

A 75–110 GHz CP-FTmmW SPECTROMETER FOR REACTION DYNAMICS AND KINETICS STUDIES

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A BrightSpec chirped-pulsed Fourier transform millimeter-wave spectrometer operating in the 75–110 GHz spectral region has been installed at Argonne National Laboratory. The instrument has been tailored for chemical reaction dynamics and kinetics studies, and the arrangement allows for easy alternation between a room temperature flow cell and a supersonic expansion. The molecular beam is equipped with a pyrolysis nozzle for monitoring reaction products. Benchmark measurements in the flow cell will be presented along with early pyrolysis observations.