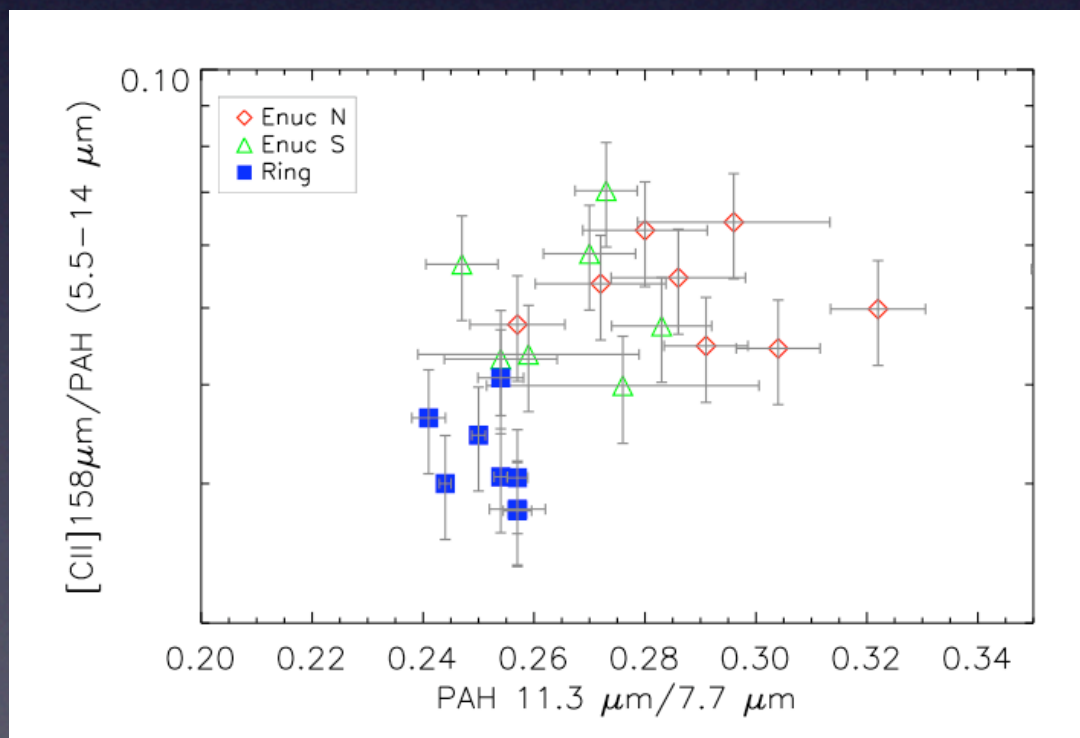
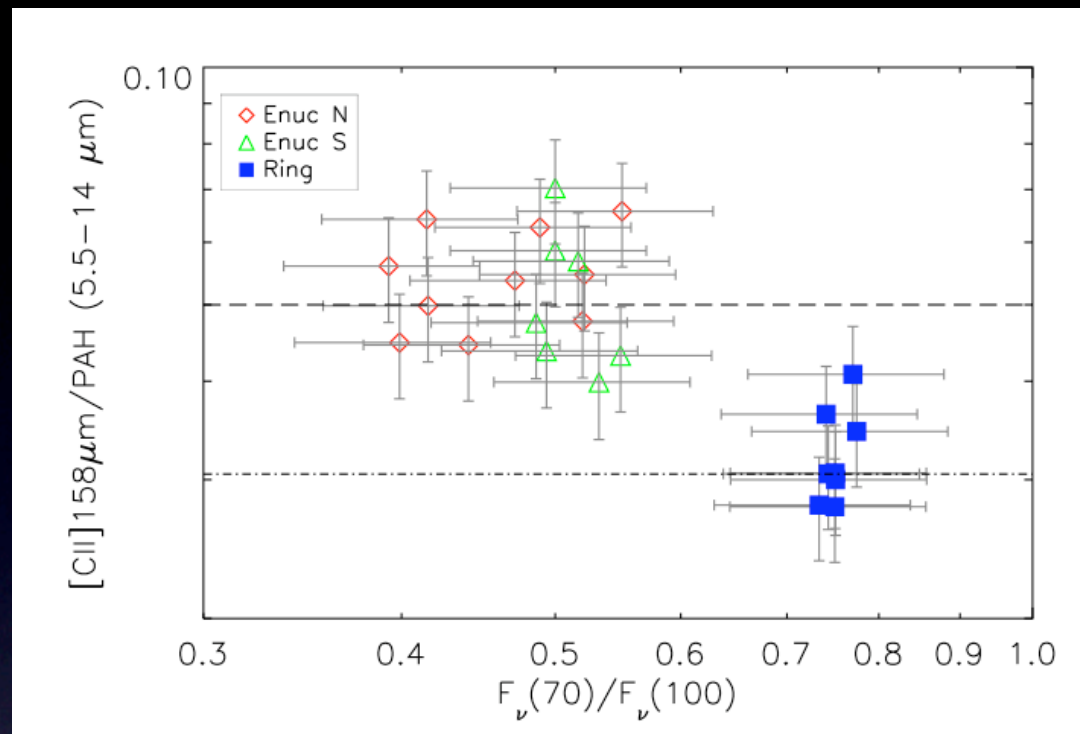


# Heating and Cooling of the ISM in NGC 1097



- The observed  $[\text{CII}]/\text{PAH}$  is 2x lower in the starburst ring than in the spiral arms (enuc n and S).
- $[\text{CII}]/\text{PAH}$  and  $I_{11.3}/I_{7.7}$  are lower in the ring, but a clear correlation between  $[\text{CII}]/\text{PAH}$  and  $I_{11.3}/I_{7.7}$  is not evident.
- After correcting for ionized  $[\text{CII}]$ , the  $([\text{CII}]+[\text{OI}])/\text{PAH}$  in PDRs is still 1.6x higher at the end of the bar than in the ring.