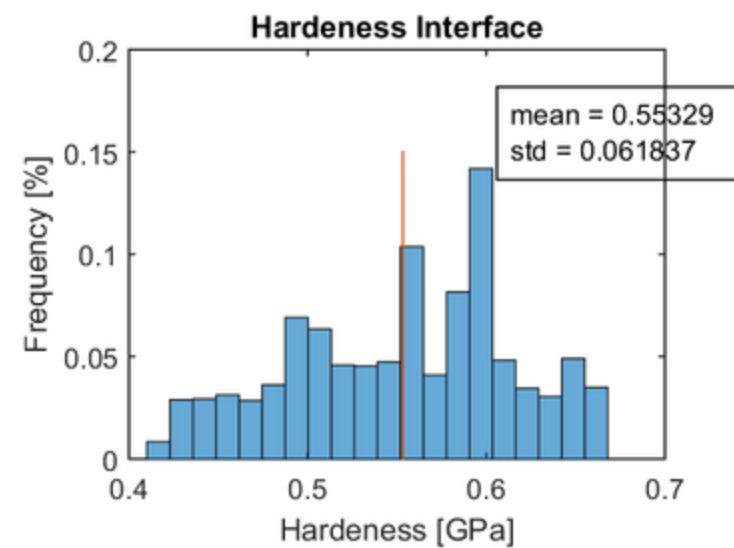
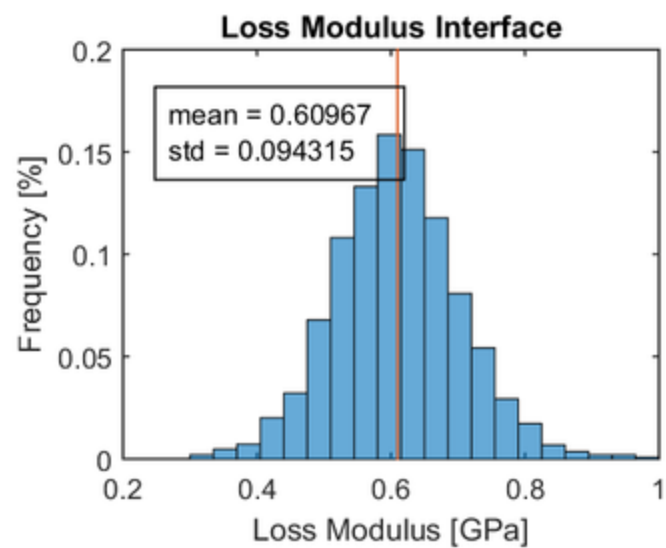
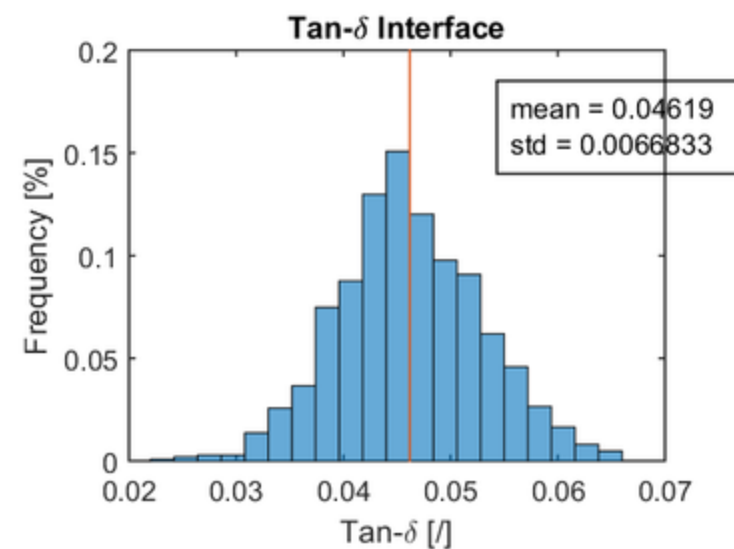
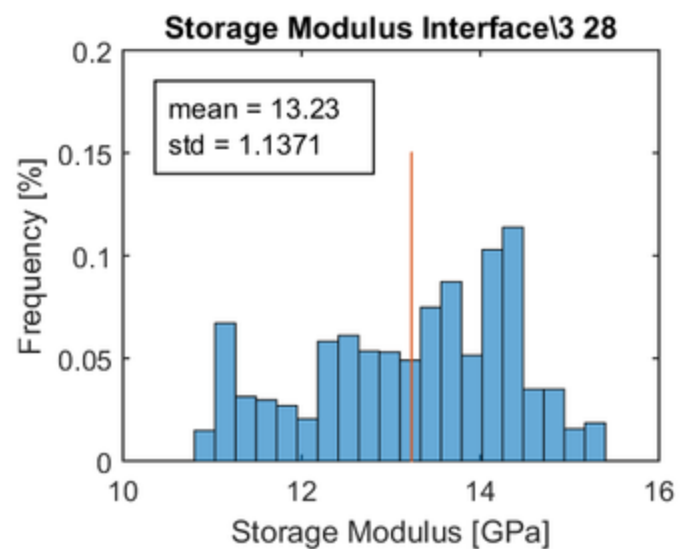


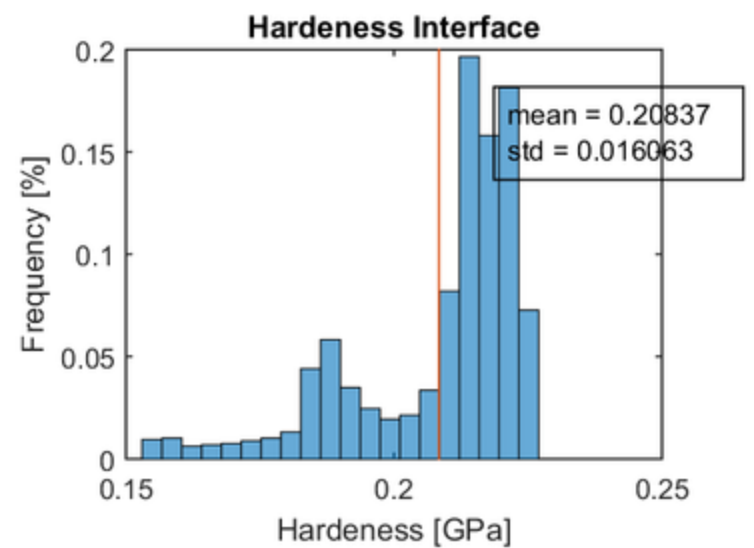
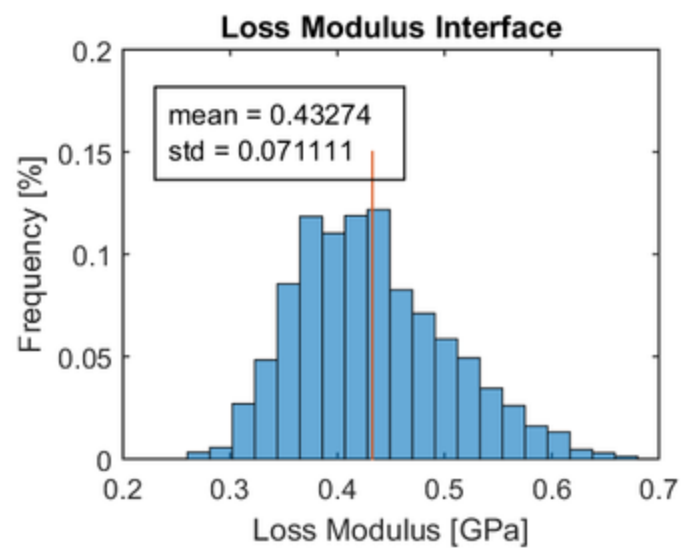
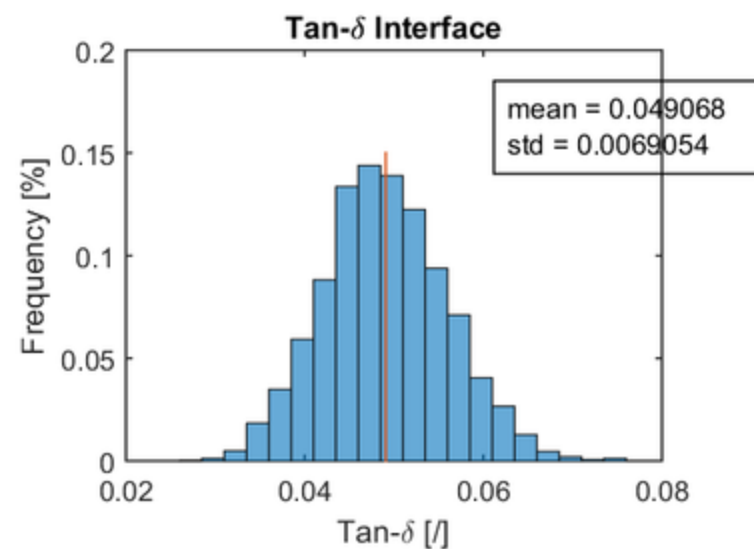
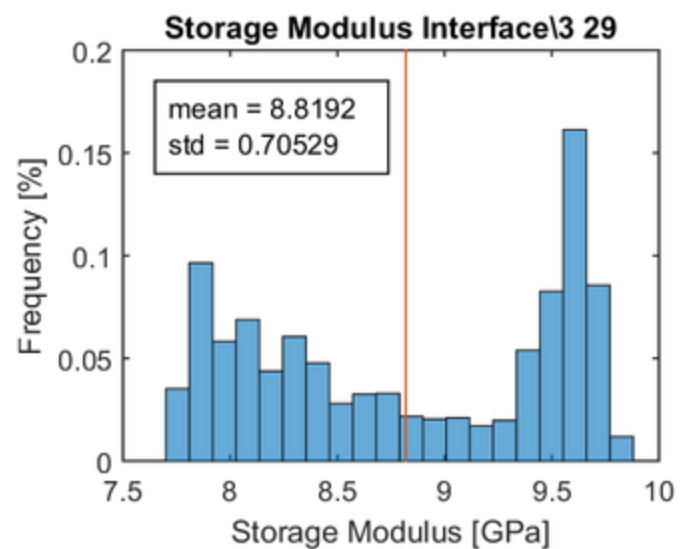


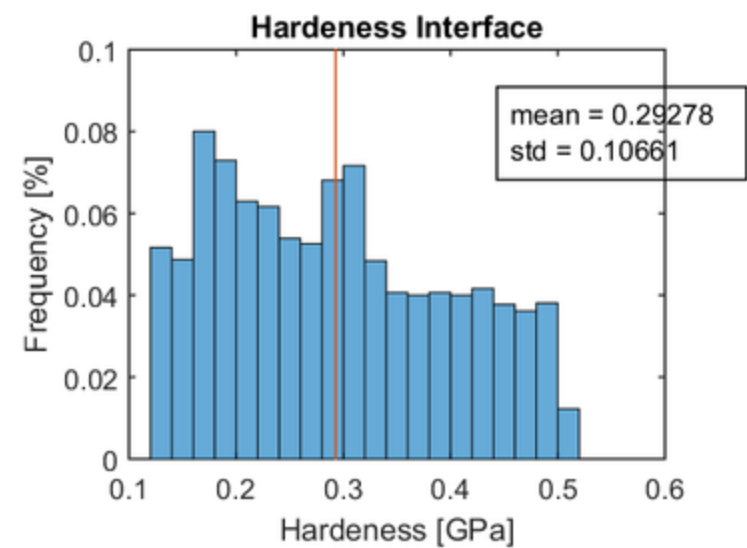
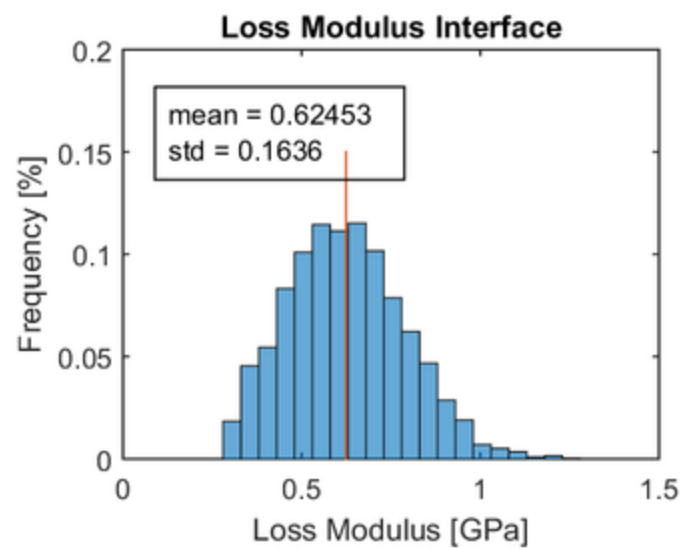
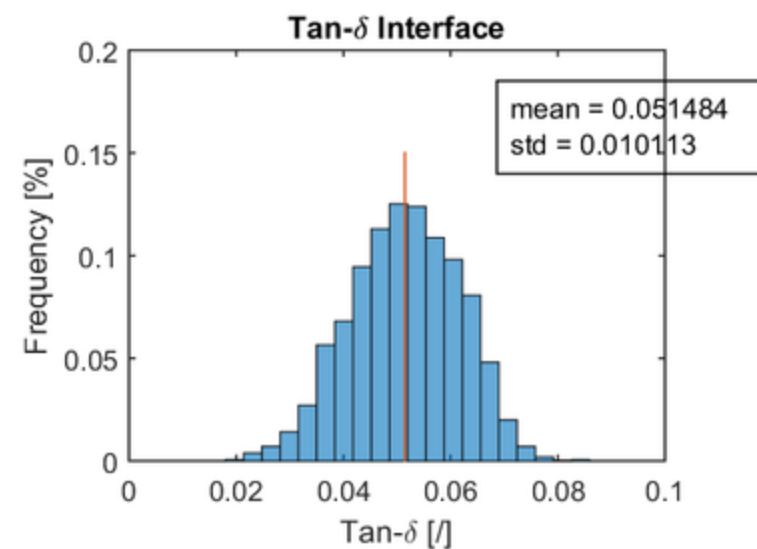
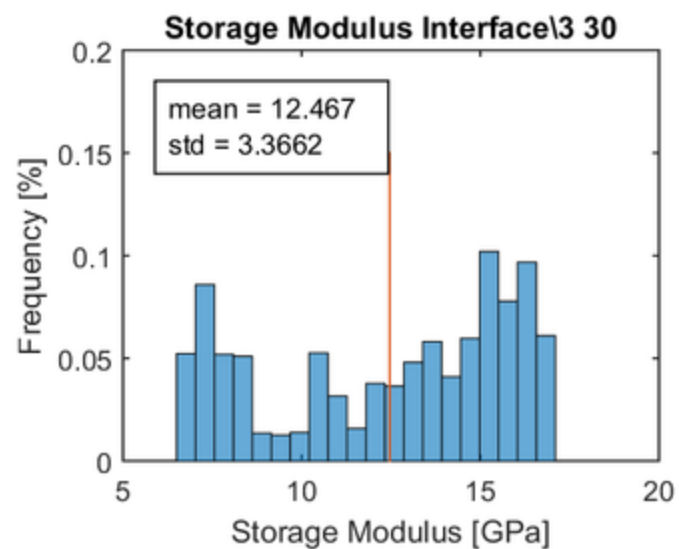


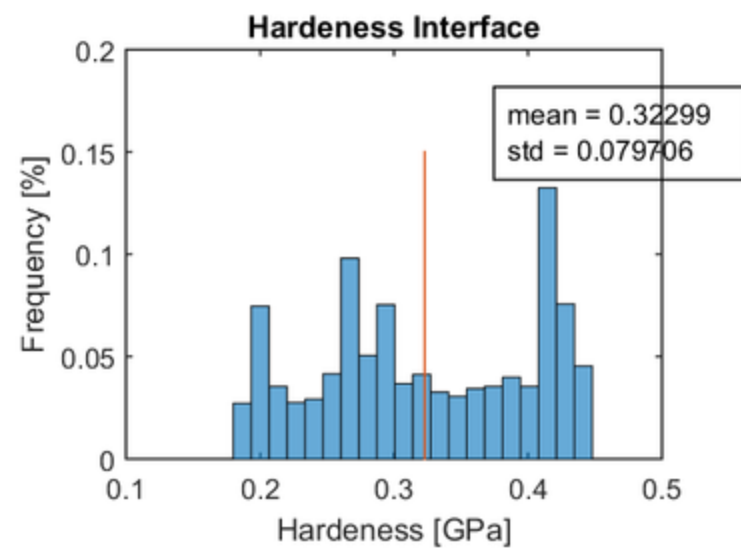
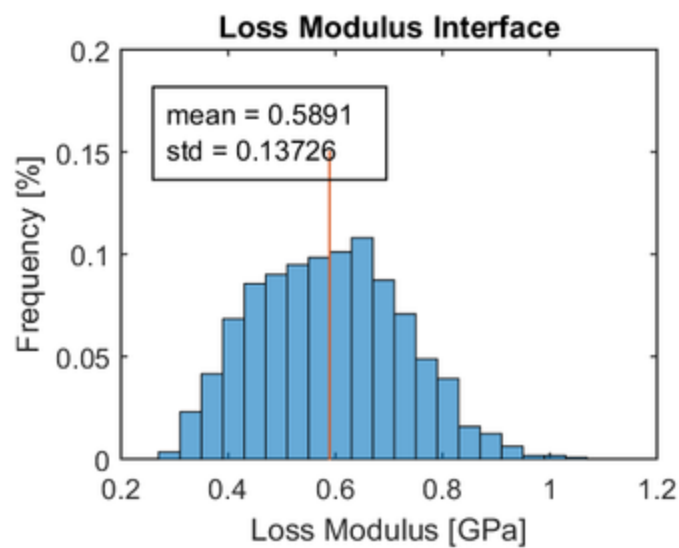
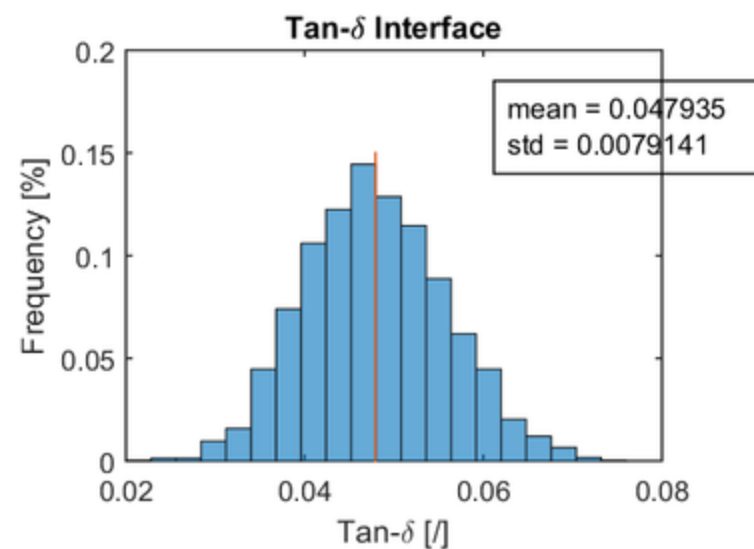
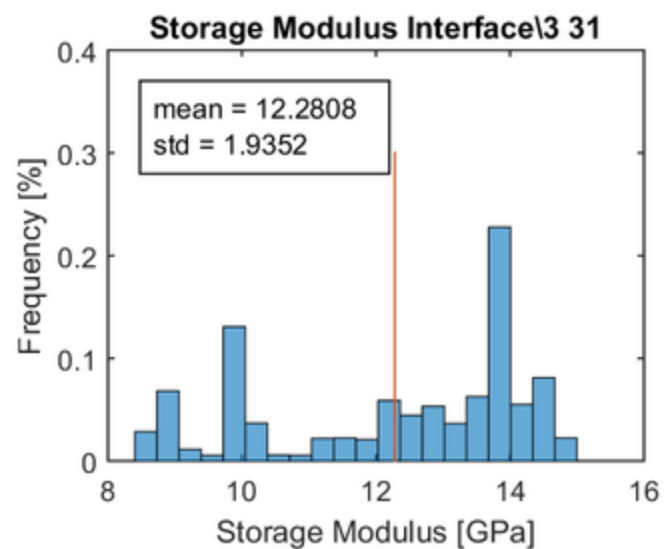


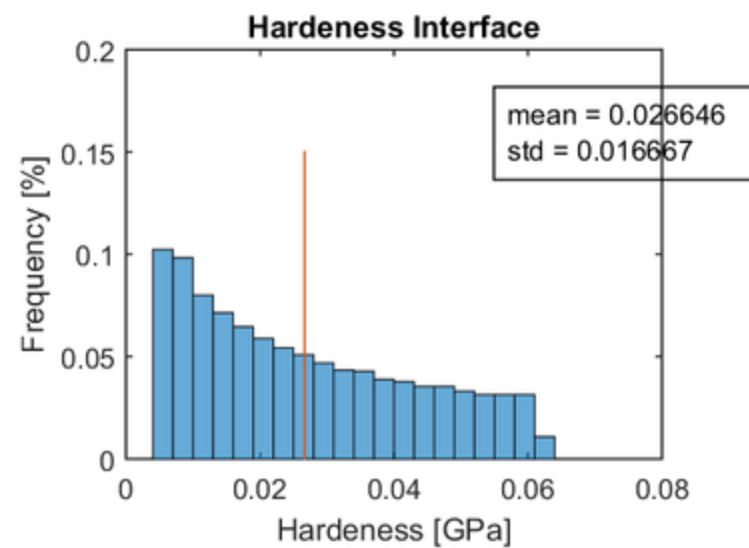
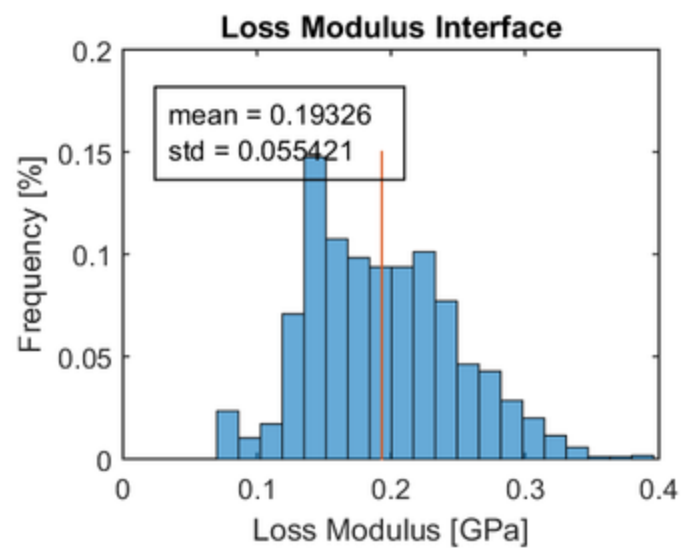
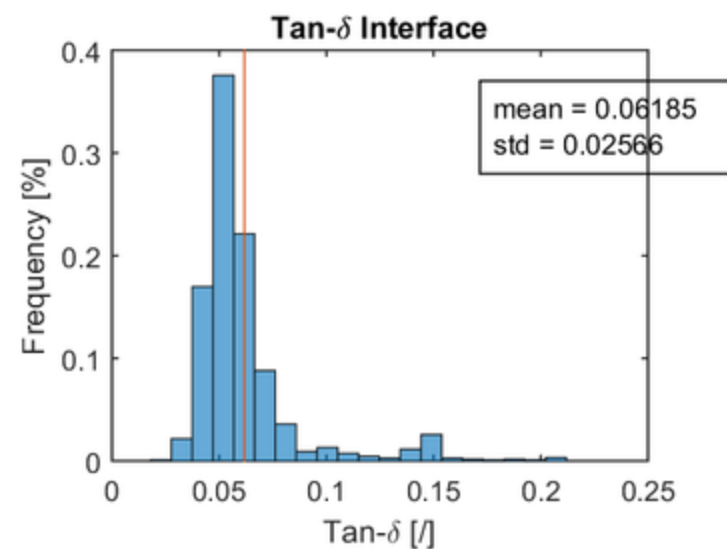
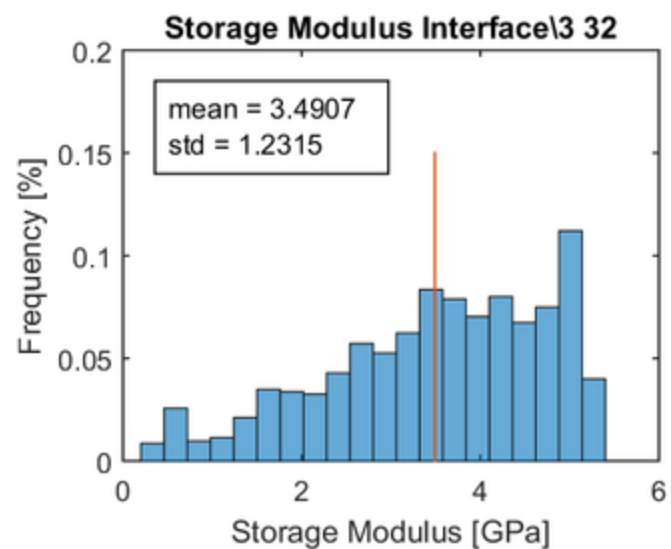


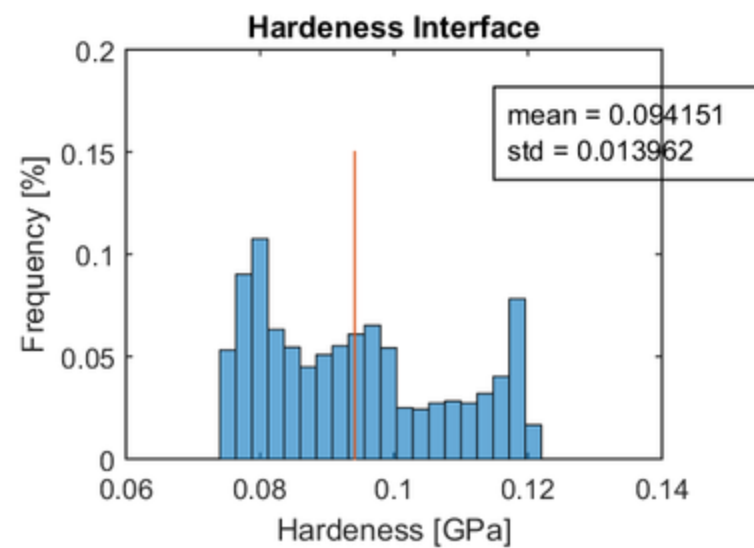
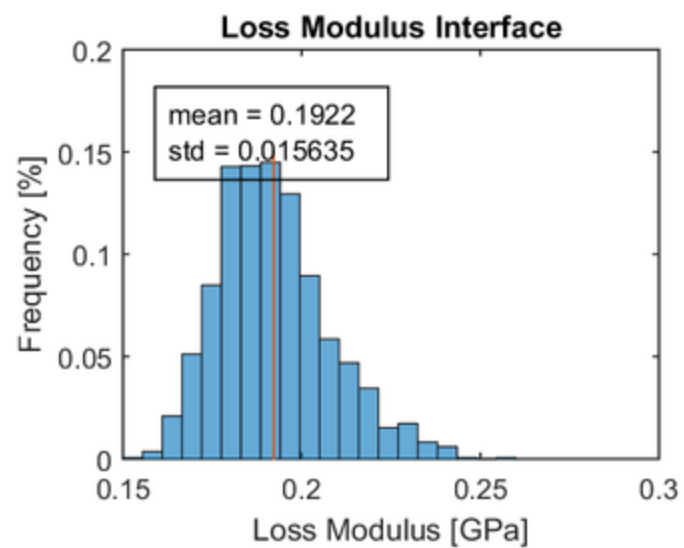
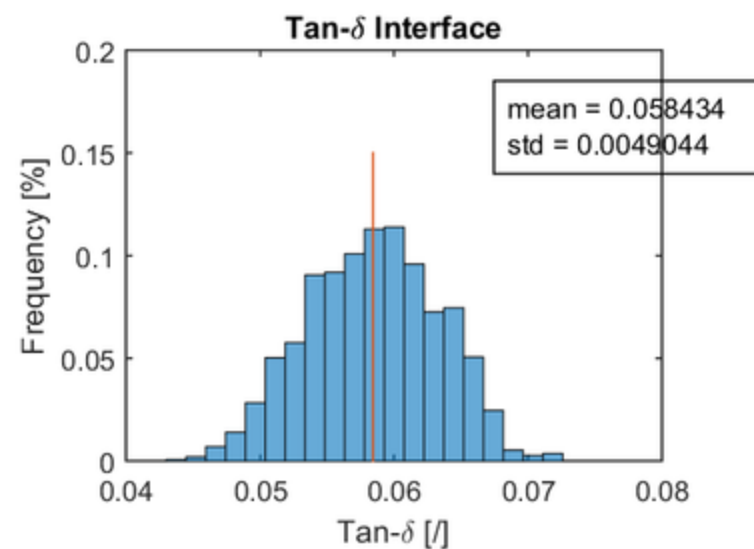
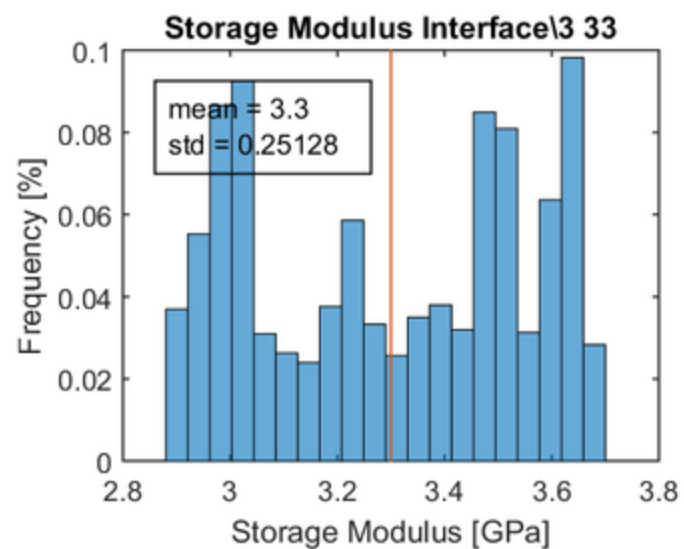


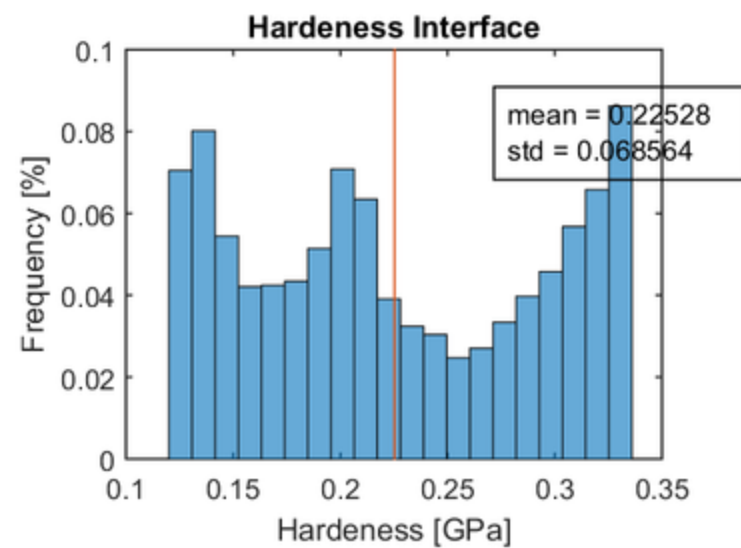
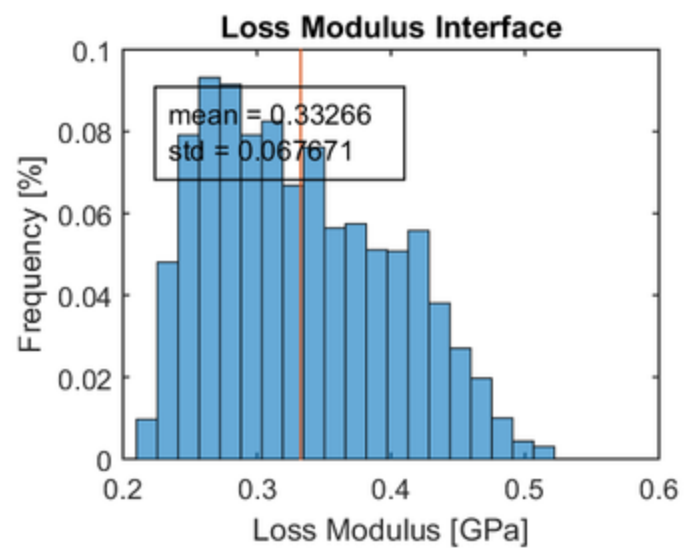
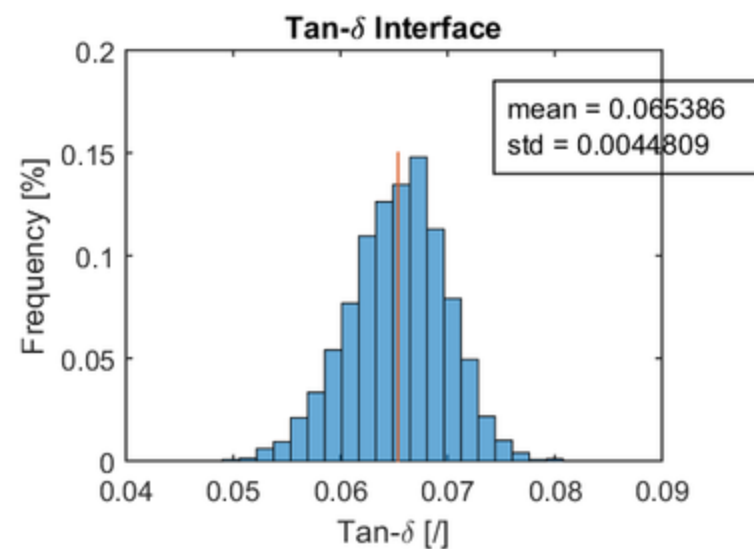
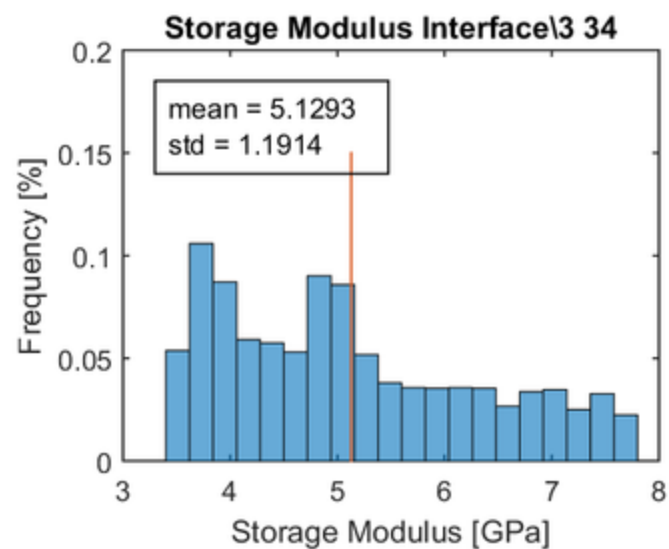


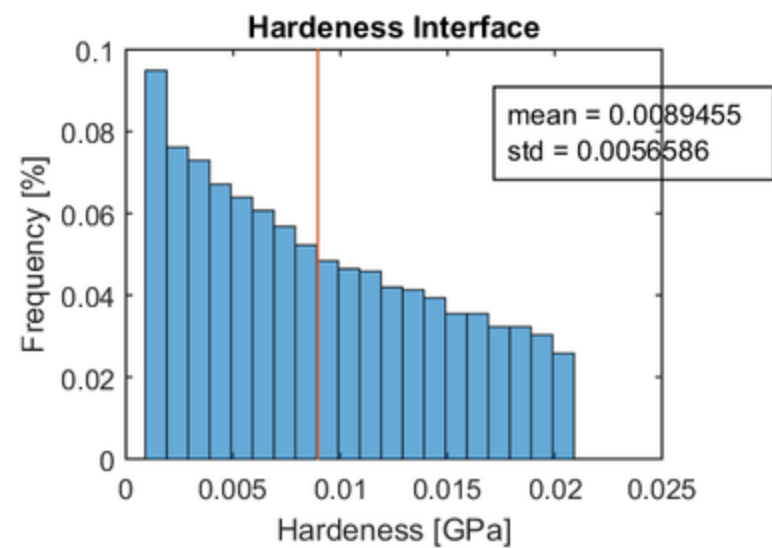
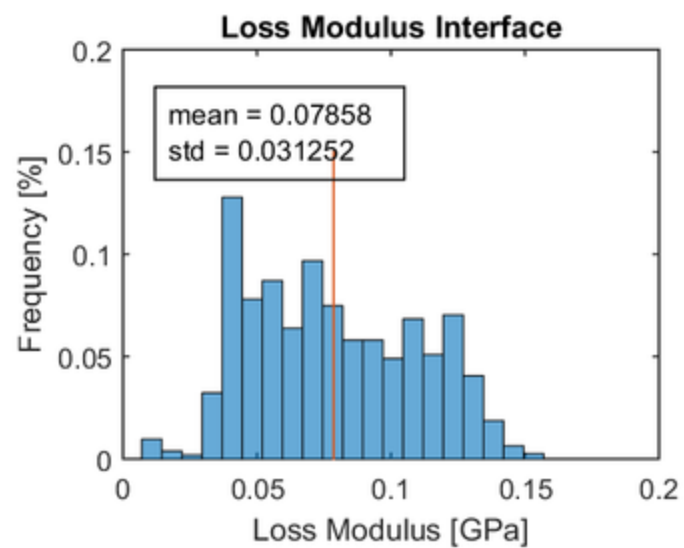
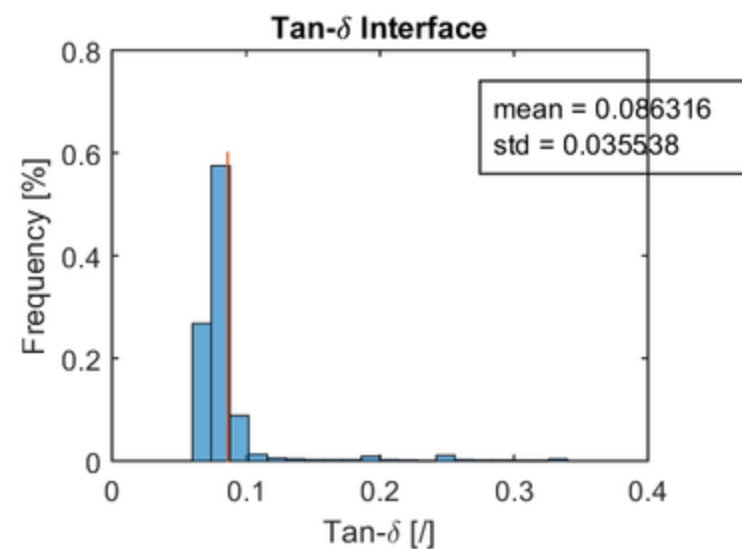
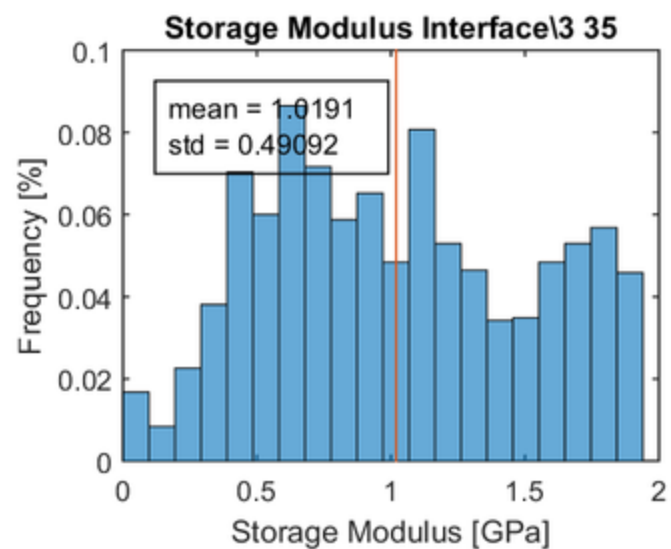




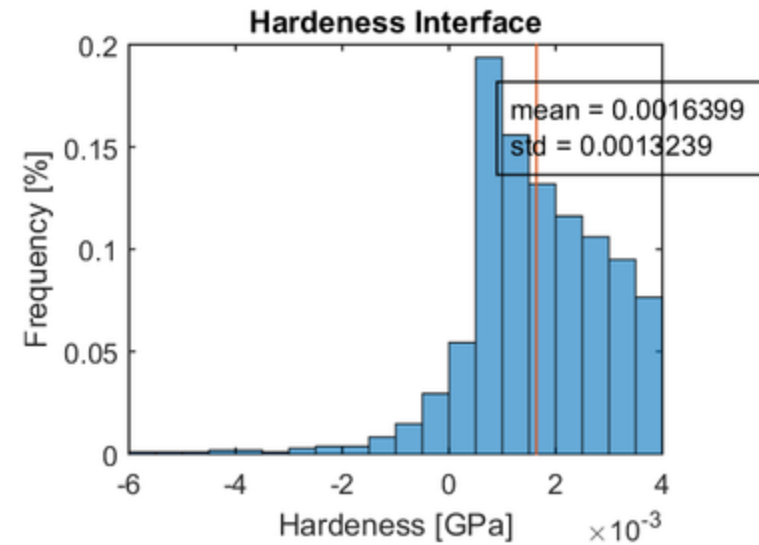
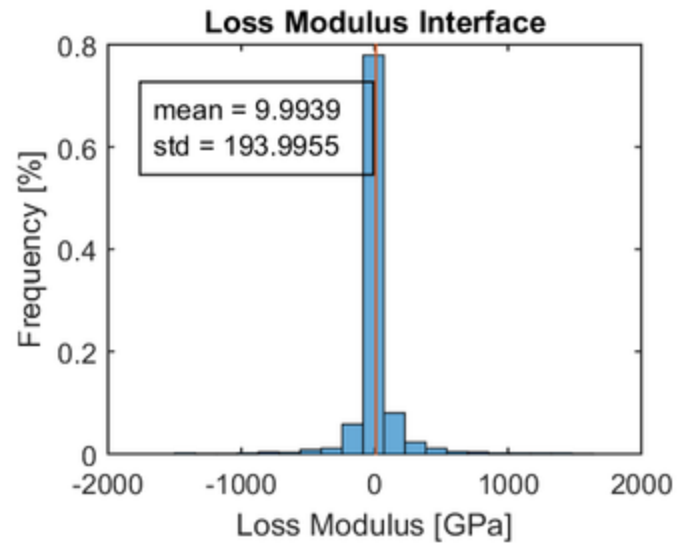
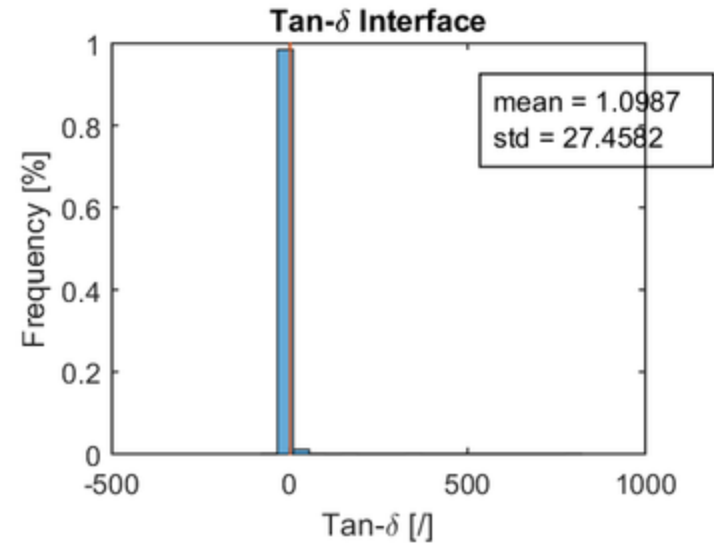
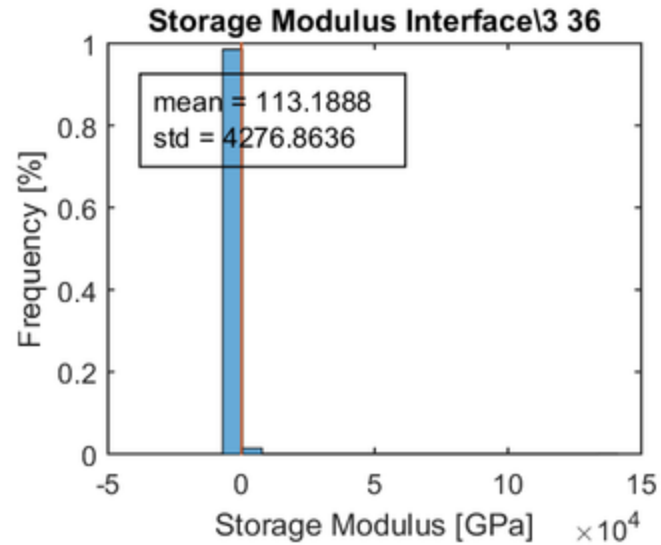




