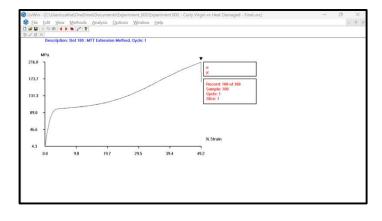
Measuring the Yield Gradient

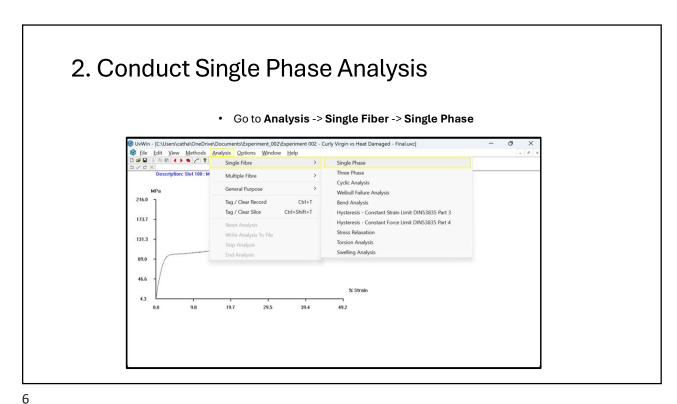
3

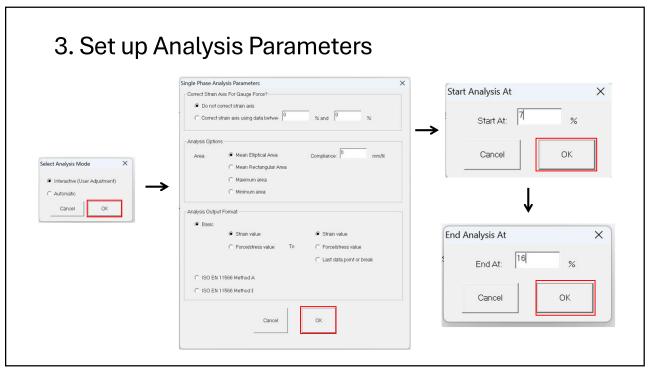
## 1. Open experiment UVC file in Dia-Stron software

• Ensure **y-axis** is in **MPa**, and **x-axis** units are **% Strain** 



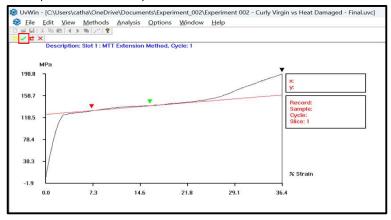
5





## 4. Visual inspection of Stress-Strain Curves

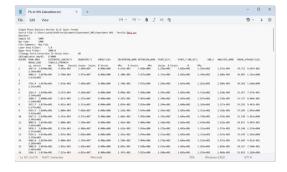
- · Save file as Yield Gradient.txt
- Ensure red-line fit aligns with best-fit of linear region of the yield region by changing the position of the red and green triangles using mouse.
- Click on green tick icon when ready to move onto next record.
- Repeat for all 100 samples

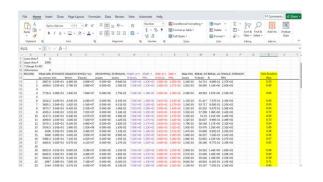


8

## 5. Convert data from .txt to Excel

- 1. Locate Yield Gradient.txt and open the file, Select All and Copy
- 2. Paste Yield Gradient.txt file into Excel file.
- 3. Use the Start\_X (% Strain), Start\_Y (MPa), End\_X (% Strain), and End\_Y (MPa) columns to calculate the yield gradient.





 $Yield Gradient = \frac{(End Y - Start Y)}{(End X - Start X)}$ 

9