# $^{18}O^{16}O^{18}O$ Resonance Coupling Constants for the (223)-1, (dark4) and (dark5) Interacting States

Natural isotopic abundance: $4.19 \times 10^{-6}$.

| | |
|---|---|
| Reference | [2013Deb] |
| Method | Fourier transform spectroscopy. |
| Equations | Equations 19 and 24 in chapter "Introduction". |
| Statistical errors | One standard deviation in units of the least significant full size digit. |
| Remarks | All values are given in $cm^{-1}$.<br>Molecular constants determined in the same fit are given in chapter "$^{18}O^{16}O^{18}O$ Vibrational Energy and Rotational and Centrifugal Distortion Constants of the (223)-1 State in Interaction with the (dark4) and (dark5) States. Band Centers of the $(2\nu_1 + 2\nu_2 + 3\nu_3)$-1 and (dark4)–(000) and (dark5) –(000) Transitions".<br>Calculated constants are purposely given with one supplementary digit, in index form, in order to reproduce the energy levels to experimental accuracy.<br>The isotopic composition of the elements used for the calculation of the natural isotopic abundance is taken from [2007Coh]. |
| Abbreviation | SE: Statistical error. |

| Parameter | <dark4\|*H*\|(223)-1><br>Value | SE |
|---|---|---|
| $C_{011}$ | $0.00116_5$ | 48 |

| Parameter | <dark5\|*H*\|(223)-1><br>Value | SE |
|---|---|---|
| $F_{002}$ | $0.000382_6$ | 41 |

### Symbols and abbreviations

| Short form | Full form |
|---|---|
| $C_y$, $C_{yz}$ | Coriolis coupling parameter |
| SE | Statistical error |

## References

[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.

[2013Deb] De Backer, M.R., Barbe, A., Starikova, E., Tyuterev, V.G., Mondelain, D., Kassi, S., and Campargue, A.: The CW-CRDS spectra of the $^{16}O/^{18}O$ isotopologues of ozone between 5930 and 6340 $cm^{-1}$—Part 3: $^{16}O^{18}O^{18}O$ and $^{18}O^{16}O^{18}O$. J. Quant. Spectrosc. Radiat. Transfer. **127** (2013) 24–36.


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