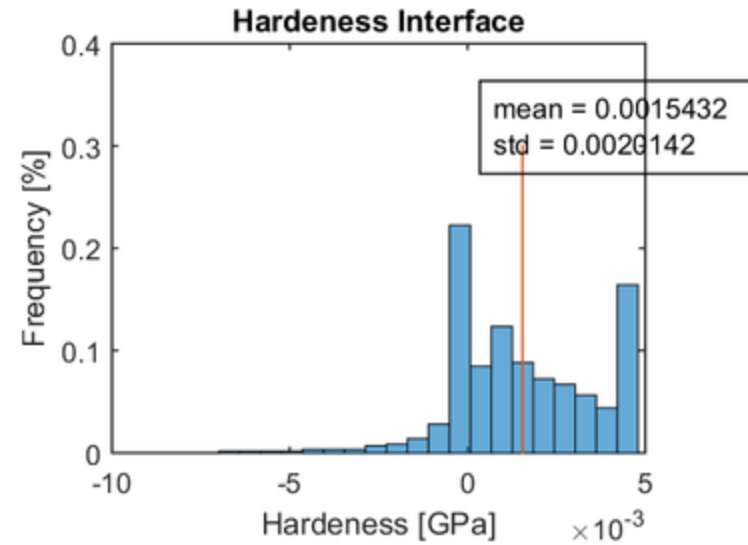
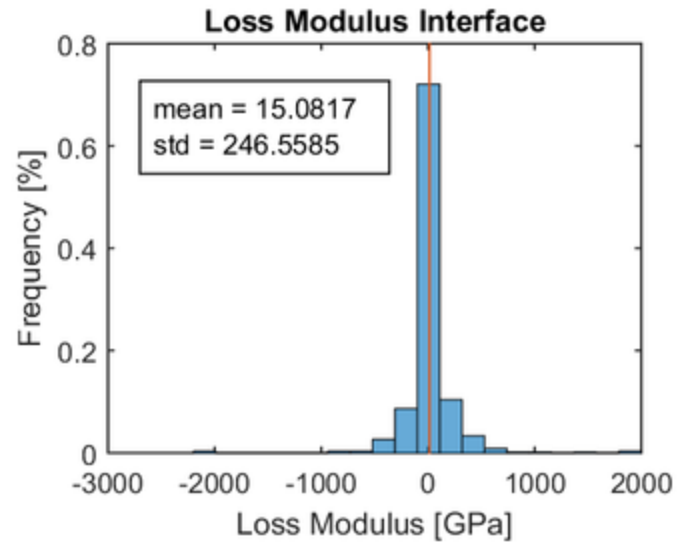
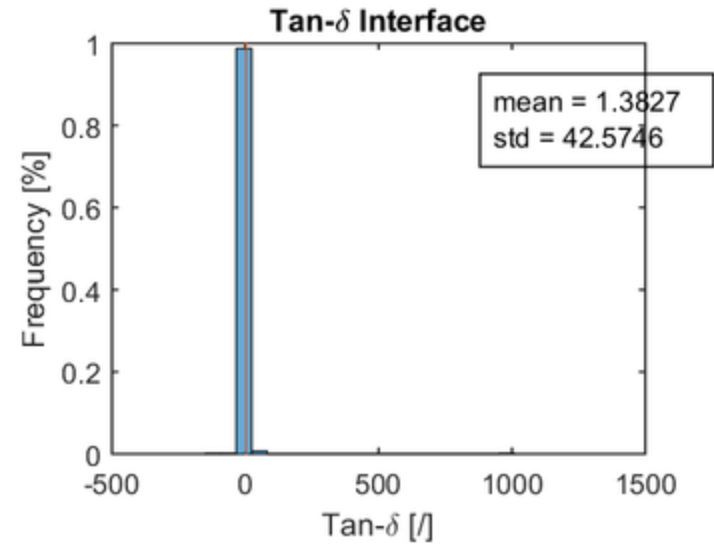
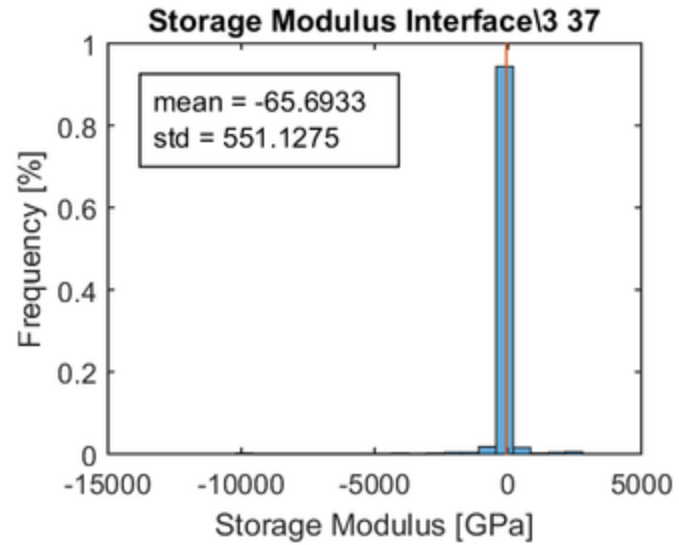


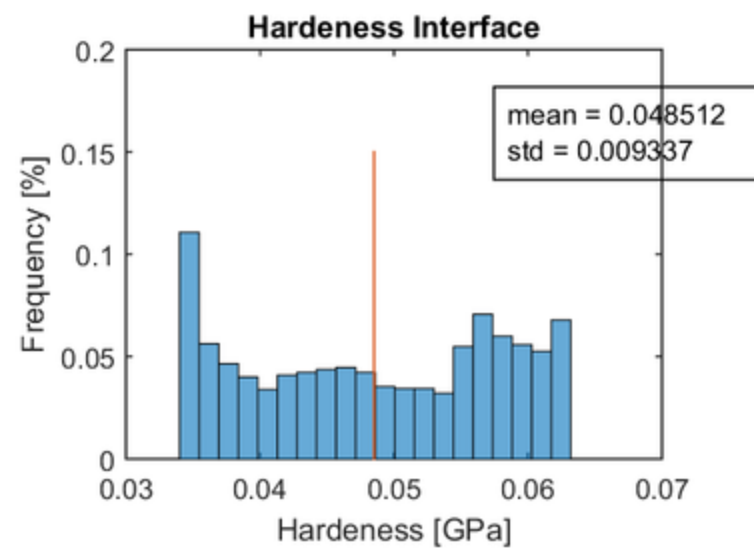
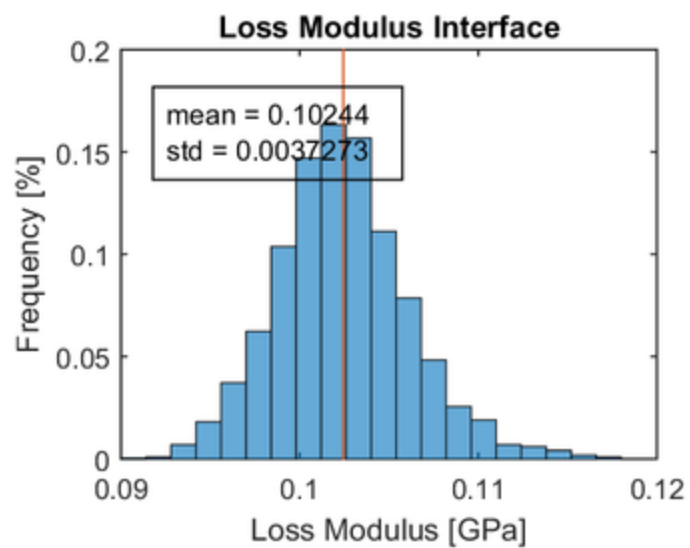
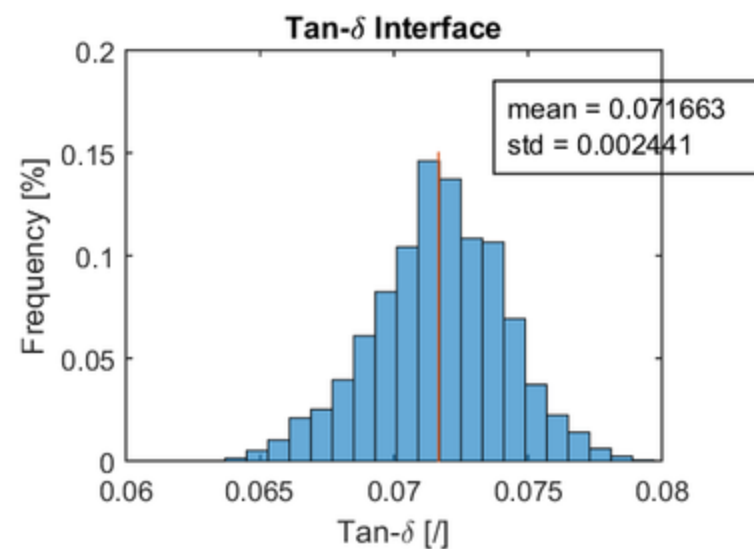
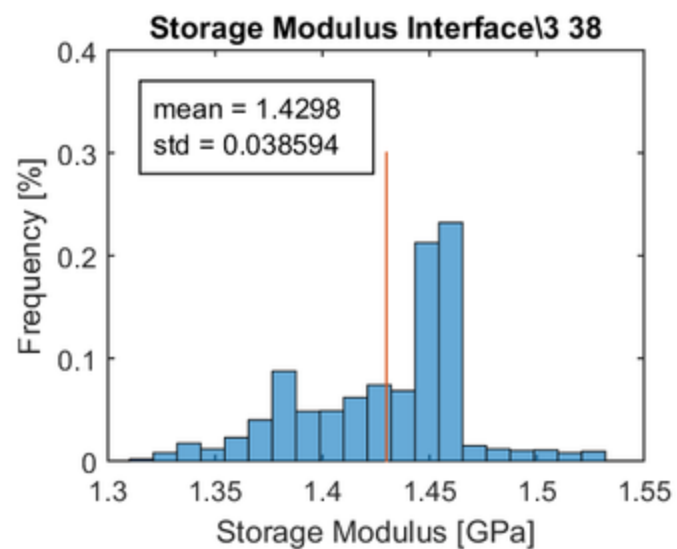


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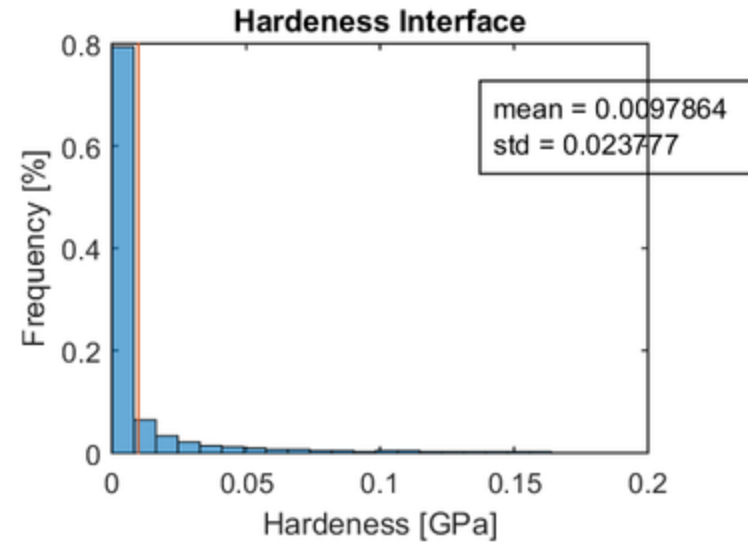
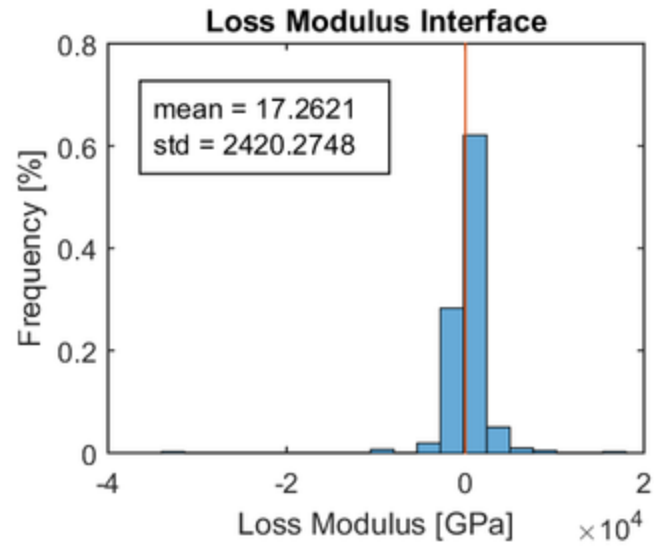
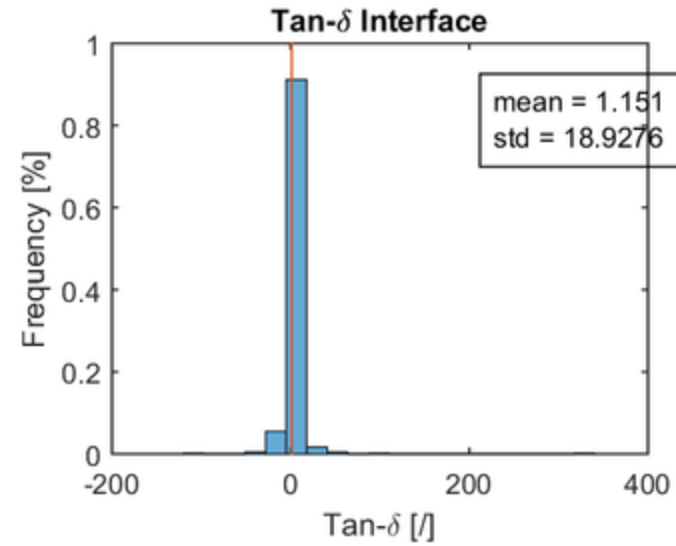
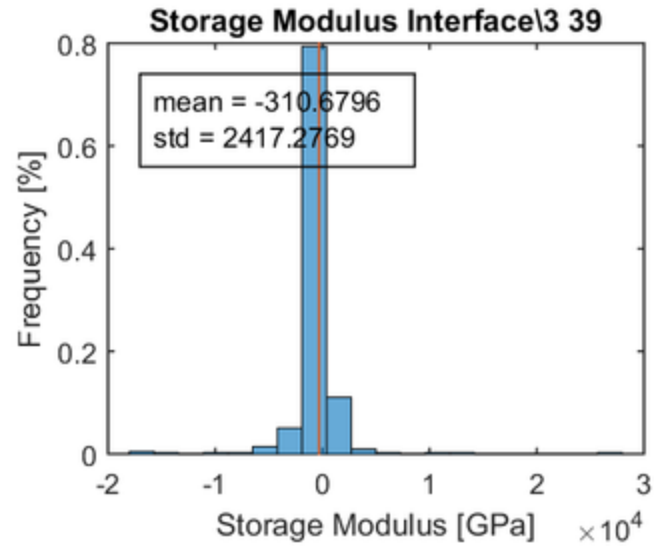


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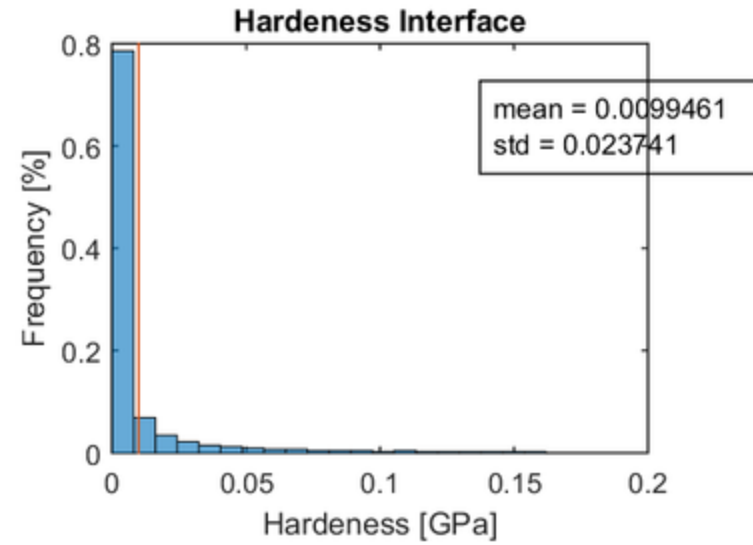
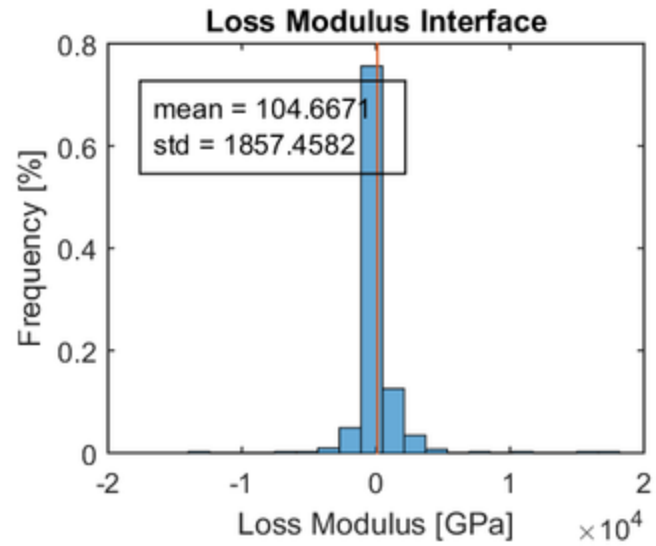
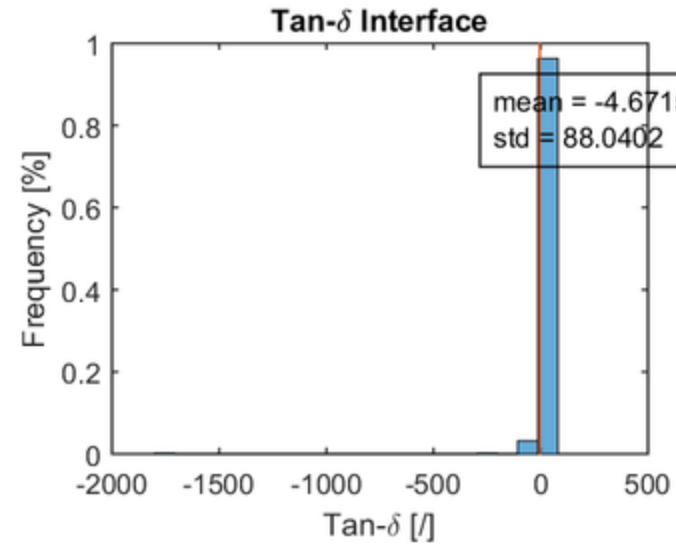
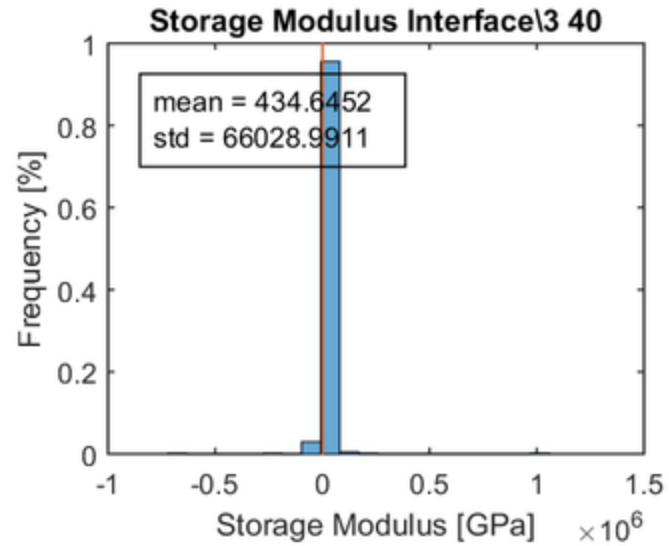


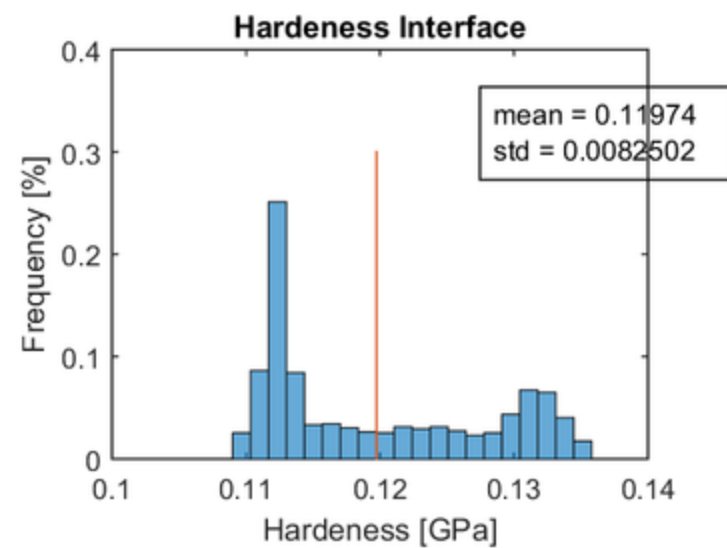
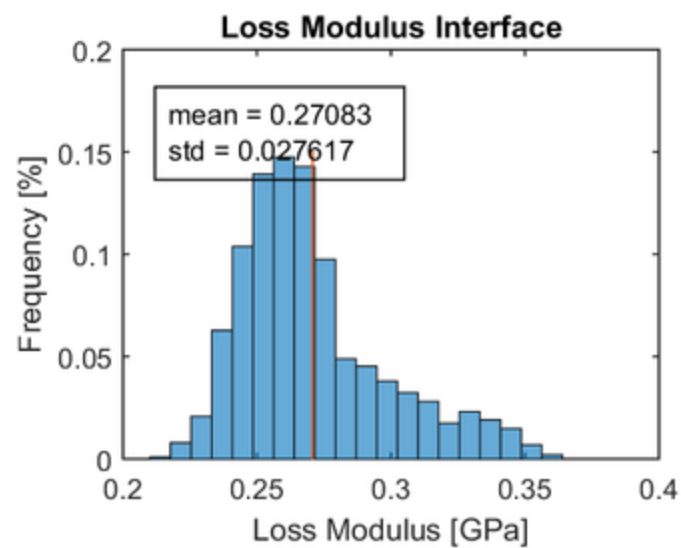
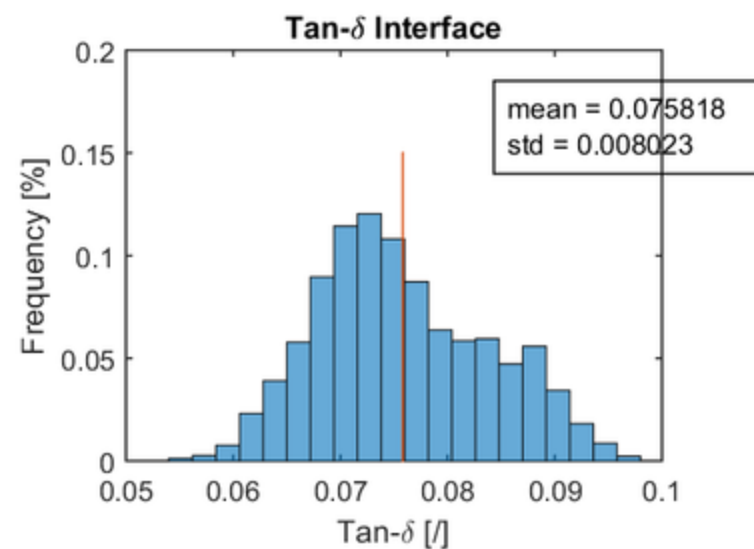
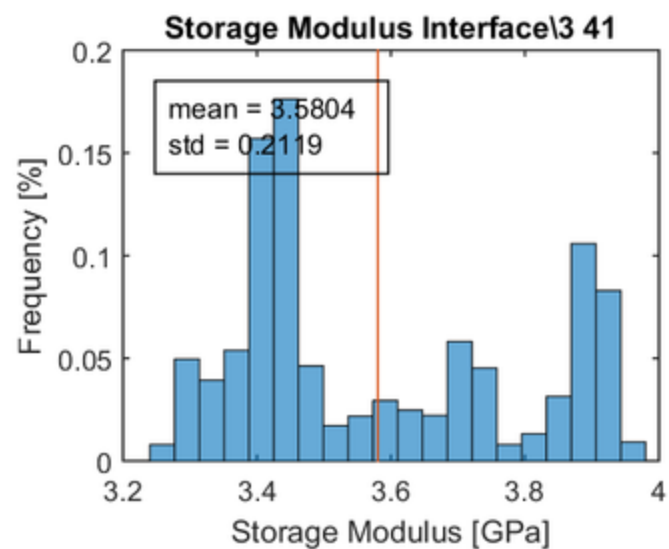


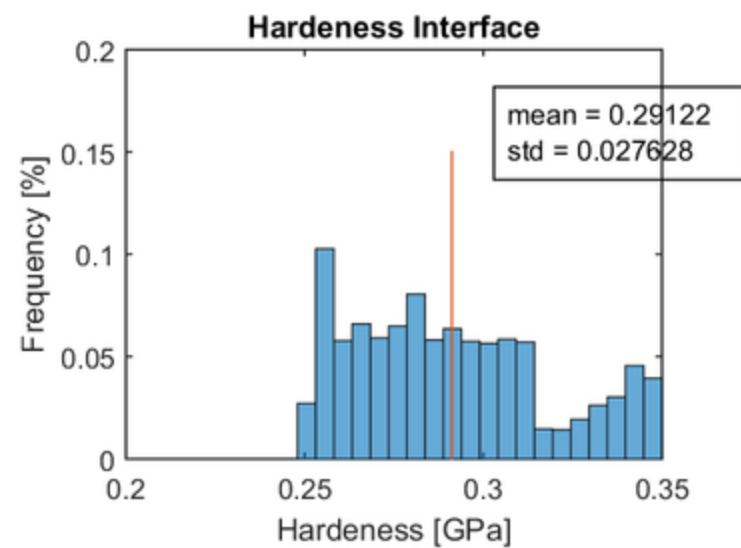
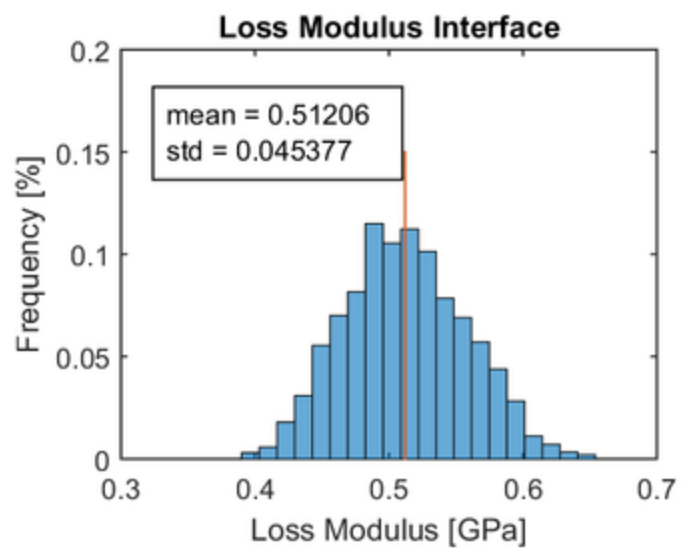
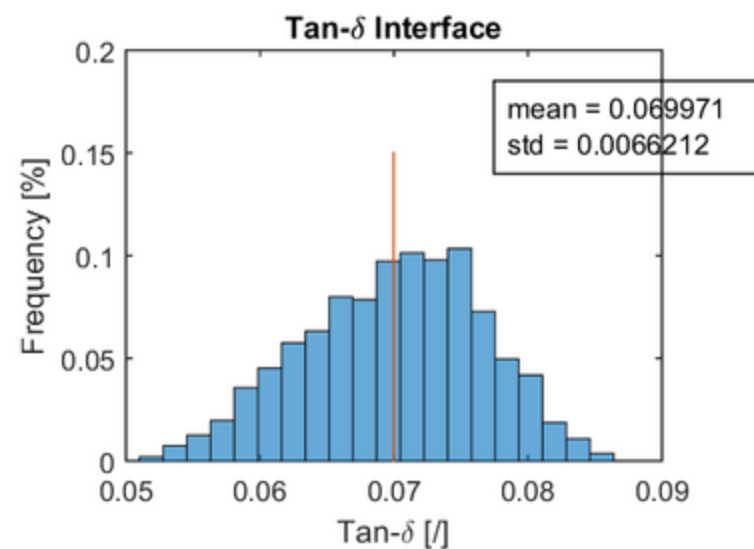
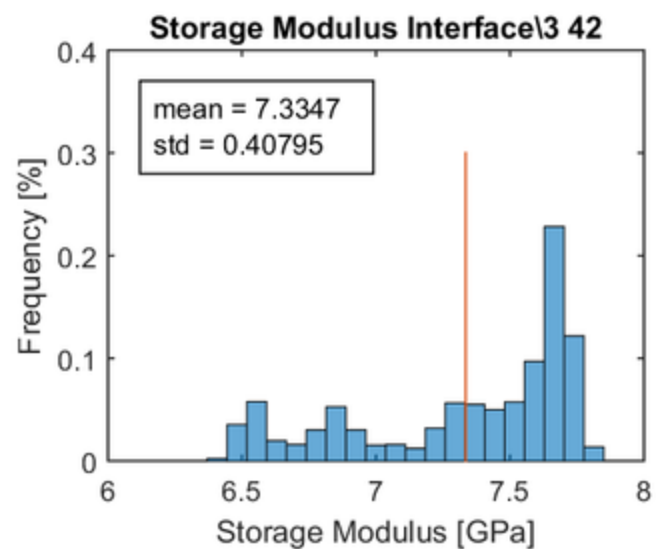
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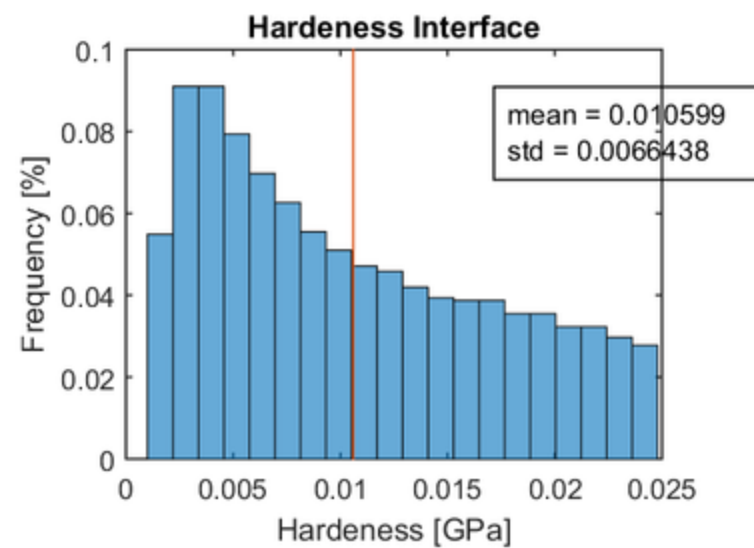
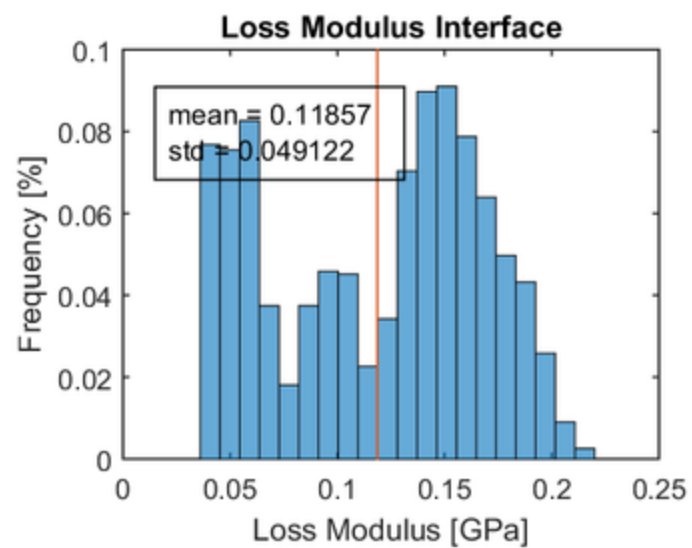
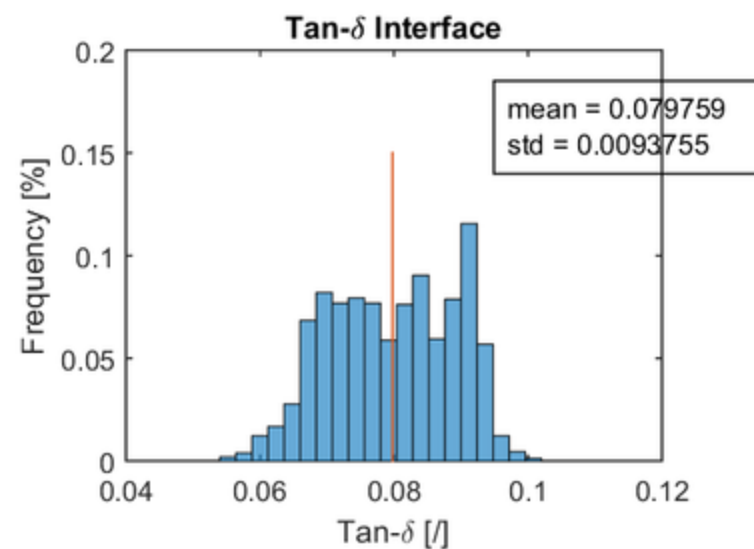
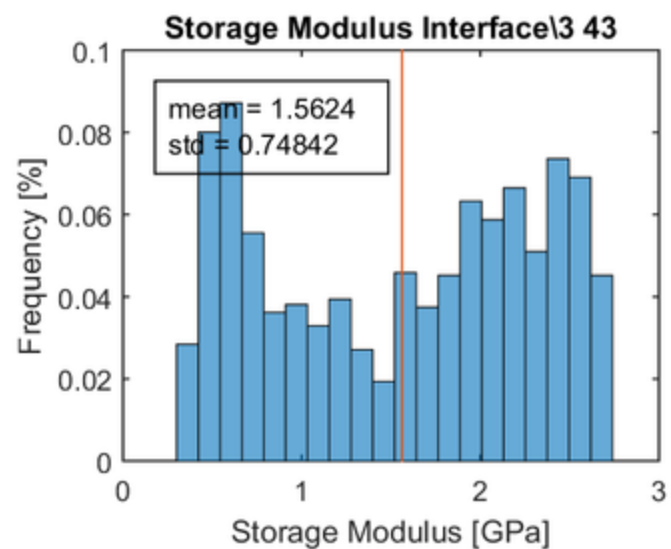


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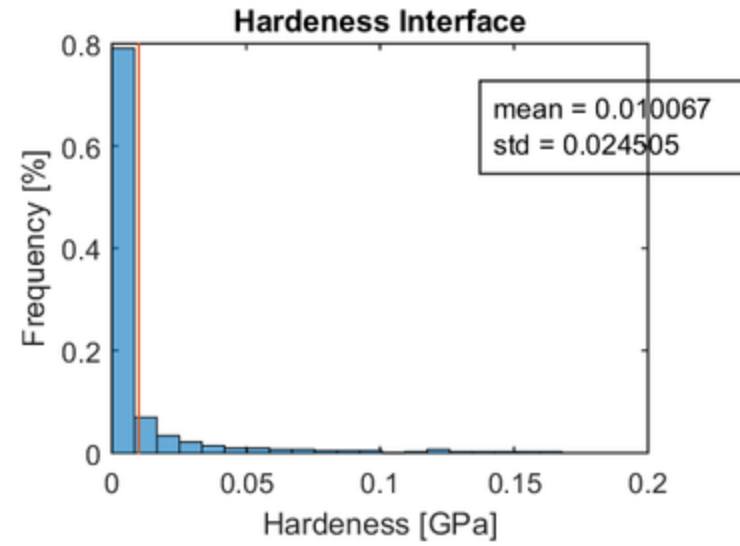
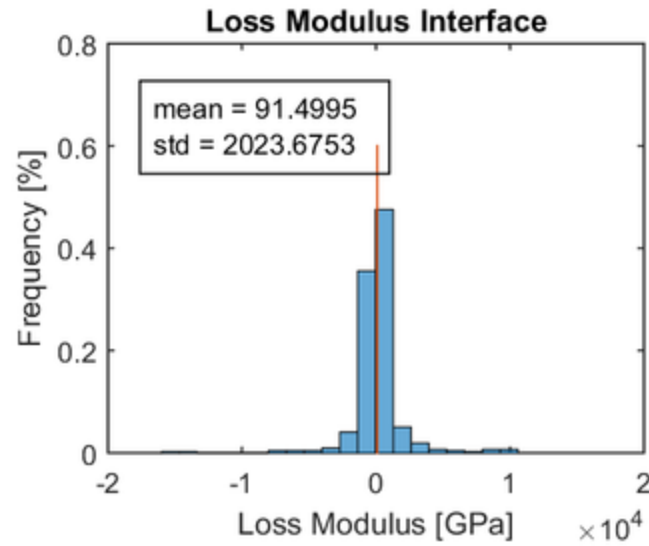
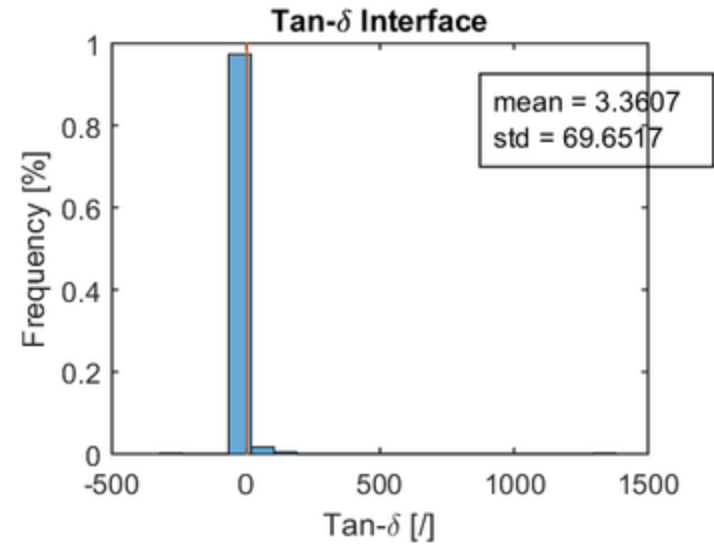
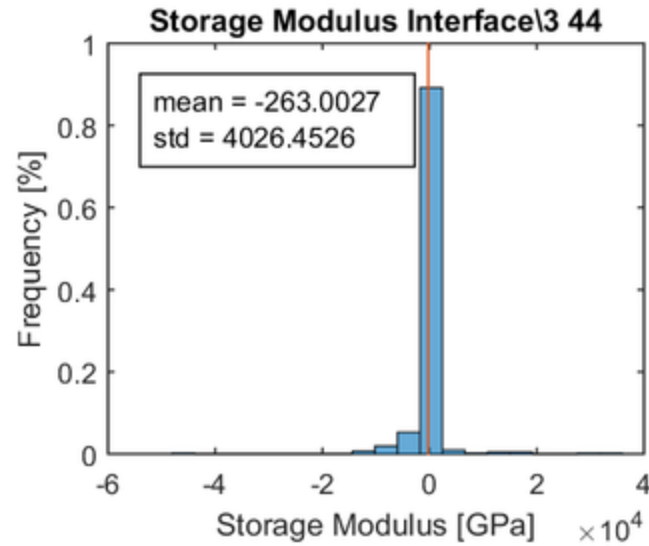




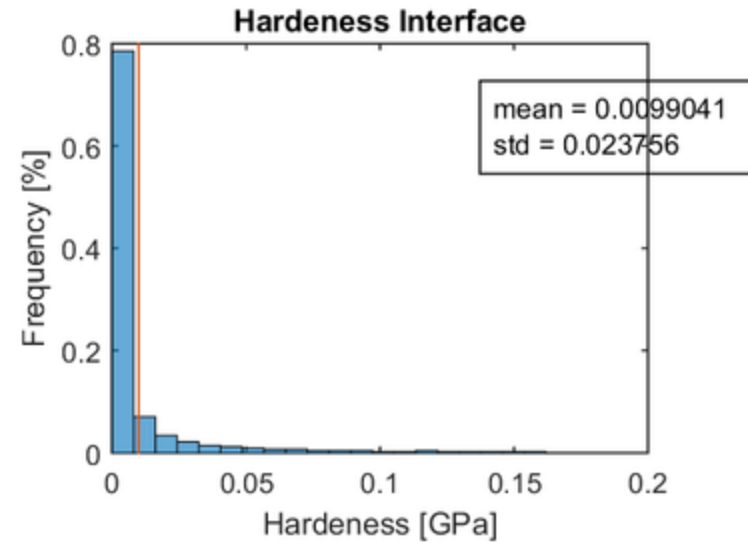
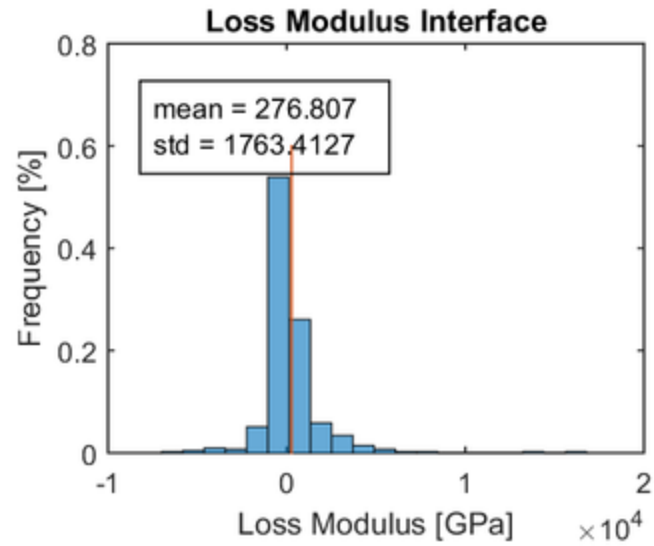
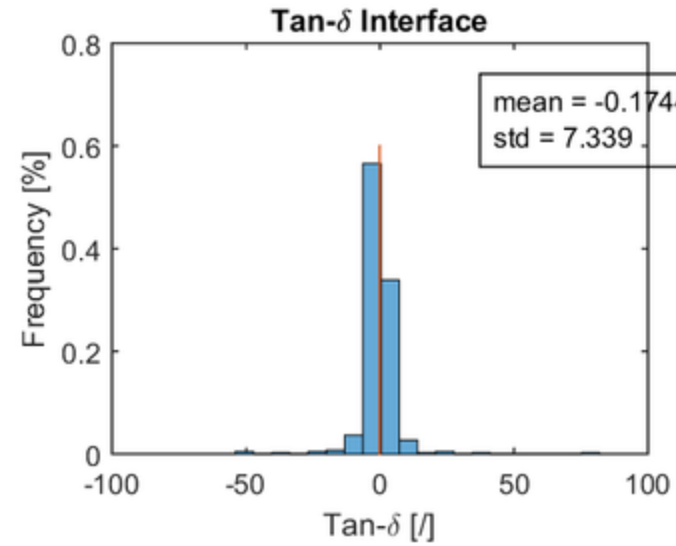
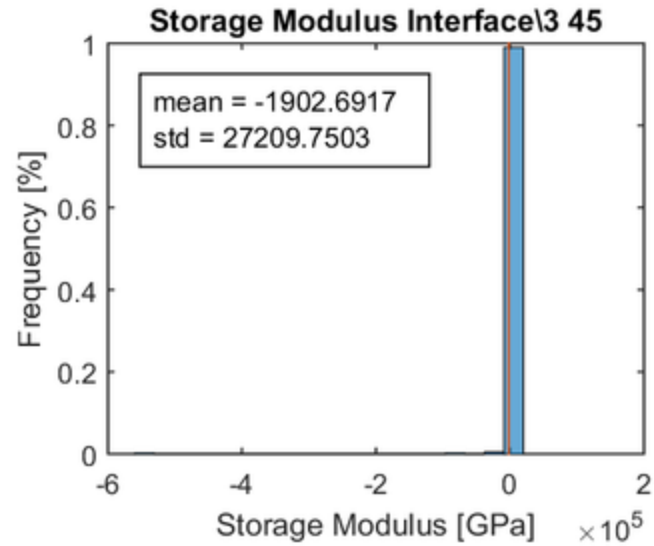




