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Scientific production

Publications

Articles in peer-reviewed scientific journals

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[4] **M.-A. Martin-Drumel**, K. N. Crabtree, O. Pirali, and M. C. McCarthy, "Characterization of transient species by spectral taxonomy", *Meeting of the French Molecular Spectroscopy (SPECMO) research group, Lille, France* (2017).

[3] **M.-A. Martin-Drumel**, M. C. McCarthy, D. Patterson, M. Nava, M. Joost, B. A. McGuire, and K. N. Crabtree, "Automated microwave double resonance spectroscopy (AMDOR): A tool to identify and characterize chemical compounds", *72nd International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA*. Miller prize plenary talk (2017).

[2] **M.-A. Martin-Drumel**, "From assisted to automated assignment of complex spectra", *Laboratory Astrophysics Workshop, Bonn, Germany* (2017).

[1] **M.-A. Martin-Drumel**, J. Oliveira, M. C. McCarthy, S. Thorwirth, C. P. Endres, and O. Pirali, "Programs and analysis tools for Fourier-transform far-infrared spectroscopy", *SOLEIL Users' Meeting, Infrared spectroscopy satellite workshop, SOLEIL synchrotron, France* (2017).

Talks in conferences

[23] **M.-A. Martin-Drumel**, O. Chitarra, J.-T. Spaniol, T. S. Hearne, O. Pirali, and J.-C. Loison, "Extending pure rotational measurements of the CH_3O radical toward the terahertz domain", *75th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2022).

[22] **M.-A. Martin-Drumel**, M. C. McCarthy, J.-C. Guillemin, O. Pirali, and K. Lee, "Investigating isomers of astrophysical molecules by rotational spectroscopy: The case of $[C_2H_2O]$ compounds", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[21] **M.-A. Martin-Drumel**, M. C. McCarthy, J. F. Stanton, B. E. Billinghurst, O. Pirali, R. Georges, P. Soulard, P. Asselin, M. Goubet, M. Nava, B. Changala, J. H. Baraban, and J. P. Porterfield, "High resolution far-infrared spectroscopy of *trans*- and *gauche*-butadiene", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[20] **M.-A. Martin-Drumel**, J. H. Baraban, P. B. Changala, M. J. Nava, J. P. Porterfield, B. Ellison, O. Pirali, J. F. Stanton, and M. C. McCarthy, "The structure of *gauche*-butadiene: Insights from the centimeter, millimeter, and far-infrared high resolution spectra", *73rd International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2018).

[19] **M.-A. Martin-Drumel**, B. Changala, H. Gupta, J. H. Westerfield, O. Pirali, S. Thorwirth, J. H. Baraban, J. F. Stanton, and M. C. McCarthy, "Laboratory investigation of astronomical reactive species: the vibrational satellites of c-C_3H_2 re-visited", *73rd International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2018).

[18] **M.-A. Martin-Drumel**, K. L. K. Lee, O. Pirali, and J. C. Guillemin, "Spectroscopic characterization of astrophysical isomers: The relatives of ketene", *American Chemical Society (ACS) Symposium Series, Boston, USA* (2018).

[17] **M.-A. Martin-Drumel**, O. Pirali, and M. C. McCarthy, "Investigating transient species in the millimeter domain using spectral taxonomy", *Conference of the French National Program of "Physics and Chemistry of the Interstellar Medium" (PCMI), Marseille, France* (2018).

[16] **M.-A. Martin-Drumel**, M. C. McCarthy, D. Patterson, S. Eibenberger, G. Buckingham, J. H. Baraban, B. Ellison, and J. F. Stanton, "Resolving a long-standing ambiguity: The non-planarity of gauche-1,3-butadiene revealed by microwave spectroscopy", *71th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2016).

[15] **M.-A. Martin-Drumel**, M. C. McCarthy, D. Patterson, B. A. McGuire, and K. N. Crabtree, "Automated Microwave Double Resonance Spectroscopy: A tool to identify and characterize chemical compounds", *71th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA*, Miller prize (best post-doc presentation award) (2016).

