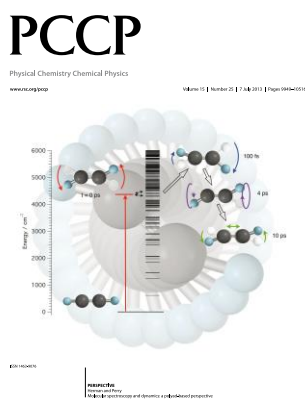


LIST OF PUBLICATIONS

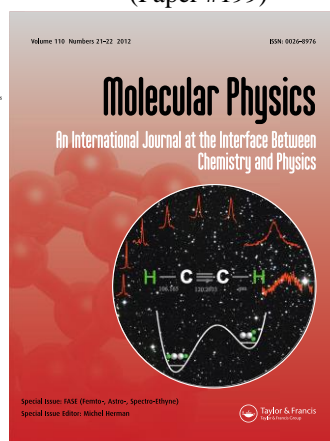
(for an overview of the full CV, see **short CV** file from <https://www2.ulb.ac.be/cpm/people/mherman/main.html>)

Peer reviewed publications in international scientific journals

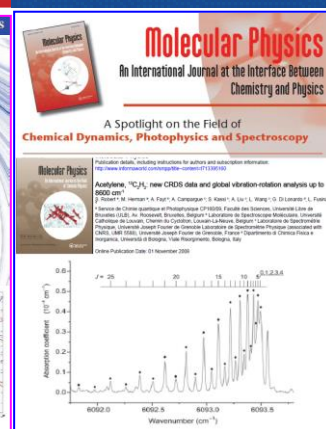
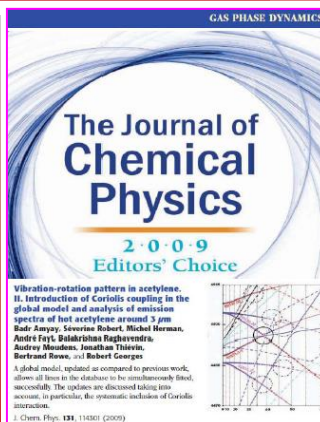
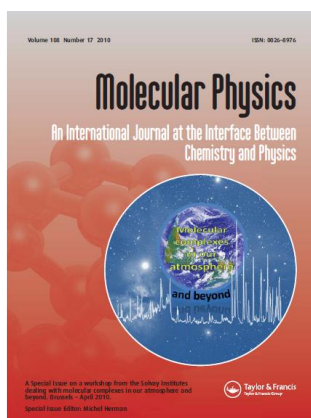
(Paper #204)



(Paper #199)



(Paper #176)

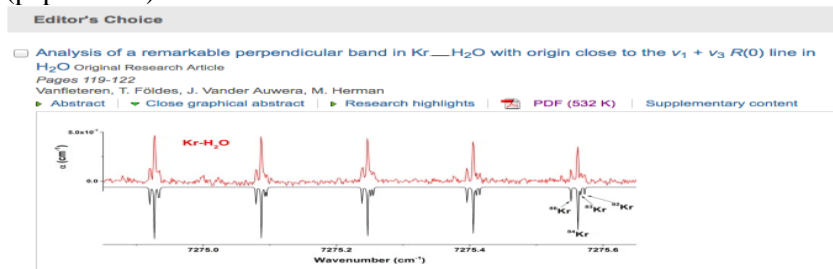


(Paper #174)

(Paper #167)

(Paper #162)

(paper #212)



2023

231. “Understanding the high-resolution spectral signature of the N₂-H₂O van der Waals complex in the 2OH stretch region”
R. Glorieux, B.M. Hays, A.S. Bogomolov, M. Herman, T. Vanfleteren, N. Moazzen-Ahmadi, and C. Lauzin”
Journal of Chemical Physics, DOI: 10.1063/5.0150823 (2023).

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R. Glorieux, C. Lauzin, A. Barclay, M. Herman, and N. Moazzen-Ahmadi
Journal of Chemical Physics, DOI: 10.1063/5.0071732 (2021).
229. “The rotationally resolved symmetric 2OH excitation in H₂O-CO₂ observed using pulsed supersonic expansion and CW-CRDS”
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228. “High-resolution spectroscopic study of the H₂O-CO₂ van der Waals complex in the 2OH overtone range”
C. Lauzin, A.C. Imbreckx, T. Foldes, T. Vanfleteren, N. Moazzen-Ahmadi, and M. Herman
Molecular Physics, 118, 1-9 (2019).

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227. “Rovibrational laser control targeting a dark state in acetylene. Simulation in the N_s=1, N_r=5 polyad.”
L. Santos, M. Herman, M. Desouter-Lecomte, and N. Vaeck
Molecular Physics, 116, 2213-2225 (2018.)