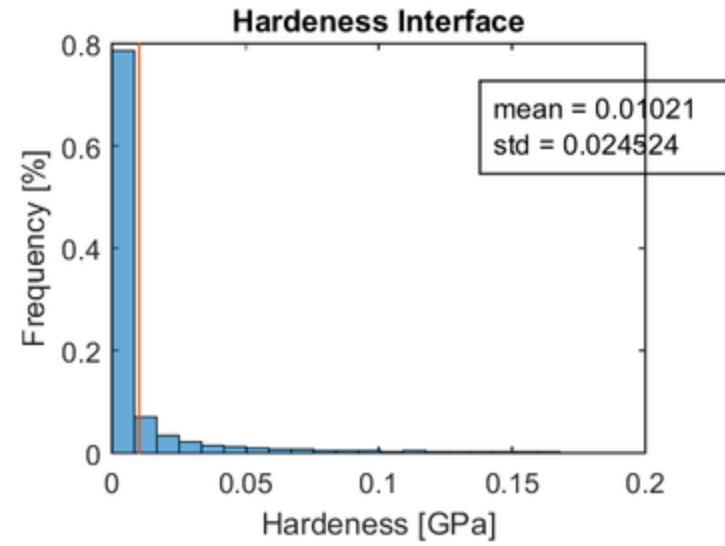
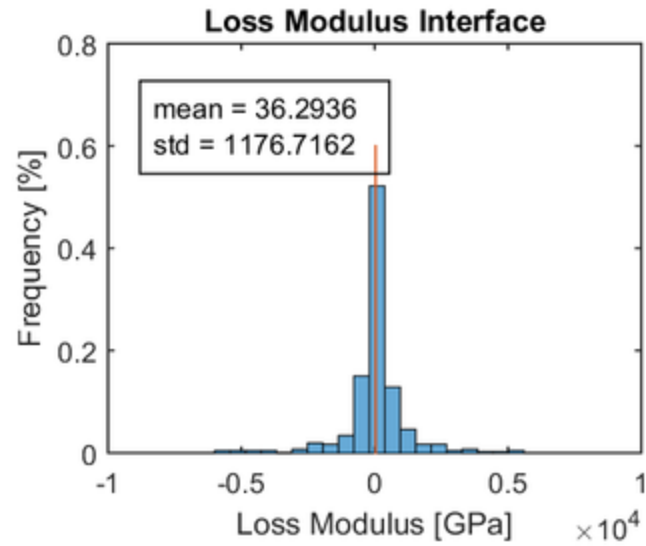
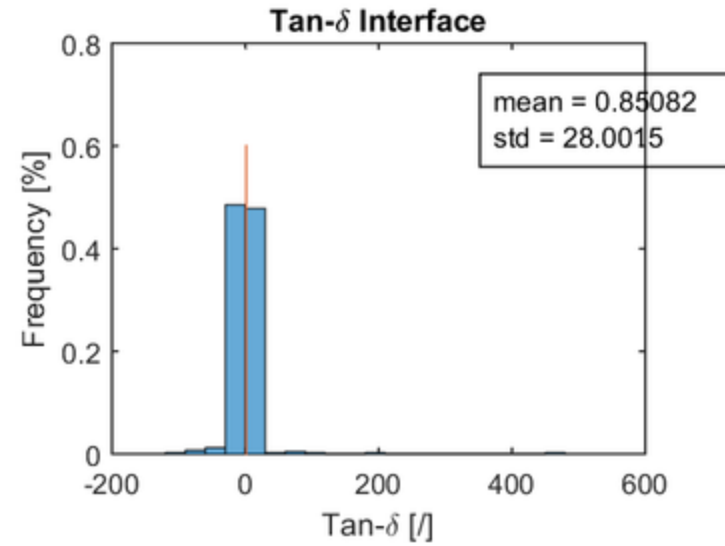
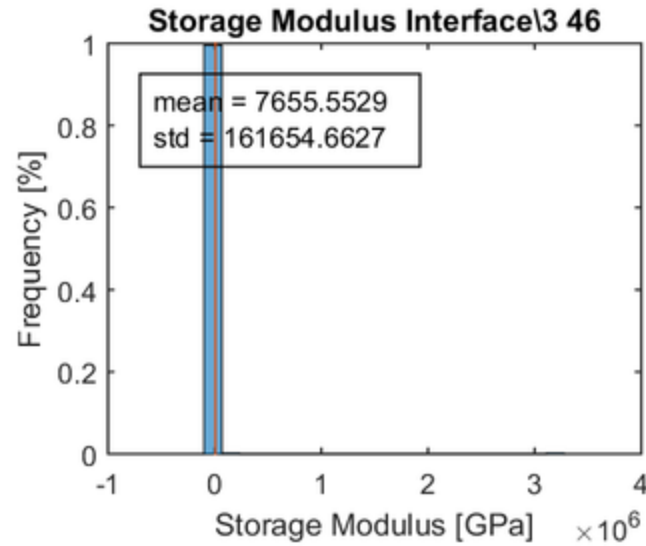
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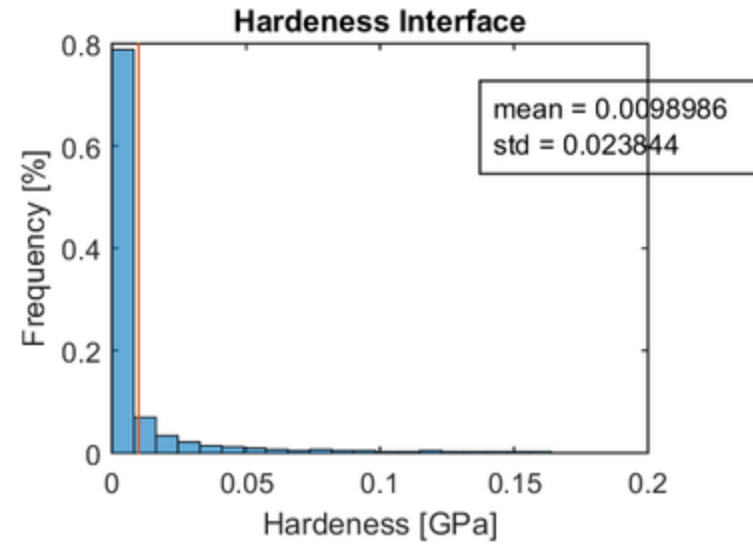
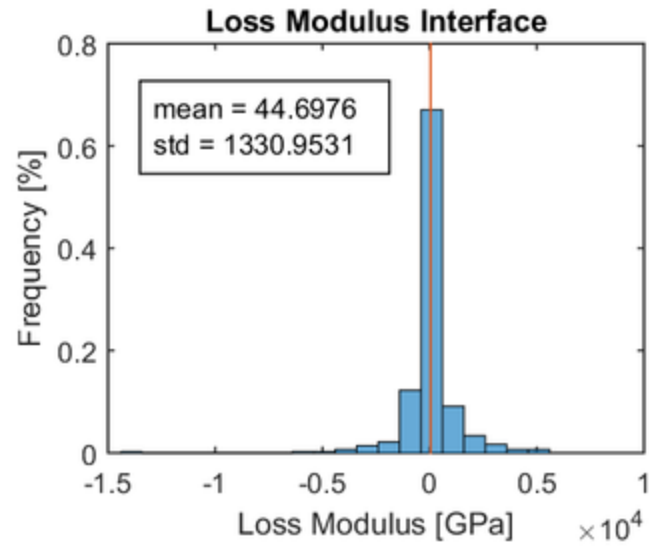
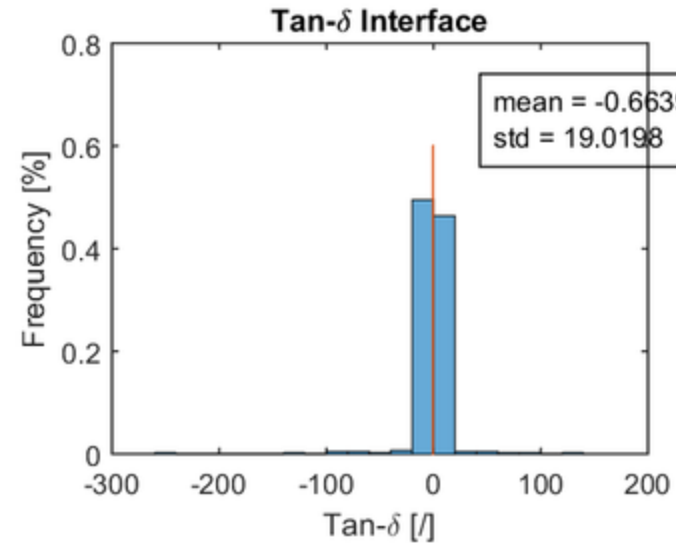
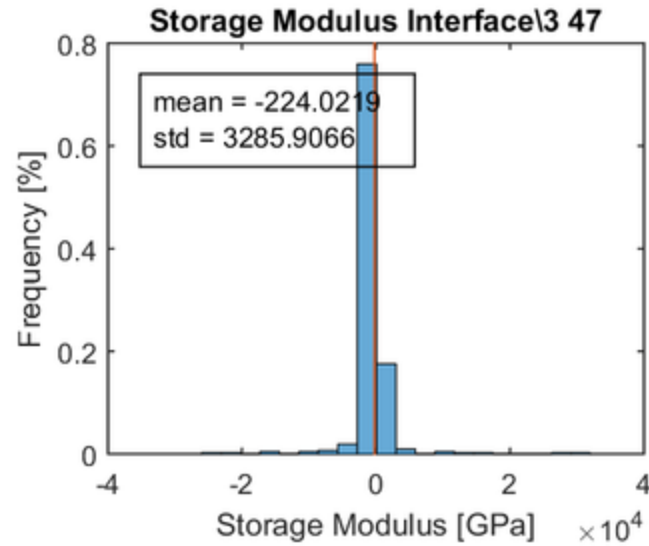
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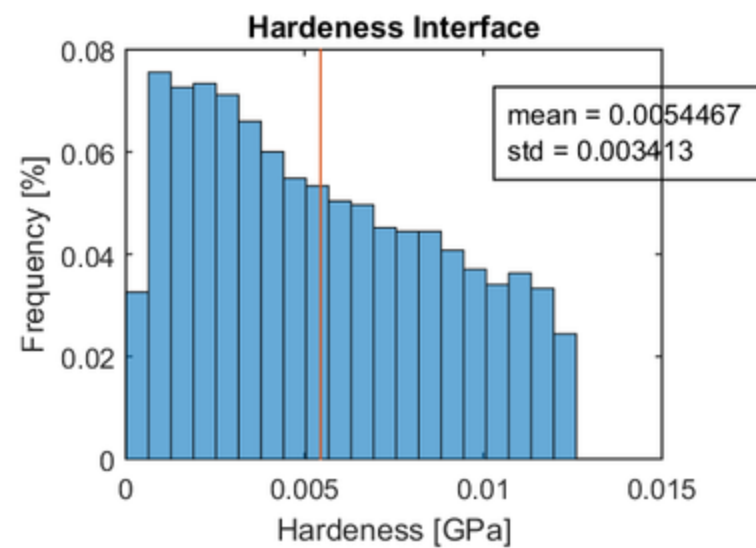
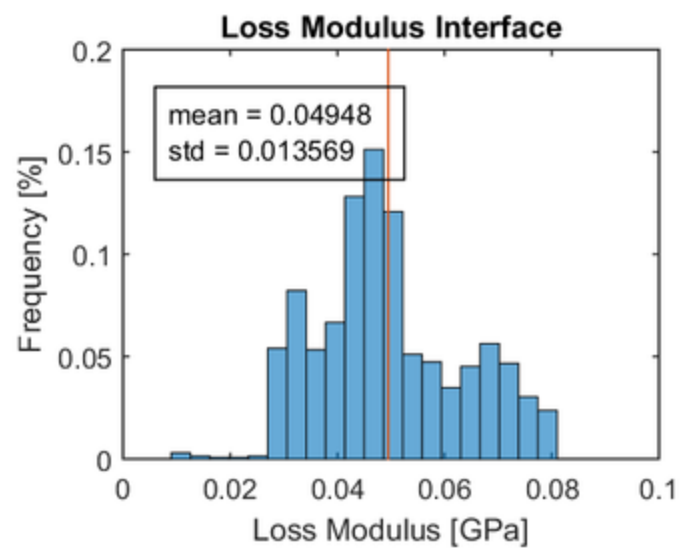
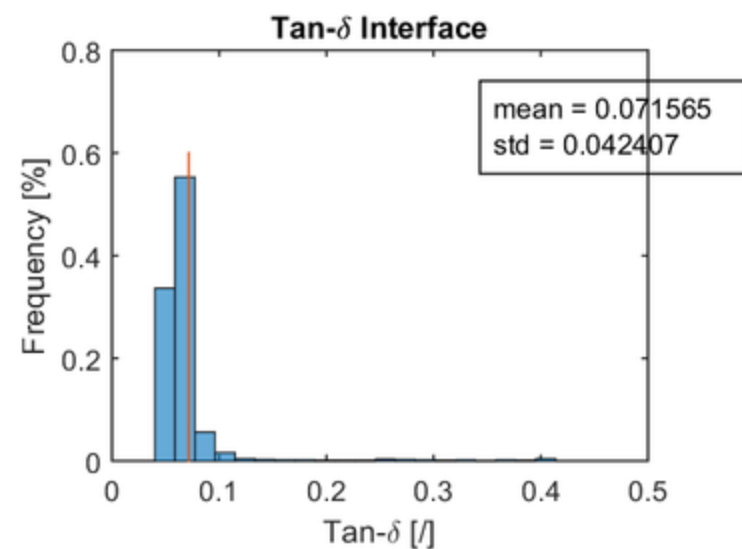
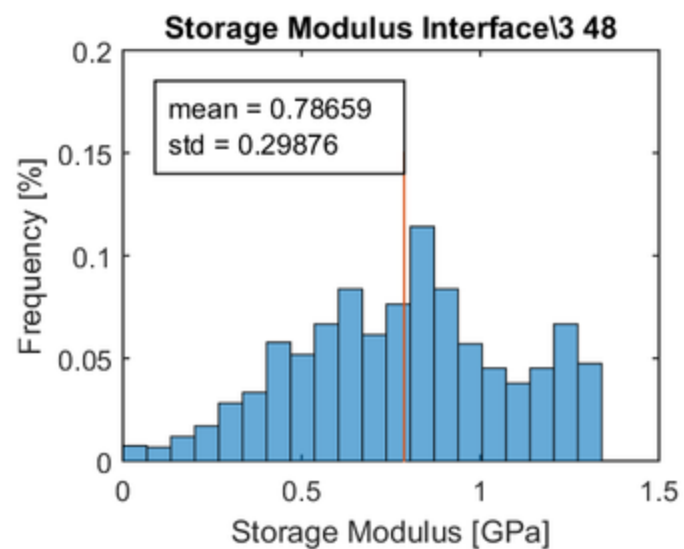


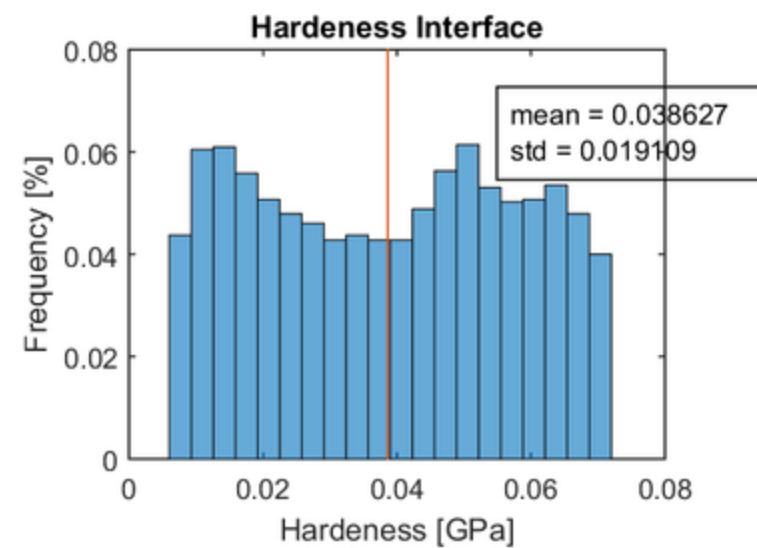
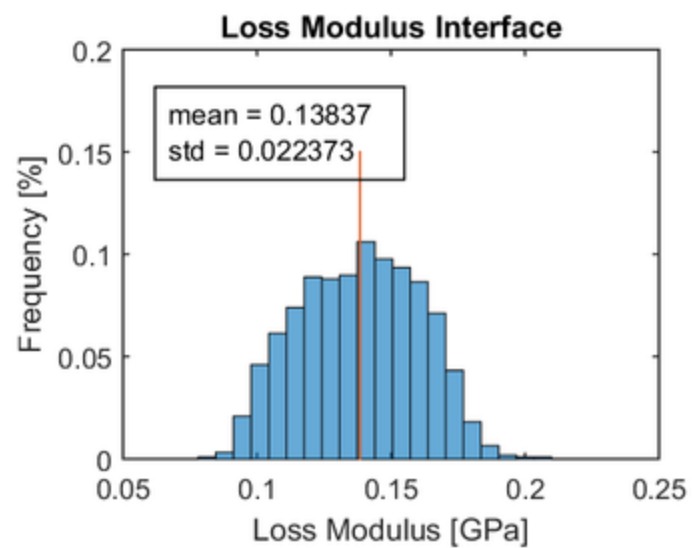
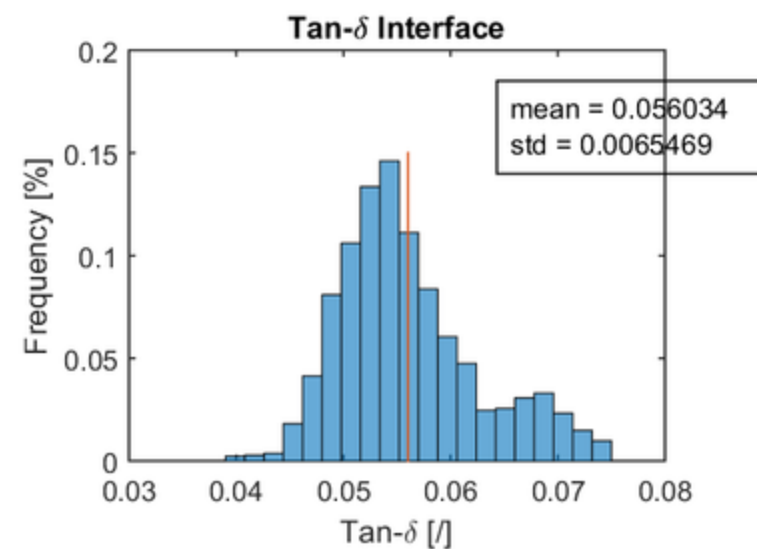
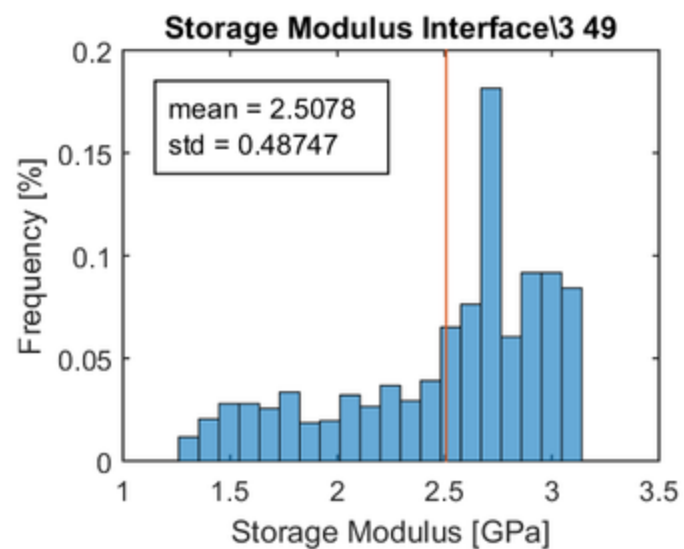
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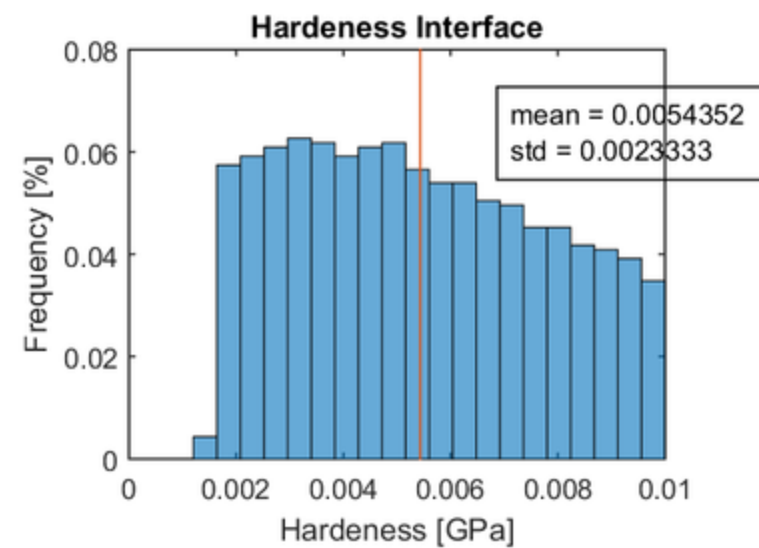
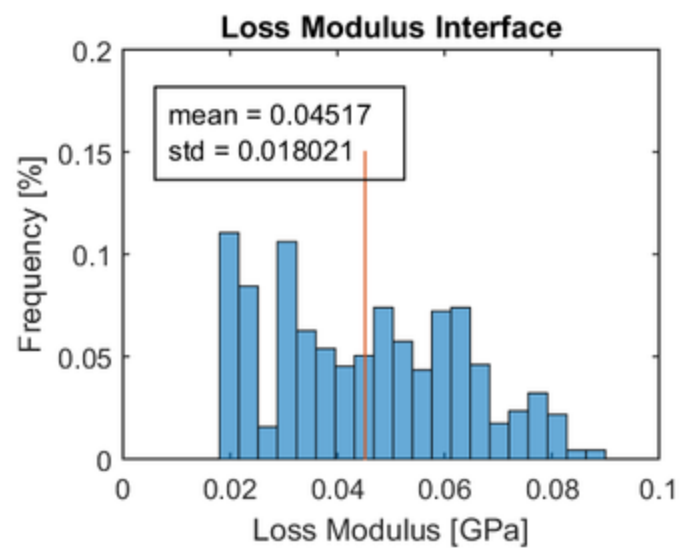
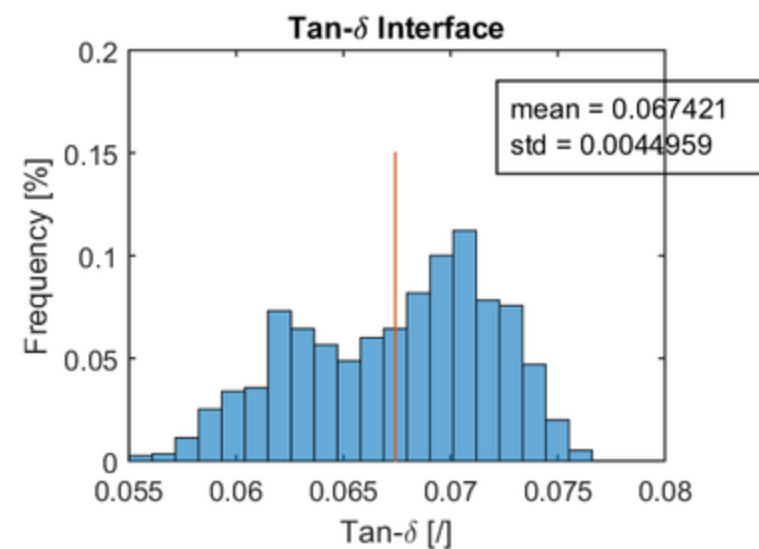
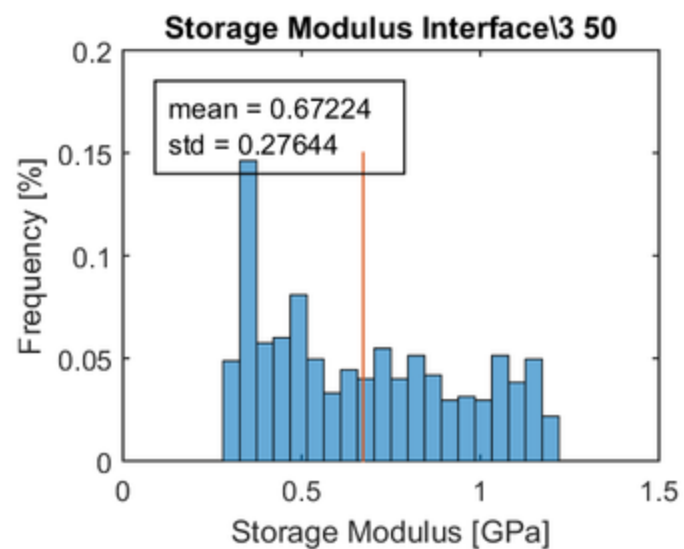


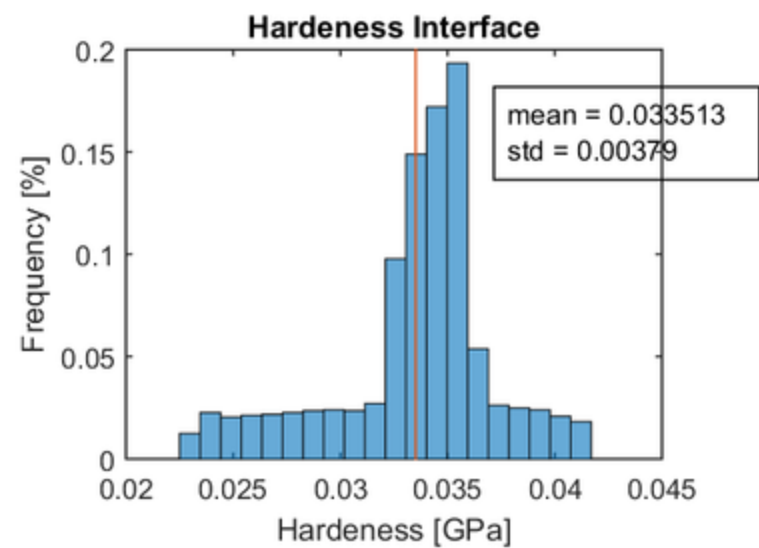
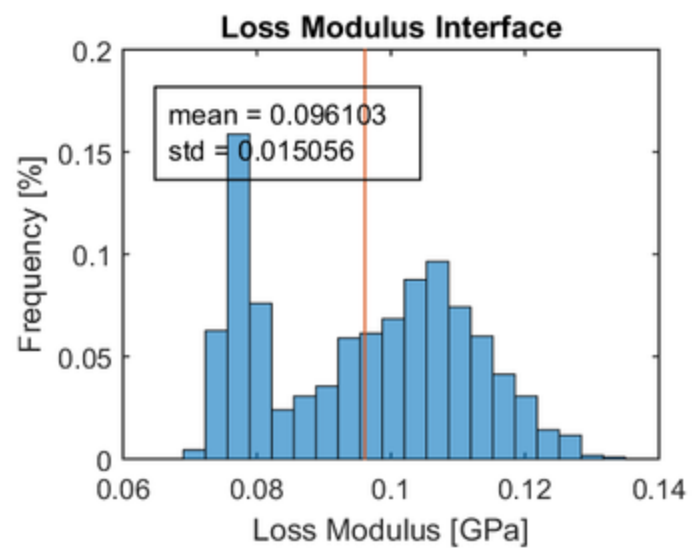
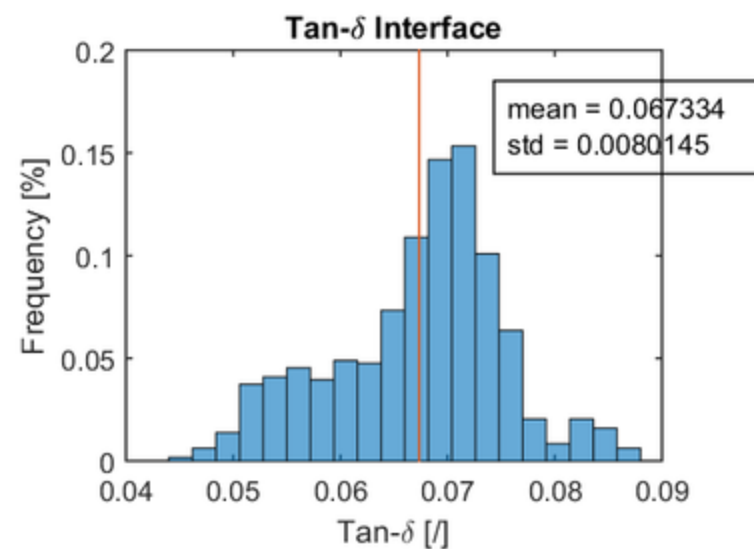
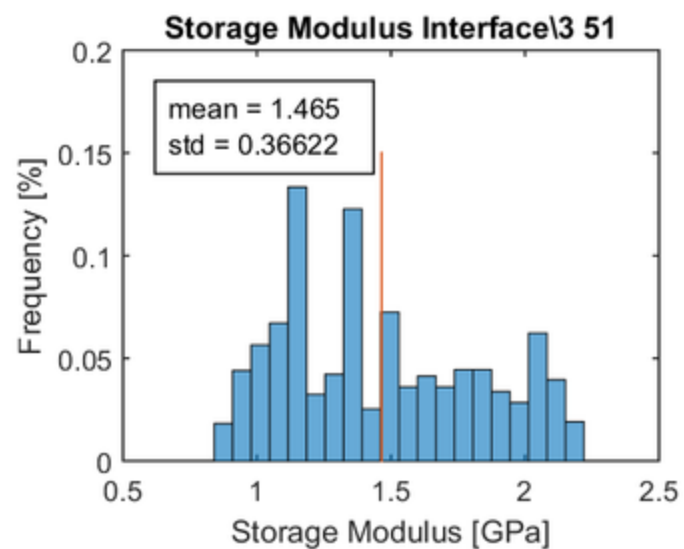
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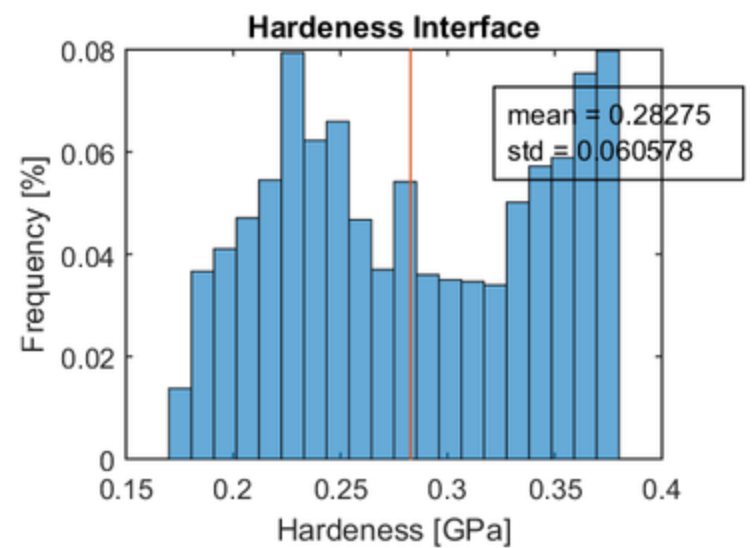
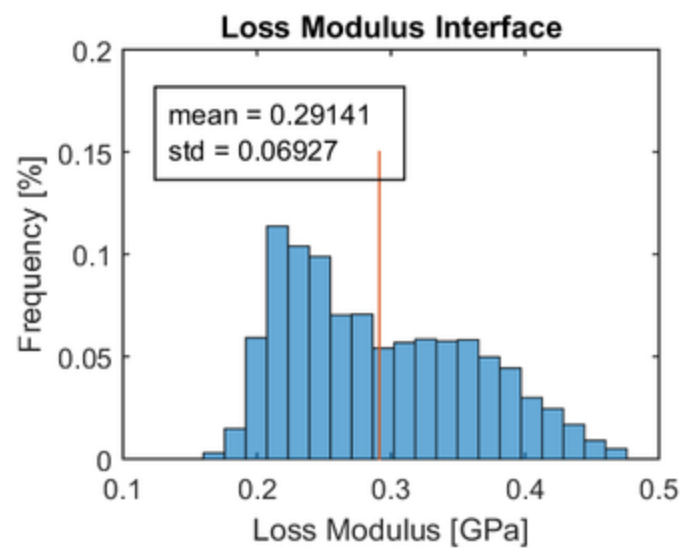
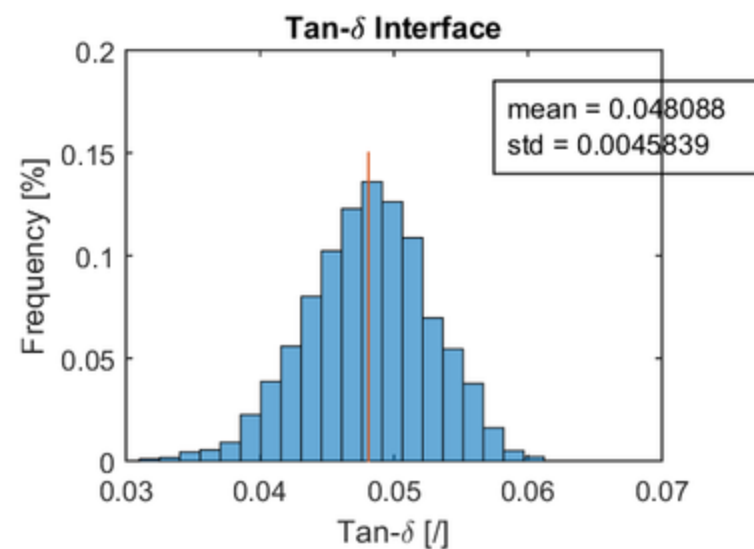
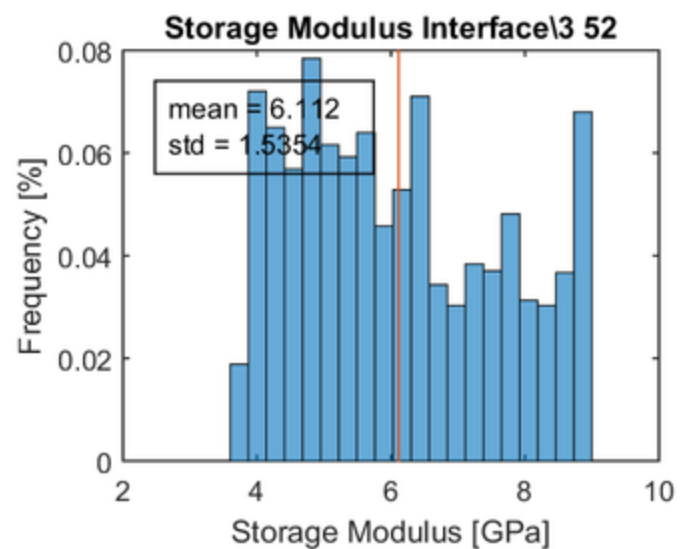


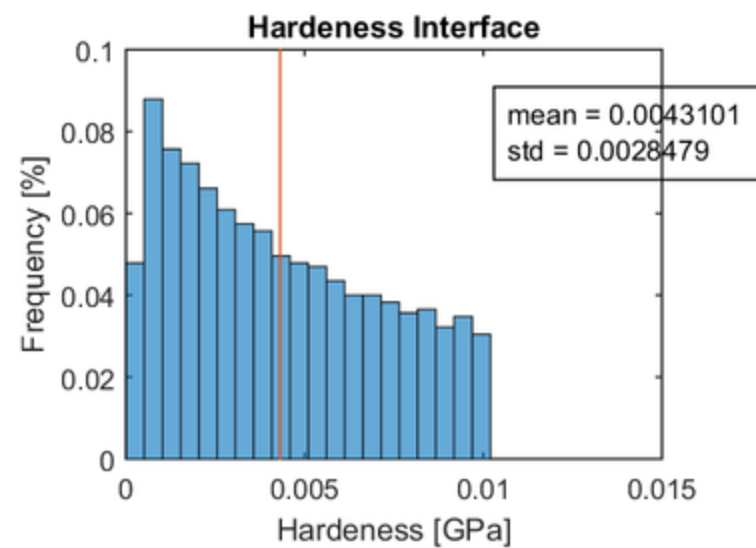
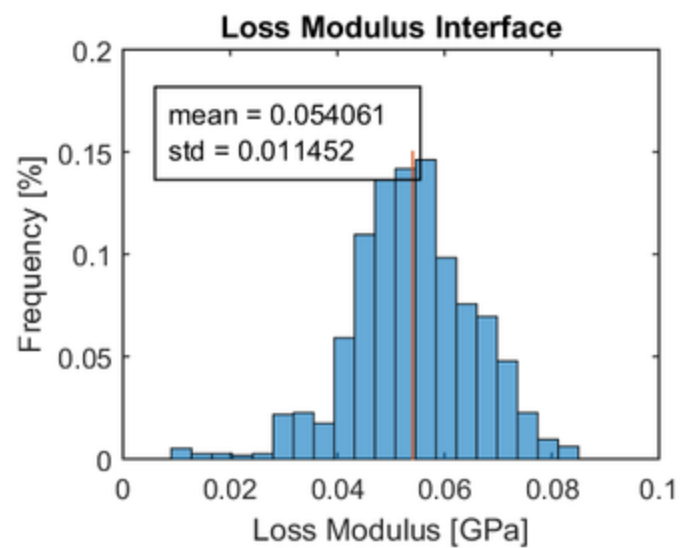
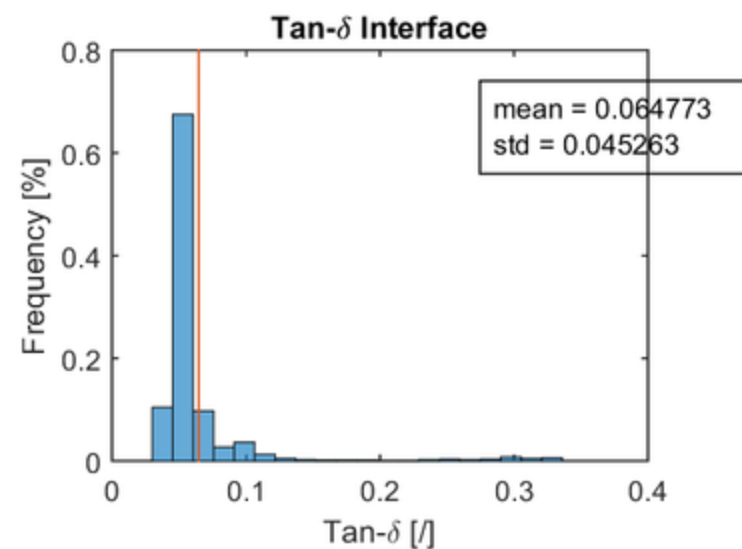
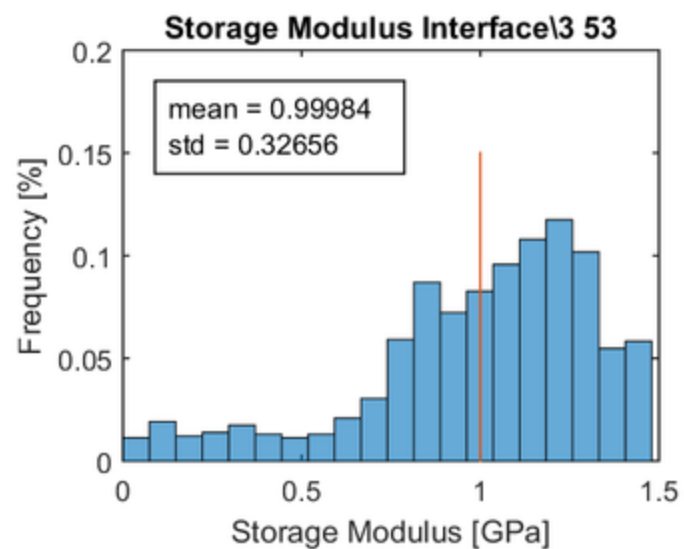


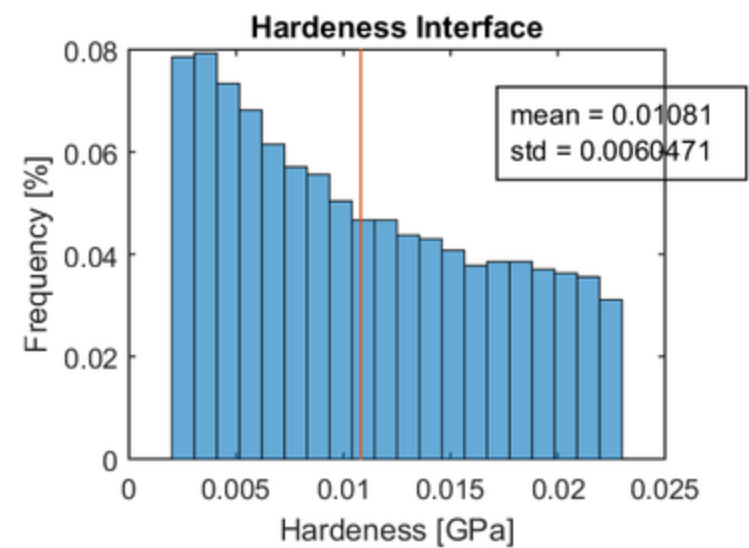
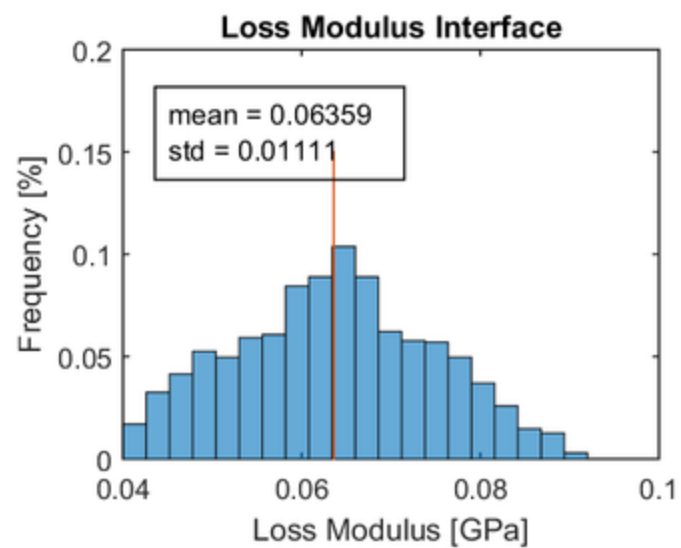
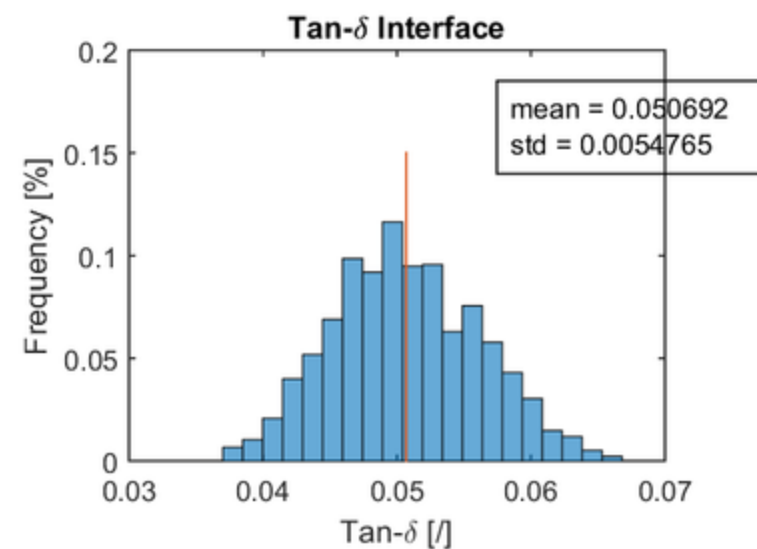
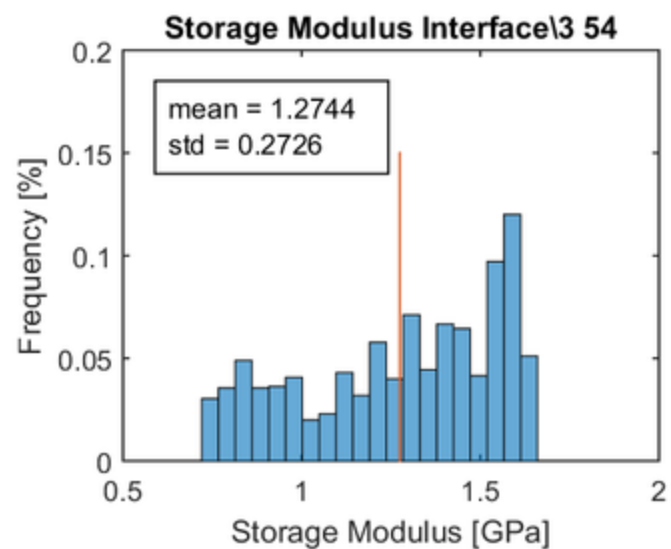


