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Research on absorption spectroscopy of CH_4 around 1.315 μm

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Keywords

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Abstract

Measurements have been made about the absorption features of CH_4 around 1.315 µm by using the second harmonic detection technique of tunable diode laser with multipass cell (white). Studies concerning the second harmonic detection technique of CH_4 around 1.65 µm have been widely reported currently, but reports about the absorption features in NIR spectra of CH_4 around 1.315 µm can scarcely be found. We have performed a detailed study about the absorption features of CH_4 around 1.315 µm and we present the results here. We give the line positions, the line intensities and self-broadening coefficients near 1.315 µm at a pressure of 0.077 torr.



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