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226. “Experimental and theoretical investigations of H₂O-Ar”
T. Vanfleteren, T. Földes, M. Herman, J. Liévin, J. Loreau, and L. Coudert
Journal of Chemical Physics, 147, 014302/1-014302/14 (2017).
225. “Overtone, 2OH spectroscopy of H₂O-Kr”
T. Vanfleteren, T. Földes, A. Rizopoulos, and M. Herman
Journal of Molecular Spectroscopy, 342, 92-99 (2017).
224. “The high resolution spectrum of ¹⁵NH₃ in the far-infrared: Rotation-Inversion transitions in the ground, v₂=1, 2 and v₄=1 states”
L. Fusina, G. Di Lonardo, E. Vane, A. Predoi-Cross, H. Rozario, and M. Herman
Journal of Quantitative Spectroscopy and Radiative Transfer, 203, 417-424 (2017).

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223. “Overtone spectroscopy of molecular complexes containing small polyatomic molecules”
M. Herman, T. Földes, K. Didriche, C. Lauzin, and T. Vanfleteren
International Reviews in Physical Chemistry, 35, 243-295 (2016).
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222. “Vibration-rotation spectroscopic database on acetylene, $X^1\Sigma_g^+$ ($^{12}\text{C}_2\text{H}_2$)”
B. Amyay, A. Fayt, M. Herman, and J. Vander Auwera
Journal of Physical and Chemical Reference Data, 45, 023103/1-19 (2016).
221. “High resolution room temperature and jet-cooled spectroscopic investigation of $^{15}\text{NH}_3$ in the $\nu_1+\nu_3$ band region (1.51 micron)”
T. Földes, T. Vanfleteren, A. Rizopoulos, M. Herman, T.P. Softley, G. Di Lonardo, and L. Fusina
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T. Vanfleteren, T. Földes, M. Herman, G. Di Lonardo and L. Fusina
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219. “The Water Dimer Investigated in the 2OH Spectral Range Using Cavity Ring-Down Spectroscopy”
T. Vanfleteren, N. Suas-David, T. Földes, S. Kassi, R. Georges, and M. Herman
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218. “A test of optimal laser impulsion for controlling population within the $N_v=1$, $N_r=5$ polyad of $^{12}\text{C}_2\text{H}_2$ ”
L. Santos, N. Iacobellis, M. Herman, D.S. Perry, M. Desouter-Lecomte, and N. Vaeck
Molecular Physics, 113, 4000-4006 (2015).
217. “Foreword: Atomic and Molecular Collision Mechanisms”
T.P. Softley, M. Herman and N. Vaeck
Molecular Physics, 113, 3917 (2015).
216. “Overtone, $2\nu_1+\nu_3$ spectroscopy of $\text{NH}_3\text{-Ar}$ and $\text{NH}_3\text{-Kr}$ ”
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215. “Complementary cavity-enhanced spectrometers to investigate the $\text{OH}+\text{CH}$ combination band in trans-formic acid.”
D. Golebiowski, T. Földes, T. Vanfleteren, M. Herman, and A. Perrin
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214. “Analysis of a perpendicular band in $\text{Ar-H}_2\text{O}$ with origin close to the $\nu_1+\nu_3$, $R(0)$ line in H_2O .”
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T. Földes, T. Vanfleteren, and M. Herman
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210. “High sensitivity (Femto-FT-CEAS) spectra of carbonyl sulphide between 6200 and 8200 cm⁻¹, and new energy pattern in the global rovibrational analysis of ¹⁶O¹²C³²S”
D. Golebiowski, X. de Ghellinck d’Elseghem Vaernewijck, M. Herman, and A. Fayt
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209. “Special issue: 23rd Colloquium on High Resolution Molecular Spectroscopy”
T.P. Softley, A.G. Csazar, P. De Natale, M. Herman, and M. Quack
Molecular Physics, <http://dx.doi.org/10.1080/00268976.2014.943982> (2014).
208. “Low temperature high-resolution absorption spectrum of ¹⁴NH₃ in the ν₁+ν₃ band region (1.51 μm)”
T. Földes, D. Golebiowski, M. Herman, T.P. Softley, G. Di Lonardo, and L. Fusina
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Physical Chemistry and Chemical Physics, 15, 9949-10516 (2013).
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M. Villa, L. Fusina, G. Di Lonardo, X. De Ghellinck d’Elseghem Vaernewijck, and M. Herman
Molecular Physics, 111, 1972-1976 (2013).
203. “¹⁶O¹²C¹⁷O and ¹⁸O¹²C¹⁷O spectroscopy in the 1.20 – 1.25 μm region”
D. Golebiowski, M. Herman, and O. Lyulin
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202. “Femto-FT-CEAS applied to carbon disulfide around 1.54 μm”
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201. “FASE (Femto-, Astro-, Spectro-Ethyne)”, foreword”
M. Herman
Molecular Physics 110, 2619-2620 (2012).
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200. “Accurate ground-state potential energy surfaces of the HCCH-Kr and HCCH-Xe van der Waals complexes”
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199. “The 2CH excitation band in C₂H₂-N₂O and 2CH+torsion combination bands in C₂H₂⊃N₂O and C₂H₂⊃CO₂”

