NEAR INFRARED LASER SPECTROSCOPY OF CrS

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Several CrS transitions bands in the near infrared region have been observed using the technique of laser vaporisation/reaction with supersonic expansion and laser induced fluorescence (LIF) spectroscopy. Preliminary analysis shows that these bands are vibrational sequence bands of a $\Delta\Omega = 0$ transition from $\Omega = -1$ sublevel. Rotational analysis of these bands give molecular constants of the $\Omega = -1$ sublevel. Spectroscopic properties of the low-lying electronic states have been obtained using *ab initio* calculation. Results of our experimental work and calculation will be presented in the meeting.

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