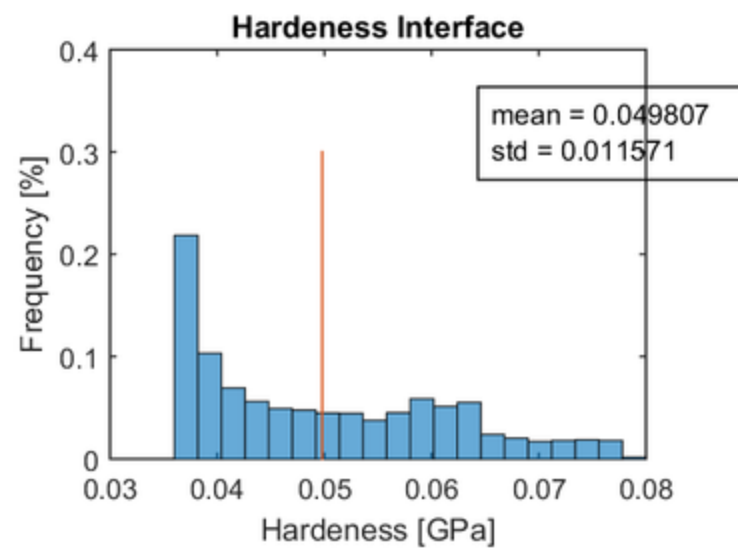
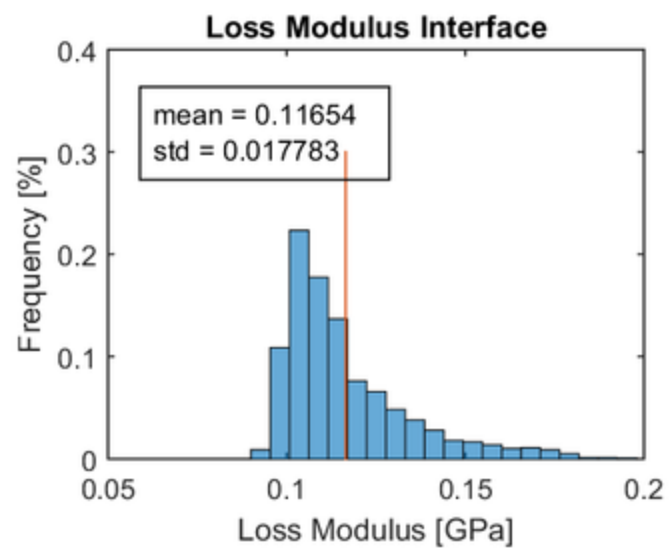
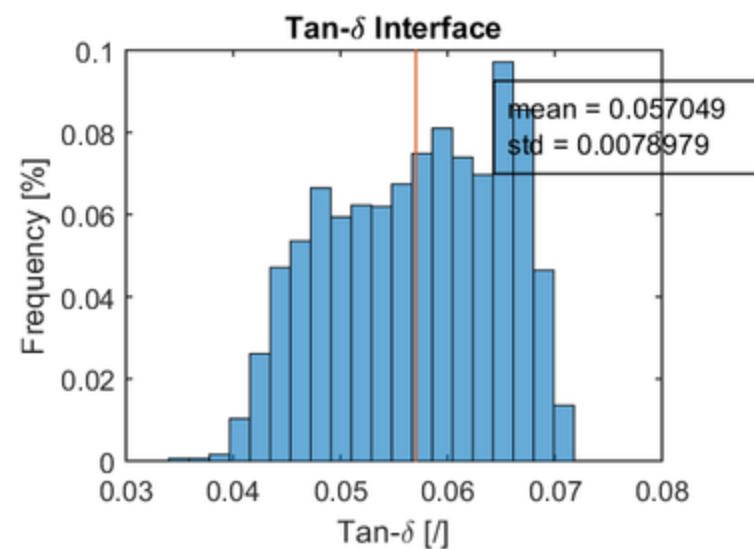
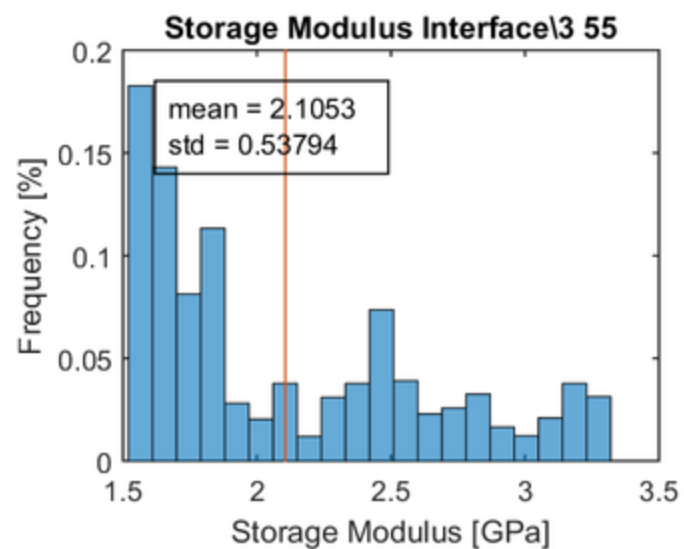




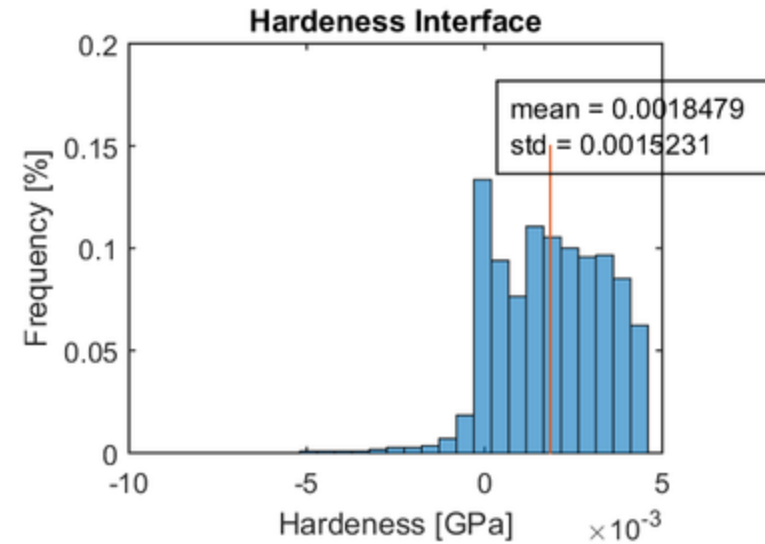
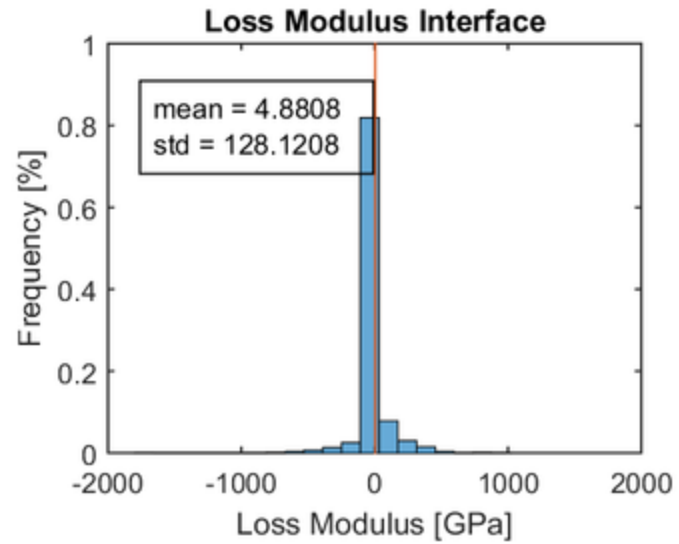
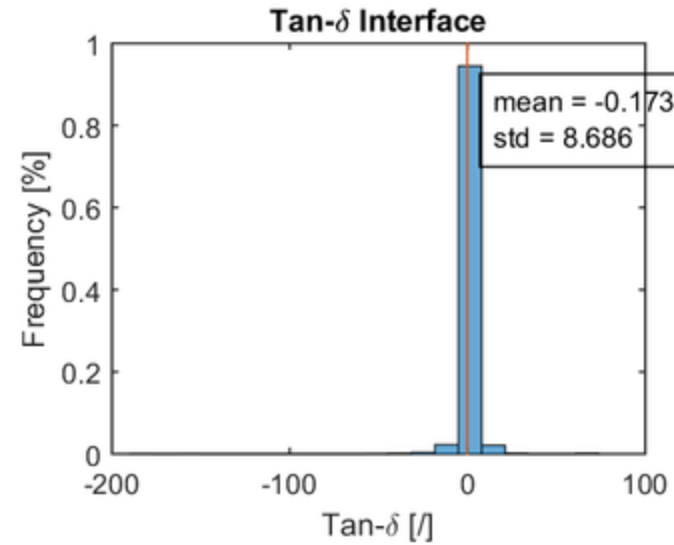
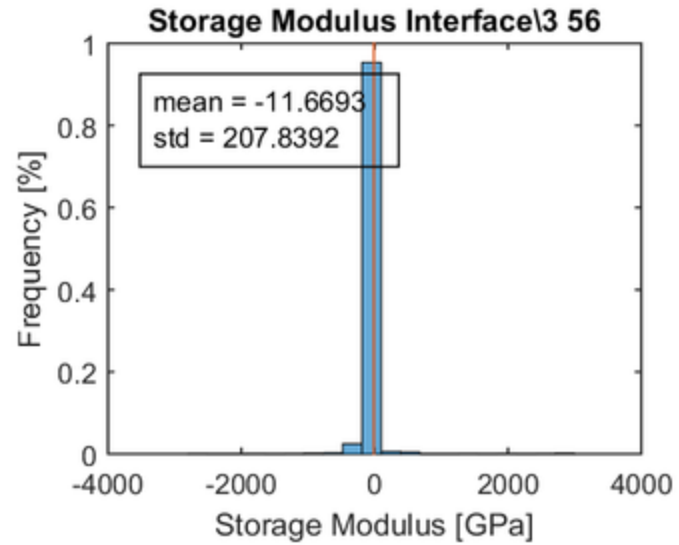


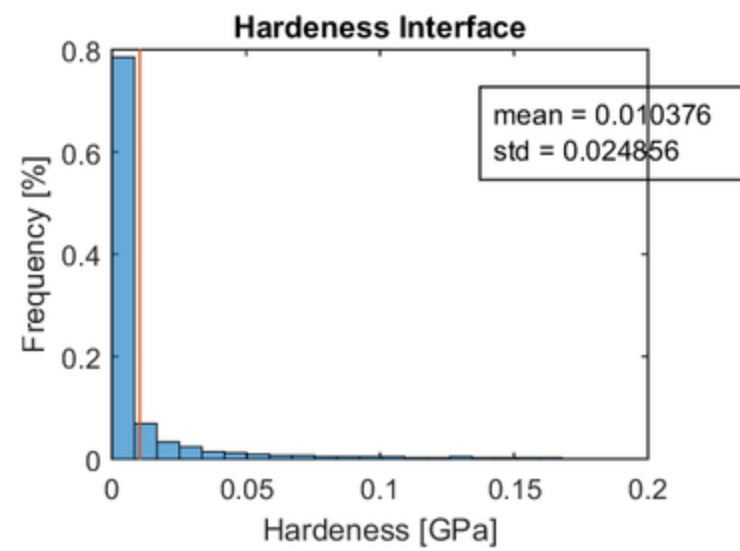
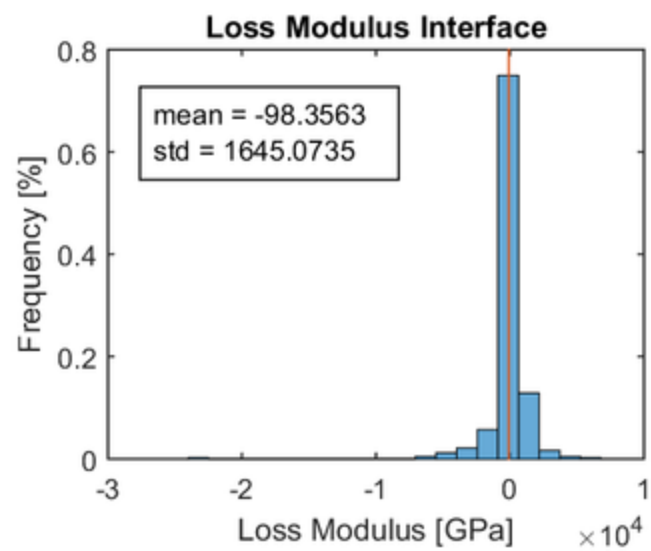
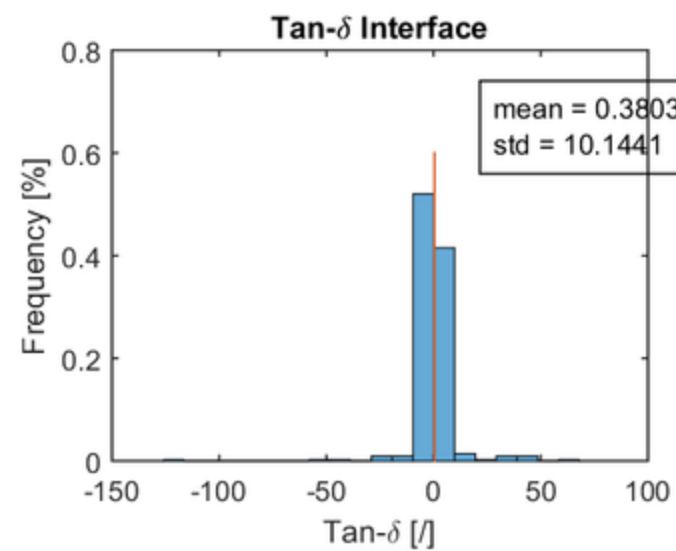
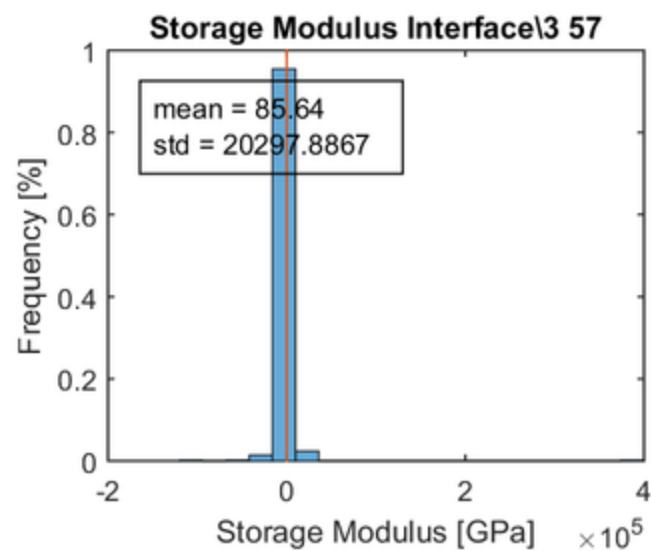


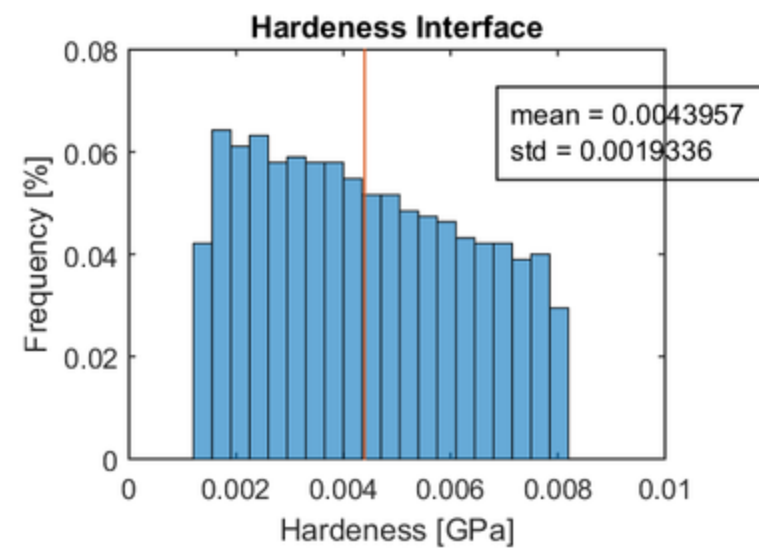
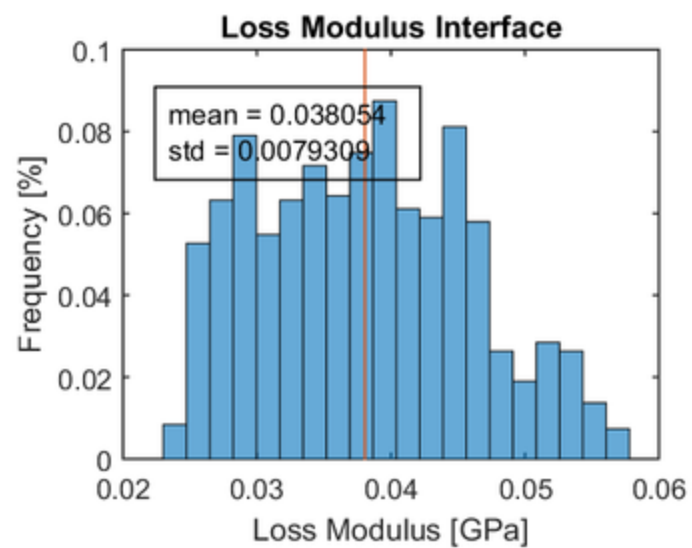
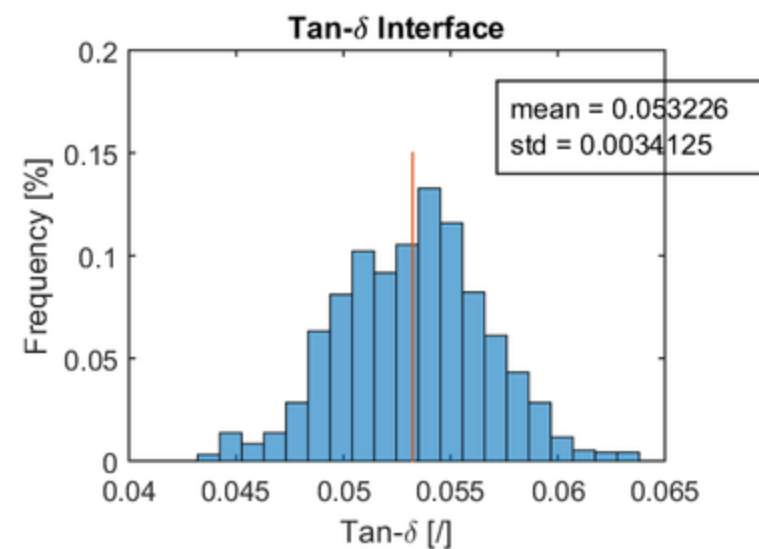
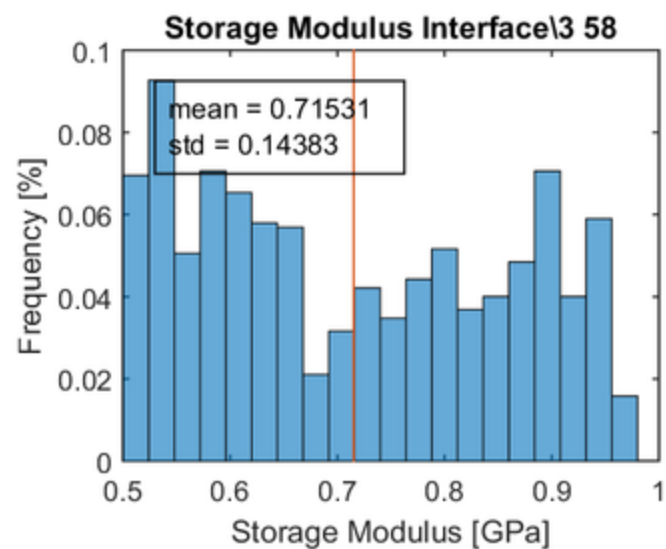




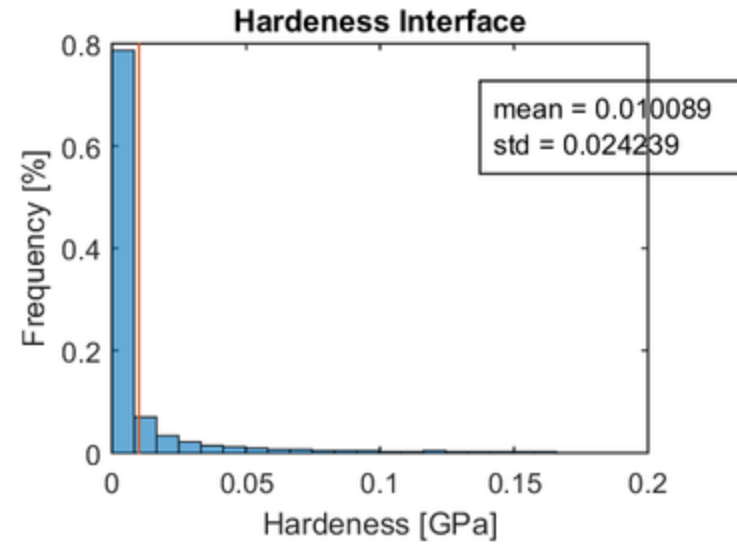
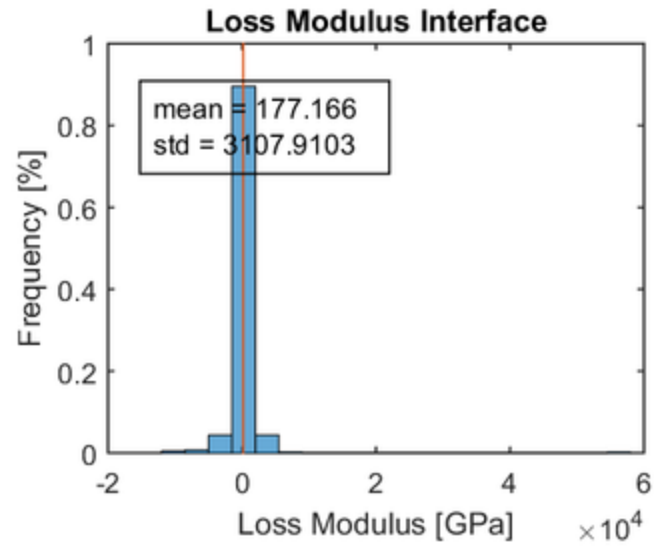
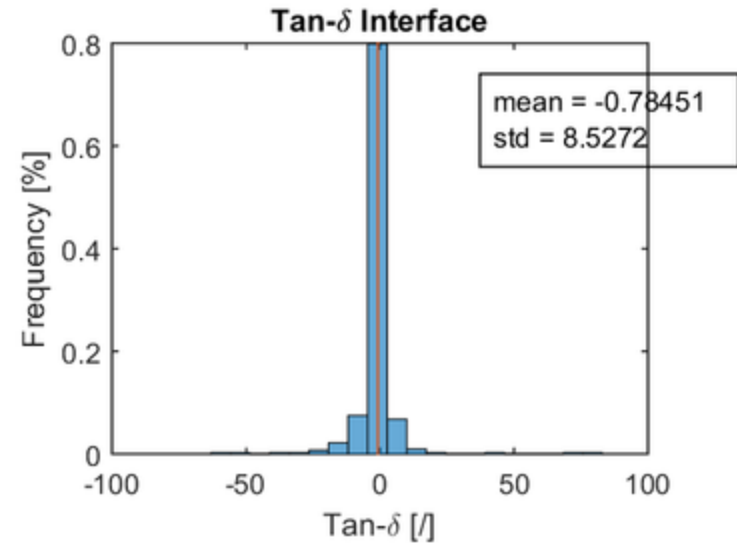
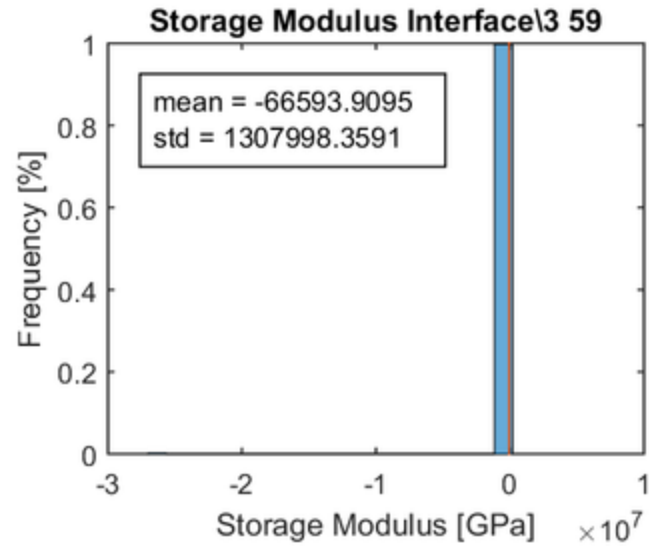
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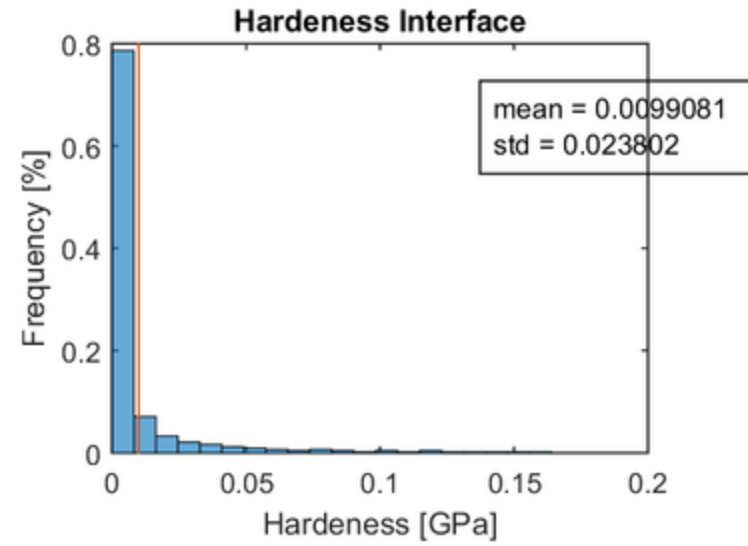
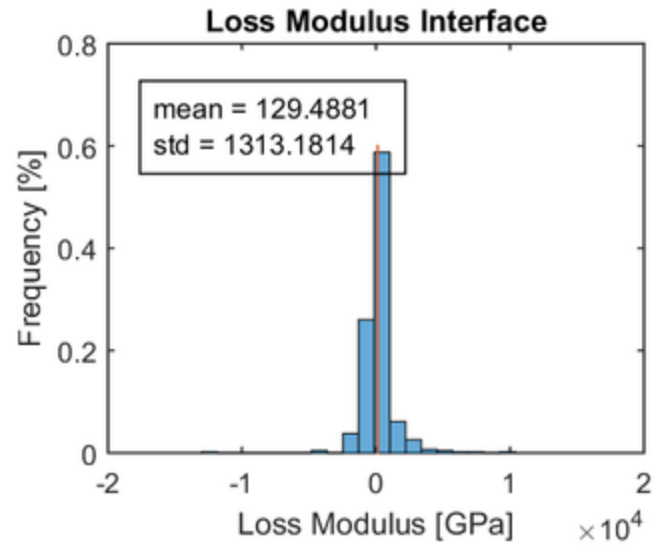
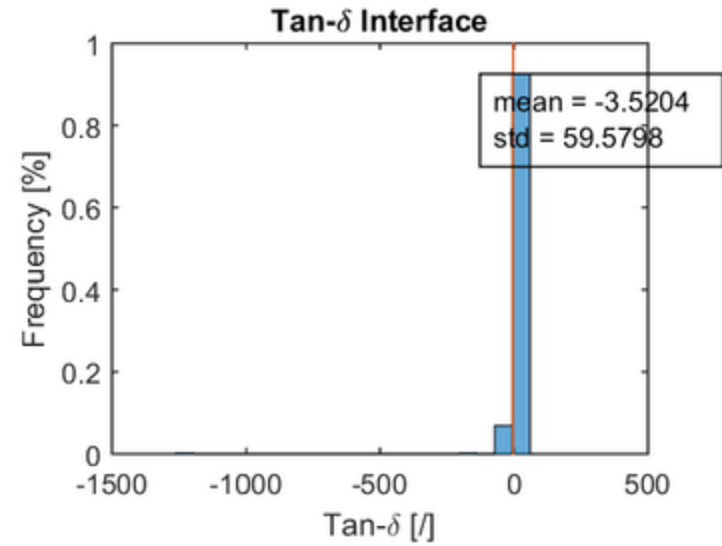
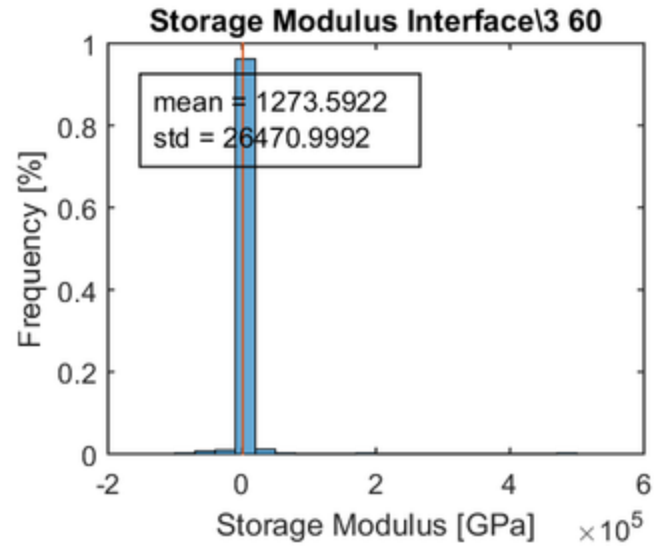




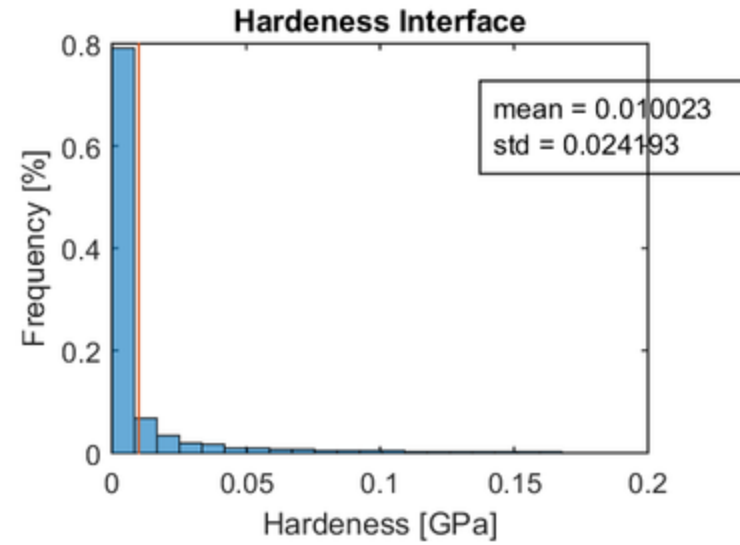
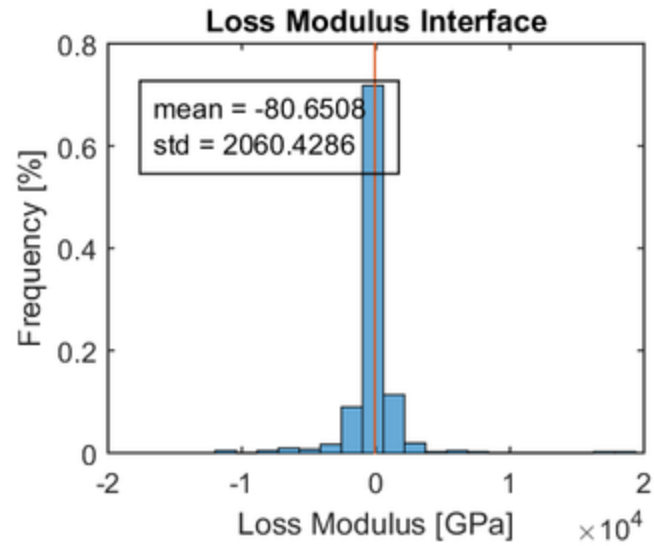
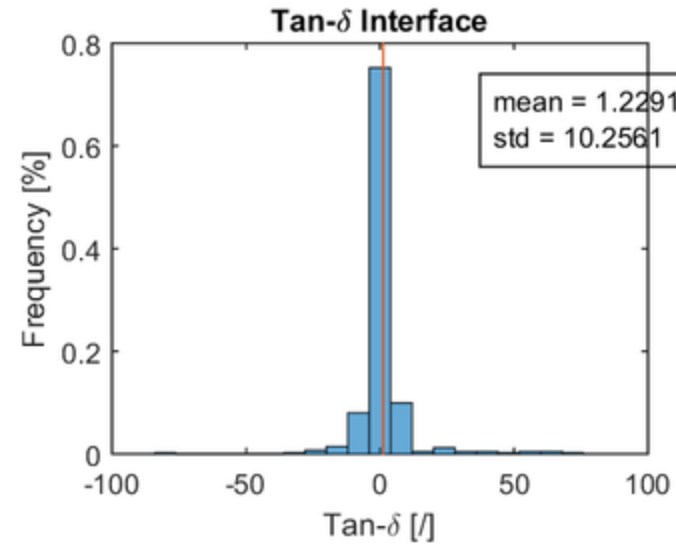
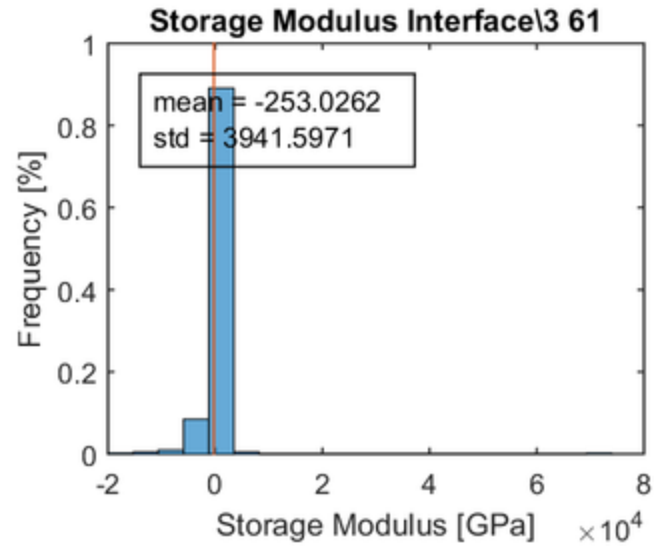
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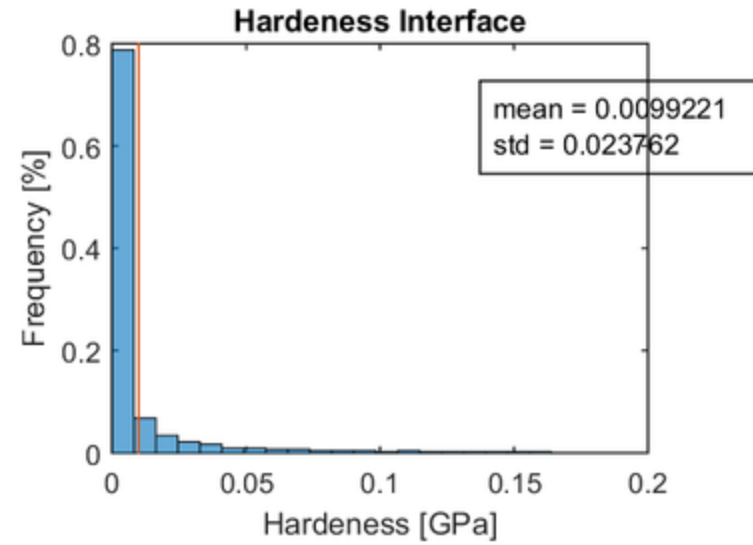
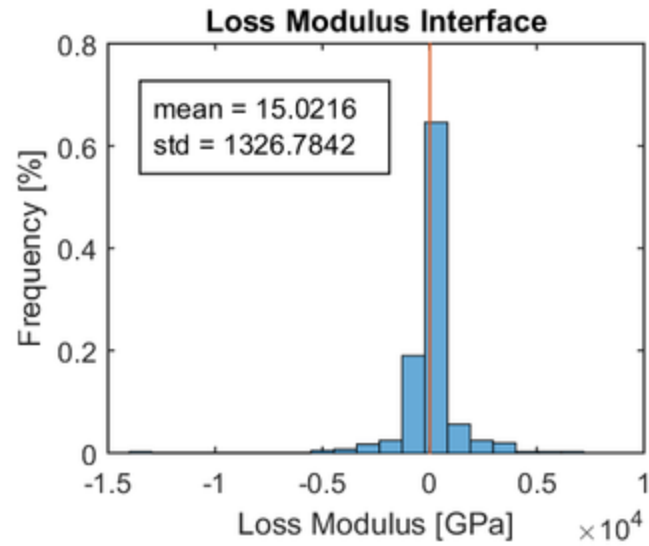
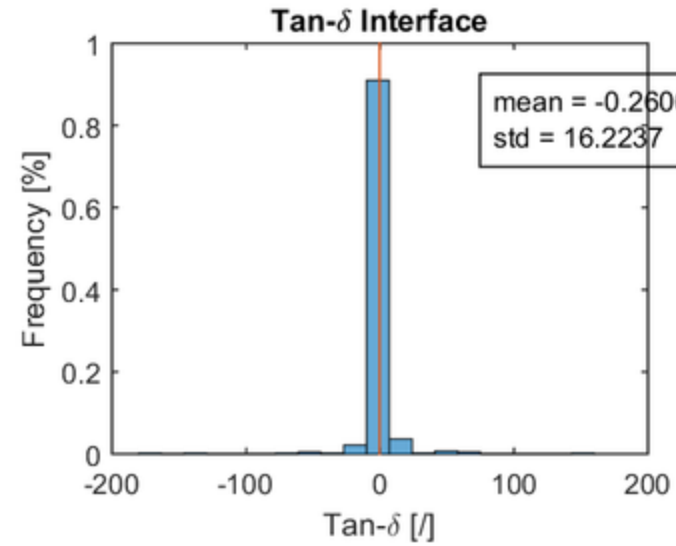
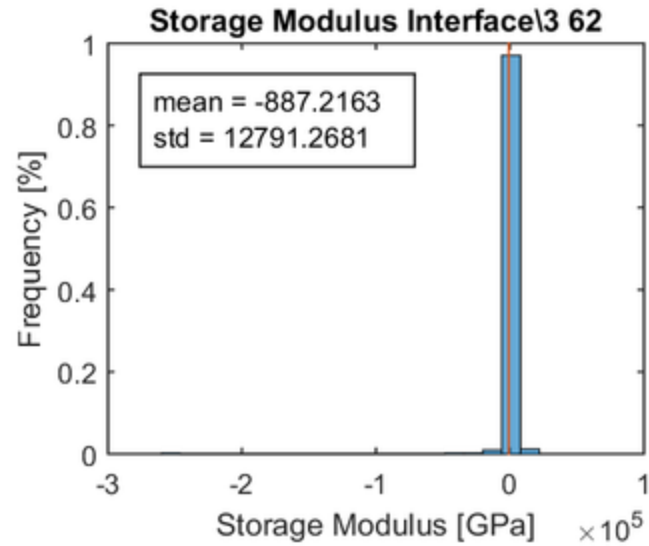
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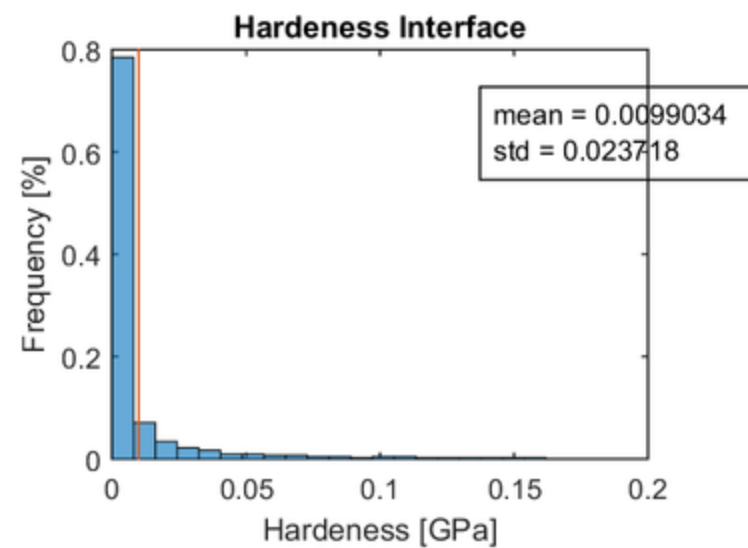
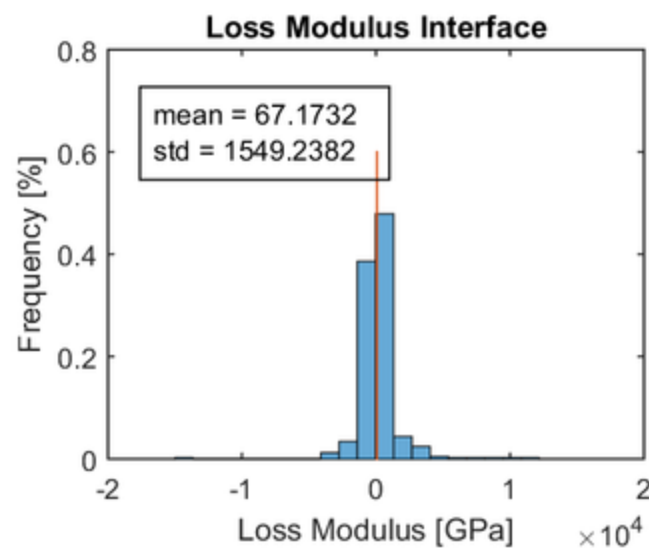
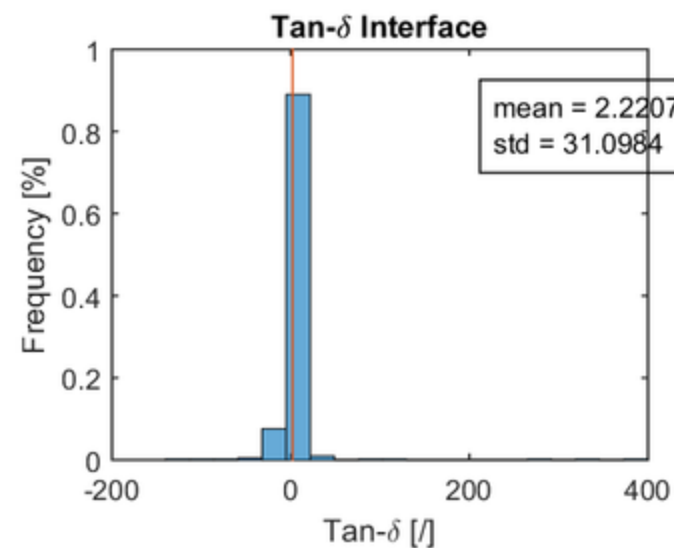
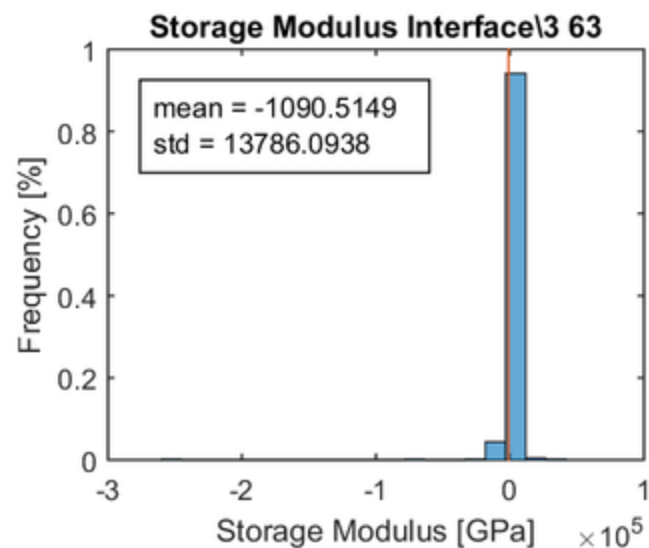
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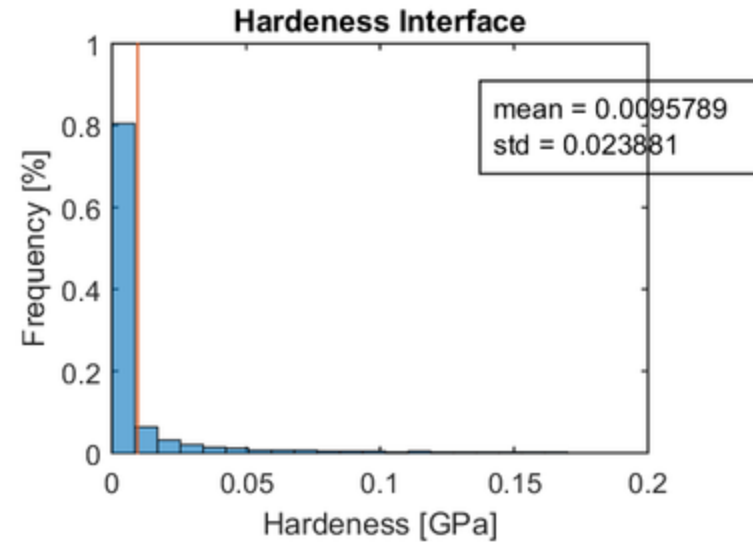
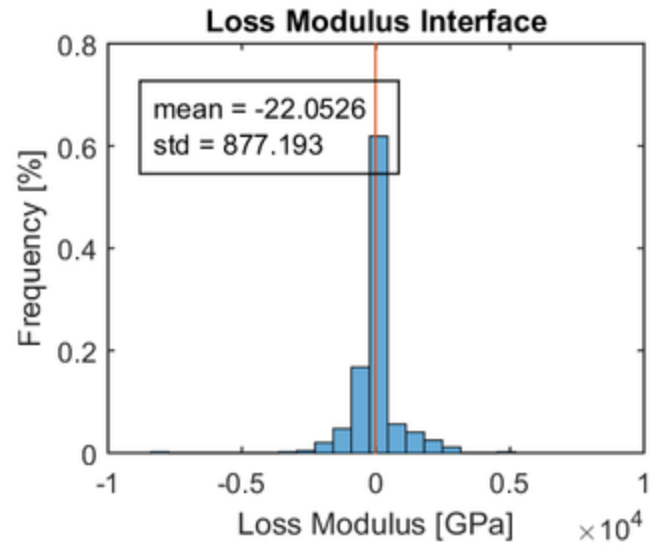
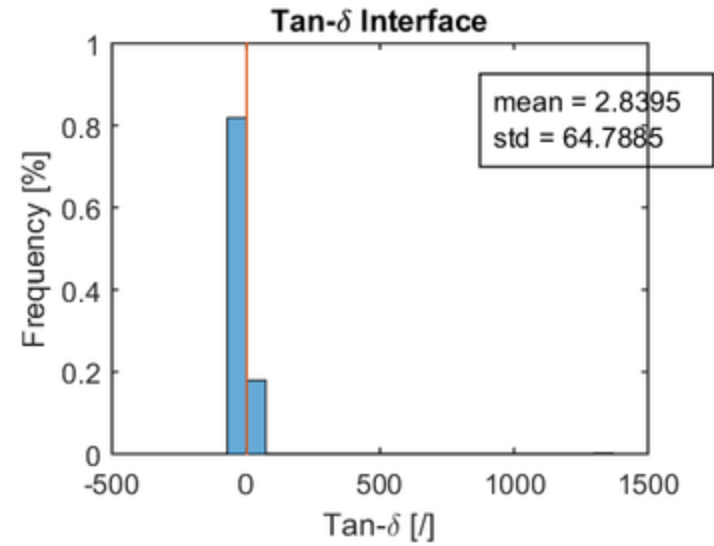
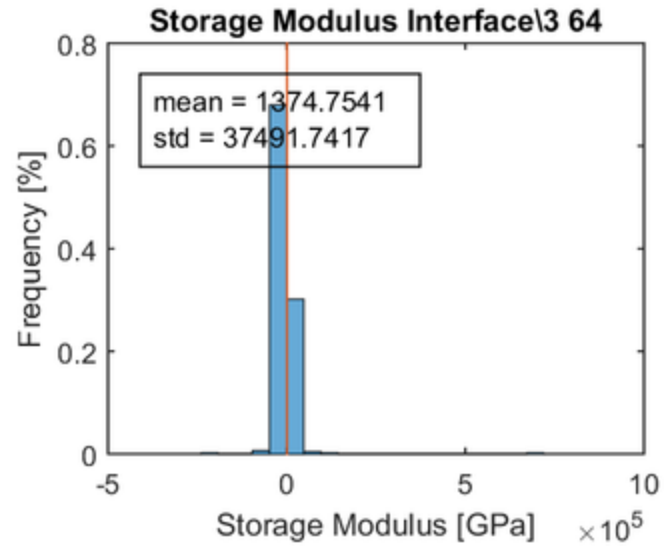
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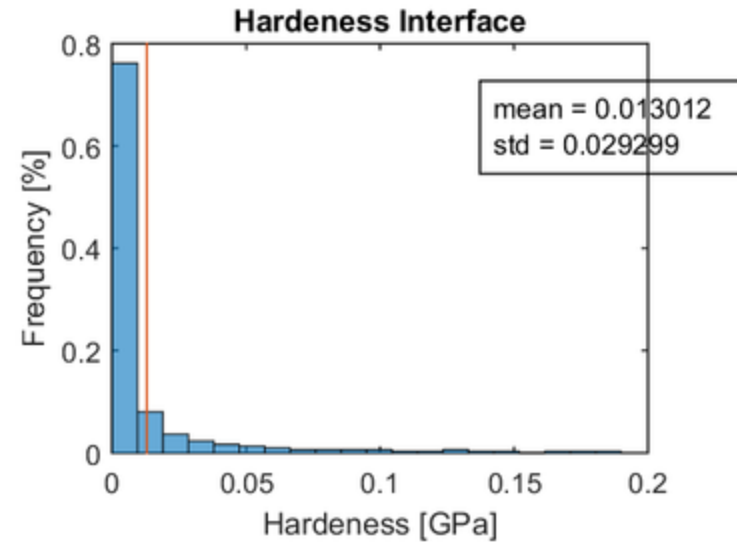
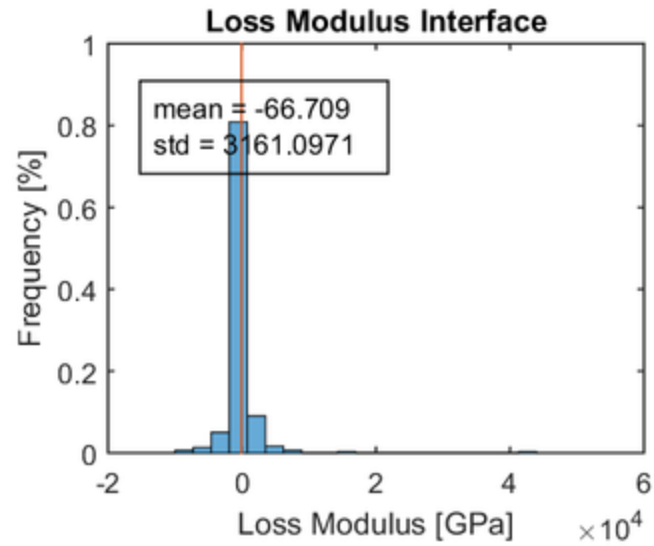
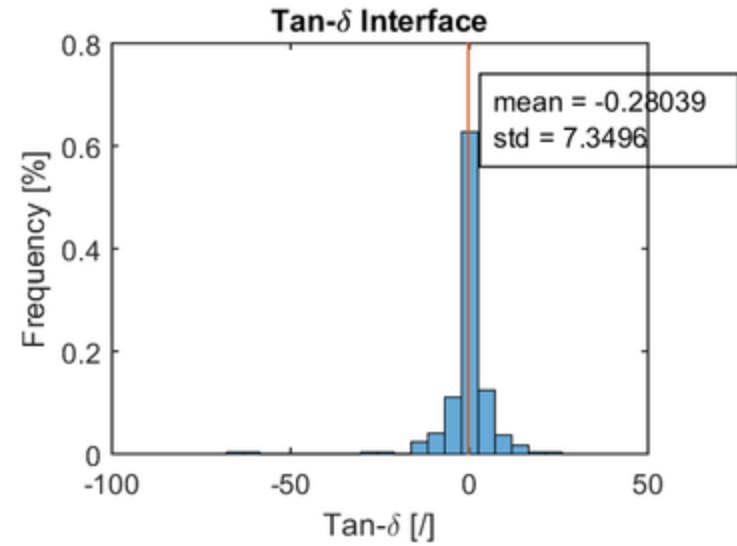
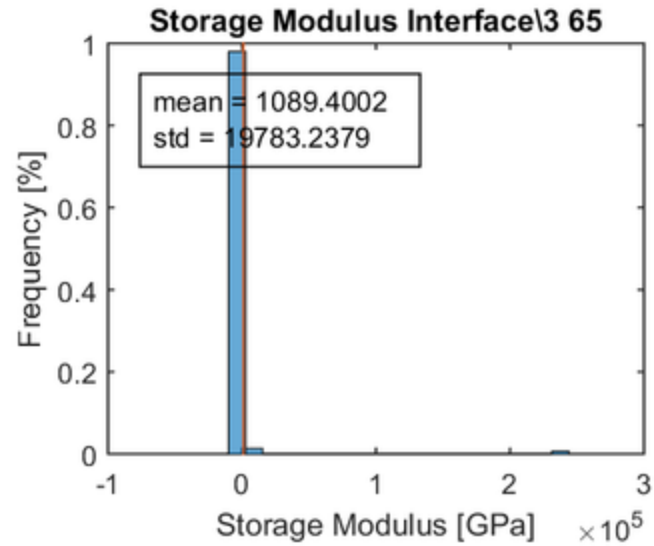
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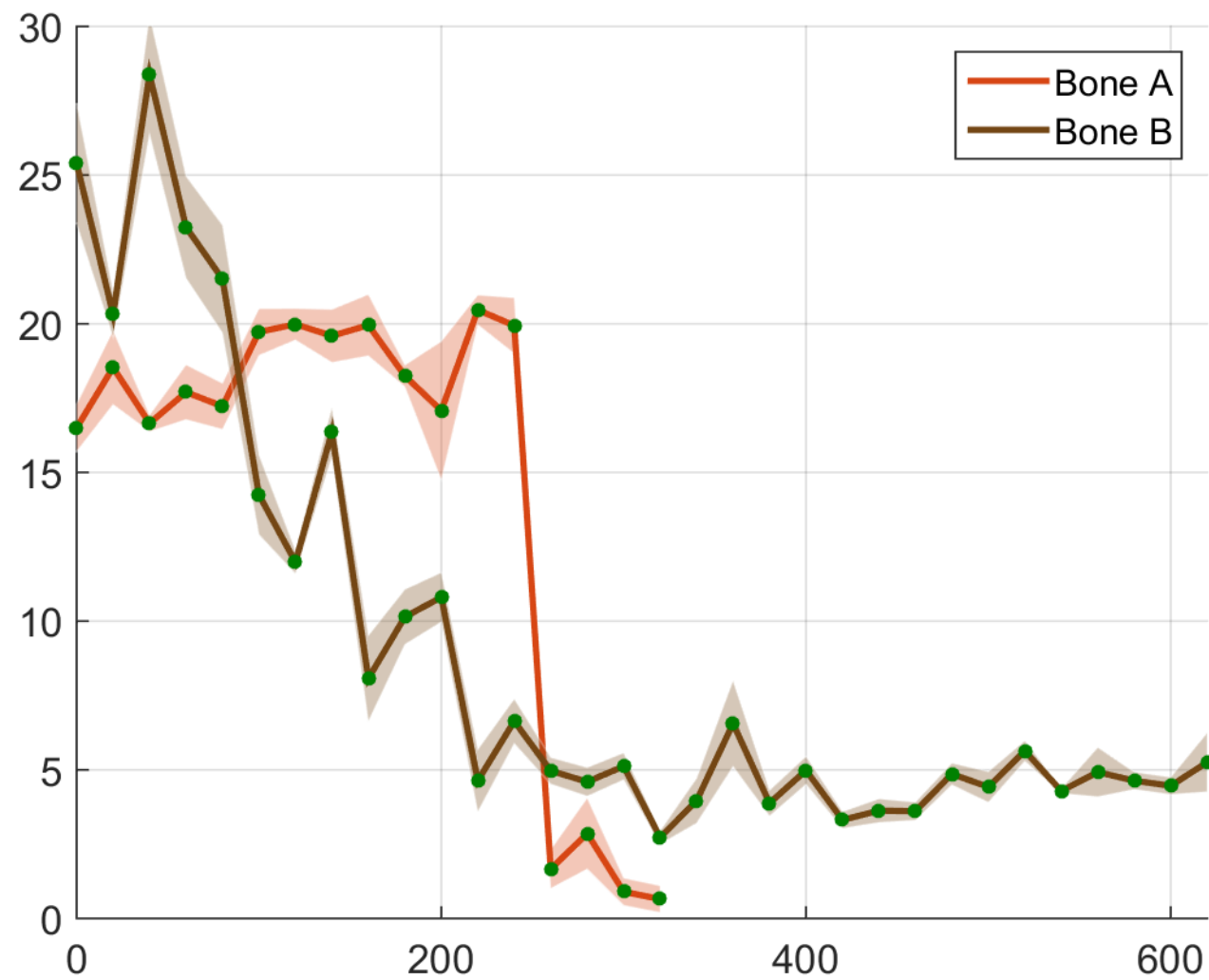
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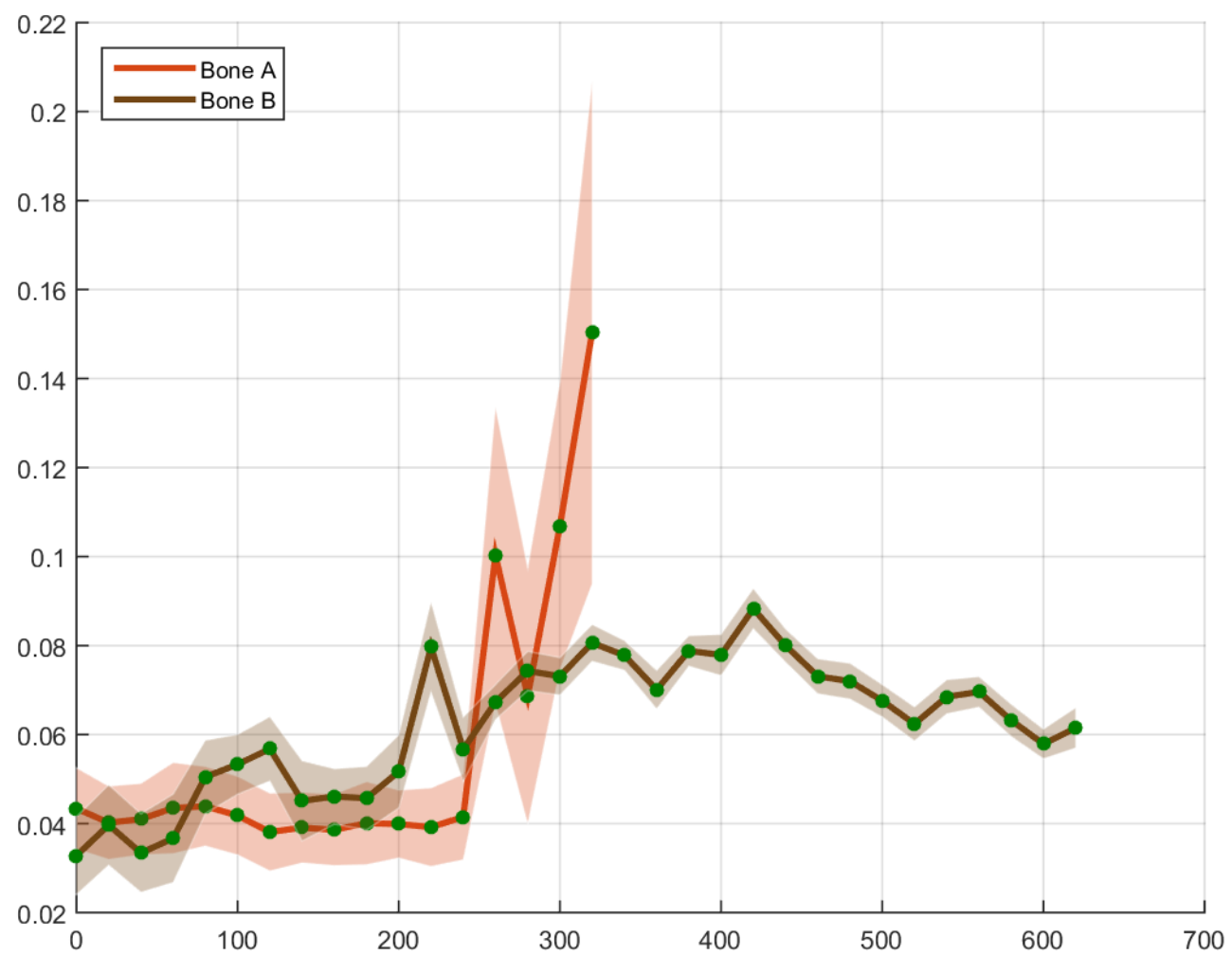


