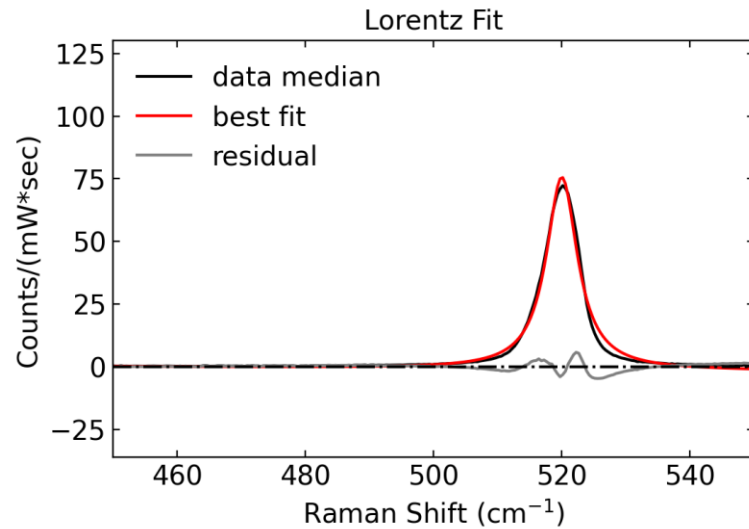


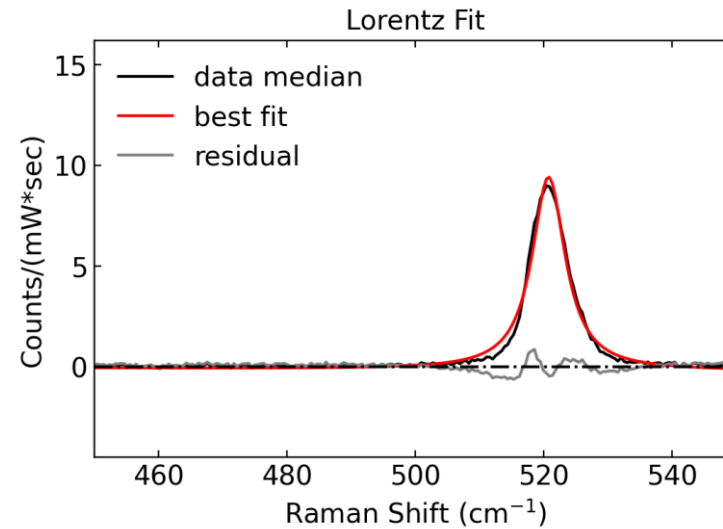
# Si on TiO<sub>2</sub> - 08/09/2024

Room Temperature (0 mA)

Stokes

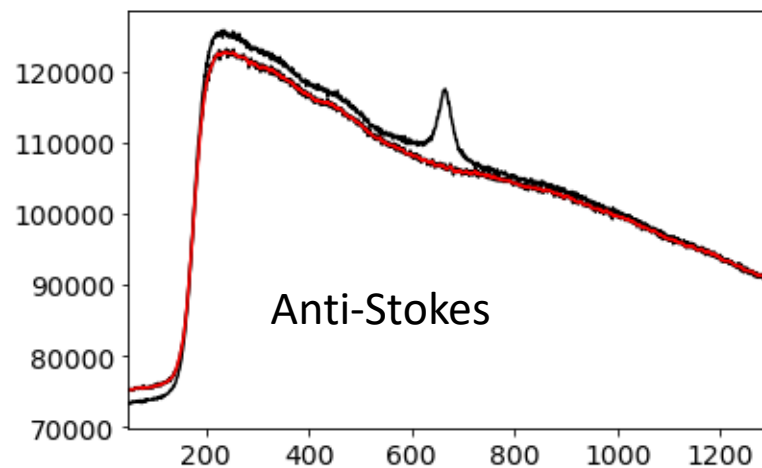
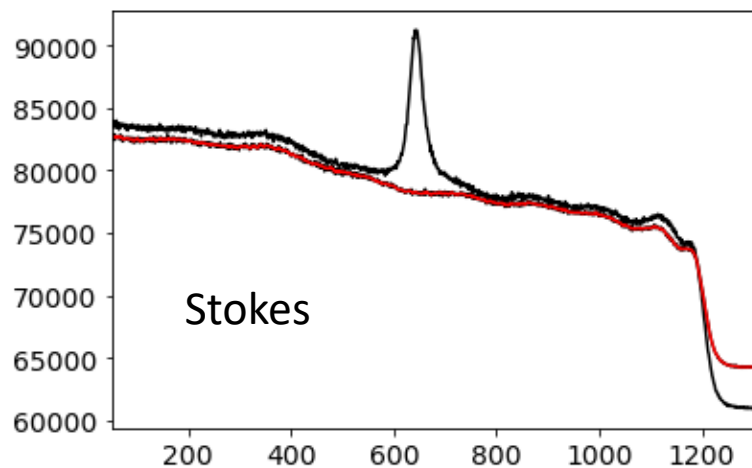