[14] **M.-A. Martin-Drumel**, C. P. Endres, O. Zingsheim, T. Salomon, J. van. Wijngaarden, O. Pirali, S. Gruet, F. Lewen, S. Schlemmer, M. C. McCarthy, and S. Thorwirth, "The SOLEIL view on sulfur rich oxides: The S_2O bending mode ν_2 at $380\,cm^{-1}$ and its analysis using an Automated Spectral Assignment Procedure (ASAP)", *70th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2015).

[13] **M.-A. Martin-Drumel**, C. A. Lopez, K. N. Crabtree, C. C. Womack C. Womack, T. L. Nguyen, S. Thorwirth, J. F. Stanton, and M. C. McCarthy, "Detection of HSNO, a crucial intermediate linking NO and H_2S chemistries", *70th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2015).

[12] **M.-A. Martin-Drumel**, C. C. Womack, K. N. Crabtree, S. Thorwirth, and M. C. McCarthy, "Laboratory detection of HSNO formed by the surface reaction between H_2S and NO", *Second workshop on experimental laboratory astrophysics, Kauai, Hawaii, USA* (2015).

[11] **M.-A. Martin-Drumel**, J. van. Wijngaarden, O. Zingsheim, S. Thorwirth, F. Lewen, and S. Schlemmer, "Millimeter-wave spectroscopy of OSSO", *69th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2014).

[10] **M.-A. Martin-Drumel**, O. Zingsheim, S. Thorwirth, H. S. P. Müller, F. Lewen, and S. Schlemmer, "Pure rotational spectroscopy of Vinyl Mercaptan", *69th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2014).

[9] **M.-A. Martin-Drumel**, A. Cuisset, S. Eliet, G. Mouret, F. Hindle, and O. Pirali, "Terahertz rotational spectroscopy of the SO radical", *68th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA.* (2013).

[8] **M.-A. Martin-Drumel**, A. Cuisset, D. A. Sadovskii, G. Mouret, and F. Hindle, "High resolution THz and FIR spectroscopy of $SOCl_2$", *68th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA* (2013).

[7] **M.-A. Martin-Drumel**, A. Cuisset, D. A. Sadovskii, G. Mouret, F. Hindle, and O. Pirali, "High resolution THz and FIR spectroscopy of $SOCl_2$", *GDRI HiResMIR Meeting, Brussels, Belgium* (2013).

[6] **M.-A. Martin-Drumel**, O. Pirali, Y. Loquais, C. Falvo, P. Parneix, and Ph. Bréchignac, "Lowest energy vibrational modes of nine naphthalene derivatives, experiment and theory", *68th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA* (2013).

[5] **M.-A. Martin-Drumel**, O. Pirali, M. Vervloet, P. Roy, and Ph. Bréchignac, "High resolution spectroscopy of transient species on the AILES beamline of synchrotron SOLEIL", *Workshop on C_3, Cologne, Allemagne* (2012).

[4] **M.-A. Martin-Drumel**, O. Pirali, D. Balcon, and M. Vervloet, "High resolution far infrared Fourier transform spectroscopy of the NH_2 radical", *66th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA* (2011).

[3] **M.-A. Martin-Drumel**, O. Pirali, D. Balcon, and M. Vervloet, "High Resolution Fourier Transform Far Infrared Spectroscopy of Transient Species on the AILES Beamlime at SOLEIL", *SOLEIL Users' Meeting, SOLEIL Synchrotron, France* (2011).

[2] **M.-A. Martin-Drumel**, O. Pirali, D. Balcon, and M. Vervloet, "High resolution Fourier transform spectroscopy of transient species on the infrared AILES beamline at SOLEIL", *66th International Symposium on Molecular Spectroscopy, Columbus, Ohio, USA* (2011).

[1] **M.-A. Martin-Drumel**, O. Pirali, D. Balcon, M. Vervloet, P. Roy, and Ph. Bréchignac, "High resolution Fourier transform spectroscopy of radicals on the far infrared AILES beamline of SOLEIL synchrotron", *THz Days, La grande Motte, France* (2011).

Outreach conferences

[5] **M.-A. Martin-Drumel**, "Searching for Space molecules, in the lab", *Research Thursdays, city of Gif-sur-Yvette, France* (2022).

[4] **M.-A. Martin-Drumel**, "Pure rotational spectroscopy of astrophysical species", *CNRS days for newly recruited staff in the Institute of Physics* (2022).

[3] **M.-A. Martin-Drumel**, "Post-doctoral appointment outside France", *Université Paris-Saclay, Mentorat doctorants* (2019).

