

Mass Spectrometry

In our group, we are trying to use ultrafast laser pulses plus another very powerful tool (Mass spectrometry) to identify molecules and understand intense laser-molecule interaction. By changing the time that photons with different wavelengths arrive at sample, pulses with the same intensity can break molecules in different ways. By comparing the patterns of the fragments, we are able to distinguish different molecules, even for some very similar ones such as isomers. The next step, which is really challenging, is identifying enantiomers. Obviously, if we achieve this goal, it will be significant in many areas.

-Xin Zhu