Anti-Stokes



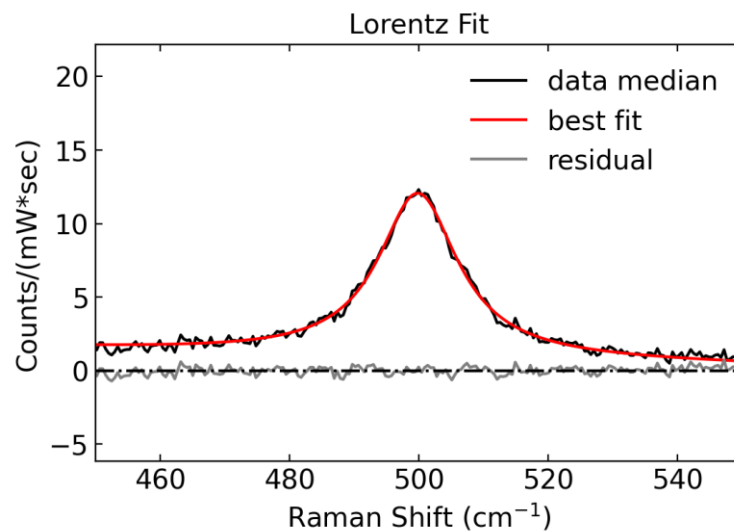
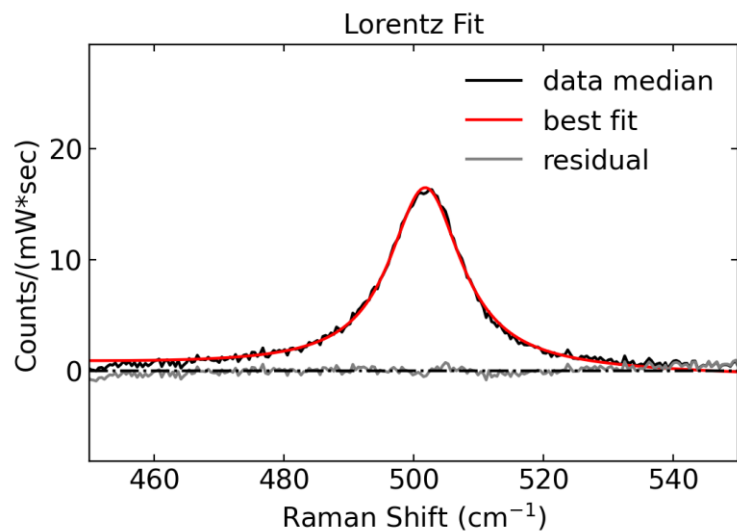
$$-\text{Im}(D^0(\omega)) = -\text{Im}\left(\frac{\omega_0}{\omega^2\omega_0^2 + i\Gamma\omega_0}\right) \Rightarrow A \cdot \frac{\Gamma\omega}{(\omega^2 - \omega_0^2)^2 + \Gamma^2\omega^2}$$