[2] **M.-A. Martin-Drumel**, "Boiling Oil, Jet Engines, and Radars: Extraterrestrial Chemistry in Lab", *ITAMP high school student outreach, Cambridge, Massachusetts, USA* (2016).

[1] **M.-A. Martin-Drumel**, "Effective presentation techniques", *Workshop on building presentation skills 71st International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2015).

Seminars and colloquium

[21] **M.-A. Martin-Drumel**, "High resolution molecular spectroscopy applied to astrophysics", *Optical spectroscopy and neutronic sub-division*, Webinar of the optical spectroscopy and neutronic subdivision of the French physical and chemical societies (2022).

[20] **M.-A. Martin-Drumel**, O. Chitarra, T. S. Hearne, and O. Pirali, "Rotational spectroscopy of astrophysically-relevant molecules", *California Institute of Technology, Pasadena, USA* (2022).

[19] **M.-A. Martin-Drumel**, "From weeds to flowers: Exhaustively investigating the rotational spectra of astrophysical species", *Astrochemistry Discussions*, Webinar (2021).

[18] **M.-A. Martin-Drumel**, "From weeds to flowers: Exhaustively investigating the rotational spectra of astrophysical species", *Massachusetts Institute of Technology*, Chemistry department webinar (2021).

[17] **M.-A. Martin-Drumel**, "Interstellar chemistry: New solutions to old problems – Insights from high resolution spectroscopy", *John Stanton's group meeting, University of Florida, Orlando, USA*, Group seminar, online (2020).

[16] **M.-A. Martin-Drumel**, "Hunting elusive molecules with rotational spectroscopy", *Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany*, Department seminar (2019).

[15] **M.-A. Martin-Drumel**, "Hunting elusive molecules with rotational spectroscopy", *Ben-Gurion University of the Negev, Beer-Sheva, Israel*, Department seminar (2019).

[14] **M.-A. Martin-Drumel**, "LISTed: Laboratory Investigation of transient species by Spectral Taxonomy", *DIM-ACAV$^+$ colloquium, Paris, France* (2018).

[13] **M.-A. Martin-Drumel**, "Characterization of new species by spectral taxonomy", *Max Planck Institute for the Structure and Dynamics of Matter, Hambourg, Germany*, Department seminar (2017).

[12] **M.-A. Martin-Drumel**, "Characterization of new species by spectral taxonomy", *SOLEIL Synchrotron, France*, Department seminar (2017).

[11] **M.-A. Martin-Drumel**, "Interstellar chemistry: Contribution of high resolution spectroscopy from the microwave to the far-infrared domain", *Alain Bouyssy colloquium, Paris-Sud University, Orsay, France* (2017).

[10] **M.-A. Martin-Drumel**, "From assisted to automated assignment of complex spectra", *University California-Davis, USA*, Group seminar (2017).

[9] **M.-A. Martin-Drumel**, "High resolution laboratory spectroscopy of transient molecules: From the far-infrared to the microwave", *Institut des Sciences Moléculaires d'Orsay (ISMO), France*, Institute seminar (2016).

[8] **M.-A. Martin-Drumel**, "High resolution laboratory spectroscopy of transient molecules: From the far-infrared to the microwave", *PhLAM, Lille, France*, Institute seminar (2016).

[7] **M.-A. Martin-Drumel**, "High resolution laboratory spectroscopy of transient molecules: From the far-infrared to the microwave", *Harvard-Smithsonian Center for Astrophysics, Cambridge MA, USA*, Department seminar (2014).

[6] **M.-A. Martin-Drumel**, "High resolution spectroscopy of molecules of astrophysical and/or atmospherical interest", *I. Physikalisches Institut, Universität zu Köln, Cologne, Germany*, Group seminar (2013).

[5] **M.-A. Martin-Drumel**, "High resolution spectroscopy of molecules of atmospherical, planetological, or astrophysical interest", *LISA Institute, Creteil, France*, Group seminar (2013).

[4] **M.-A. Martin-Drumel**, "Far infrared spectroscopy of molecules of astrophysical interest", *LPCA institute, Dunkerque, France*, Group seminar (2012).

[3] **M.-A. Martin-Drumel**, "Far infrared spectroscopy of molecules of astrophysical interest", *IPR Institute, Rennes, France*, Group seminar (2011).

