

## Peer-reviewed Articles and Proceedings

1. Y.A. Ba, M.L. Dubernet, "SPECTCOL: A VAMDC tool for molecular spectroscopy and collisional data", **2024, to be submitted to A&A**.
2. M.L. Dubernet et al, "BASECOL2023 scientific content", **A&A, 2024**, DOI : 10.1051/0004-6361/202348233
3. C. Joy, B. Mandal, D. Bostan, M.L. Dubernet, D. Babikov, "Mixed Quantum/Classical Theory (MQCT) Approach to the Dynamics of Molecule-Molecule Collisions in Complex Systems", accepted in **Faraday discussions, 2024**, arXiv DOI : 10.48550/arXiv.2312.02322
4. M.L. Dubernet et al, (**April 2024**) "Atomic and Molecular Databases- Open Science for a sustainable world", **IAU book of Proceedings for Symposium 371**, "Honoring Charlotte Moore Sitterly: Astronomical spectroscopy in the 21rst century", Published online by Cambridge University Press: 2024, DOI : 10.1017/S1743921323000261
5. M.L. Dubernet, G.B. Beriman, C. Boersma, C. Jäger, M. Rengel, W. R. M. Rocha, F. Salama, C.M. Zwölff, (**April 2024**) "Laboratory Astrophysics Data Working Group IAU 2022 GA session", **IAU book of Proceedings for Symposium 371**, "Honoring Charlotte Moore Sitterly: Astronomical spectroscopy in the 21rst century", Published online by Cambridge University Press: 2024, DOI : 10.1017/S1743921323000327
6. P. Barklem, B. Barbuy, M.L. Dubernet, D. Ryu, F. Salama, P.K. Tan, N. Watanabe, (**April 2024**) "Laboratory Astrophysics activities - IAU Commission B5 2022 GA", **IAU book of Proceedings for Symposium 371**, "Honoring Charlotte Moore Sitterly: Astronomical spectroscopy in the 21rst century", Published online by Cambridge University Press: 2024, DOI : 10.1017/S1743921323000315
7. Tajouo Tela, H.; Quintas-Sánchez, E.; Dubernet, M.-L.; Dawes, R.; Scribano, Y.; Gatti, F.; Ndengue, S., "Rovibrational states calculations of the H<sub>2</sub>O-HCN heterodimer with the Multiconfiguration Time Dependent Hartree method", **PCCP, 2023**, vol. 25, p. 31813-31824, DOI: 10.1039/D3CP03225F
8. Y.-C. Cheng, D. Bockelée-Morvan, M. Roos-Serote, J. Crovisier, V. Debout, S. Erard, P. Drossart, C. Leyrat, F. Capaccioni, G. Filacchione, M.L. Dubernet, and T. Encrenaz, "Water ortho-to-para ratio in the coma of comet 67P/Churyumov-Gerasimenko", **A&A, 2022**, vol. 663, A43, DOI: 10.1051/0004-6361/202142494
9. C. Boursier, B. Mandal, D. Babikov, M.L. Dubernet (MLD: corresponding author), "New H<sub>2</sub>O-H<sub>2</sub>O collisional rate coefficients for cometary applications", **MNRAS, 2020**, 498, 5489-5497; <https://doi.org/10.1093/mnras/staa2713>
10. A. Damien, B.K. Antony, Y.A. Ba, et al. (MLD : corresponding author), "A decade with VAMDC : Results and Ambitions", **Atoms, 2020**, vol. 8, number 4, article 76 ; DOI = 10.3390/atoms8040076
11. Y.A. Ba, M.L. Dubernet, N. Moreau, C.M. Zwölff (MLD: corresponding author), "BASECOL2020 (basecol.vamdc.org) New Technical Design", **Atoms, 2020**, vol. 8, number 4, article 69 ; DOI = 10.3390/atoms8040069
12. C.M. Zwölff, N. Moreau, Y.A. Ba, M.L. Dubernet, (**2020**) "Citation of evolving data in distributed asynchronous infrastructures", **IAU book of Proceedings for Symposium 350**, Laboratory Astrophysics: From Observations to Interpretation, April 2019 , pp. 392 - 393, Published online by Cambridge University Press: 12 October 2020, DOI: 10.1017/S174392131900783X
13. M.L. Dubernet, E. Quintas-Sánchez, "First quantum study of the rotational excitation of HCN by para-H<sub>2</sub>O: convergence of quantum results, influence of the potential energy surface, and approximate rate coefficients of interest for cometary atmospheres.", **Molecular Astrophysics, 2019**, 16, 100046; <https://doi.org/10.1016/j.molap.2019.100046>
14. C.M. Zwölff, N. Moreau, Y.A. Ba, M.L. Dubernet, "Implementing in the VAMDC the New Paradigms for Data Citation from the Research Data Alliance", **Data Science Journal, 2019**, 18(1), p.4; DOI: <http://doi.org/10.5334/dsj-2019-004>
15. N. Moreau, C.M. Zwölff, Y.A. Ba, C. Richard, V. Boudon, M.L. Dubernet (MLD: corresponding author), "The VAMDC Portal as a major enabler of atomic and molecular data citation", **Galaxies, 2018**, 6(4), 105; <https://doi.org/10.3390/galaxies6040105>
16. E. Quintas-Sánchez, M.L. Dubernet, "Theoretical study of HCN-water interaction: five dimensional potential energy surfaces", **Physical Chemistry Chemical Physics, 2017**, 19, 6849 - 6860 - <https://doi.org/10.1039/C6CP07894J>
17. C.M. Zwolf, N. Moreau, M.L. Dubernet, "A new model for datasets citation and extraction reproducibility in VAMDC", **J. Mol. Spectr.**, **2016**, 327, 122-137