# Si on TiO<sub>2</sub> - 08/09/2024

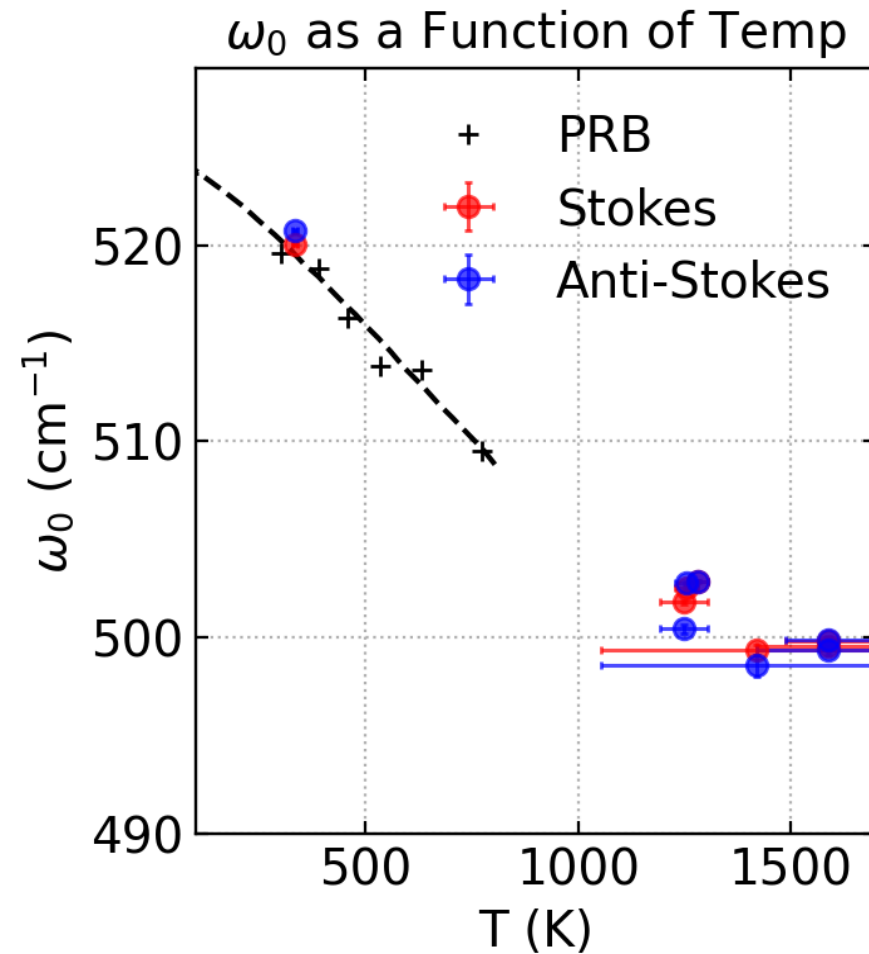
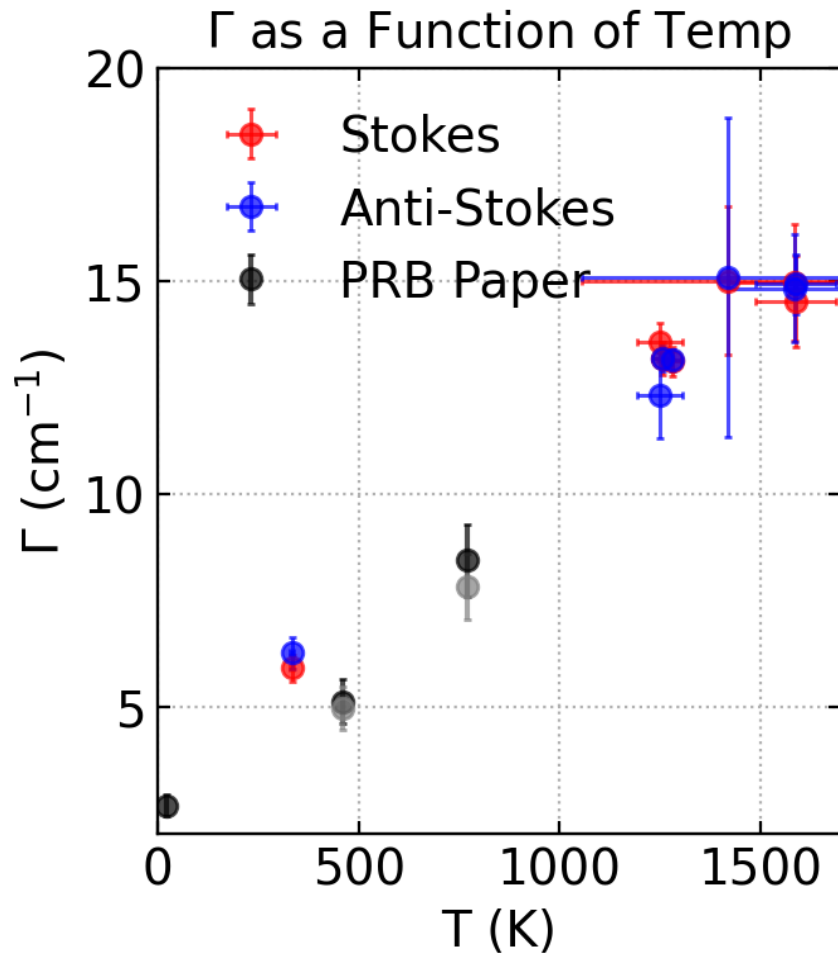