Interface Periosteal cartilage

A. Sample D2

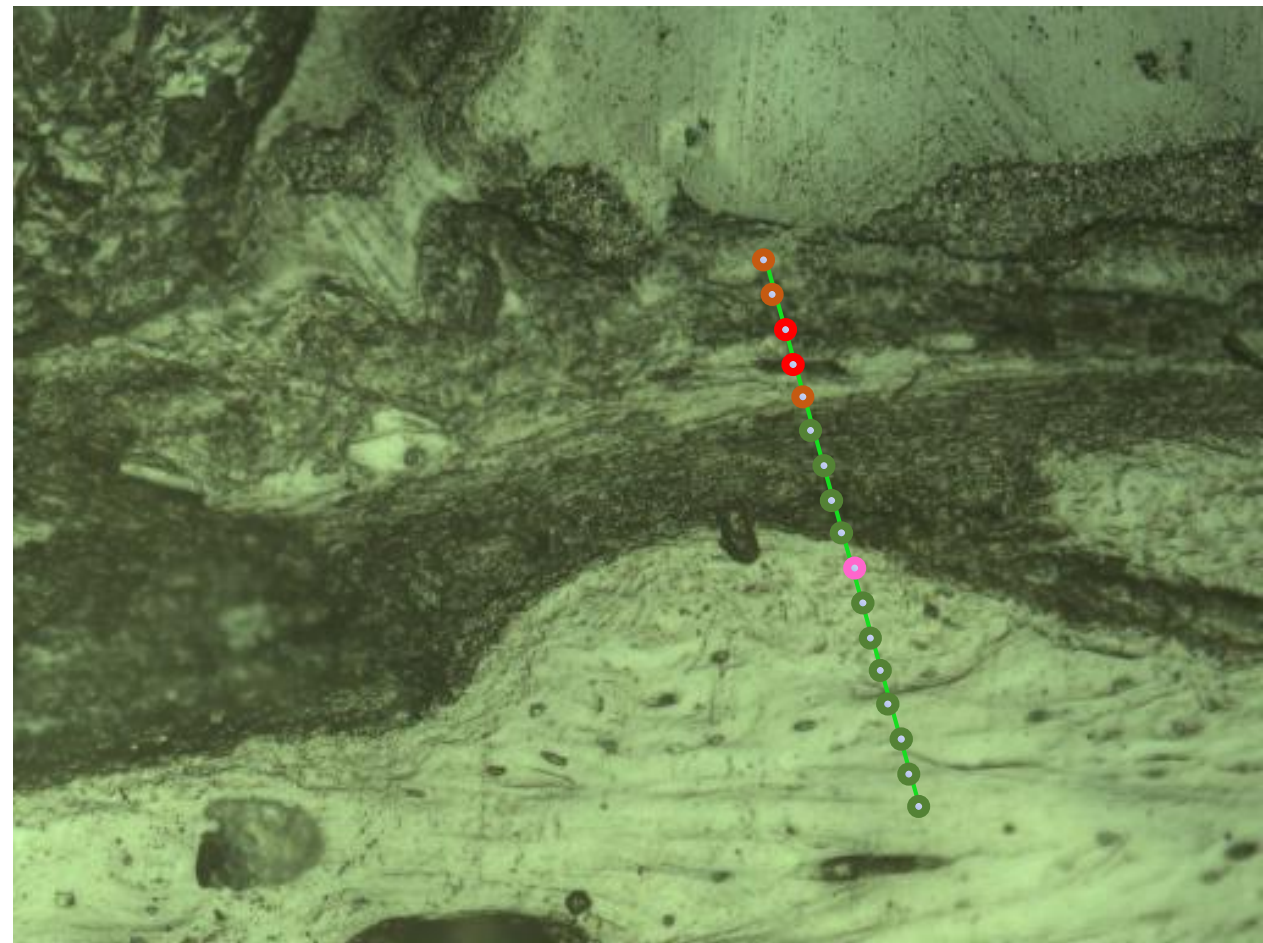
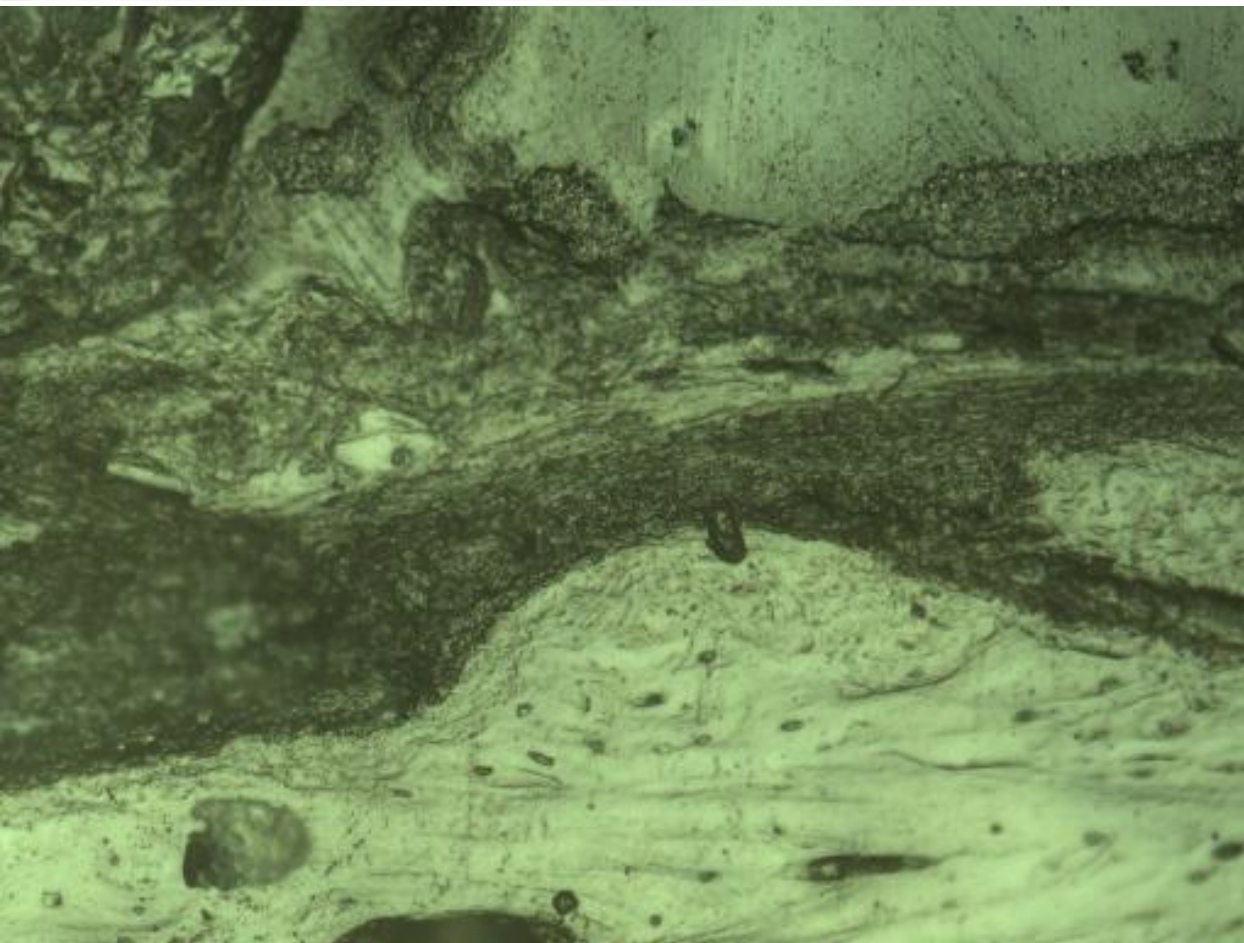
B. Sample D3

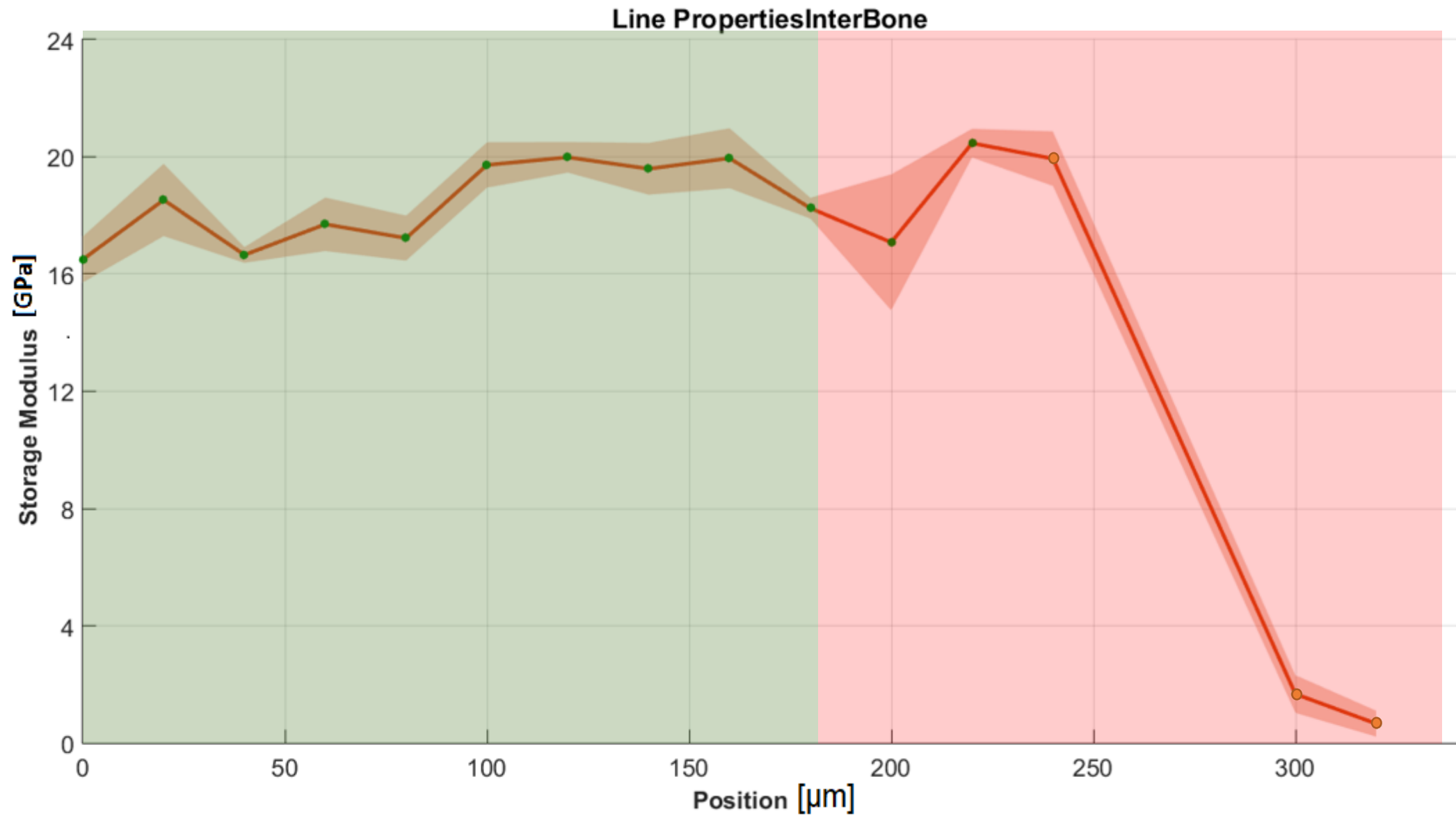




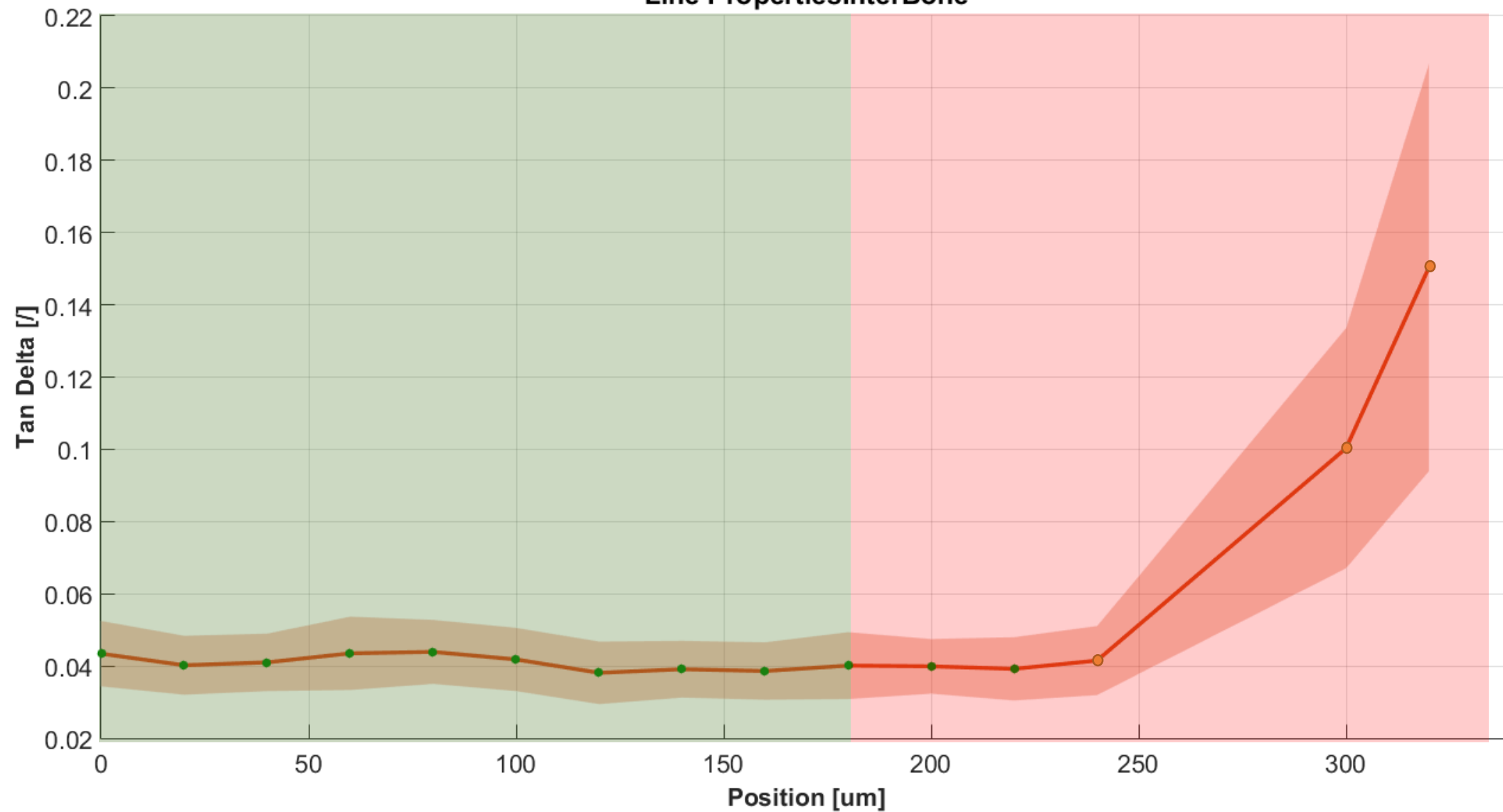
A Interface Periosteal cartilage Sample D2

X Scale[mm] 0.65210 Y Scale[mm] 0.51280

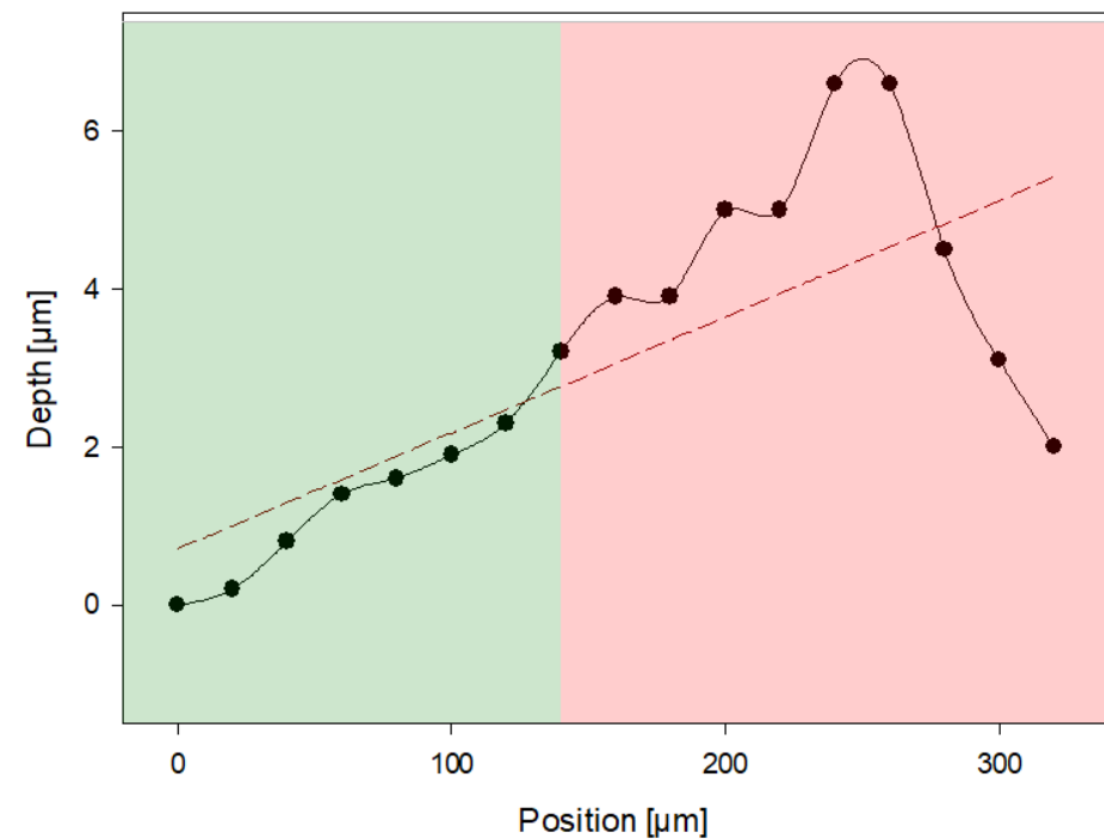




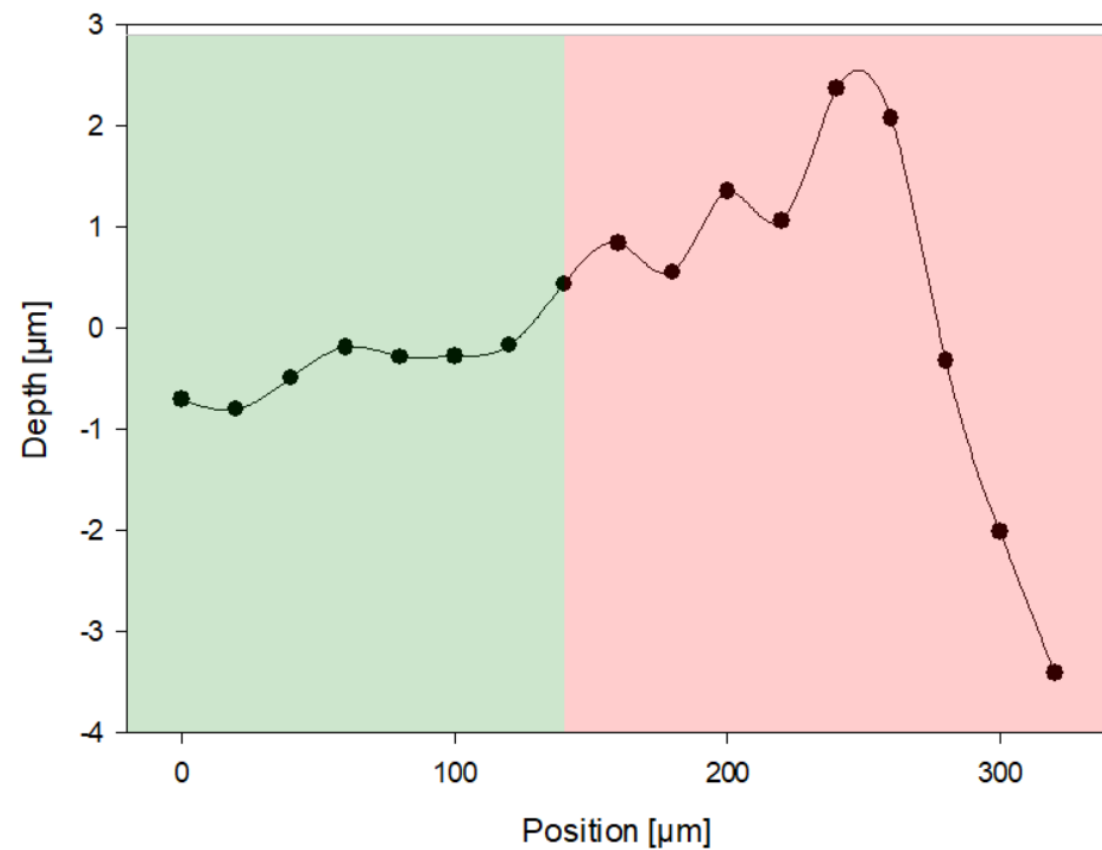
Line PropertiesInterBone



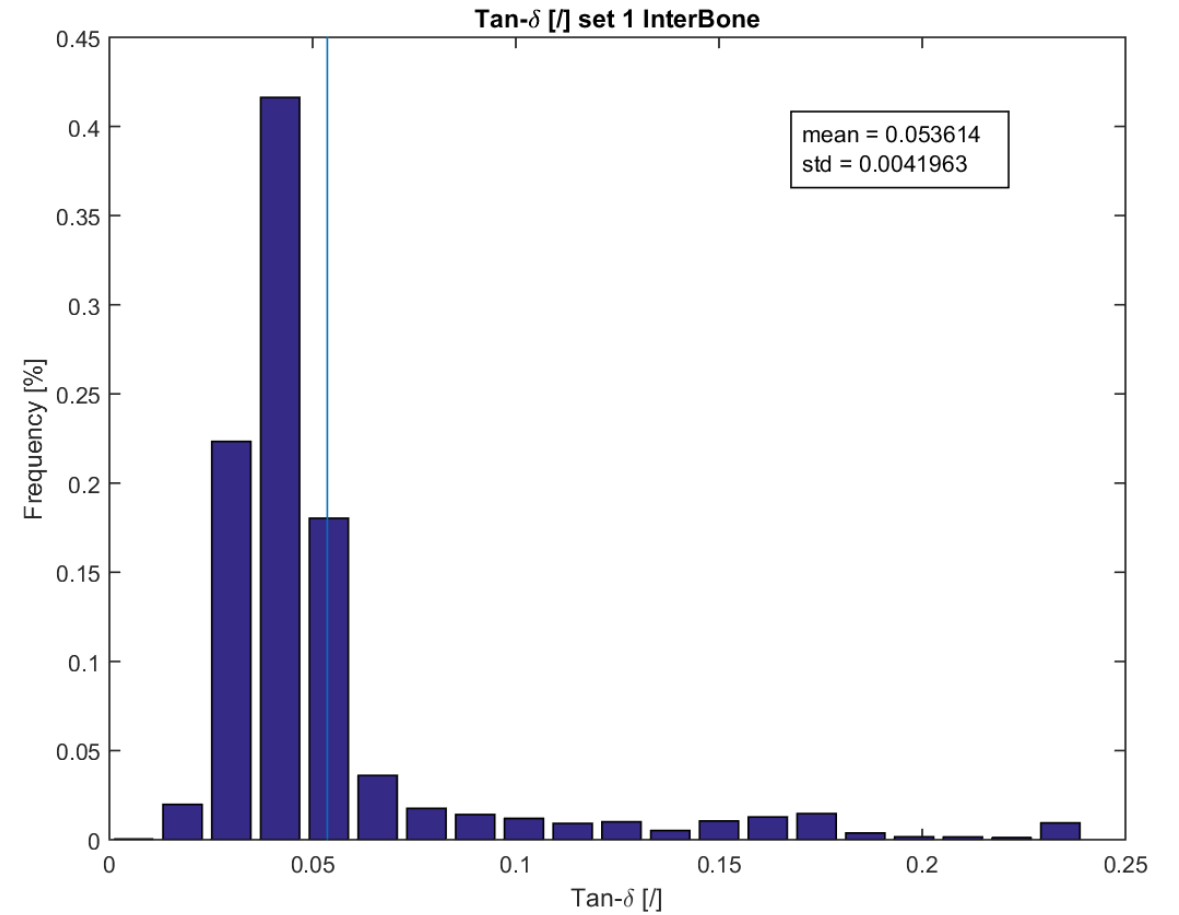
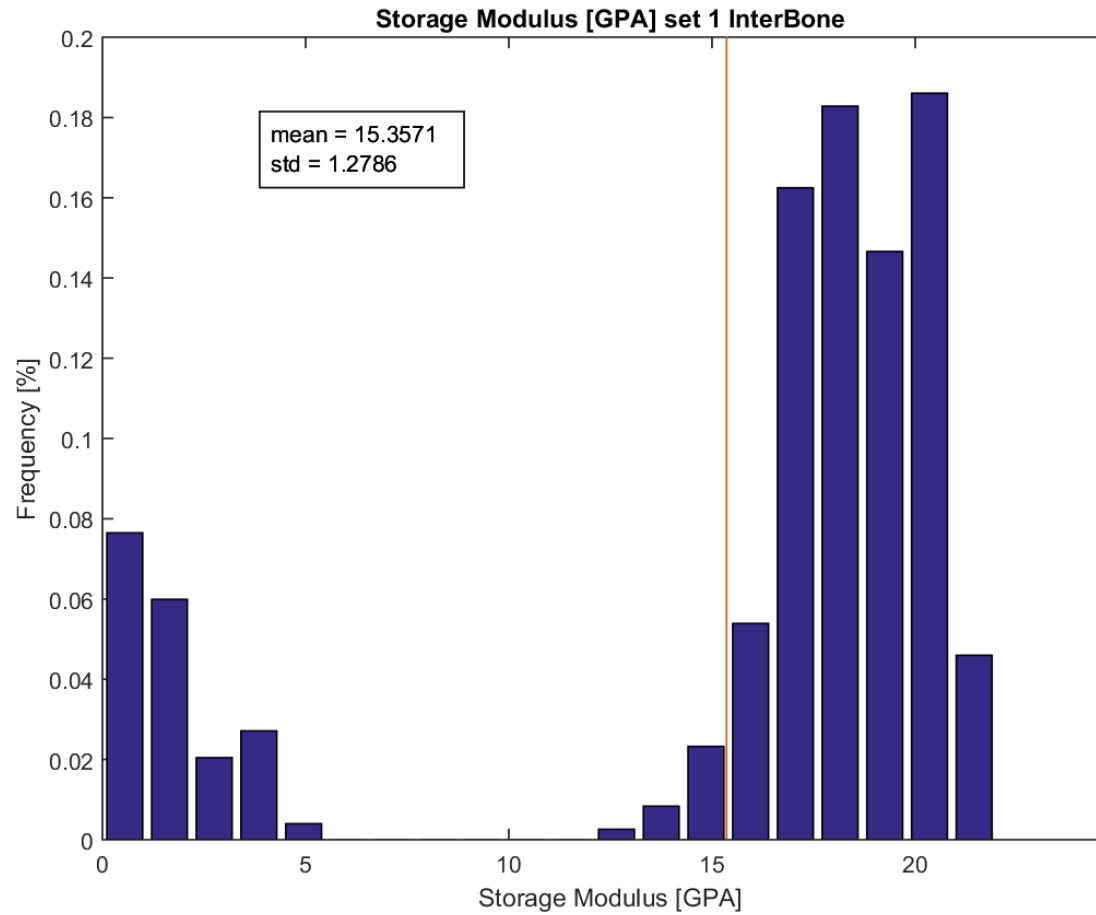
InterBone A



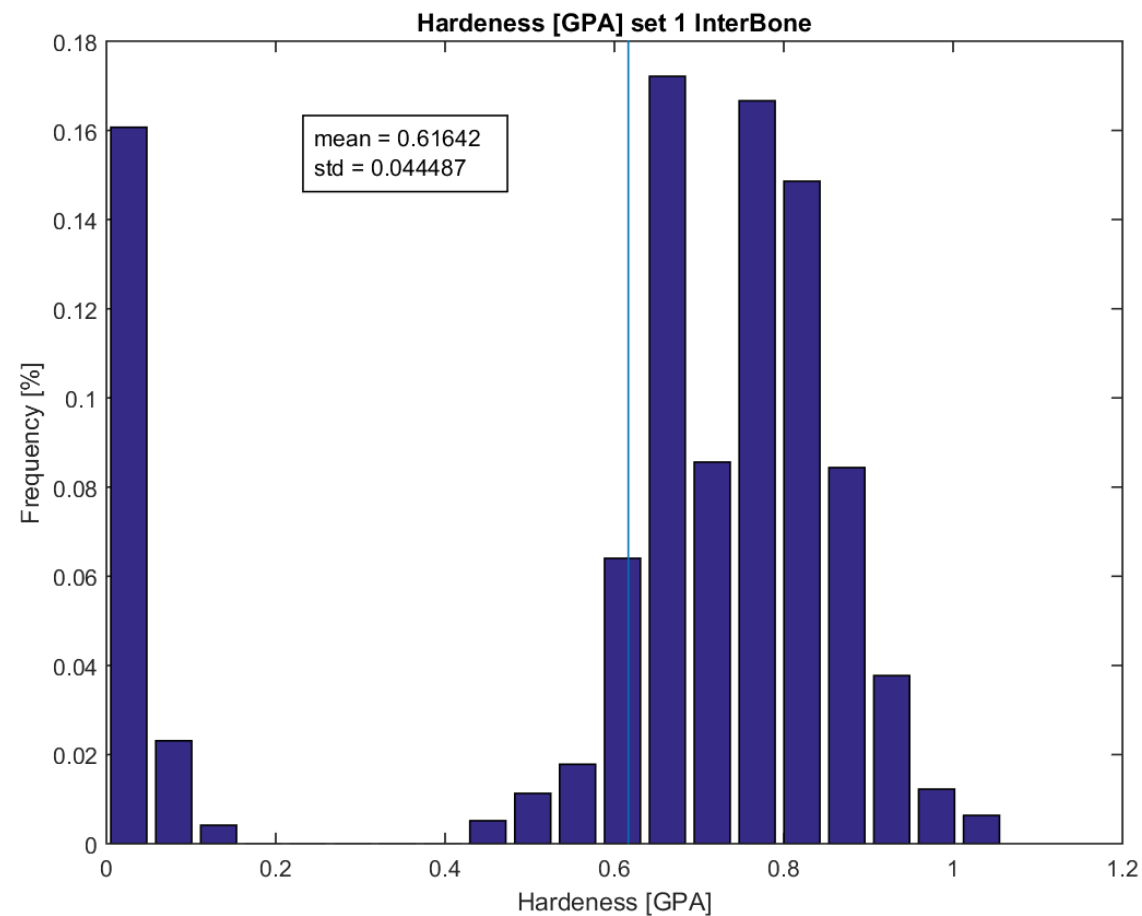
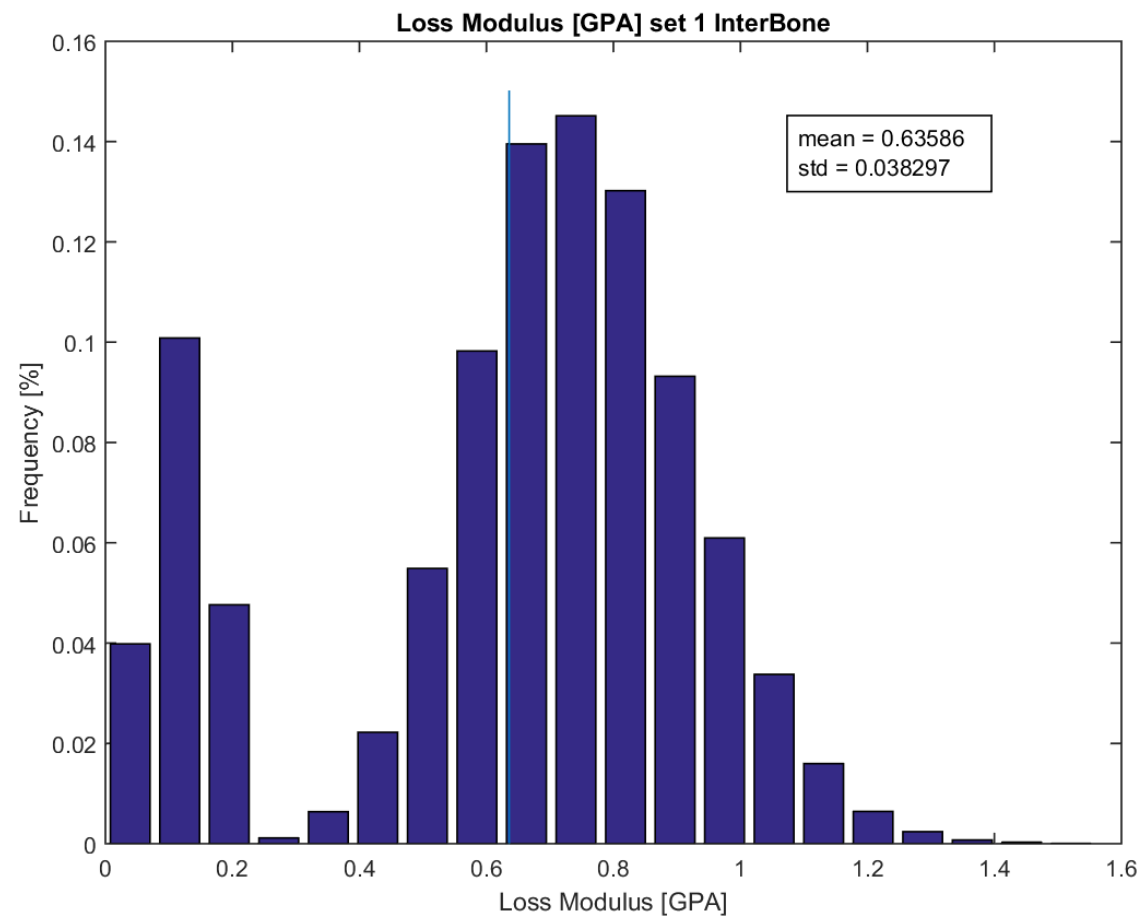
InterBone A w/o tilde