[2] **M.-A. Martin-Drumel**, "Fourier transform FIR spectroscopy of radicals", *Institut des Sciences Moléculaires d'Orsay (ISMO), France*, Group seminar (2011).

[1] **M.-A. Martin-Drumel**, O. Pirali, D. Balcon, M. Vervloet, P. Roy, and Ph. Bréchignac, "High resolution Fourier transform spectroscopy of transient species on the AILES beamline at SOLEIL", *SOLEIL Synchrotron, France*, Group seminar (2010).

Talks presented by others (non-exhaustive list)

[68] O. Chitarra, T. S. Hearne, O. Pirali, and **M.-A. Martin-Drumel**, "Extended laboratory investigation of the pure rotational spectrum of the CH_2CN radical in the (sub-)millimeter region (79–860 GHz)", *75th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2022).

[67] C. Endres, **M.-A. Martin-Drumel**, O. Pirali, J.-C. Guillemin, O. Zingsheim, L. Bonah, M. C. McCarthy, P. Caselli, S. Schlemmer, and S. Thorwirth, "Extended laboratory investigation of the pure rotational spectrum of the CH_2CN radical in the (sub-)millimeter region (79–860 GHz)", *75th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2022).

[66] M.-H. Mammez, T. S. Hearne, D. Mammez, O. Pirali, **M.-A. Martin-Drumel**, G. Ducournau, S. Eliet, F. Hindle, S. Barbieri, P. Roy, G. Mouret, and J.F. Lampin, "The ammonia laser: a possible local oscillator for space applications?", *32nd IEEE International Symposium on Space Terahertz Technology (ISSTT 2022), Baeza, Spain* (2022).

[65] D. Mammez, M.-H. Mammez, F. Hindle, G. Mouret, T. S. Hearne, **M.-A. Martin-Drumel**, O. Pirali, S. Eliet, and J.-F. Lampin, "An heterodyne spectrometer for terahertz spectroscopy", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[64] F. Hindle, G. Mouret, T. S. Hearne, O. Pirali, **M.-A. Martin-Drumel**, Z. Buchanan, S. Eliet, and J.-F. Lampin, "Mixing synchrotron radiation and laser sources: dual-comb spectroscopy in the submillimeter-wave region", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[63] J. Bruckhuisen, G. Dhont, A. Roucou, A. Jabri, H. Bayoudh, T. T. Tran, M. Goubet, **M.-A. Martin-Drumel**, and A. Cuisset, "High-resolution gas phase THz spectroscopy of the catechol low frequency modes involving an intramolecular hydrogen bond", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[62] J.F. Lampin, M.-H. Mammez, D. Mammez, T. Hearne, Z. Buchanan, O. Pirali, **M.-A. Martin-Drumel**, G. Ducournau, S. Eliet, F. Hindle, S. Barbieri, P. Roy, and G. Mouret, "New laser lines from a terahertz ammonia laser pumped by a quantum cascade laser and their application to high-resolution spectroscopy", *2021 46th International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz), Chengdu, China* (2021).

[61] J.-F. Lampin, M.-H. Mammez, D. Mammez, T. S. Hearne, O. Pirali, **M.-A. Martin-Drumel**, G. Ducournau, S. Eliet, F. Hindle, S. Barbieri, P. Roy, and G. Mouret, "Une nouvelle approche pour les lasers moléculaires térahertz", *Optique Dijon, France* (2021).

