A Spectral Line Survey of G34.3+0.15 at 2 Millimeters (123.4-142.7~GHz) and 3 Millimeters (87.2-115.7~GHz)

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A spectral line survey in the ranges of 87.2-115.7 and 123.4-142.7 GHz has been carried out toward the ultracompact HII region G34.3+0.15 using the 14m radio telescope at Taeduk Radio Astronomy Observatory(TRAO). A total of 70 spectral lines were detected from 25 identified molecules and isotopomers, including one new line and one known unidentified line. The column density, rotational temperature and fractional abundance are derived by using local thermodynamic equilibrium approximation and rotation diagram analysis. Many lines from grain surface reacted molecules CH_3OH , CH_3CN , CH_3C_2H , and H_2CS etc. support that this region is under shock pressure