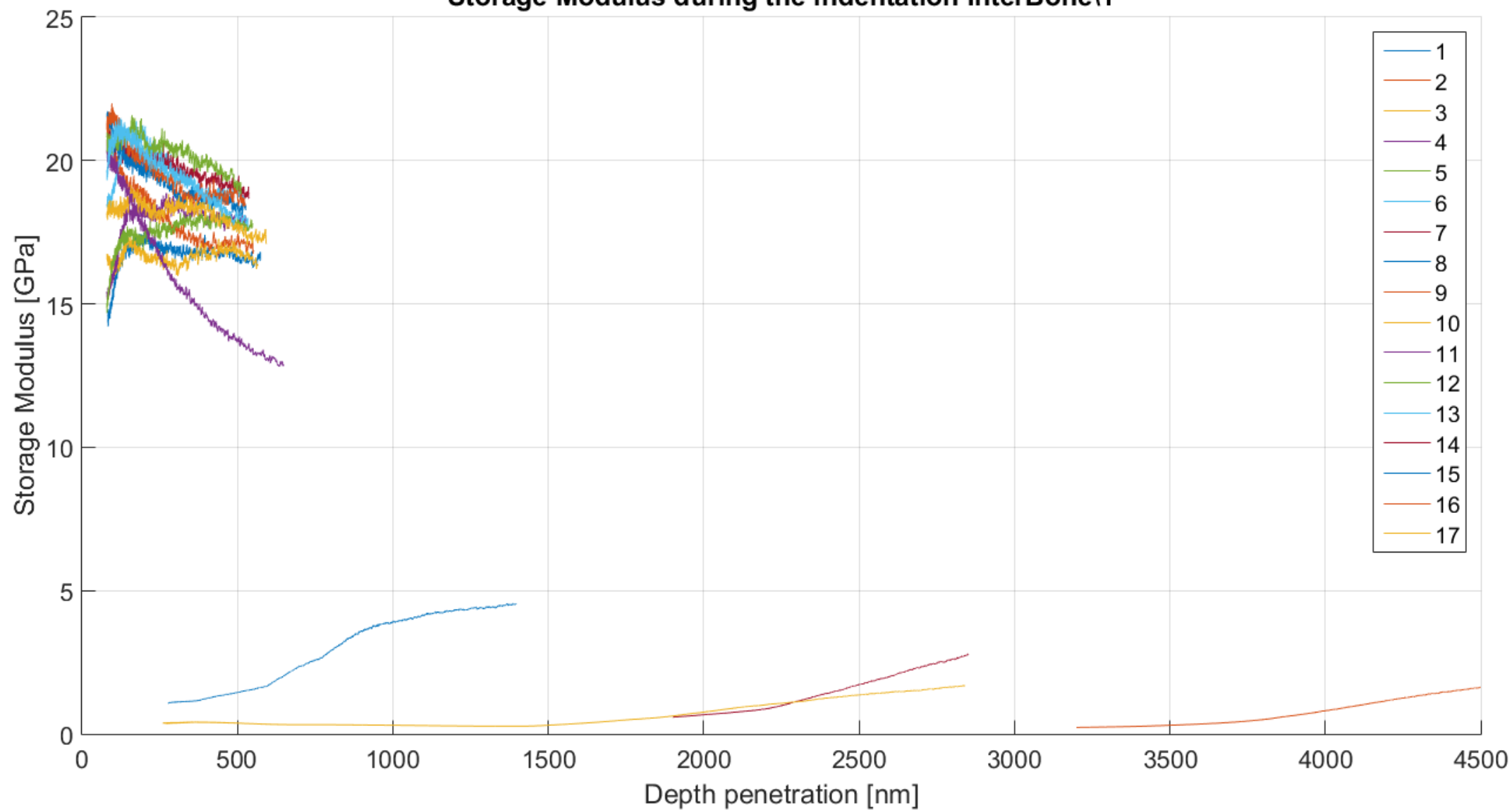
A. Complet

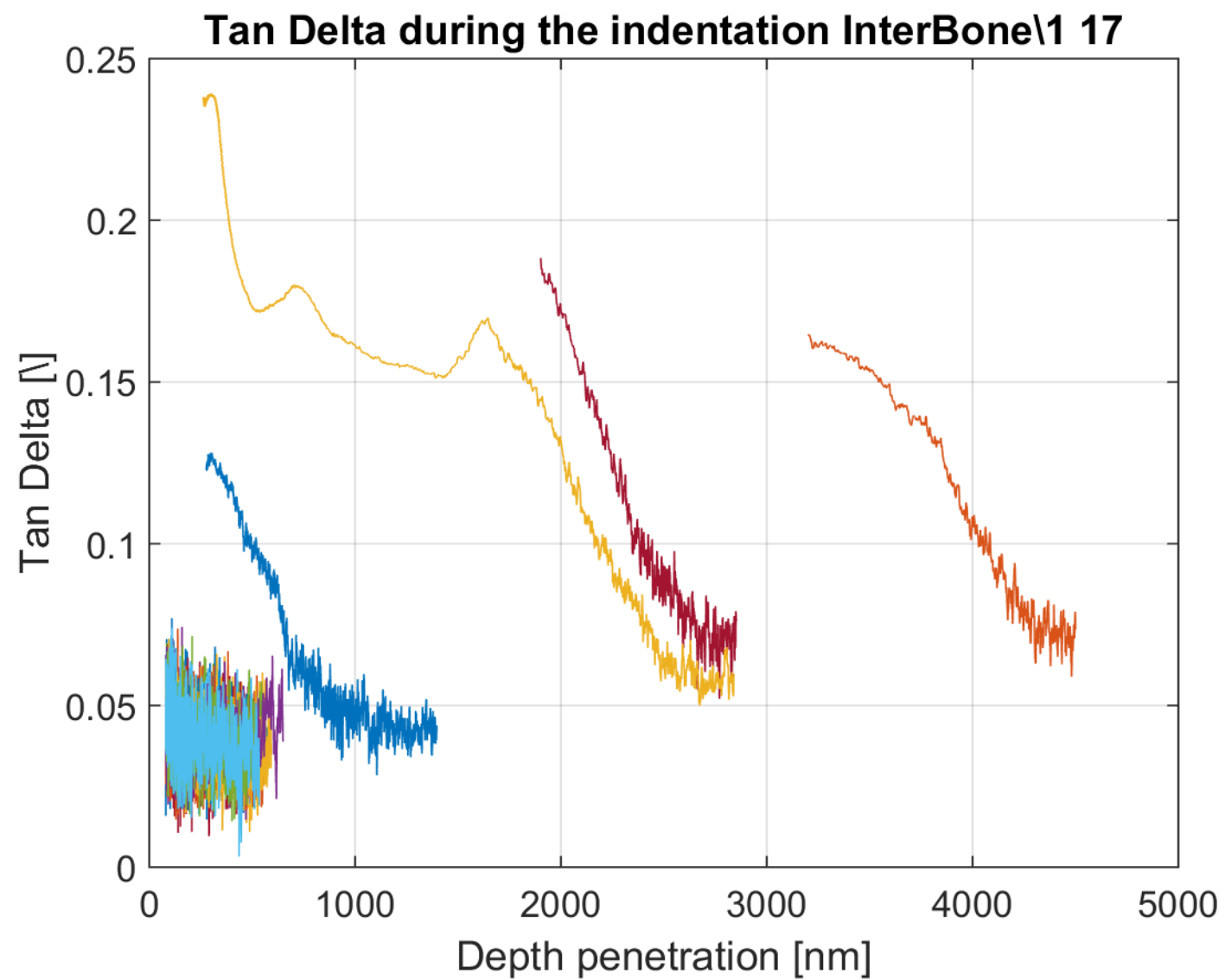


A. Complet

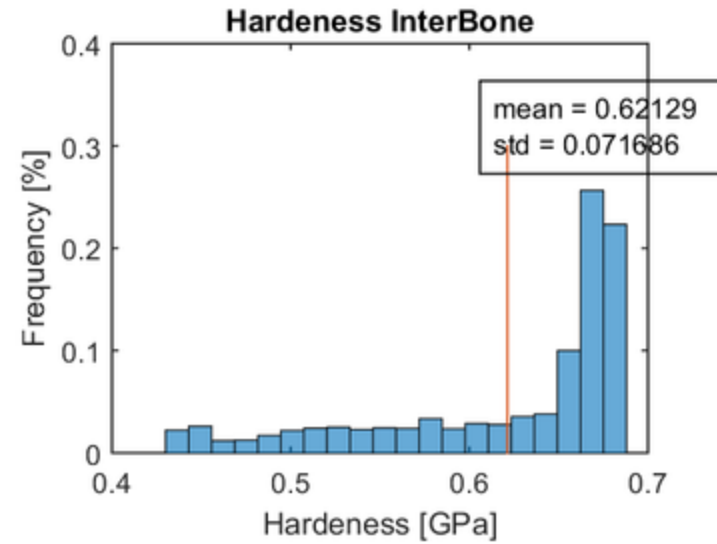
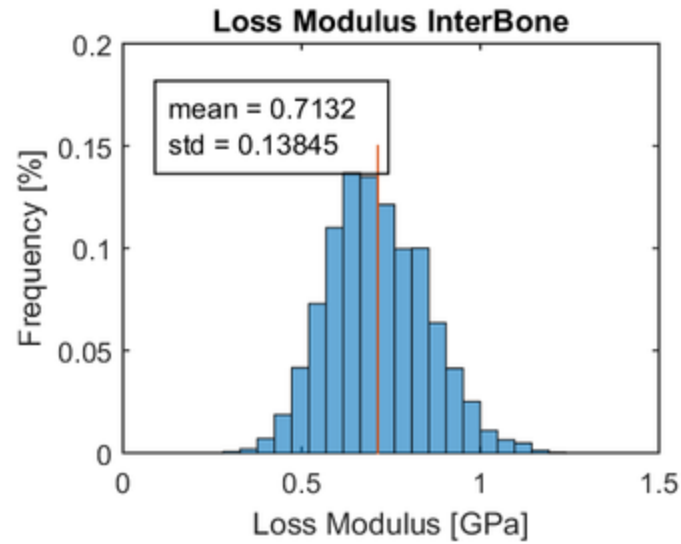
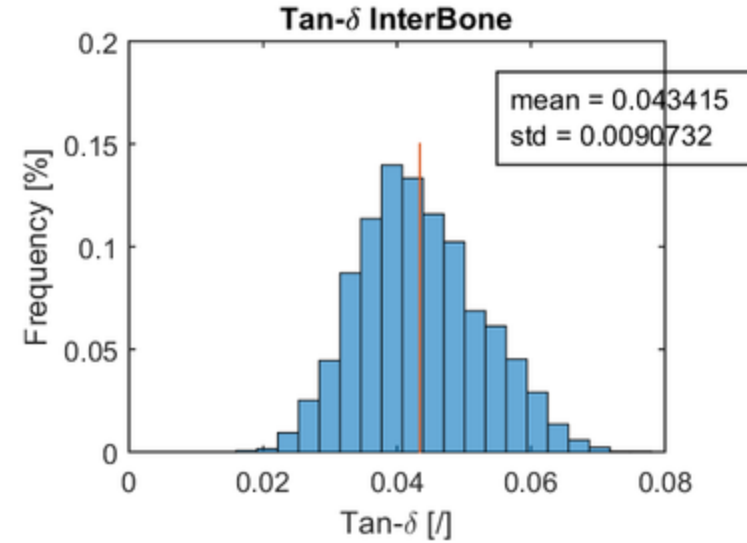
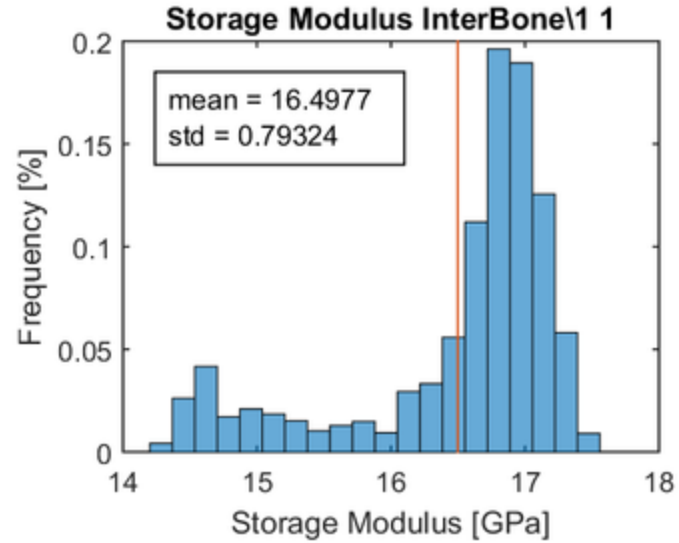


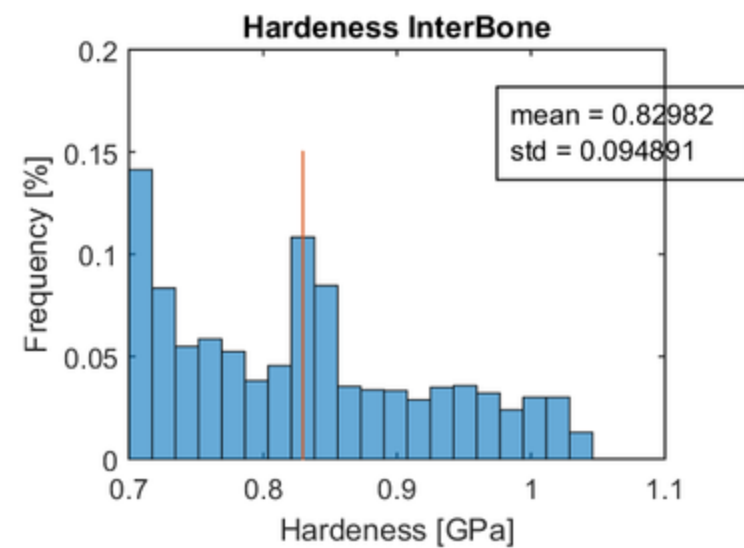
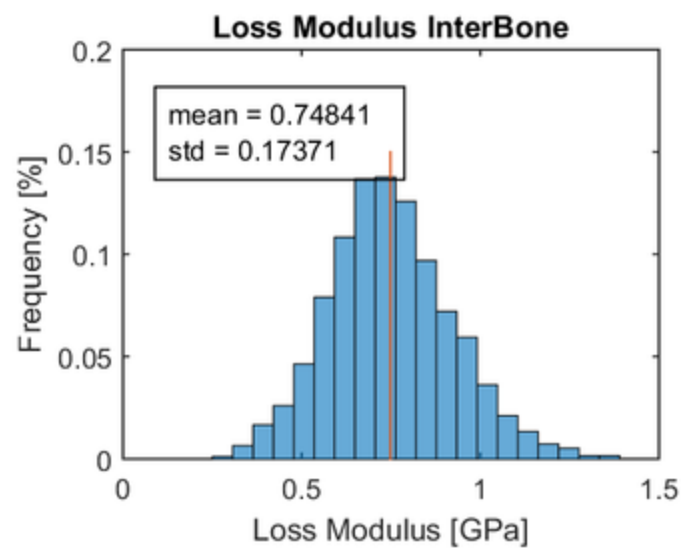
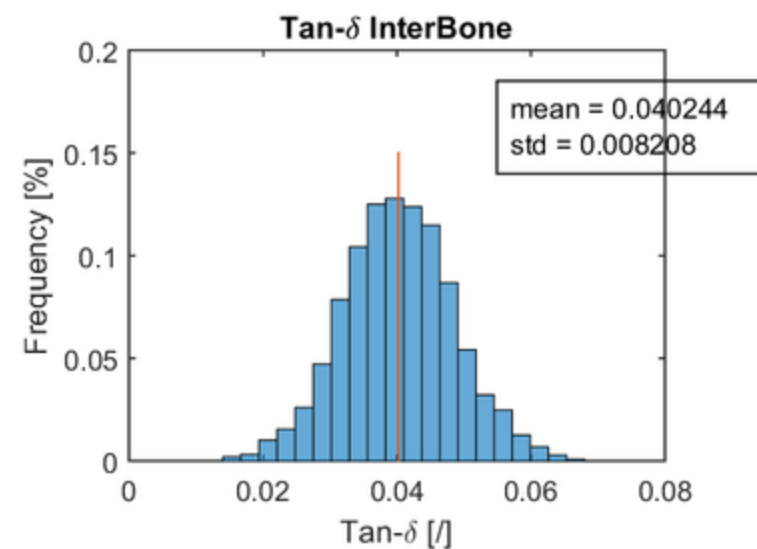
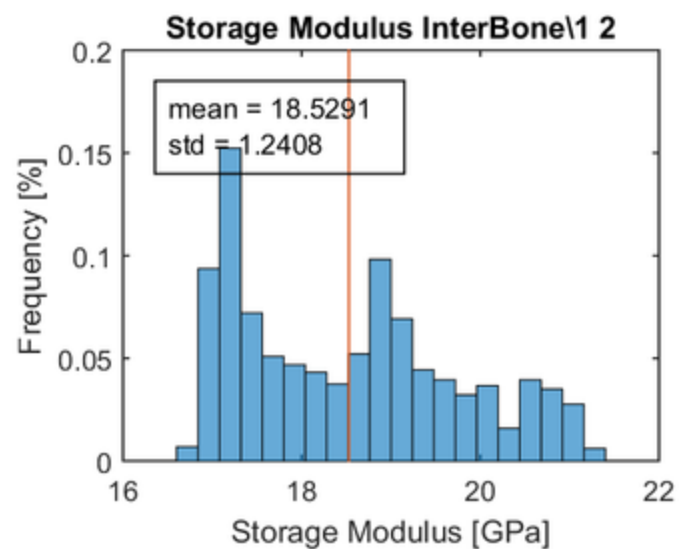
Storage Modulus during the indentation InterBone\1

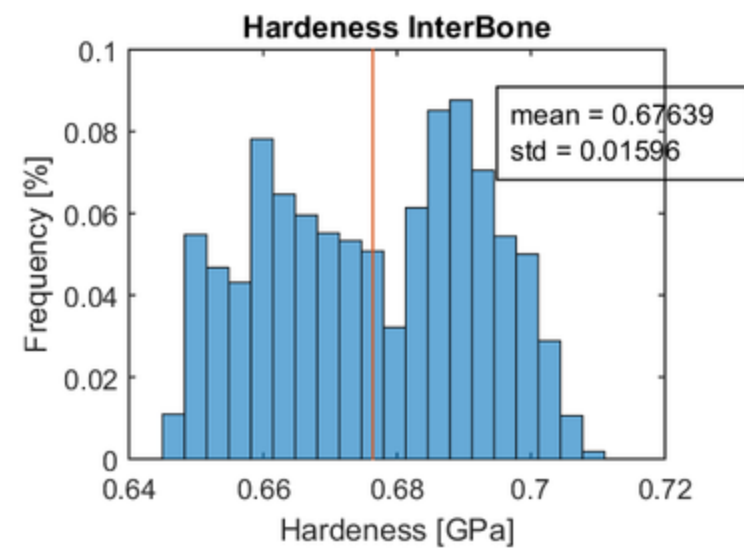
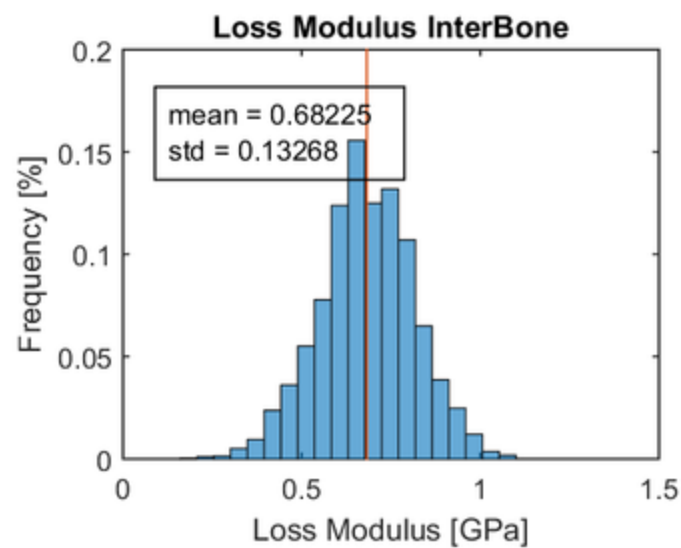
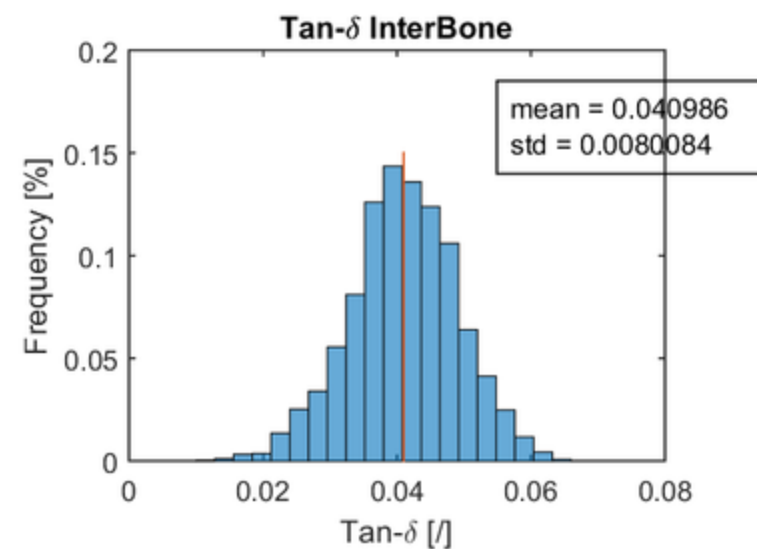
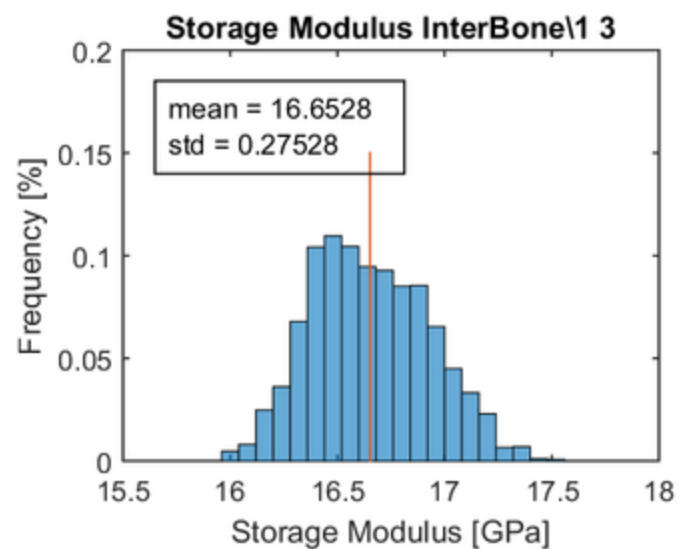


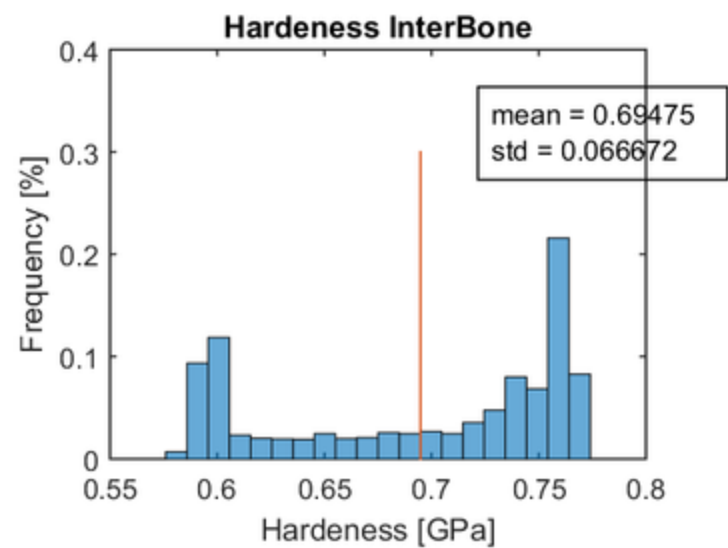
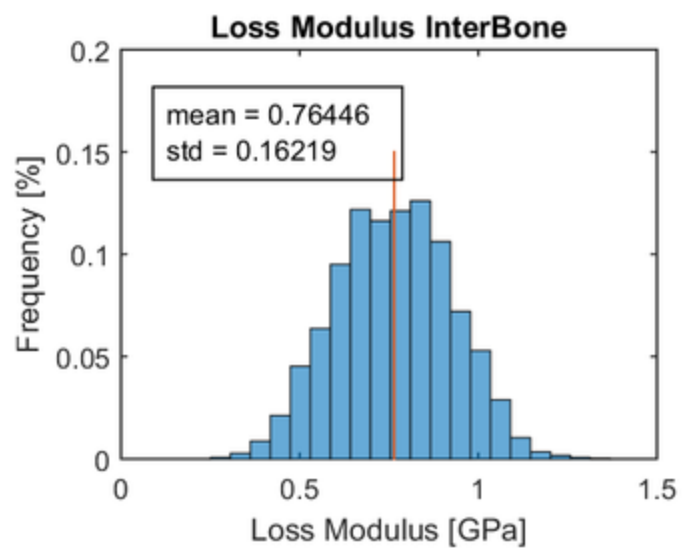
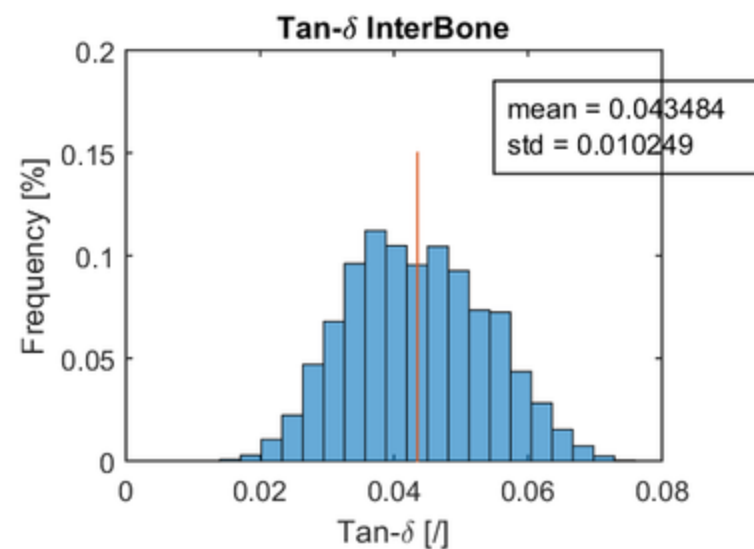
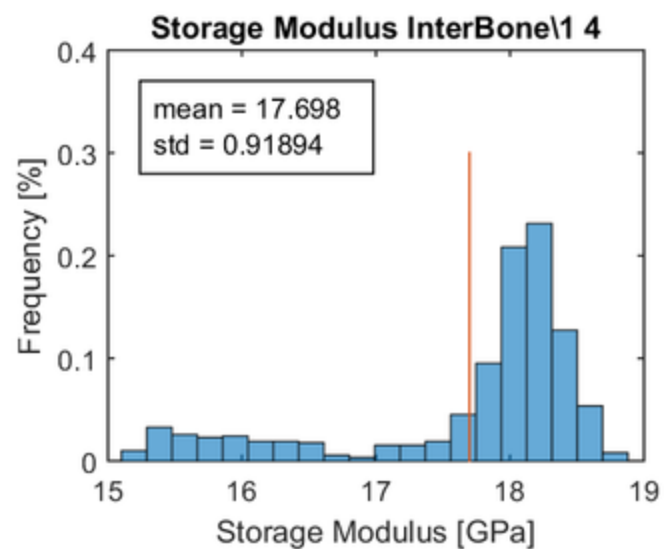


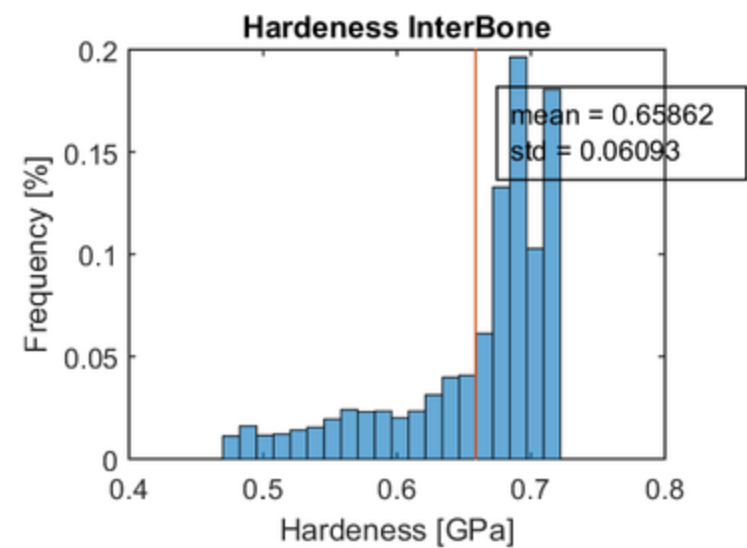
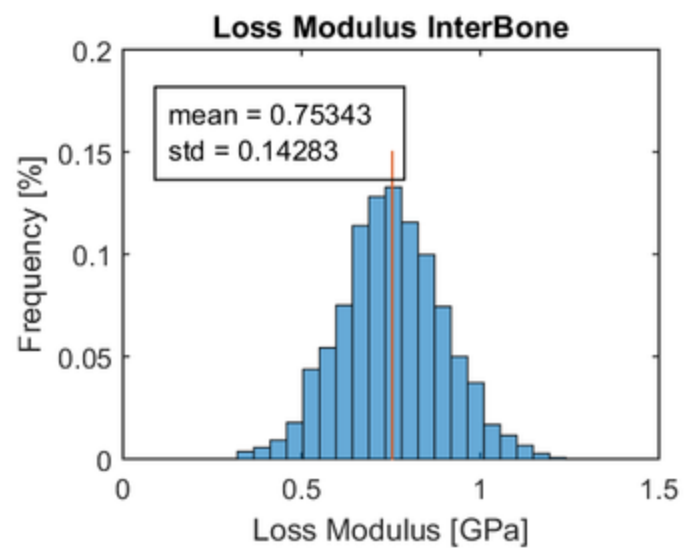
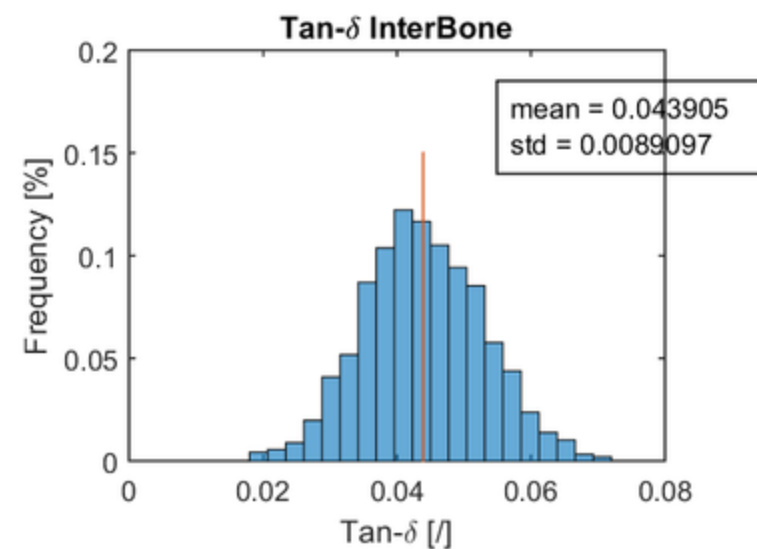
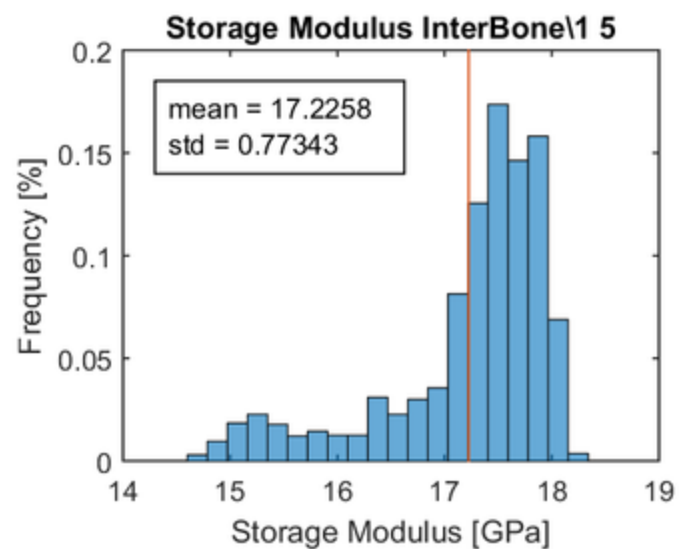
InterBone A Point 1

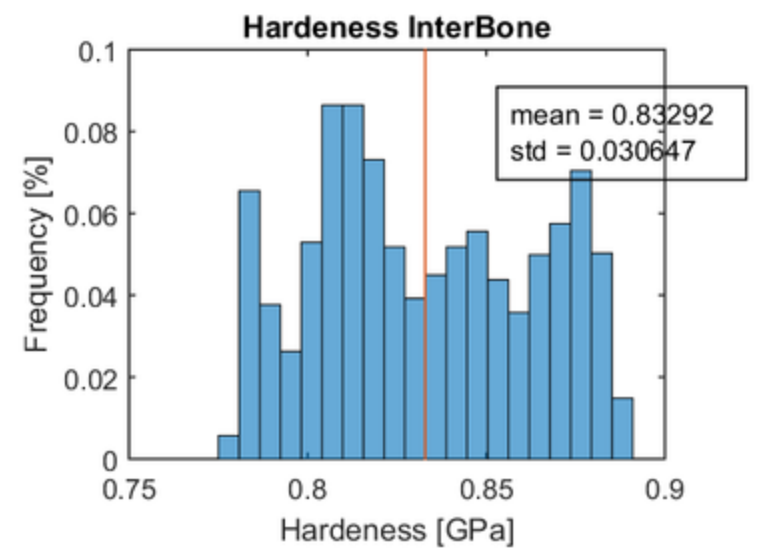
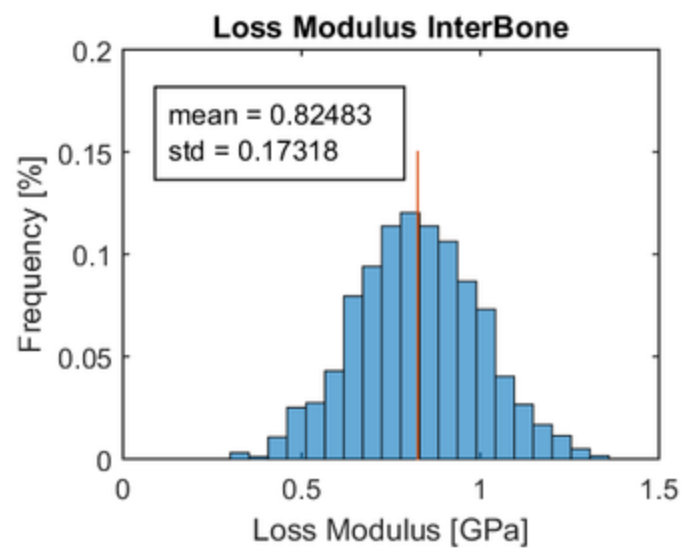
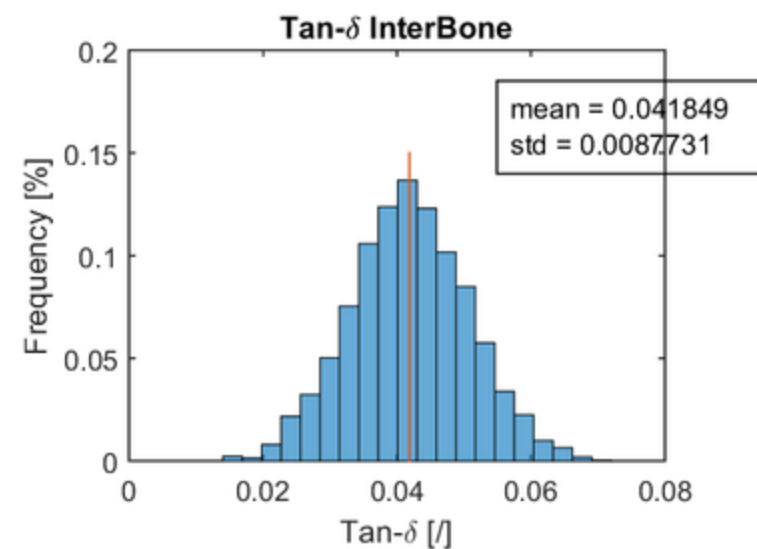
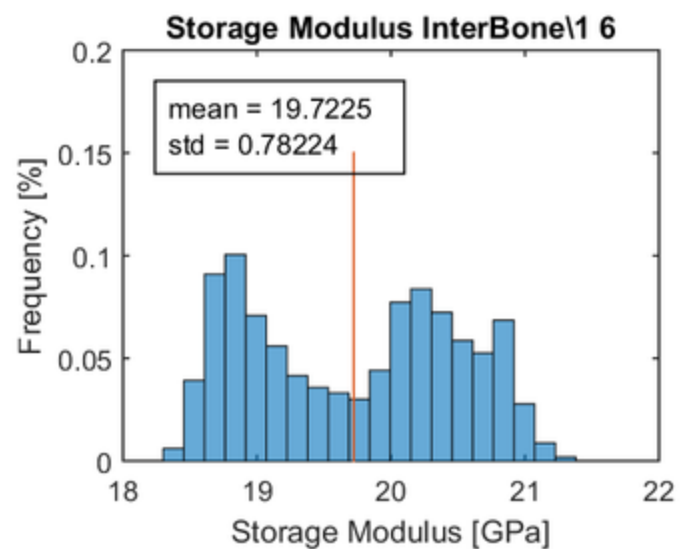


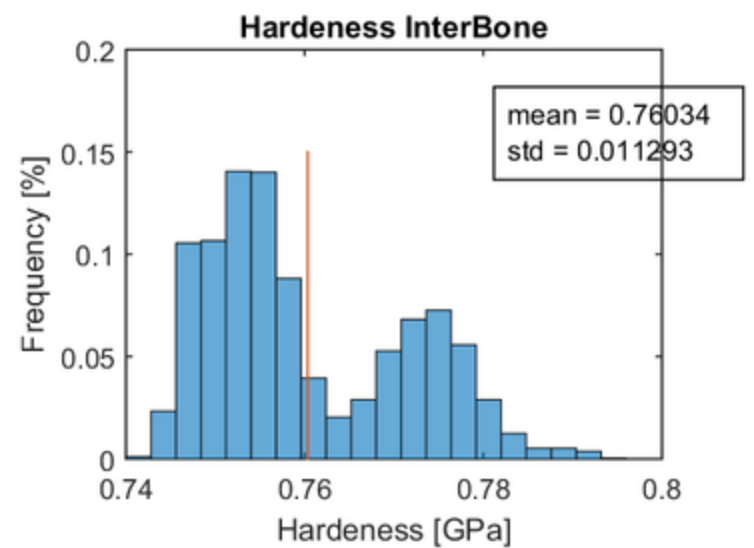
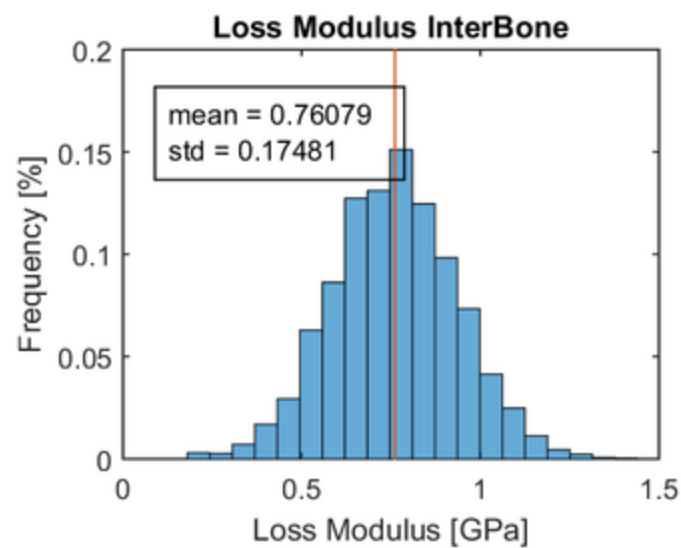
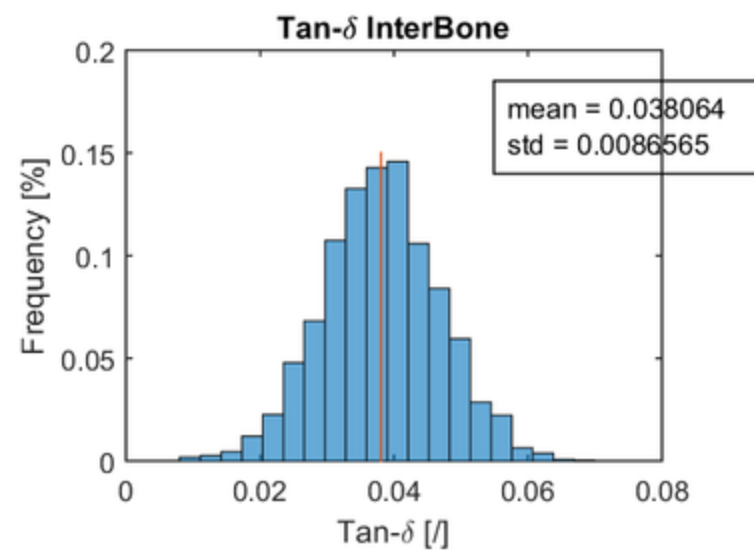
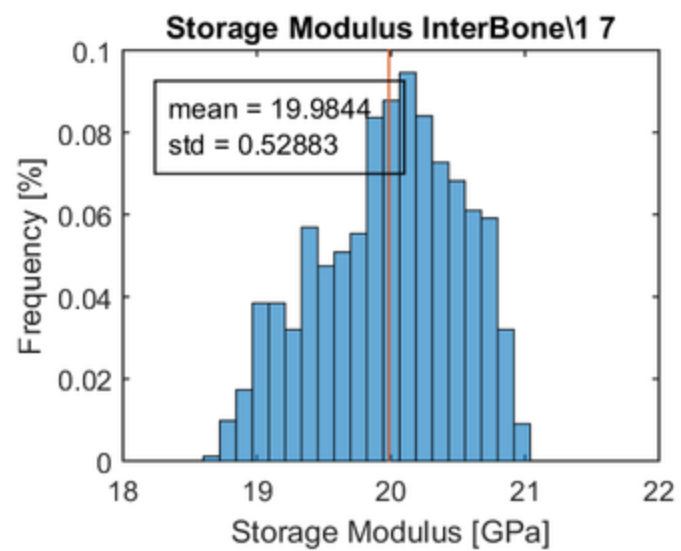


