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Study υ_4 Fundamental Band of 12 CD4 Molecule

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Abstract : In this study, the υ_4 fundamental band of 12CD4 molecule has been studied by infrared spectroscopy with high resolution. Using XTDS and SPEVIEW software and the tensor formalism developed by ICB (laboratoire interdisciplinaire de Bourgogne) to several lines have been assigned and fitted with a standard deviation acceptable. This analysis allowed us to calculate several parameters of the molecule 12 CD4.

Keywords : XTDS, SPEVIEW, tetrahedral tensorial formalism, rovibrational band
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