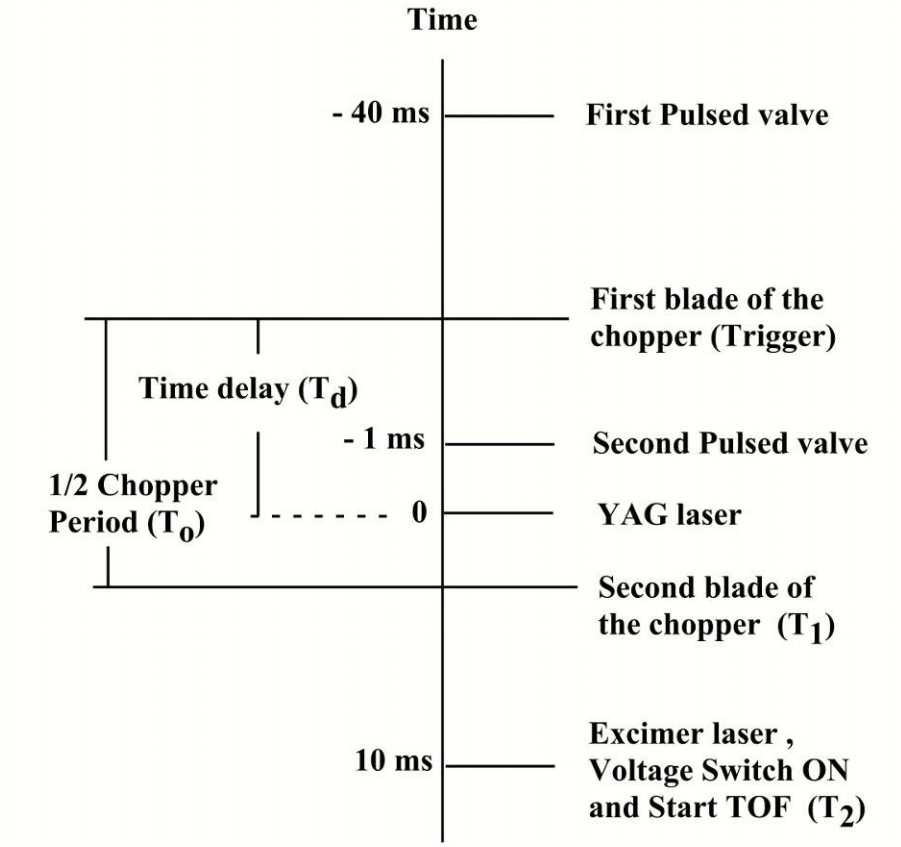

Figure 12: Timing sequence for the experiment. The time axis is not at scale. The sequence starts with the first pulsed valve (Parker) that fills the reservoir with helium at room temperature. Later, one of the blades of the chopper crosses the path of the cluster beam triggering the rest of the time sequence. The gas, already cold, is injected when the second valve opens. Then the YAG laser pulses (Continuum, Surelite I-20) evaporating some atoms from the surface of the sample. With the cold gas, clusters are produced which start going towards the mass spectrometer. If timing is right the second blade of the chopper chops the beam and that is observed as a depletion of signal at the detector.