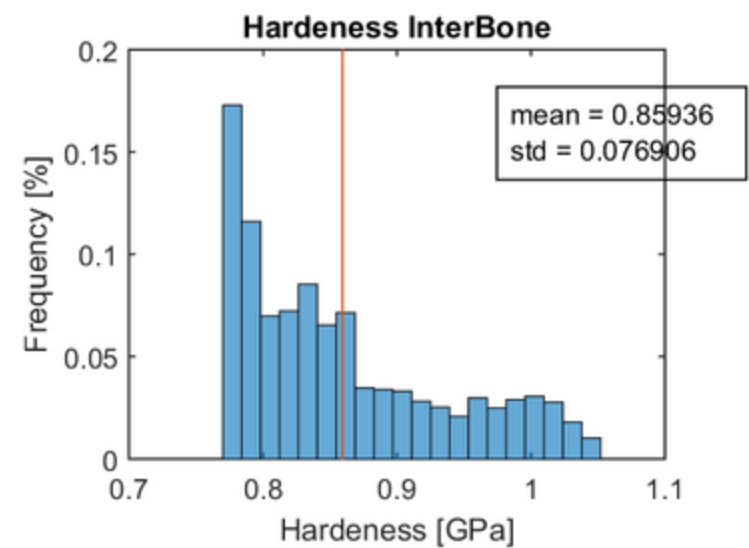
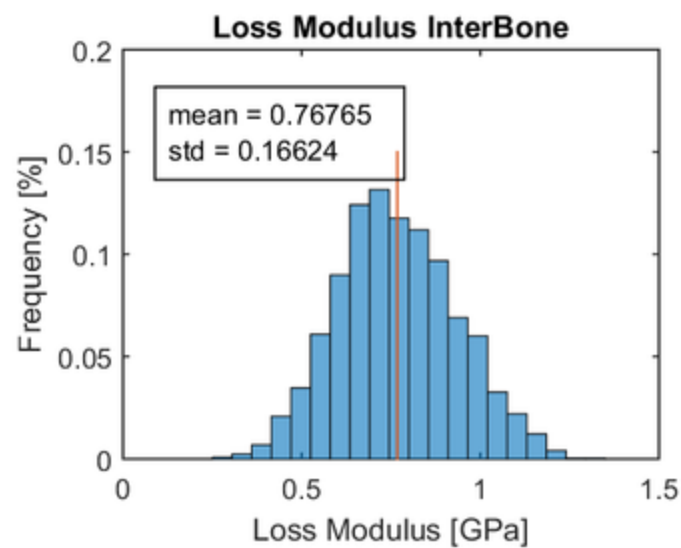
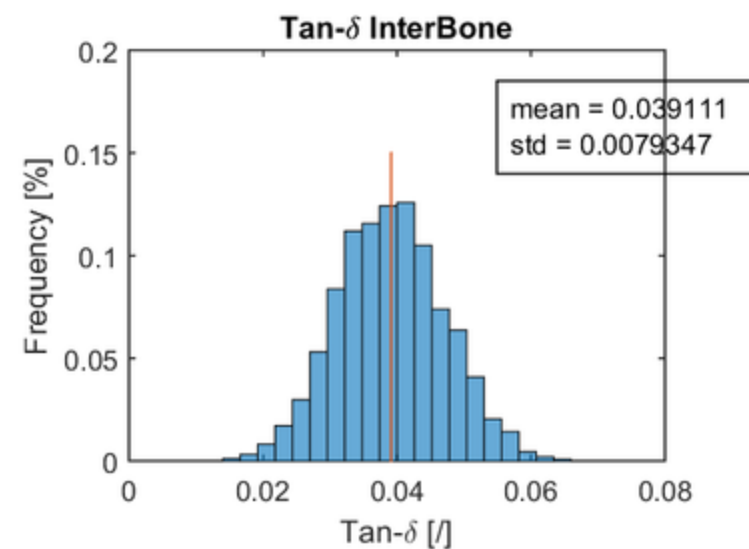
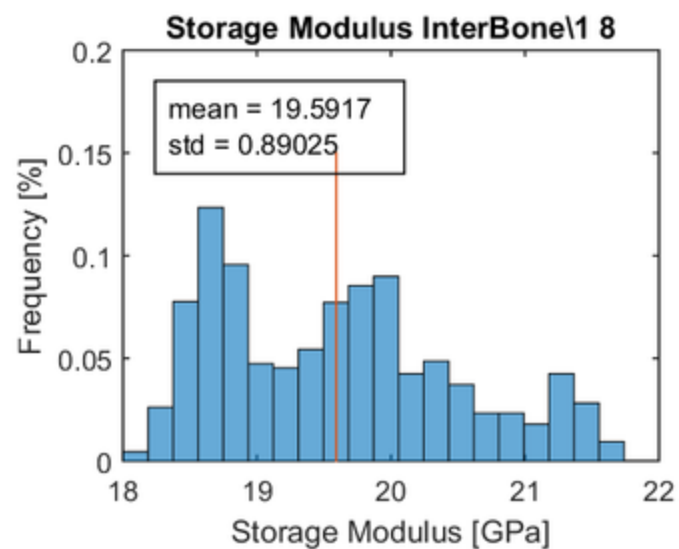


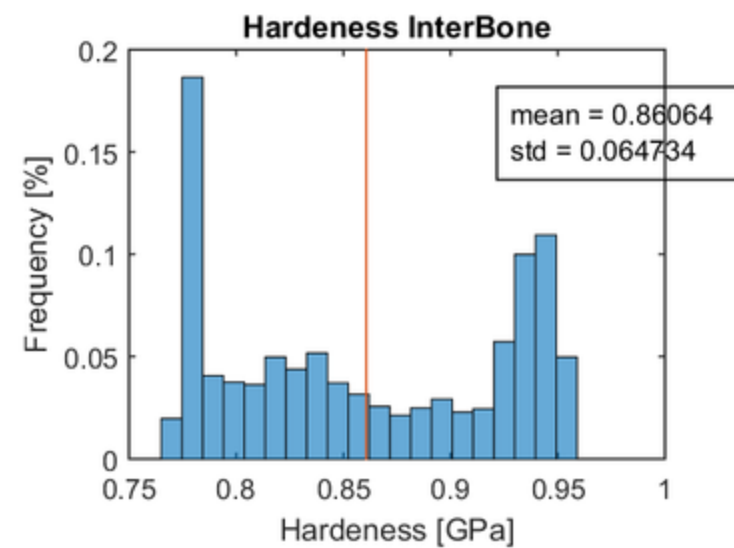
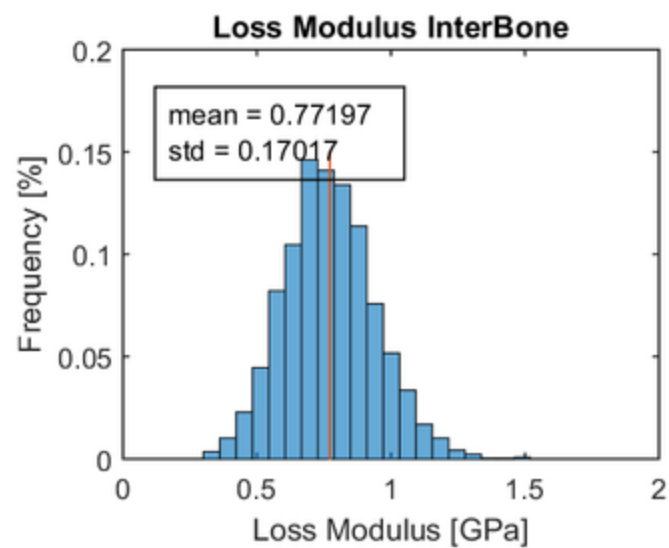
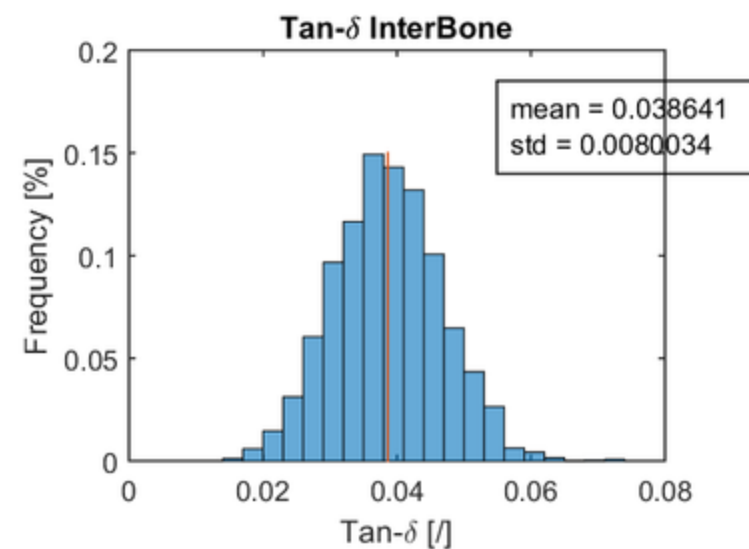
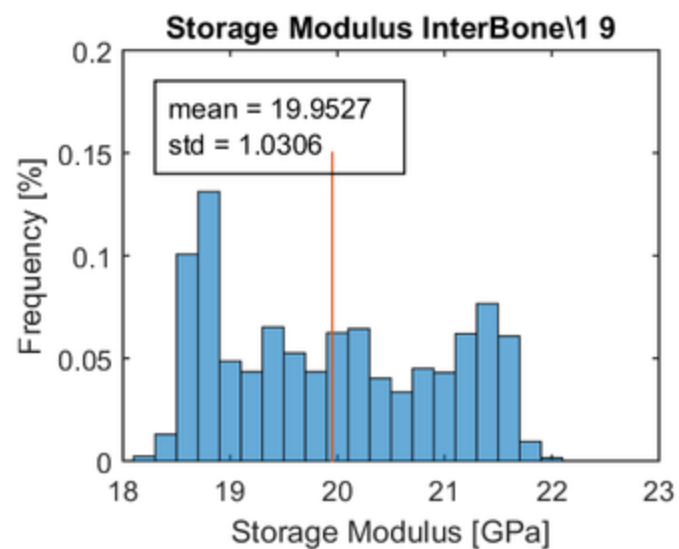


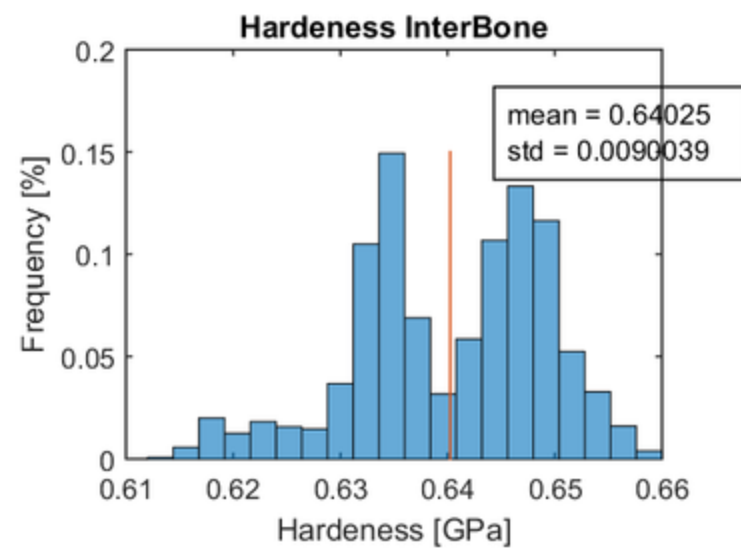
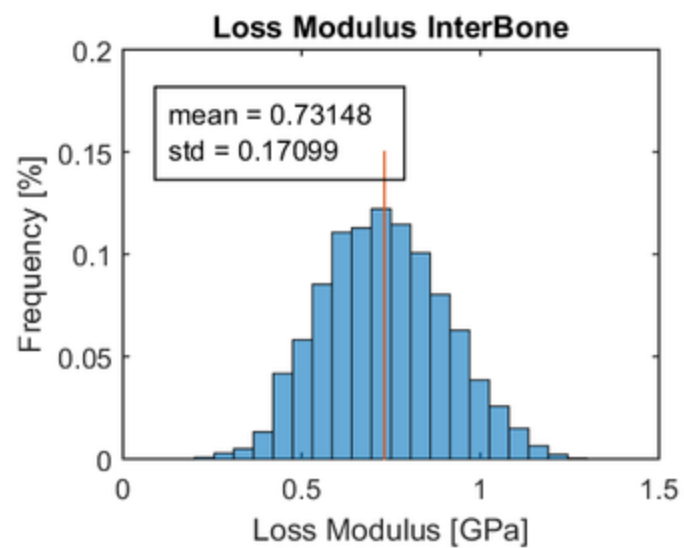
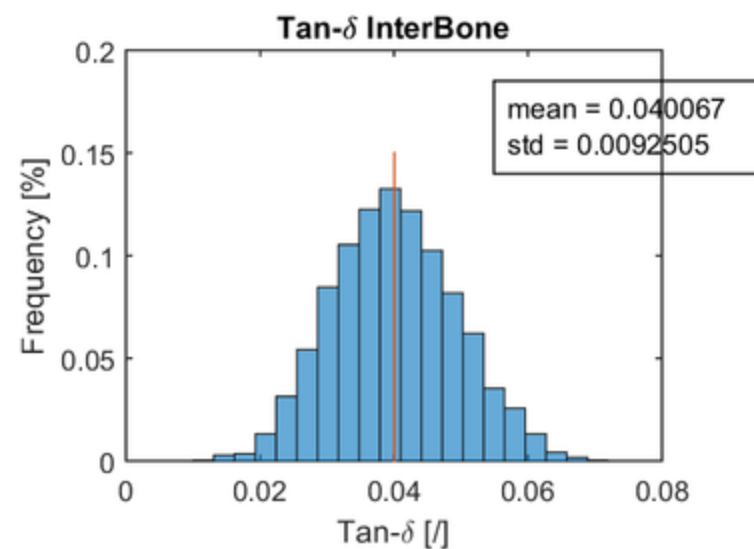
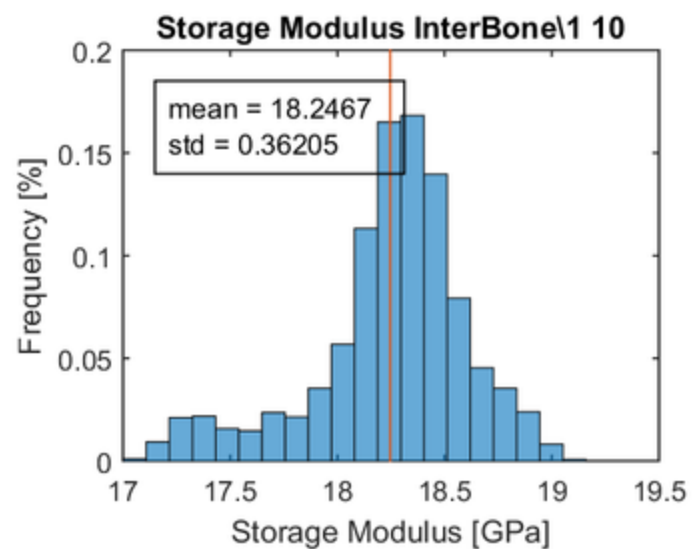


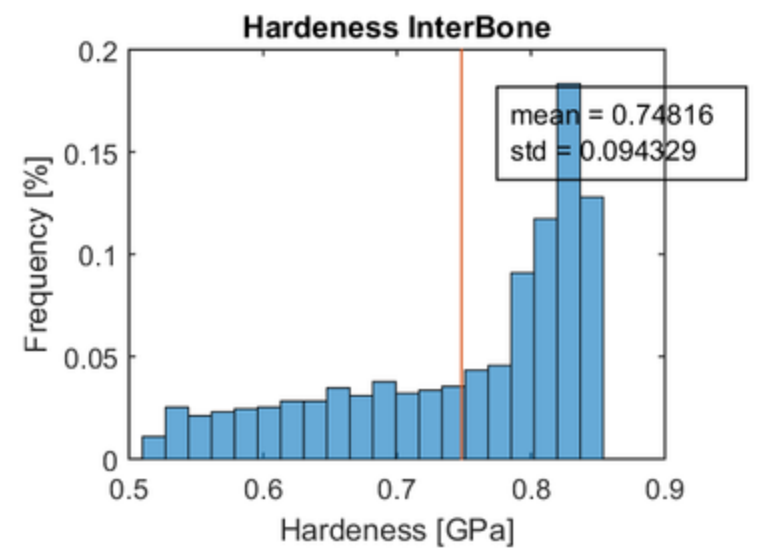
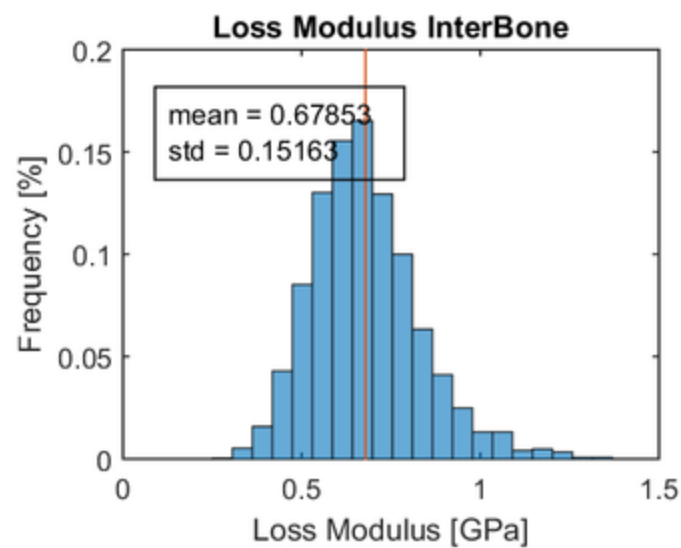
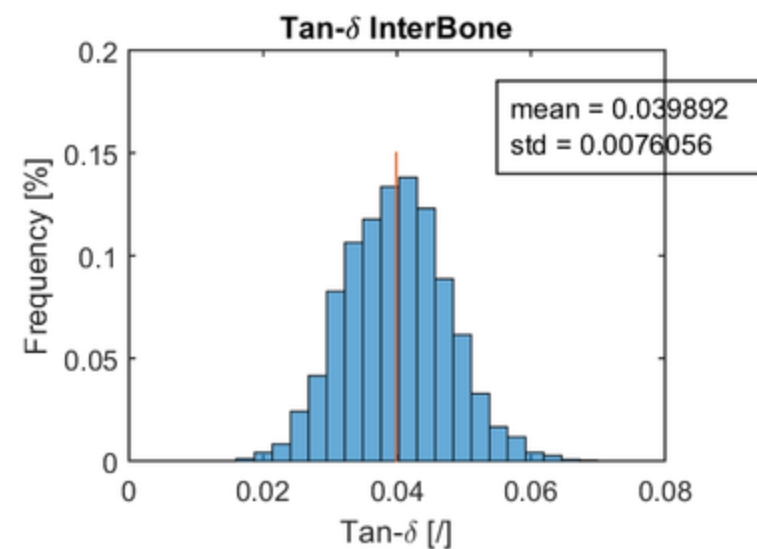
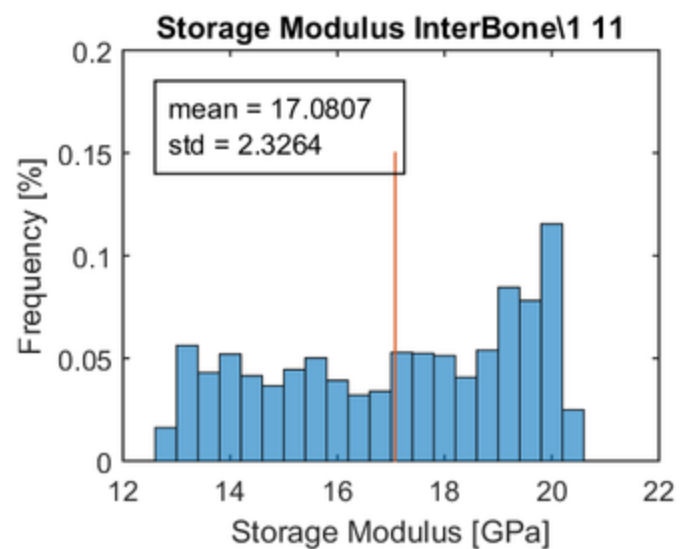


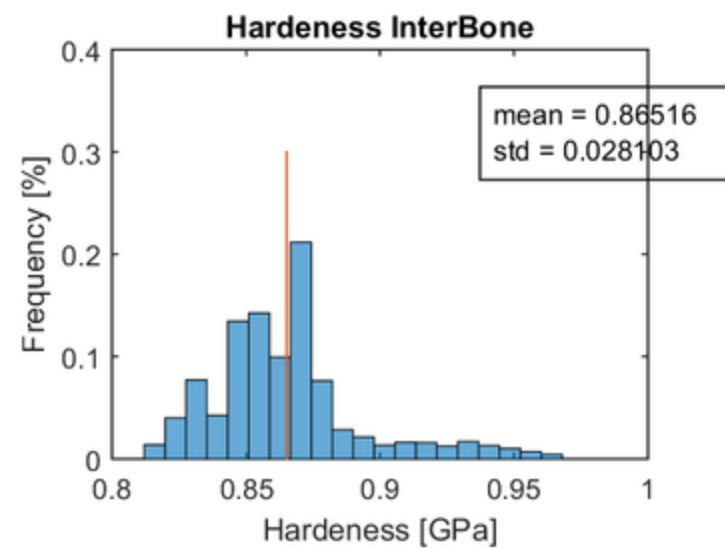
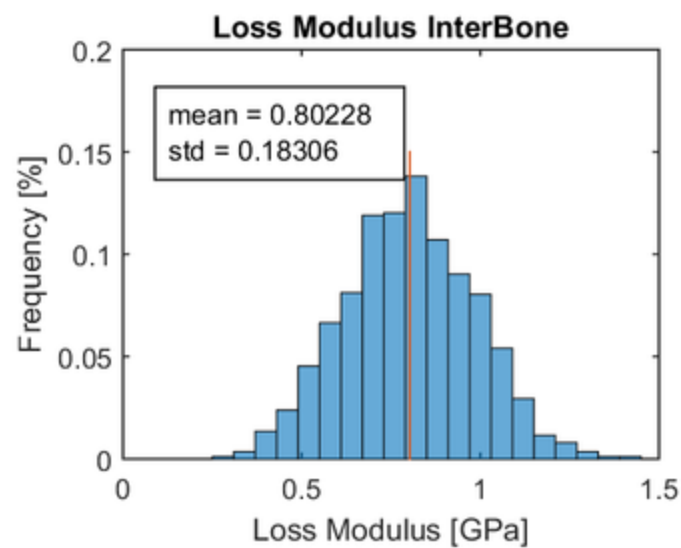
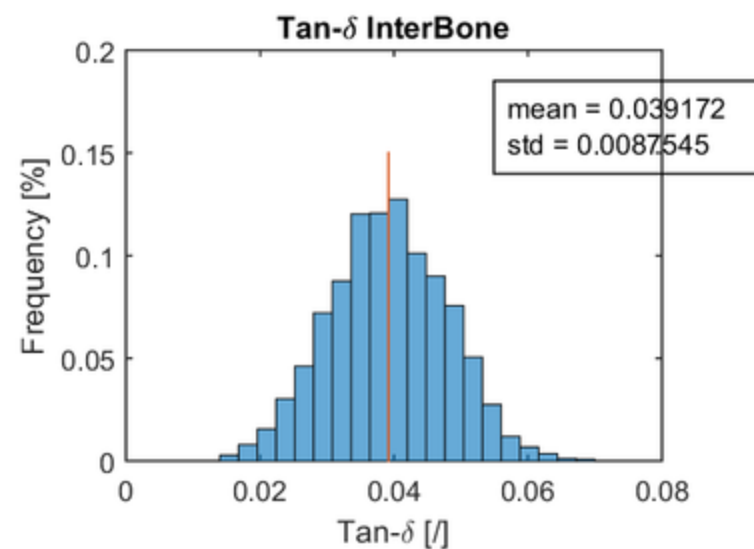
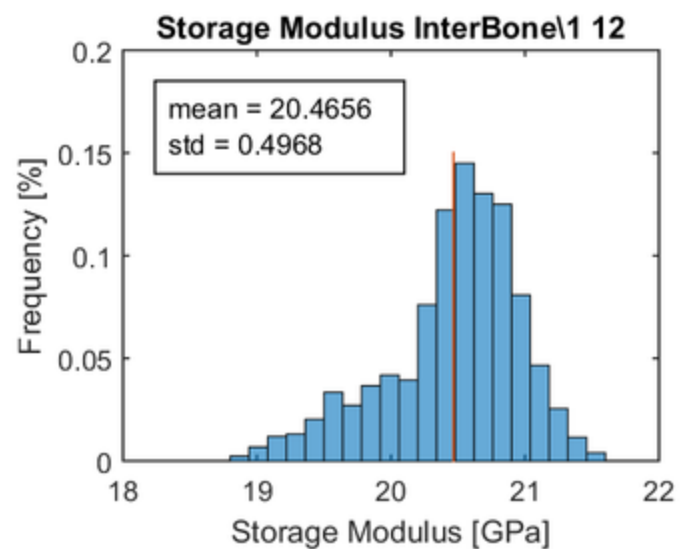


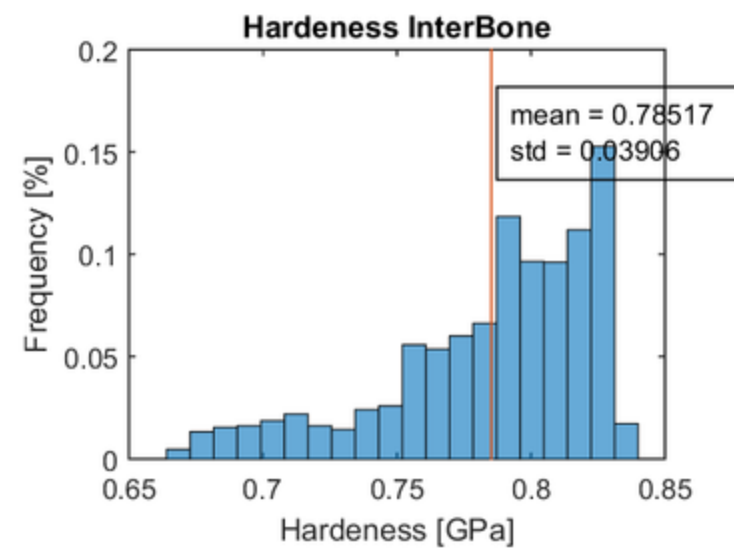
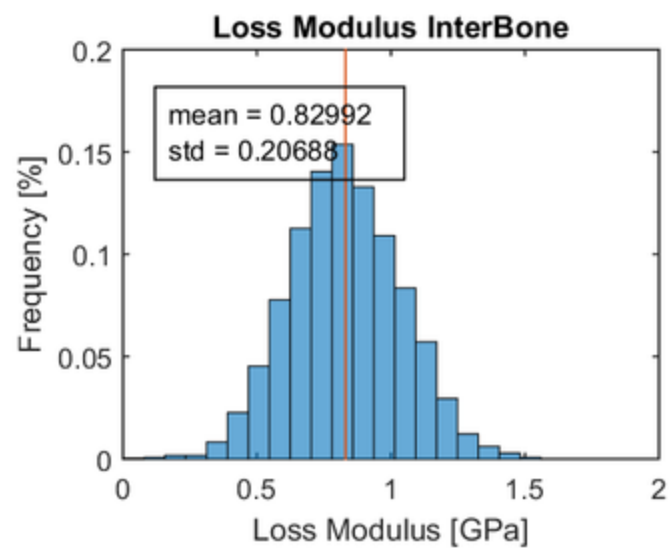
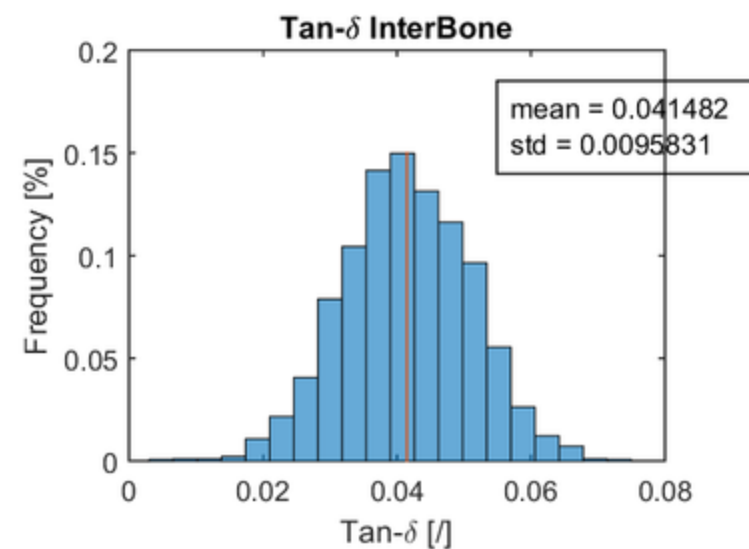
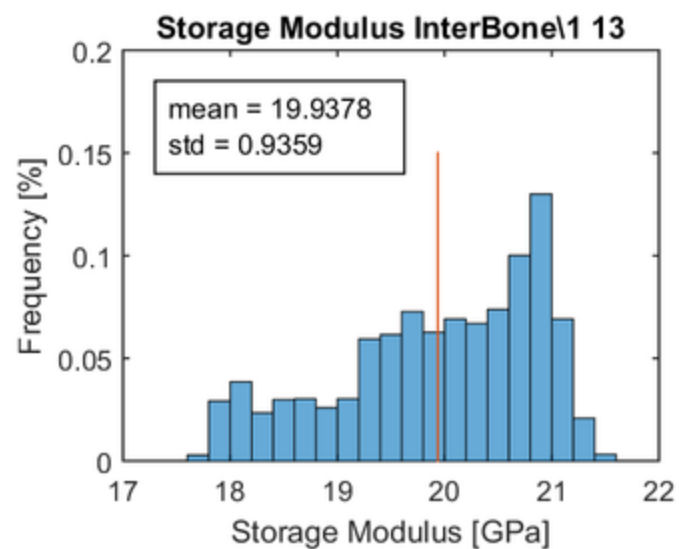


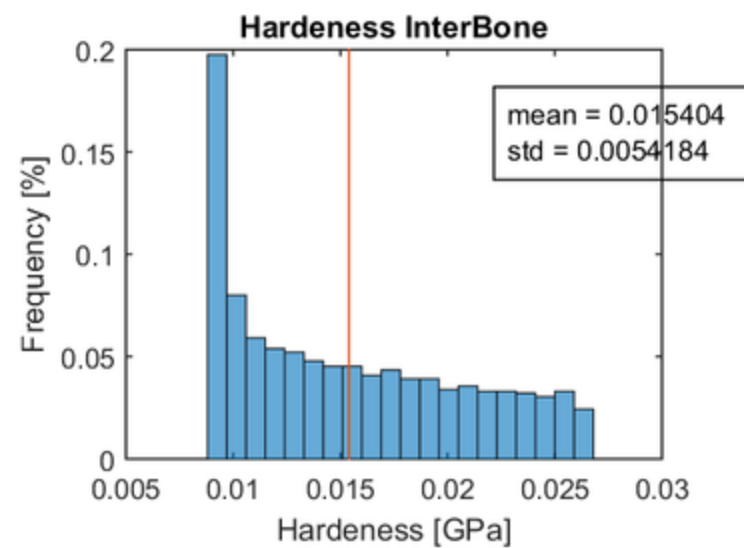
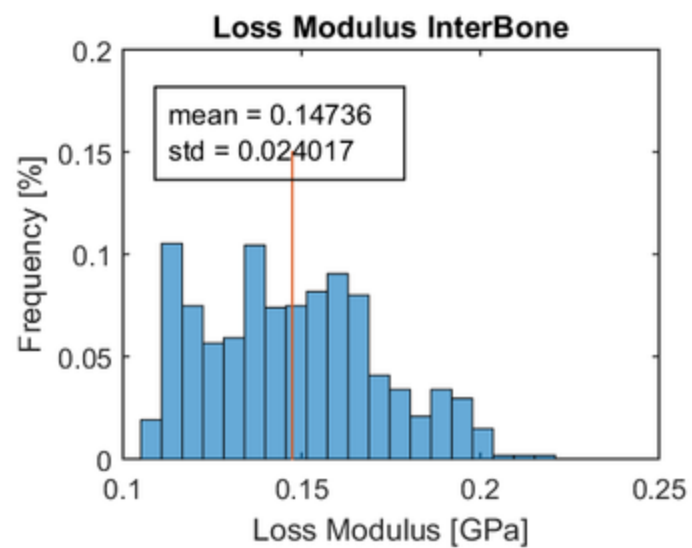
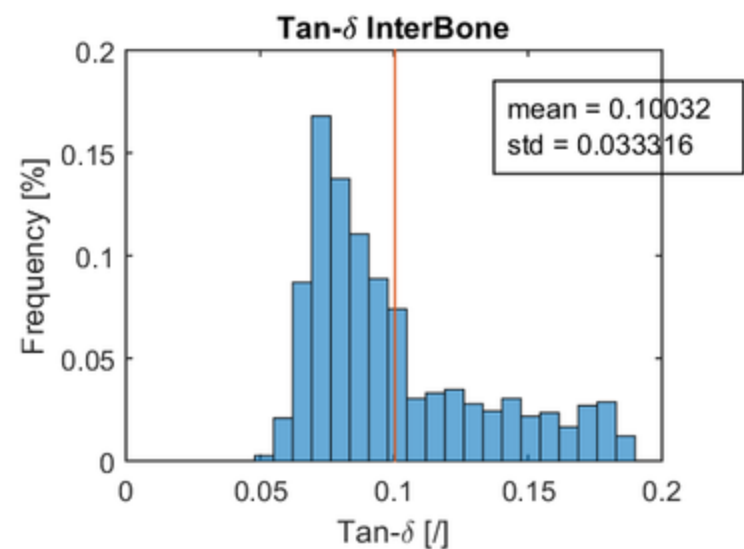
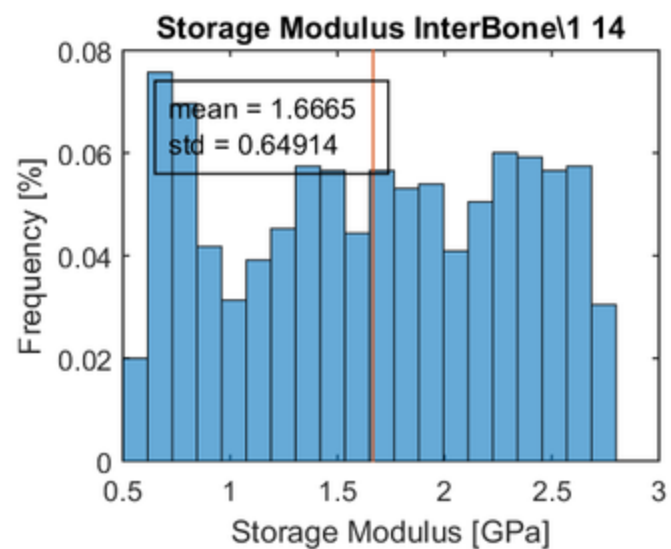


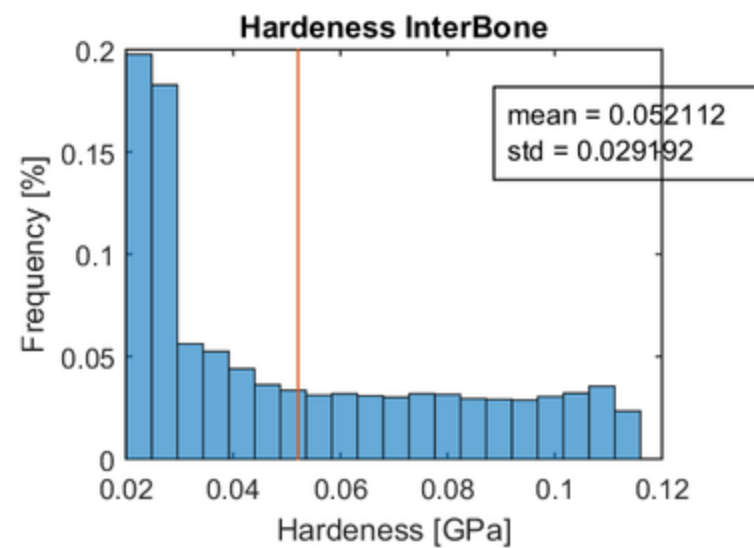
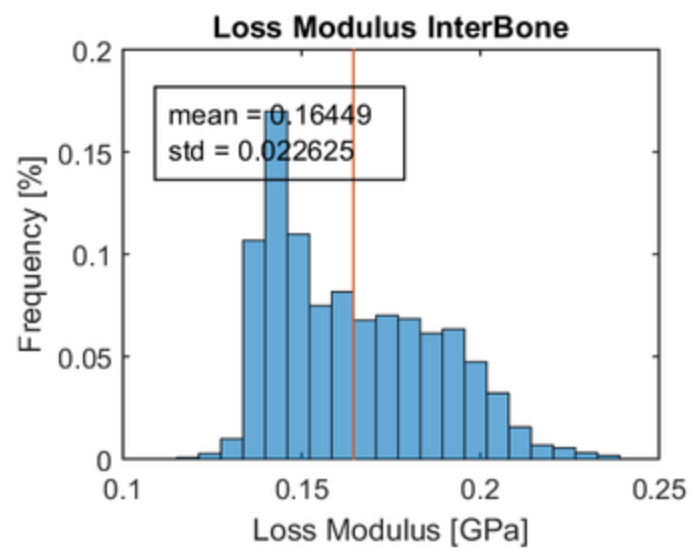
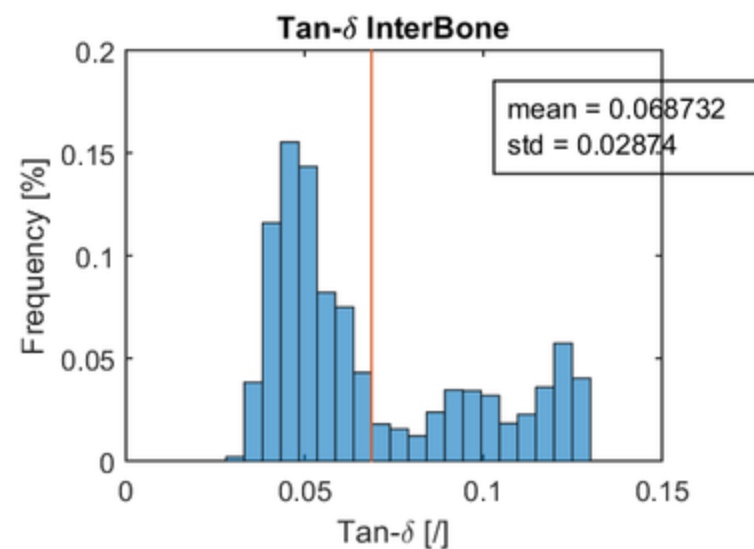
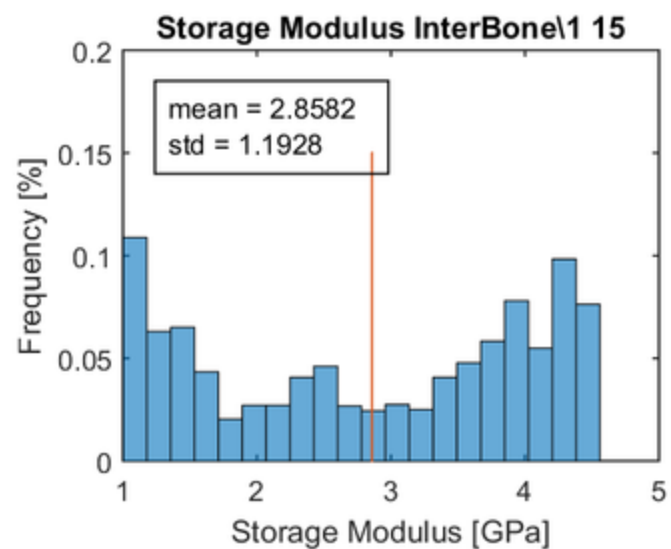


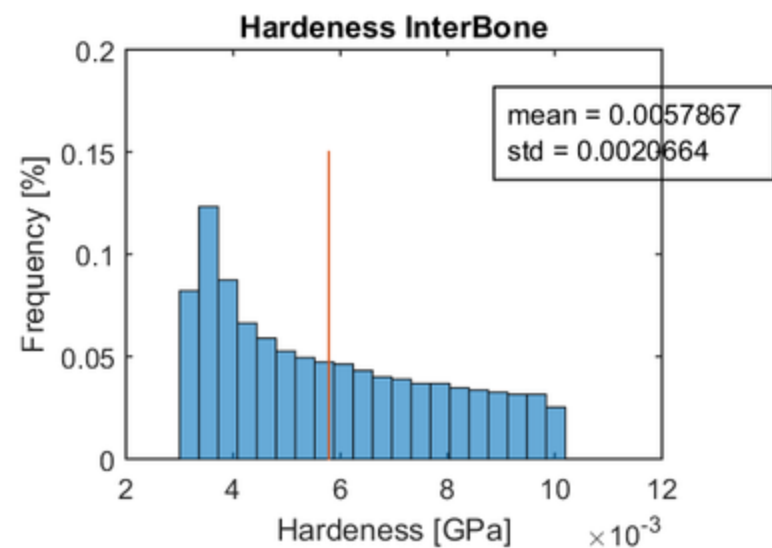
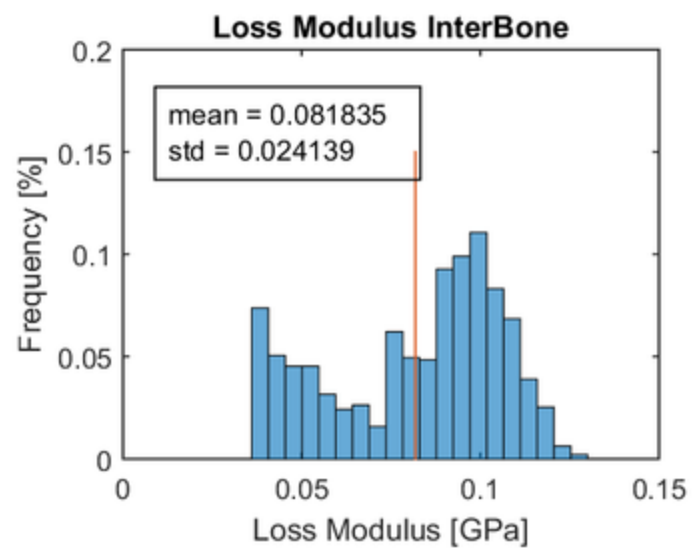
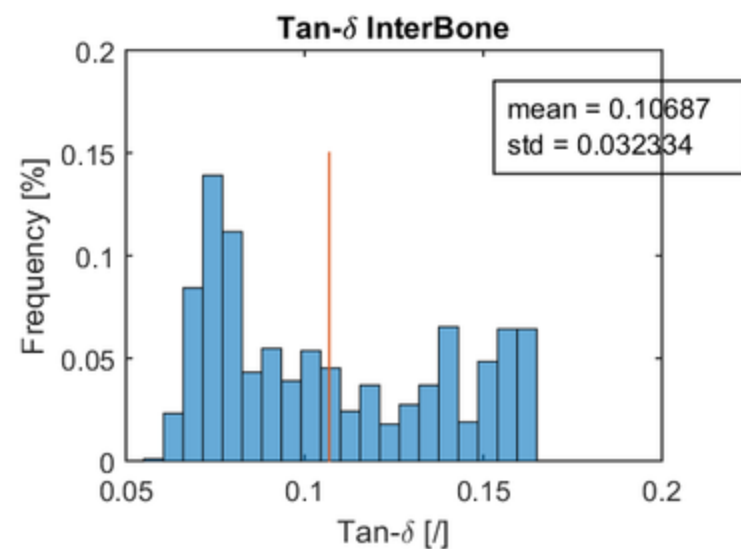
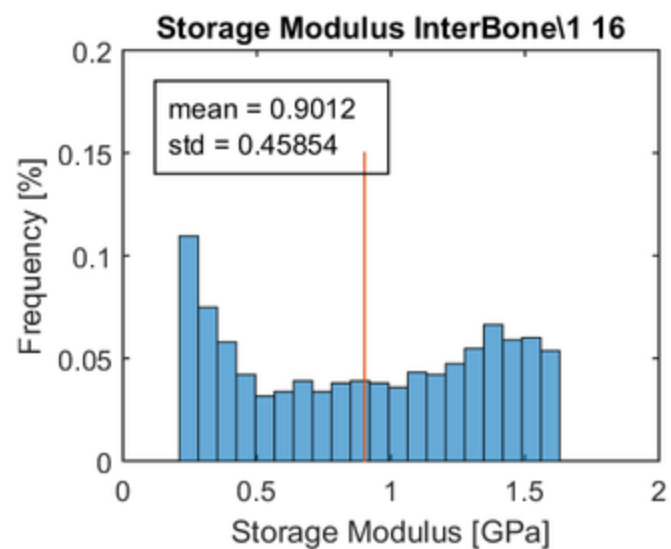


