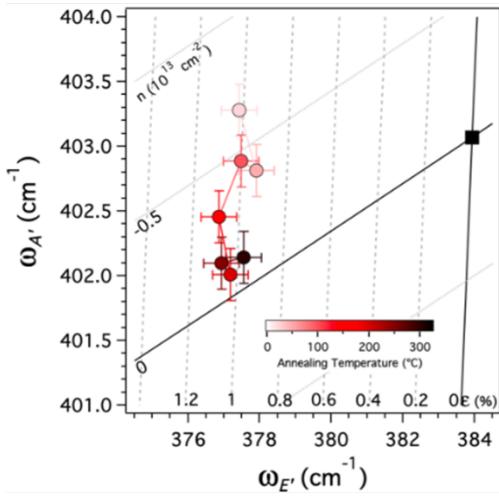


**Figure 1:** Temperature-dependent Raman spectra of MoS<sub>2</sub> on Au acquired at **a)** temperature and **b)** room temperature post-anneal. E<sub>2g</sub> and A<sub>1g</sub> peaks occur at ~383 cm<sup>-1</sup> and 407 cm<sup>-1</sup>, respectively.



**Figure 2:** Temperature-dependent strain and doping of SL-MoS<sub>2</sub> on Au after annealing at progressively higher temperatures.