Strong backgrounds

Background subtraction  
results in reasonable fitting  
of the Si phonon

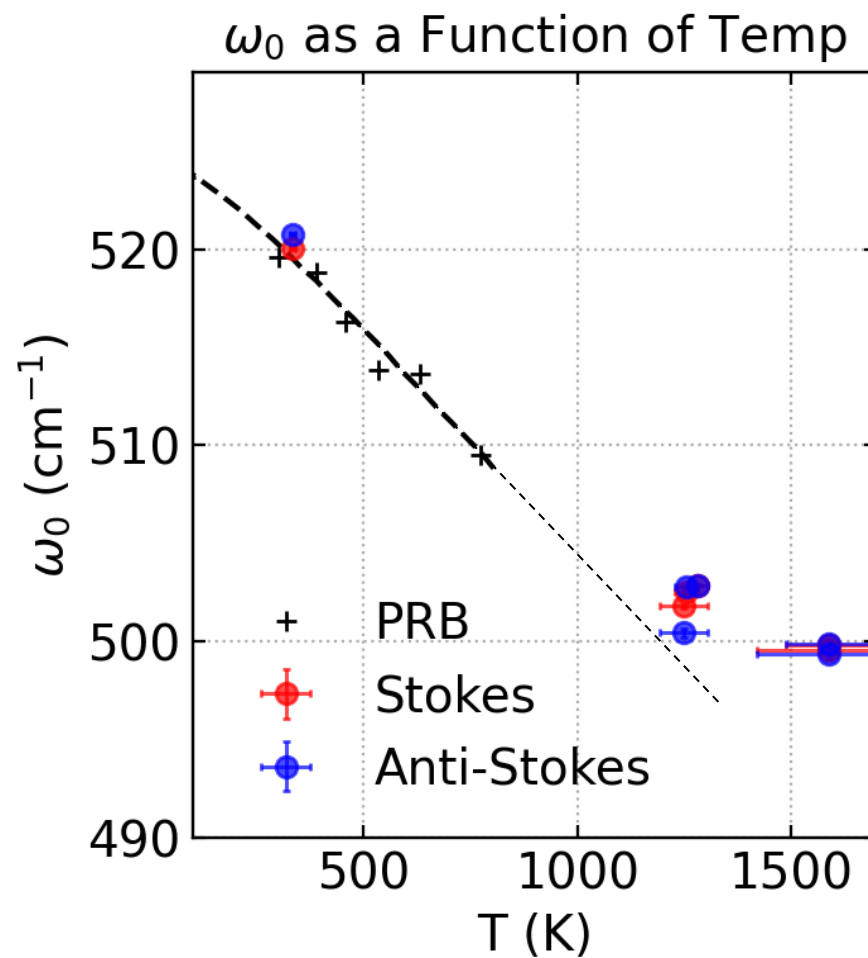
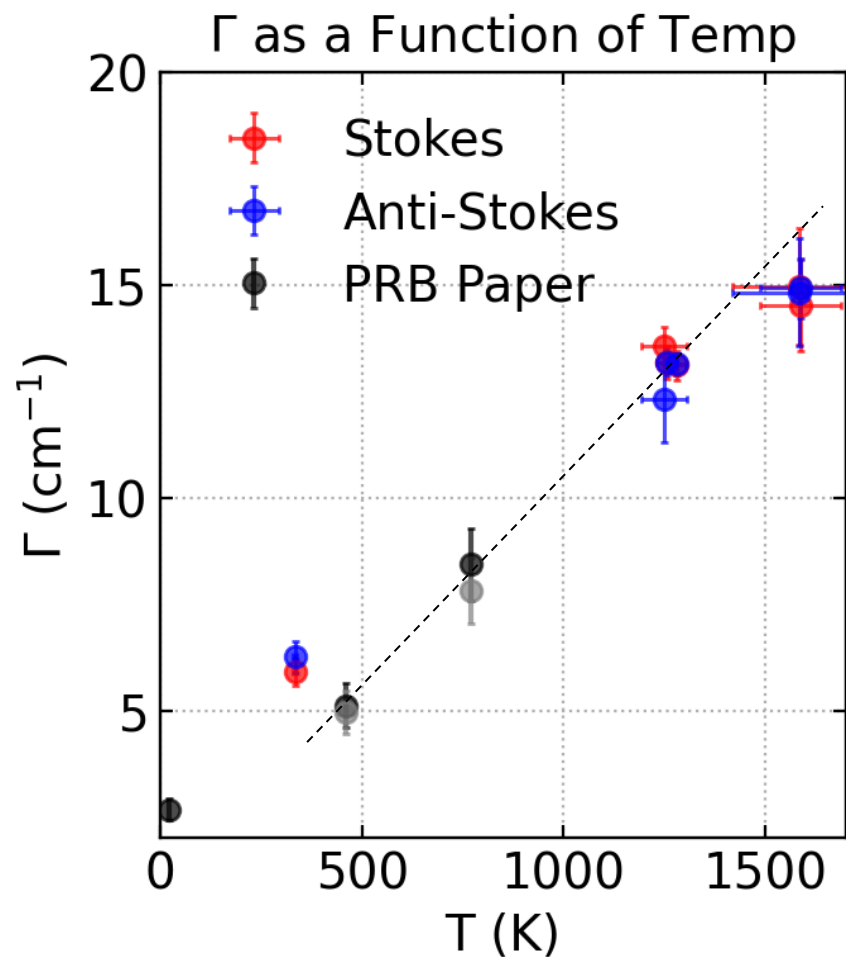


