A Spectral Line Survey Toward Orion-KL at 2mm Band (138.3 - 150.7 GHz)

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We present a preliminary result of a molecular line survey toward Orion-KL in the frequency range between 138.3 and 150.7 GHz. Observations were made using the 14m radio telescope of Taeduk Radio Astronomy Observatory (TRAO). The typical system temperature was between 500 and 700 K, and so the sensitivity was achieved to be 0.02 - 0.06 K in T_A^* unit. About 148 molecular line spectra were detected from this survey. Eighty-three spectra of 148 have been already reported by other studies, but 65 lines are new detections from this astronomical observation. Among the newly detected 65 lines, forty-nine lines are 'unidentified' spectra which have never been reported in any observations and laboratory measurements while sixteen lines are the newly detected spectra from the known molecules through other astronomical observations. A total of 42 molecular species were detected, excluding isotopic variants. It is noted that the large organic molecules such as CH_3OCH_3, $HCOOCH_3$, CH_3OH, and CH_3CN are dominantly found. Detailed identification and analysis of the spectra are in further progress.