[60] J.-T. Spaniol, O. Chitarra, T. S. Hearne, **M.-A. Martin-Drumel**, and O. Pirali, "Technical enhancements of a submillimeter-wave spectrometer: laboratory detection of new lines of methanol radical derivatives", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[59] J.-T. Spaniol, K. Lee, O. Pirali, and **M.-A. Martin-Drumel**, "Investigation of pure rotational spectroscopy of ethynylbenzonitrile isomers using chirped-pulse W-band spectroscopy", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[58] L. Bizzocchi, M. Melosso, C. Puzzarini, F. Tamassia, A. P. Charmet, **M.-A. Martin-Drumel**, O. Pirali, B. M. Giuliano, P. Caselli, and J.-C. Guillemin, "The second resonance system of HC_3N. New ro-vibrational global analysis for all the excited states below 1300 cm^{-1}.", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[57] L. H. Coudert, O. Chitarra, J.-T. Spaniol, **M.-A. Martin-Drumel**, O. Pirali, and J.-C. Loison, "Analysis of the CH_2OH radical spectrum with an IAM tunneling approach", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[56] M. Zdanovskaia, B. J. Esselman, R. C. Woods, R. J. McMahon, **M.-A. Martin-Drumel**, O. Pirali, and Z. Kisiel, "Analysis of the coriolis- and fermi-coupled triad near 315 cm^{-1} of benzonitrile (C_6H_5CN)", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[55] M.-H. Mammez, F. Hindle, G. Mouret, J.-F. Lampin, S. Eliet, S. Barbieri, **M.-A. Martin-Drumel**, O. Pirali, and P. Roy, "Optically-pumped ammonia terahertz laser up to 5.5 THz", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[54] N. Genossar, B. Changala, **M.-A. Martin-Drumel**, B. Gans, J.-C. Loison, and J. H. Baraban, "Tunneling and ring opening in the cyclopropyl radical and cation", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[53] O. Chitarra, B. Gans, O. Pirali, and **M.-A. Martin-Drumel**, "Chirped-pulse millimeter-wave spectroscopy of astrophysical radicals in a pulse jet discharge experiment", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[52] O. Chitarra, **M.-A. Martin-Drumel**, B. Gans, O. Pirali, S. Spezzano, V. Lattanzi, H. S. P. Müller, and J.-C. Loison, "The pure rotational spectrum of the hydroxymethyl radical reinvestigated to enable its interstellar detection", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[51] O. Chitarra, J.-T. Spaniol, B. Gans, T. S. Hearne, J.-C. Loison, O. Pirali, and **M.-A. Martin-Drumel**, "Millimeter and sub-millimeter spectroscopic studies of astrophysical relevant radicals: Illustration with the CH_2CN radical", *Virtual 27th International Colloquium on High Resolution Molecular Spectroscopy, Cologne, Germany*, Amat-Mills award (2021).

[50] T. S. Hearne, M.-H. Mammez, D. Mammez, **M.-A. Martin-Drumel**, P. Roy, O. Pirali, S. Eliet, S. Barbieri, F. Hindle, G. Mouret, and J.-F. Lampin, "New Spectroscopic methods for THz synchrotron beamlines", *Virtual 27th International Colloquium on High Resolution Molecular Spectroscopy, Cologne, Germany* (2021).

[49] T. S. Hearne, O. Pirali, **M.-A. Martin-Drumel**, P. Roy, J.-F. Lampin, M.-H. Mammez, D. Mammez, F. Hindle, and G. Mouret, "The HEROES of terahertz synchrotron spectroscopy", *Virtual International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2021).

[48] M. Melosso, A. Belloche, **M.-A. Martin-Drumel**, O. Pirali, F. Tamassia, L. Bizzocchi, R. Garrod, H. Müller, K. Menten, L. Dore, and C. Puzzarini, "Far-infrared laboratory spectroscopy of aminoacetonitrile and first interstellar detection of its vibrationally excited transitions", *Not Intentional Seminars on Molecular Spectroscopy (NISMS), Virtual Meeting* (2020).

[47] O. Chitarra, **M.-A. Martin-Drumel**, J.-C. Loison, S. Spezzano, V. Lattanzi, H. Müller, and O. Pirali, "The pure rotational spectrum of hydroxymethyl radical reinvestigated to enable its interstellar detection", *Not Intentional Seminars on Molecular Spectroscopy (NISMS), Virtual Meeting* (2020).

[46] O. Chitarra, **M.-A. Martin-Drumel**, J.-C. Loison, S. Spezzano, V. Lattanzi, H. Müller, and O. Pirali, "The pure rotational spectrum of hydroxymethyl radical reinvestigated to enable its interstellar detection", *Conference of the French National Program of "Physics and Chemistry of the Interstellar Medium" (PCMI), virtual meeting* (2020).

[45] J. B. Brubach, B. Langerome, M. Verseils, F. Capitani, T. Souske, J.-F. Lampin, S. E. Eliet, O. Pirali, **M.-A. Martin-Drumel**, F. Hindle, G. Mouret, C. Evain, C. Szwaj, E. Roussel, S. Bielawski, T. Timusk, and P. Roy, "Enlarging the Frontiers of Research in the IR/mm Range Using Synchrotron Radiation", *44th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), Paris, France* (2019).

