LASER EXCITATION SPECTROSCOPY OF SrSH AND CaSH

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The $\tilde{A}^2A' - \tilde{X}^2A'$, $\tilde{B}^2A'' - \tilde{X}^2A'$ and $\tilde{C}^2A' - \tilde{X}^2A'$ transitions of SrSH along with the $\tilde{C}^2A' - \tilde{X}^2A'$ transition of CaSH have been observed in our laser ablation spectrometer. These species are created via the reaction of strontium or calcium atoms with H_2S 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 K_a sub-band has been observed along with the $1 - 0$ 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.