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197. “ $^{17}\text{O}^{12}\text{C}^{17}\text{O}$ and $^{18}\text{O}^{12}\text{C}^{17}\text{O}$ spectroscopy in the 1.6 μm region”
X. de Ghellinck d’Elseghem Vaernewijck, S. Kassi and M. Herman
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196. “The infrared spectrum of $^{13}\text{C}_2\text{H}_2$ in the 60 to 2600 cm^{-1} region: bending states up to $\nu_4 + \nu_5 = 4$ ”
A. Predoi-Cross, M. Herman, L. Fusina, and G. Di Lonardo
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195. “Hierarchies of Intramolecular Vibration-Rotation Dynamical Processes in Acetylene up to 13,000 cm^{-1} ”
D.S. Perry, J. Martens, B. Amyay, and M. Herman
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194. “Experimental 2CH excitation in acetylene-containing van der Waals complexes”
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193. “Femto-Fourier transform- cavity enhanced absorption spectroscopy in a supersonic expansion”
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185. “The 2009 edition of the GEISA spectroscopic database”

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184. “Torsional excitation in the 2CH vibrational overtone of the C₂H₂-CO₂ and C₂H₂-N₂O van der Waals complexes”
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183. “High resolution overtone spectroscopy of the acetylene van der Waals dimer, (¹²C₂H₂)₂.”
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A. Predoi-Cross, M. Herman, L. Fusina, and G. Di Lonardo
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A. Moudens, R. Georges, A. Benidar, B. Amyay, M. Herman, A. Fayt, and B. Plez.
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M. Herman
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K. Didriche and M. Herman
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- Frontiers article on personal invitation; Cover paper**
176. “Foreword: Molecular complexes in our atmosphere and beyond”
M. Herman and R.J. Saykally
Molecular Physics, 108, 2153 (2010).
175. “The FANTASIO+ set-up to investigate jet-cooled molecules: Focus on overtone bands of acetylene dimers.”

- K. Didriche, C. Lauzin, T. Foldès, X. de Ghellinck D'Elseghem Vaernewijck, and M. Herman.
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174. "High resolution spectroscopy and preliminary global analysis of CH stretching vibrations of C₂H₄ in the 3000 and 6000 cm⁻¹ regions"
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171. "The high resolution infrared spectrum of the ν₄ band of 1,1,1- trifluoro – ethane"
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170. "Vibration-rotation alchemy in acetylene (¹²C₂H₂), X¹Σ_g⁺ at low vibrational excitation: From high resolution spectroscopy to fast intramolecular dynamics"
D. Perry, A. Miller, B. Amyay, A. Fayt, and M. Herman
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169. "Demonstration of cavity enhanced FTIR spectroscopy using a femtosecond laser absorption source"
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Spectrochimica Acta A 75, 142-145 (2010).

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166. "Investigation of the C₂H₂-CO₂ van der Waals complex in the overtone range using CW-CRDS"
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C. Lauzin, K. Didriche, P. Macko, J. Demaison, J. Liévin, and M. Herman
Journal of Physical Chemistry A, 113, 2359-2369 (2009).

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162. "The FT absorption spectrum of ¹³CH¹²CH (III): Vibrational states in the range 6750 to 9500 cm⁻¹"
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161. "Measured integrated band intensities and simulated line by line spectra for ¹²C₂HD between 25 and 2.5 μm, and new global vibration-rotation parameters for the bending vibrations"
A. Jolly, Y. Benilan, E. Cané, L. Fusina, F. Tamassia, A. Fayt, S. Robert, and M. Herman
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157. "Anharmonic force field of cis- and trans-formic acid from high-level ab initio calculations, and analysis of resonance polyads"
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155. « The Acetylene Saga »
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154. "The equilibrium OH bond length"
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152. "Equilibrium structure of sulfuric acid"
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M. Lepère, G. Blanquet, J. Walrand, J.P. Bouanich, M. Herman and J. Vander Auwera
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S. Robert, M. Herman, J. Vander Auwera, G. Di Lonardo, L. Fusina, G. Blanquet, M. Lepère
and A. Fayt
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M. Herman, K. Didriche, D. Hurtmans, B. Kizil, P. Macko, A. Rizopoulos and P. Van Poucke
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G. Di Lonardo, L. Fusina, F. Tamassia, A. Fayt, S. Robert, J. Vander Auwera and M. Herman
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