NEW HIGH RESOLUTION ANALYSIS OF D₂CO IN THE 8-12 μm REGION BY FOURIER TRANSFORM SPECTROSCOPY

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A new analysis of the ν₂, ν₆, and ν₆ interacting bands of D₂CO has been carried out in the 8-12 μm region using high resolution Fourier transform spectra recorded at Giessen. As compared to the previous study of these bands, improvements were obtained in the present analysis. In order to get the upper state parameters (band centers, rotational and coupling constants), the resulting ν₂, ν₆, and ν₆ experimental energy levels were introduced in a least squares fit calculation together with the microwave measurements available in the literature. In this calculation, which allowed to reproduce both the infrared and microwave measurements within their experimental accuracies, the A- B- and C- Coriolis type interactions involving ν₂ and ν₆, ν₃ and ν₆, and ν₆ and ν₈ respectively were explicitly taken into account.