

$^{16}\text{O}_3$ Coriolis Coupling Constants for the (021) and (120) Vibrational States

Natural isotopic abundance: 0.992728.

Reference	[95Bar1]
Method	Fourier transform spectroscopy.
Equations	Equations 6 and 18 in chapter “Introduction”.
Statistical errors	One standard deviation.
Remarks	All values are given in cm^{-1} . Calculated constants are purposely given with two supplementary digits in order to reproduce the energy levels to experimental accuracy. Molecular constants determined in the same fit are given in chapter “ $^{16}\text{O}_3$ Vibrational Energy, Rotational and Centrifugal Distortion Constants for the (021) and (120) States”. Constant without SE, fixed in the fit has been proposed in chapter “ $^{16}\text{O}_3$ Coriolis Coupling Constants for the (100) and (001) Vibrational States”. The isotopic composition of the elements used for the calculation of the natural isotopic abundance is taken from [2007Coh].
Abbreviation	SE: Statistical error.

Coefficient	Coupling constant	SE	
$h_{(021,120)}^C$	-0.1007004	0.00061	$\times 10^{-1}$
$h'_{(021,120)}C$	-0.470		
$h''_{(021,120)}C$	0.12226	0.039	$\times 10^{-5}$
$h'''_{(021,120)}C$	-0.8046	0.12	$\times 10^{-7}$

Symbols and abbreviations

Short form	Full form
$h_{(021,120)}^C, h'_{(021,120)}C, h''_{(021,120)}C, h'''_{(021,120)}C$	Coriolis coupling constant for the (021) and (120) states
SE	Statistical error

References

- [95Bar1] Barbe, A., Sulakshina, O., Plateaux, J.J., Hamdouni, A., and Bouazza, S.: High-Resolution Infrared Spectra of Ozone in the 2300–2600 cm^{-1} Region. *J. Mol. Spectrosc.* **170** (1995) 244–250.
- [2007Coh] Cohen, E.R., Cvitaš, T., Frey, J.G., Holmström, B., Kuchitsu, K., Marquardt, R., Mills, I., Pavese, F., Quack, M., Stohner, J., Strauss, H.L., Takami, M., Thor, A.J.: Quantities, Units and Symbols in Physical Chemistry. The IUPAC Green Book, 3rd Ed., Cambridge: RSC Publishing, 2007.