LASER EXCITATION SPECTROSCOPY OF SrSH AND CaSH

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The transitions of SrSH along with the transition of CaSH have been observed in our laser ablation spectrometer. These species are created via the reaction of strontium or calcium atoms with H2S gas entrained in argon. The spectra are then measured at low and high resolution using laser excitation spectroscopy. For each of the observed electronic transitions, at least one sub-band has been observed along with the vibrational bands of the M–S stretch (M=Ca or Sr). The results of a preliminary fit of the high resolution data will be presented along with a comparison of the derived spectroscopic parameters for CaSH and SrSH.