# Si on TiO<sub>2</sub> - 08/09/2024

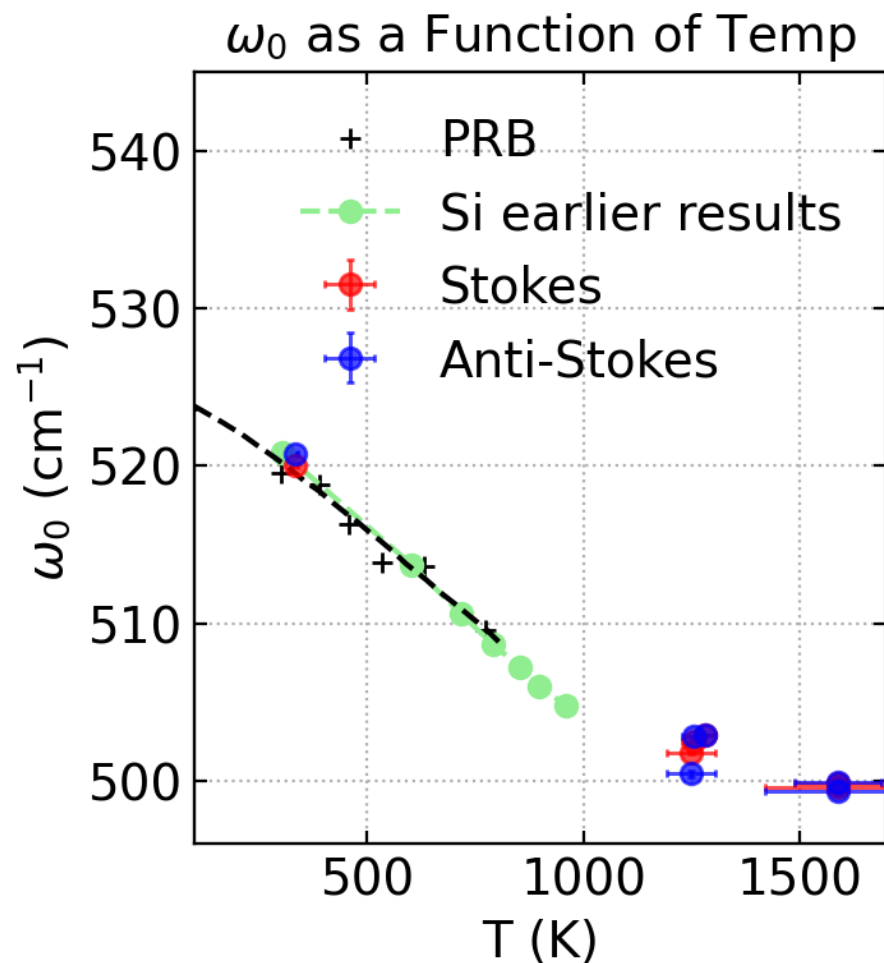
