

Figure 2.7: Schematic of Cold source apparatus. The C_{60} is sublimated with a resistively heated oven, which lies inside an aggregation chamber with liquid nitrogen cooled walls. A flow of helium is used for collisional cooling of the C_{60} molecules. Estimated vibrational temperatures of 80°K are achieved.

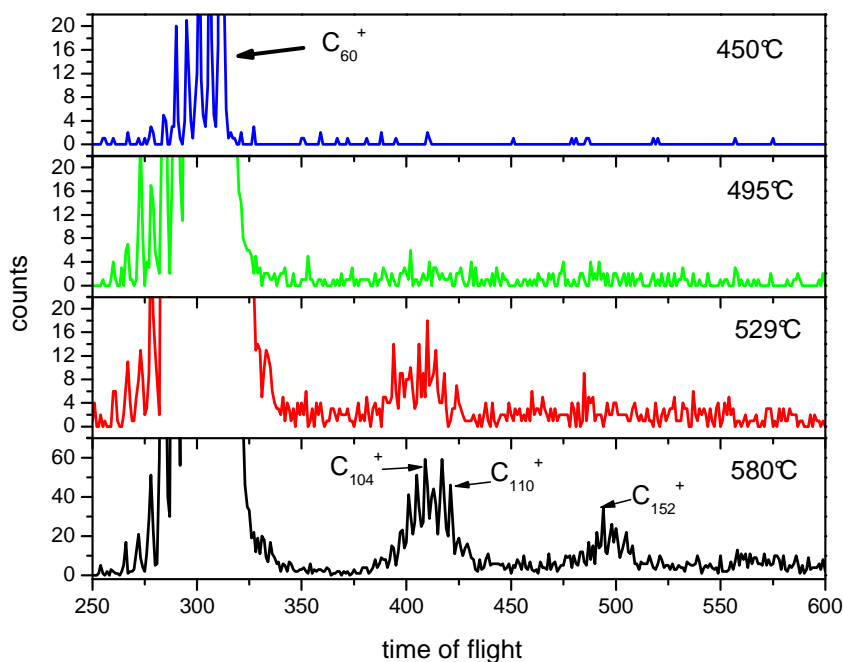


Figure 2.8: Influence of the oven temperature in aggregation chamber on the mass spectra. As the temperature is increased, the density of C_{60} is increased and clusters of C_{60} are formed. The laser excitation was 800nm , 100fs , and a fluence of $1\text{J}/\text{cm}^2$. The x-axis is in bins of 64ns width, thus the resolution is reduced in comparison to other mass spectra in this work.