[44] K. L. K. Lee, M. C. McCarthy, **M.-A. Martin-Drumel**, Z. Buchanan, O. Chitarra, and O. Pirali, "Analysis of benzene discharge chemistry with rotational spectroscopy", *26th International Colloquium on High Resolution Molecular Spectroscopy, Dijon, France* (2019).

[43] **M.-A. Martin-Drumel**, O. Pirali, and L. H. Coudert, "Global analysis of the rotational, vibrational, and electronic transitions of the NH_2 radical", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[42] O. Pirali, J.-F. Lampin, Z. S. Buchanan, S. Eliet, **M.-A. Martin-Drumel**, F. Hindle, and G. Mouret, "High Resolution Spectroscopy in the THz using synchrotron radiation source", *CENTERA THz Days, Warsaw, Poland* (2019).

[41] O. Pirali, G. Mouret, J.-F. Lampin, P. Roy, R. Bocquet, F. Hindle, **M.-A. Martin-Drumel**, J. Turut, S. Eliet, and Z. Buchanan, "Progress around the high resolution heterodyne spectrometer of the AILES beamline", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[40] O. Pirali, Z. Buchanan, S. Eliet, **M.-A. Martin-Drumel**, J. Turut, F. Hindle, P. Roy, J.-F. Lampin, and G. Mouret, "Broadband terahertz heterodyne spectrometer exploiting synchrotron radiation at sub-megahertz resolution", *44th International Conference on Infrared, Millimeter, and Terahertz Waves* (2019).

[39] S. Eliet, J. Turut, F.Hindle, O. Pirali, M.-A. Martin-Drumel, R. Bocquet, P. Roy, J.-F. Lampin, and G. Mouret, "Progress around the high resolution heterodyne spectrometer of the AILES beamline", *SOLEIL Users' Meeting, SOLEIL Synchrotron, France* (2019).

[38] S. Eliet, J. Turut, J.-F. Lampin, M.-A. Martin-Drumel, O. Pirali, Z. Buchanan, P. Roy, F.Hindle, R. Bocquet, and G. Mouret, "High resolution heterodyne spectrometer for the THz-FIR synchrotron beamline", *26th International Colloquium on High Resolution Molecular Spectroscopy, Dijon, France* (2019).

[37] S. Johansen, **M.-A. Martin-Drumel**, and K. Crabtree, "Searching for a nitrogen-heterocycle precursor: The rotational spectrum of β-cyanovinyl radical", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[36] S. Thorwirth, M. C. McCarthy, S. Schlemmer, C. Puzzarini, J. Gauss, S. Stopkowicz, F. Engel, F. Kreuter, B. A. McGuire, **M.-A. Martin-Drumel**, and K. Lee, "Isotope invariant fitting of GeO and GeS and the ^{73}Ge quadrupole moment derived from spectroscopy and quantum chemical calculations", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[35] Z. Buchanan, **M.-A. Martin-Drumel**, O. Pirali, M. C. McCarthy, K. Lee, and O. Chitarra, "Pure rotational study of cyanophenylacetylene ($C_6H_5-C_3N$)", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[34] Z. Buchanan, O. Pirali, J.-F. Lampin, F. Hindle, G. Mouret, J. Turut, S. Eliet, and **M.-A. Martin-Drumel**, "Building a database for QCL-pumped far-IR lasers", *74th International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2019).

[33] A. Roucou, G. Dhont, A. Cuisset, **M.-A. Martin-Drumel**, S. Thorwirth, F. D, and W. L. Meerts, "High resolution study of the ν_2 and ν_5 rovibrational fundamental bands of thionyl chloride: Interplay of an evolutionary algorithm and a line-by-line analysis", *73rd International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2018).

[32] K. L. L. Lee, **M.-A. Martin-Drumel**, V. Lattanzi, B. A. McGuire, and M. C. McCarthy, "Investigation of thioketene isomers: microwave spectroscopy and formation chemistry of HCCSH", *73rd International Symposium on Molecular Spectroscopy, Champaign-Urbana, Illinois, USA* (2018).

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