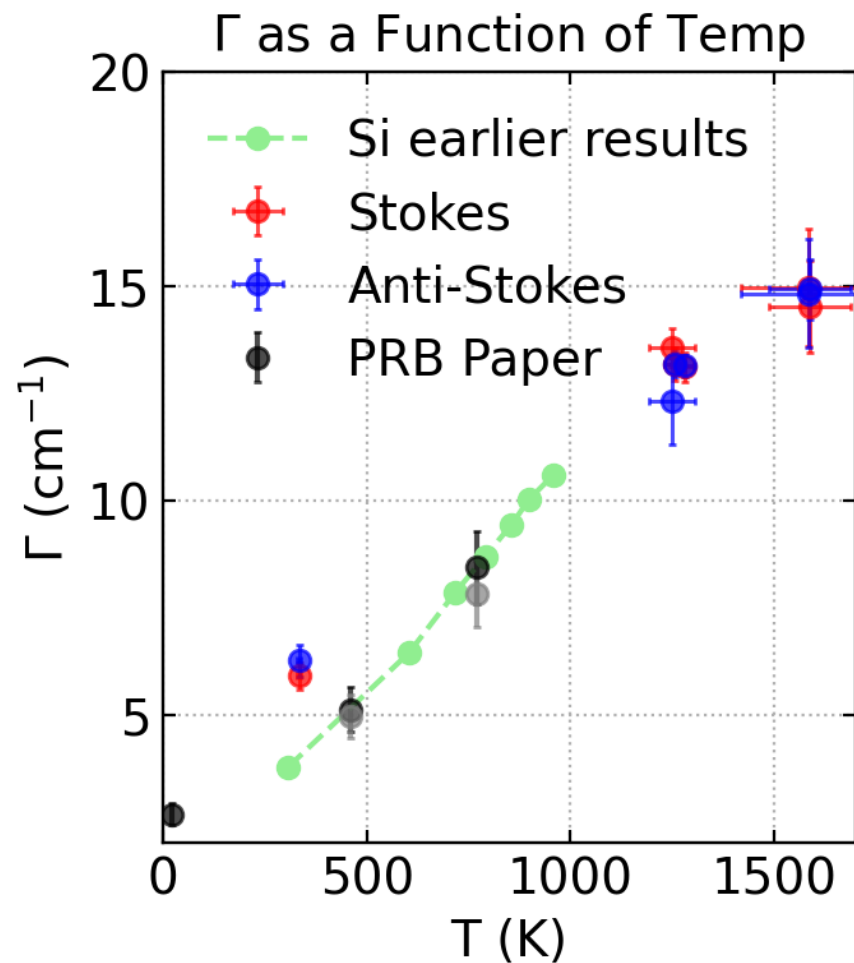