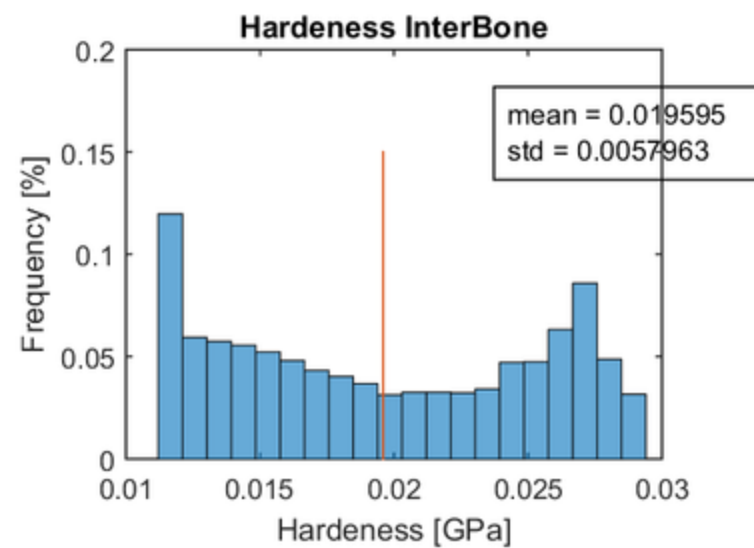
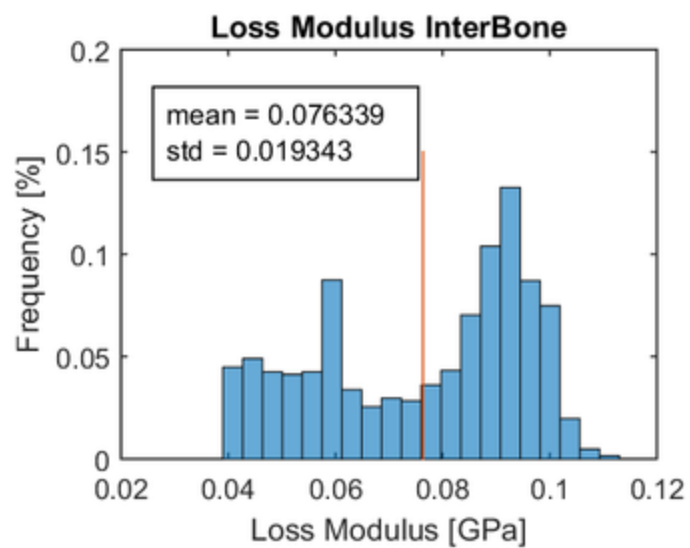
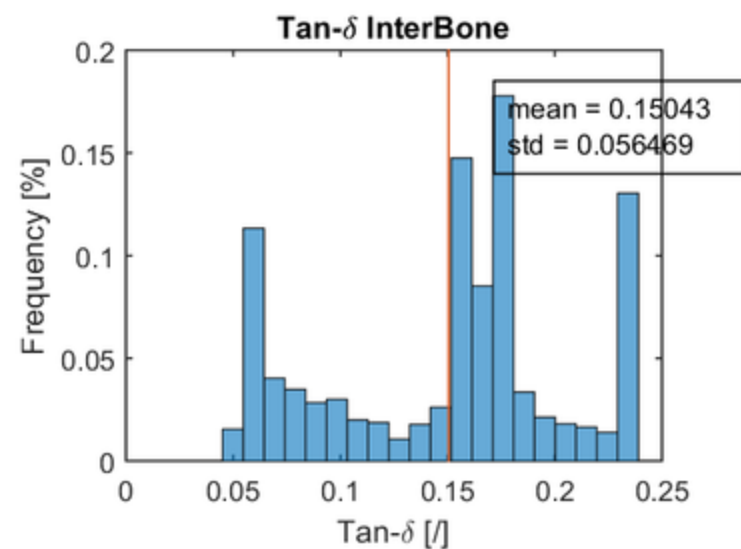
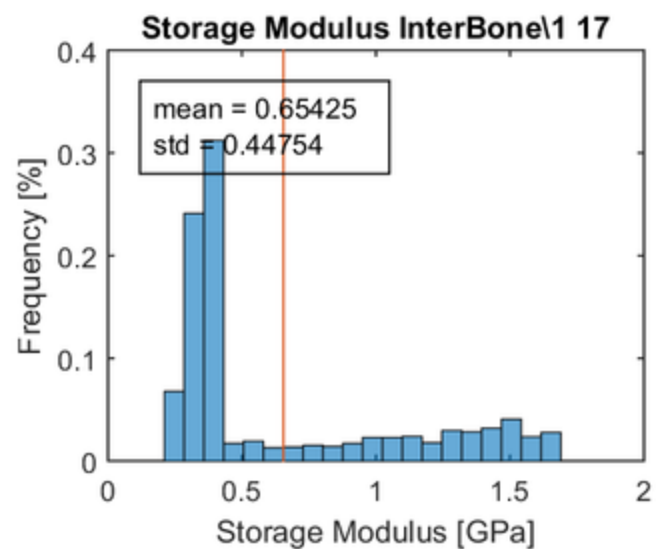




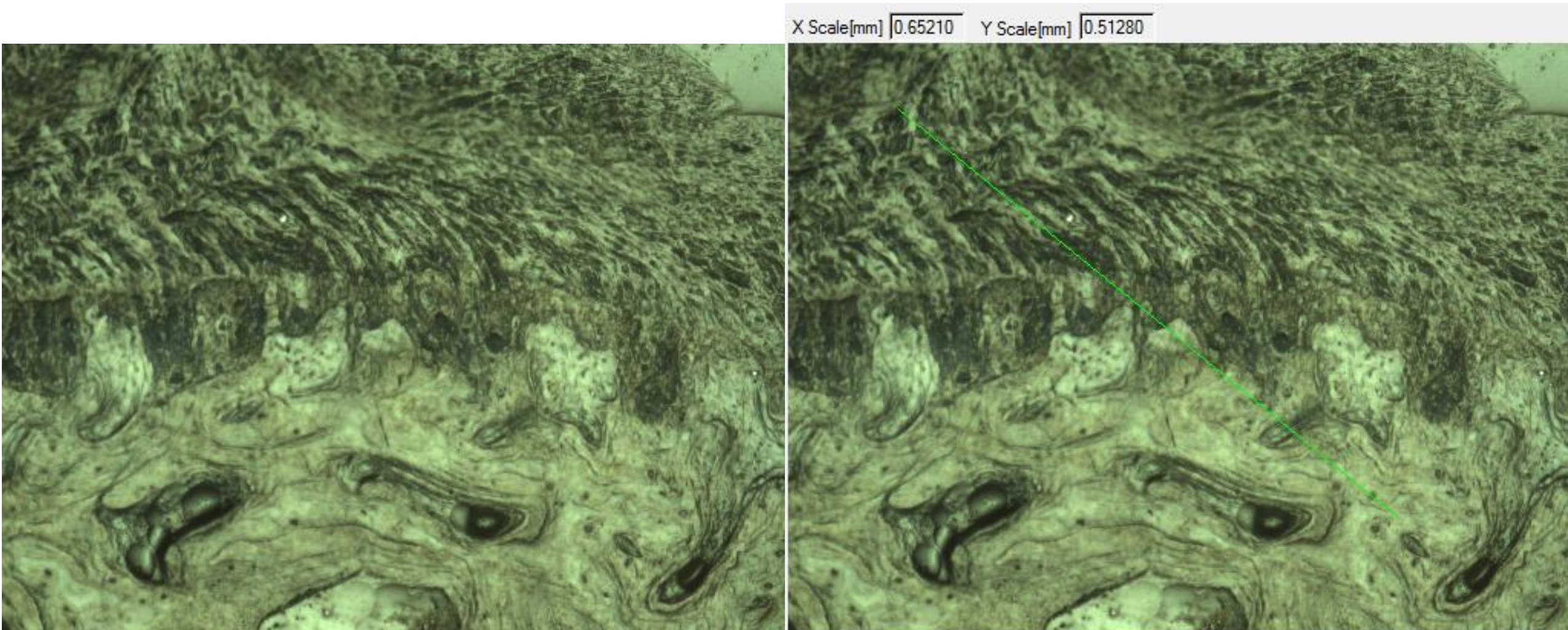




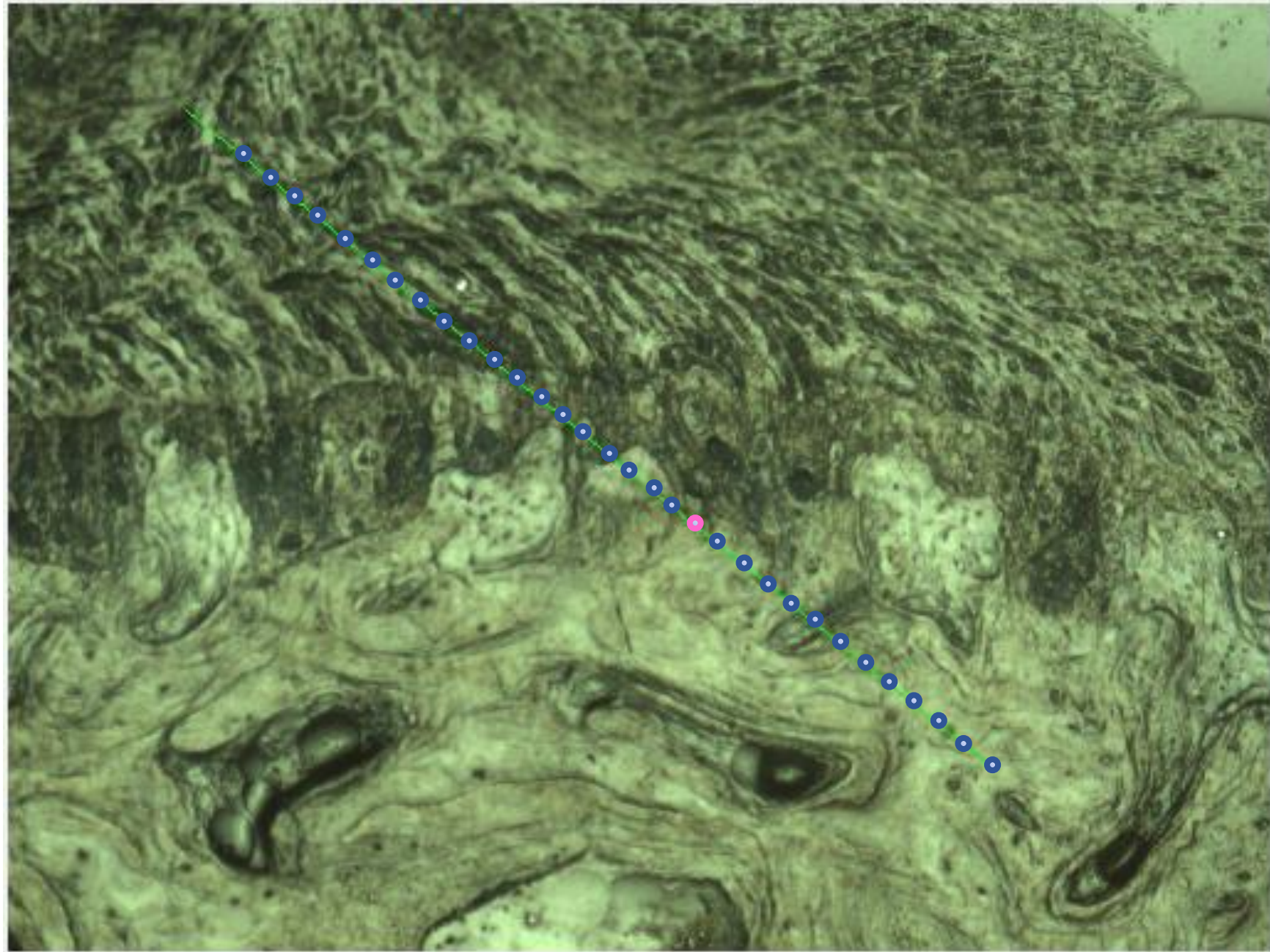


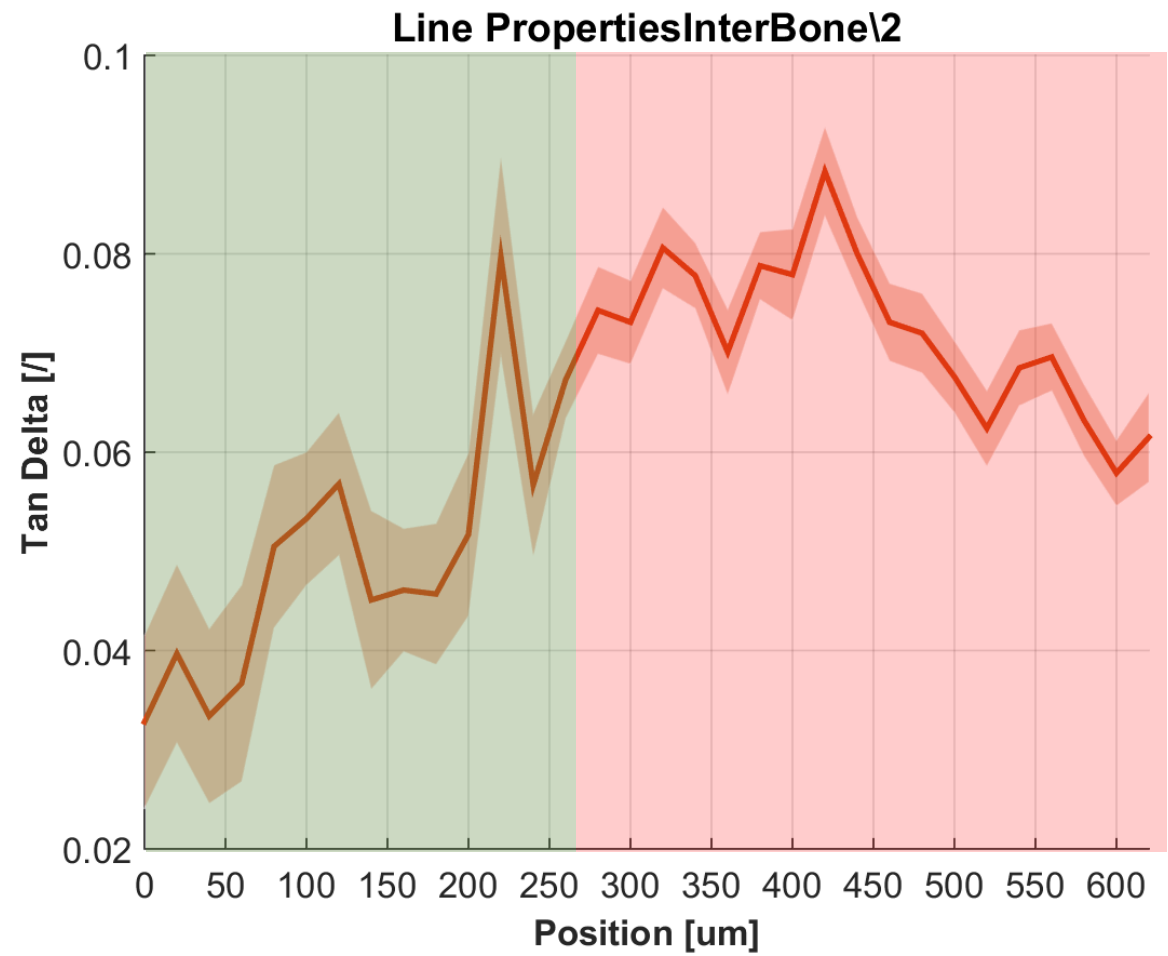
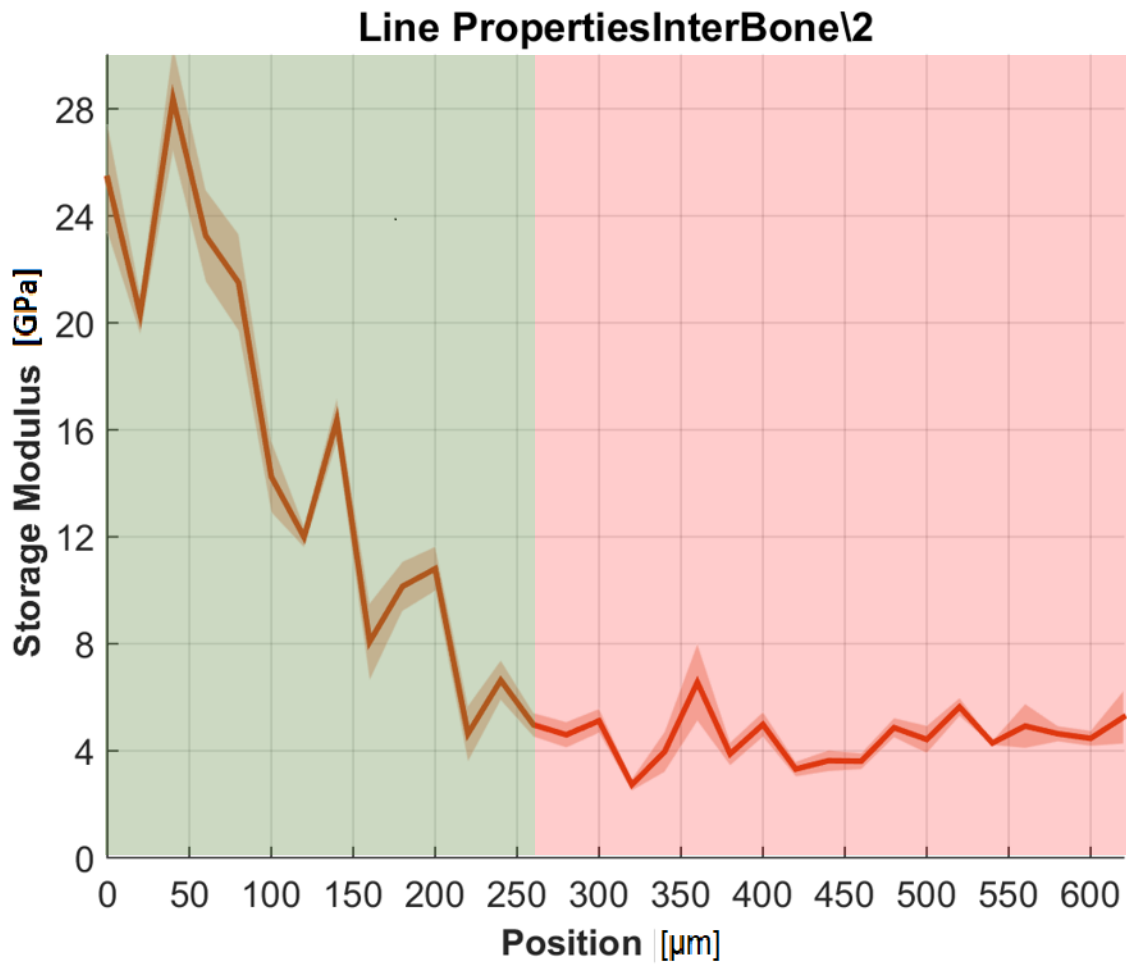


B Interface Periosteal cartilage Sample D3

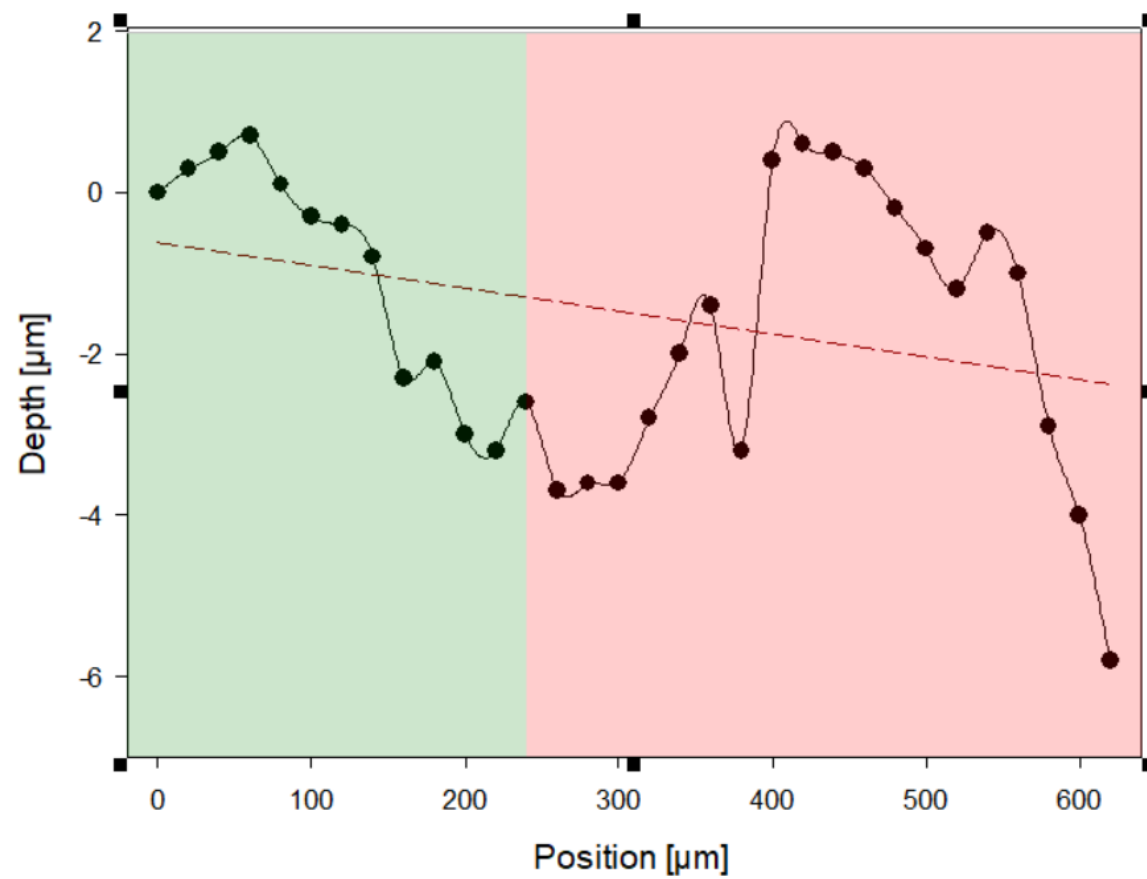


X Scale[mm] 0.65210 Y Scale[mm] 0.51280

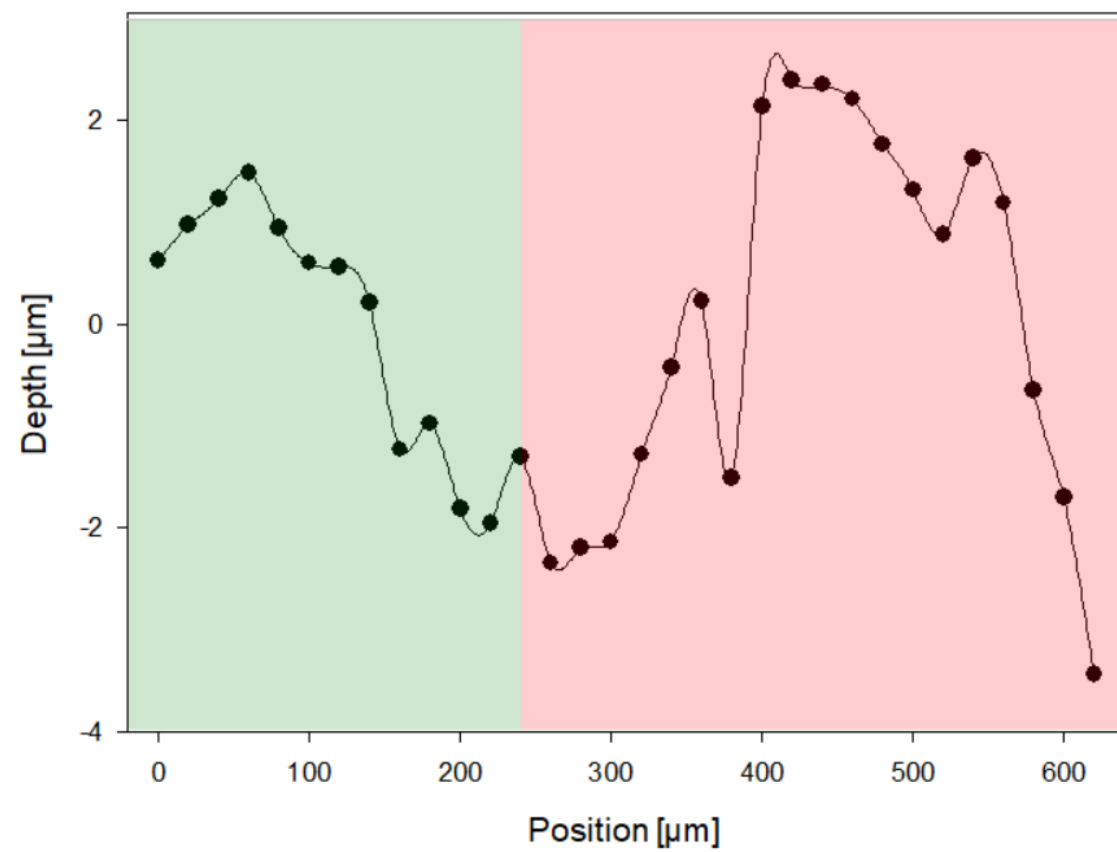




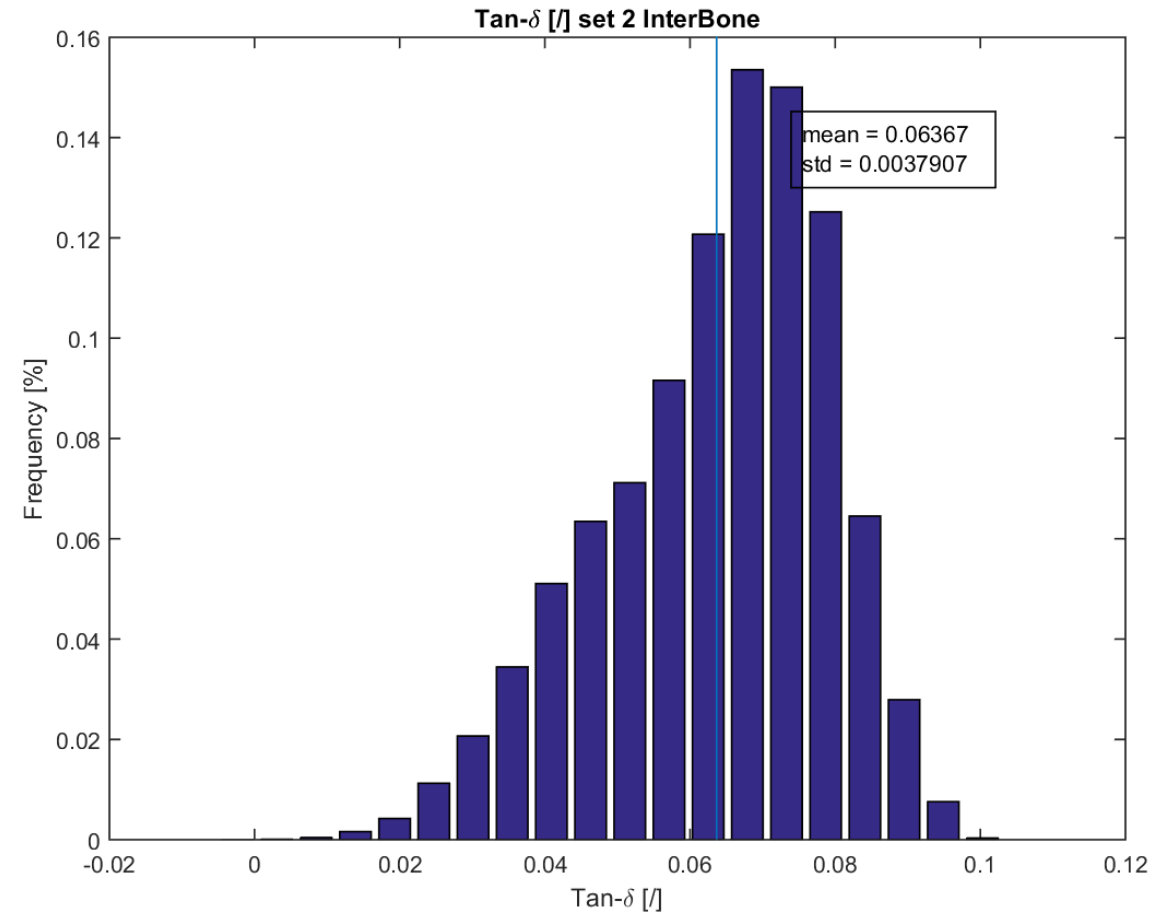
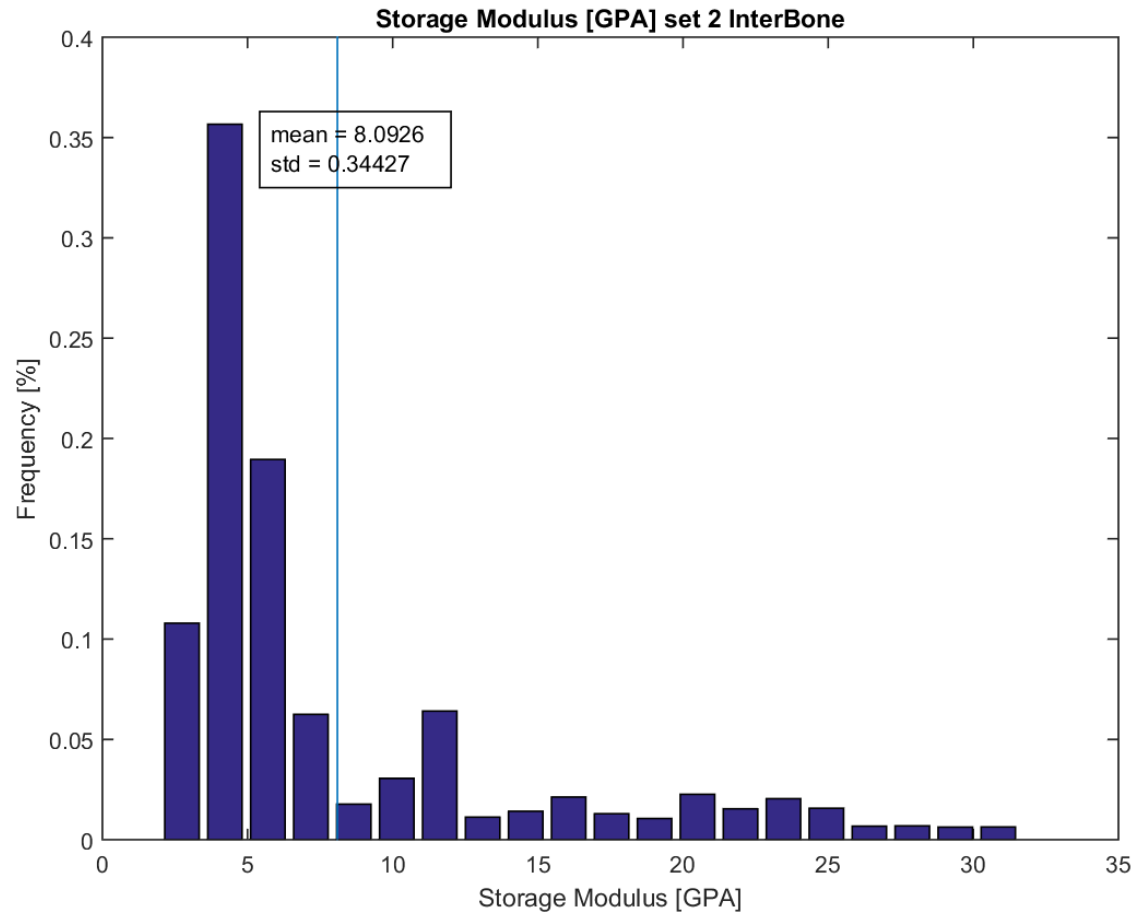
InterBone B



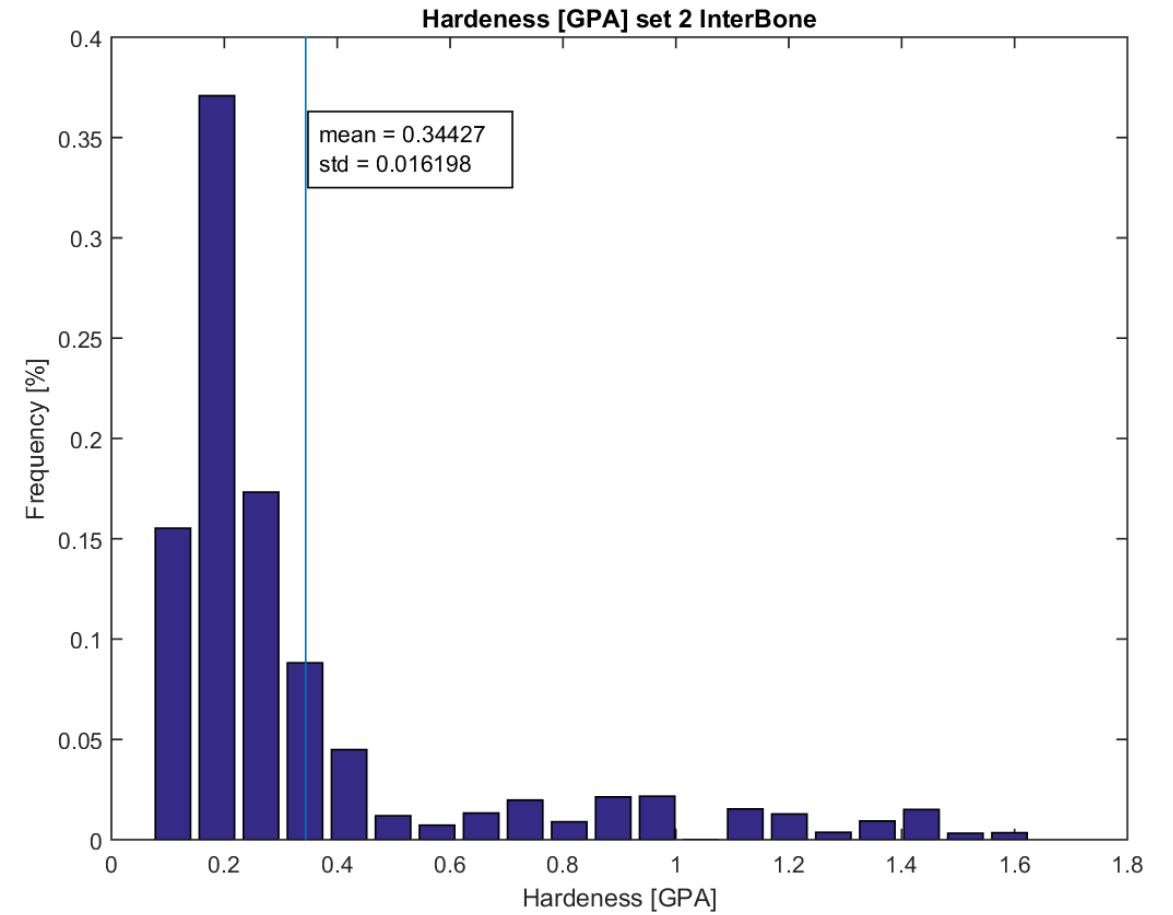
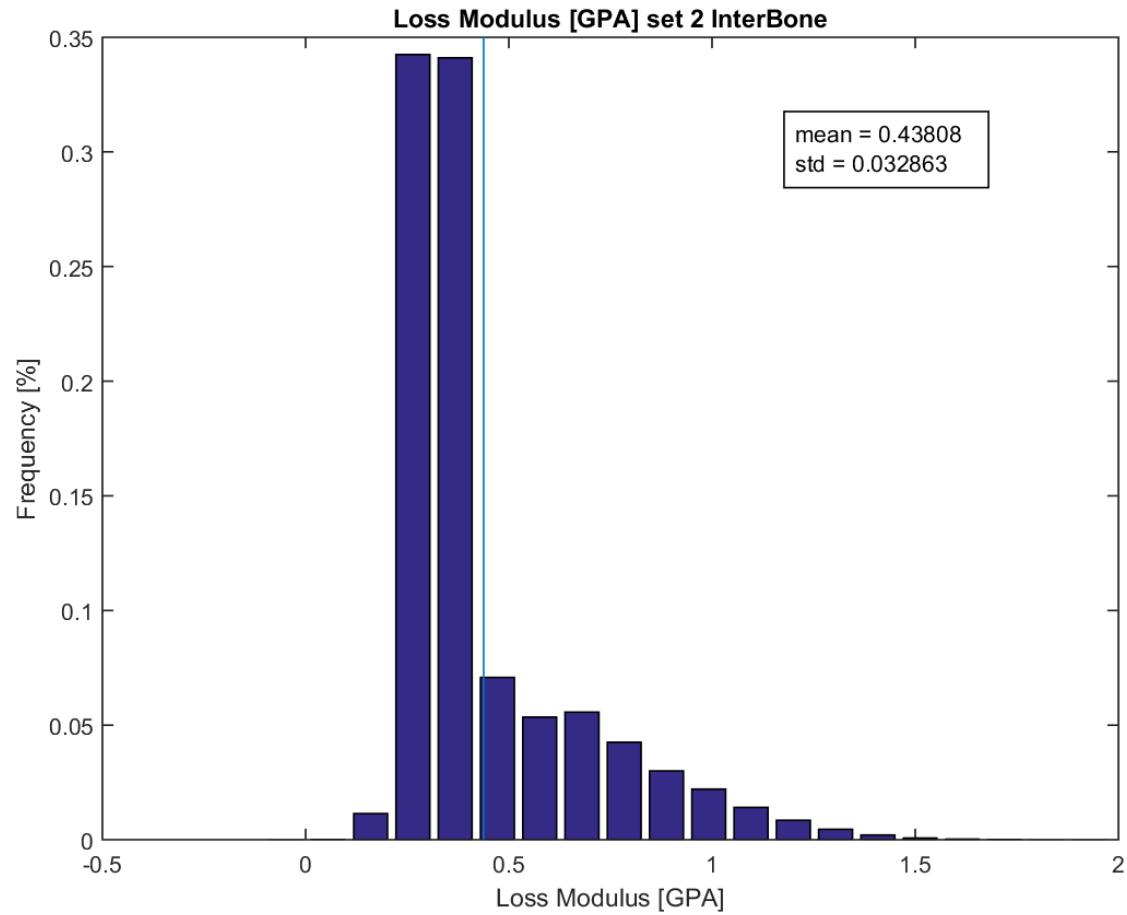
InterBone B w/o tilde

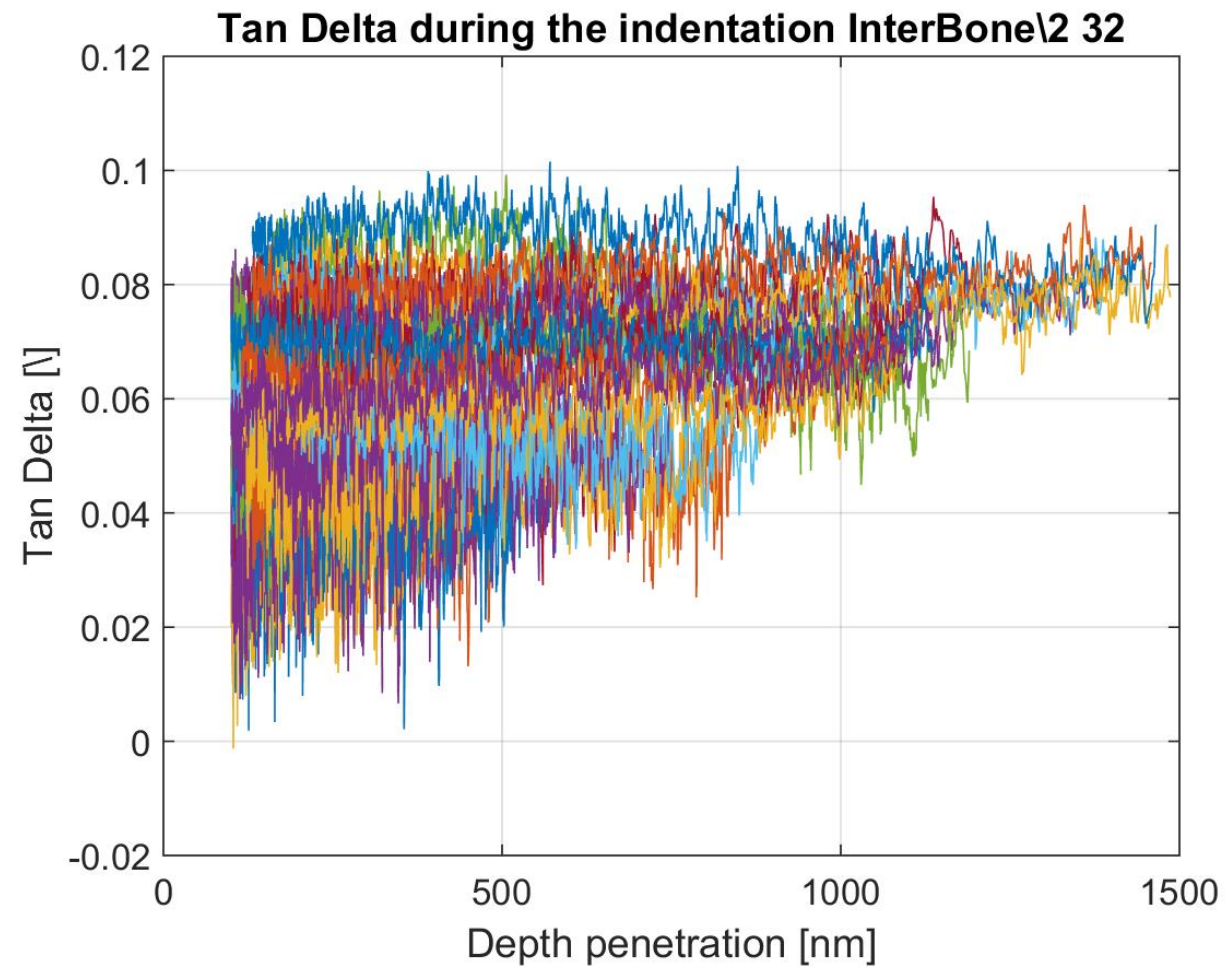
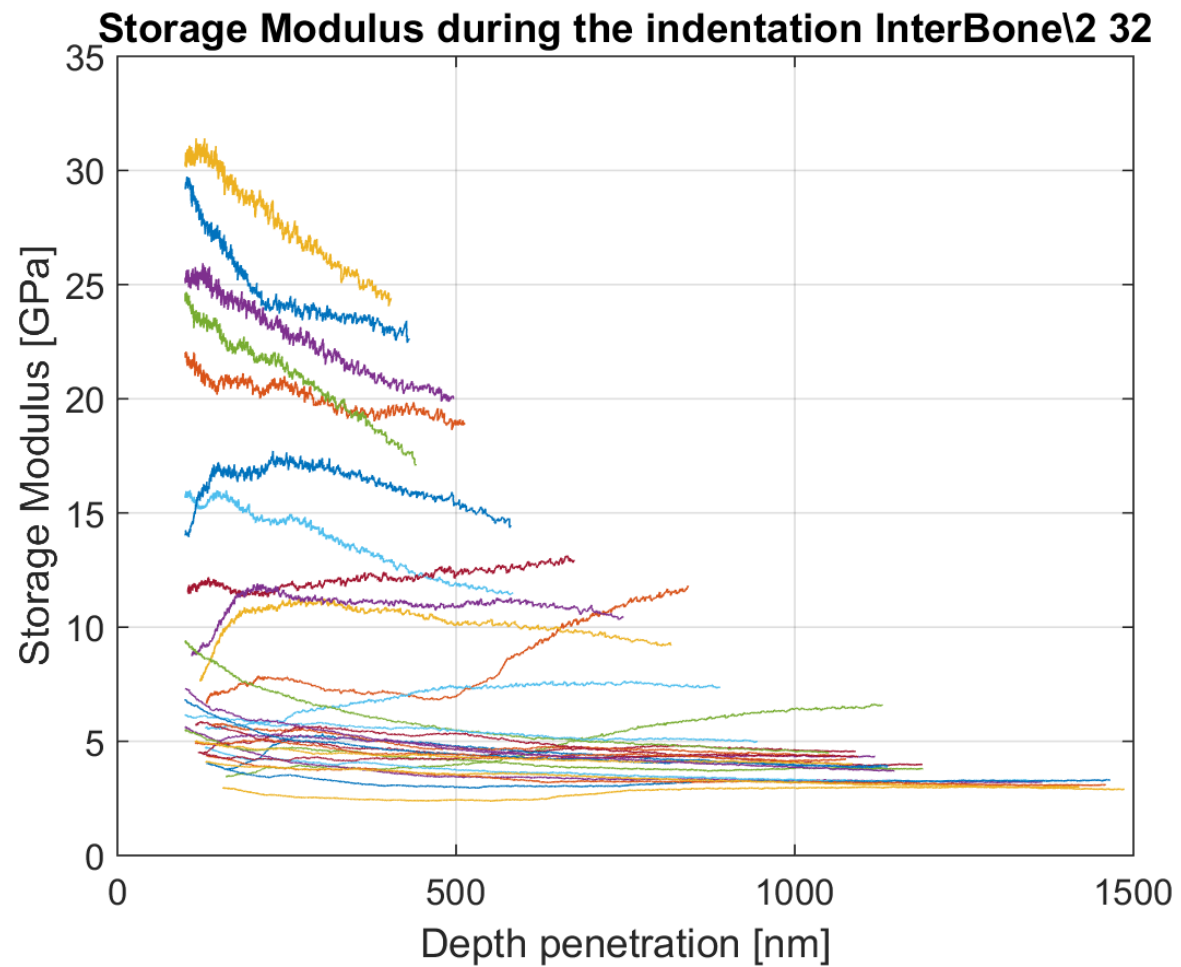


B. Complet



B. Complet





InterBone B Point 1