Data at 80 mA has large errors, due to large background. Maybe it's better to leave this data point out (next slide).

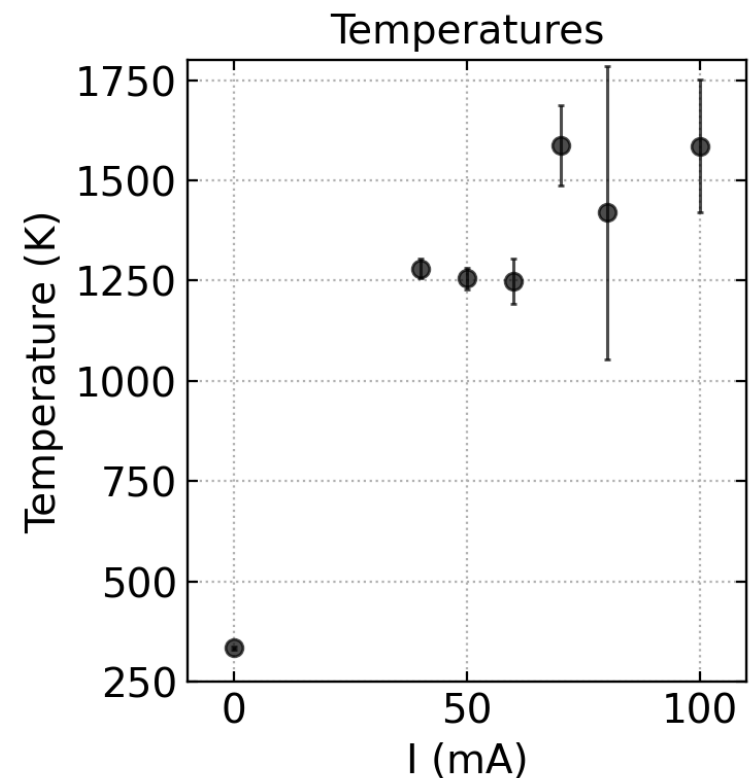
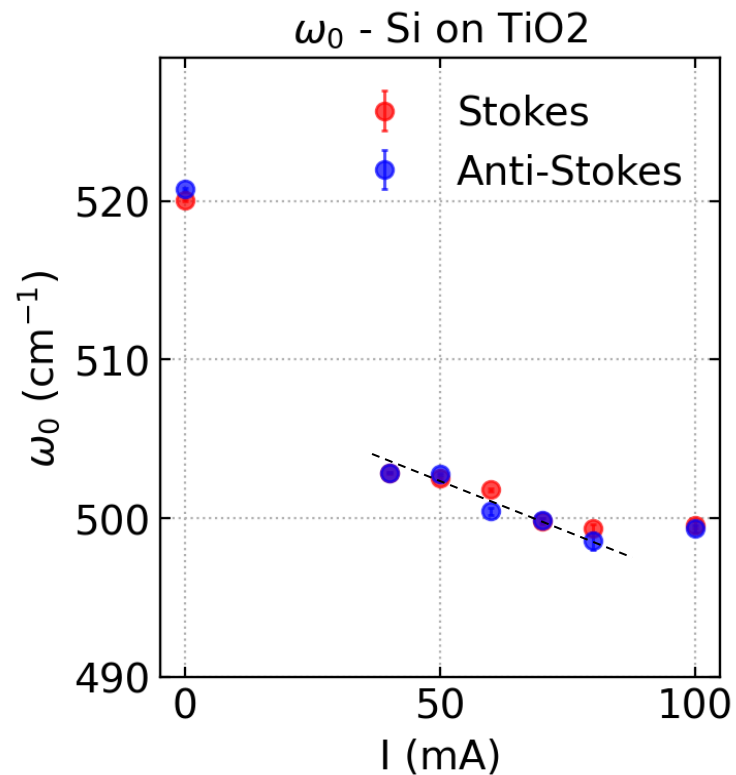
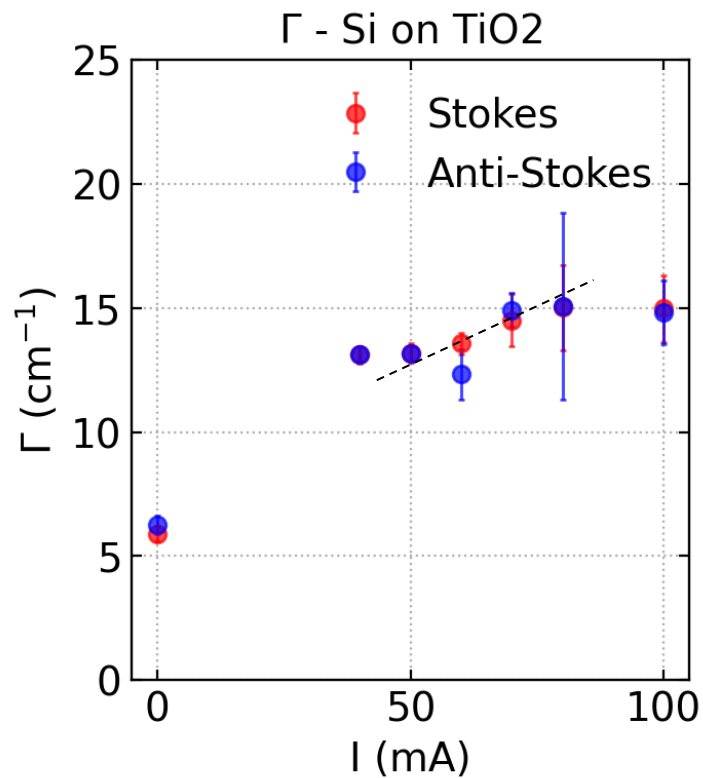
# Si on $\text{TiO}_2$ - 08/09/2024



# Si on $\text{TiO}_2$ - 08/09/2024



# Si on TiO<sub>2</sub> - 08/09/2024



# Si on TiO<sub>2</sub> - 08/09/2024

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Temperature results:

|        |                        |
|--------|------------------------|
| 0 mA   | $333.97 \pm 1.49$ K    |
| 40 mA  | $1280.37 \pm 7.89$ K   |
| 50 mA  | $1255.22 \pm 8.76$ K   |
| 60 mA  | $1248.58 \pm 18.87$ K  |
| 70 mA  | $1588.00 \pm 33.24$ K  |
| 80 mA  | $1419.47 \pm 121.72$ K |
| 100 mA | $1586.08 \pm 55.47$ K  |