18. M.L. Dubernet et al., "The Virtual Atomic and Molecular Data Centre (VAMDC) Consortium", *J. Opt. Phys.*, **B**, **2016**, 49, 074003
19. M.L. Dubernet, E. Quintas-Sánchez, P. Tuckey, "New potential energy surface for the HCS+ - He system and inelastic rate coefficients", *J. Chem. Phys.*, **2015**, 143, 044315
20. F. Daniel, A. Faure, P.J. Dagdigian, M.L. Dubernet, F. Lique, G.P. des Forets, "Collisional excitation of water by hydrogen atoms", *MNRAS*, **2015**, 446, 2312-2316
21. A. Semenov, M.L. Dubernet, D. Babikov, "Mixed quantum/classical theory for inelastic scattering of asymmetric-top-rotor plus atom in the body-fixed reference frame and application to the H<sub>2</sub>O + He system", *J. Chem. Phys.*, **2014**, 141, 114304
22. M. Ivanov, M.L. Dubernet, D. Babikov, "Rotational quenching of H<sub>2</sub>O by He: Mixed quantum/classical theory and comparison with quantum results", *J. Chem. Phys.*, **2014**, 140, 134301
23. F. Delahaye, M.L. Dubernet, C. Zeippen, and SUP@VAMDC Collaboration, 11th International Colloquium on Atomic Spectra and Oscillator Strengths for Astrophysical and Laboratory Plasmas, Location: Mons, BELGIUM Date: AUG 05-09, 2013, PHYSICA SCRIPTA, Volume: 89, Issue: 11, Article Number: 114005, Published: NOV **2014**.
24. C.M. Zwolf, M.L. Dubernet, Y.A. Ba, N. Moreau, and VAMDC Consortium, IST-Africa Conference and Exhibition, Location: MAURITIUS Date: MAY 06-09, 2014, **IST-AFRICA CONFERENCE PROCEEDINGS**, Published: IEEE book, 2014. "Experience and Feedbacks from the Sustainability for the Virtual Atomic and Molecular Data Centre E-infrastructure".
25. Y.A. Ba, C. Wenger, R. Surleau, V. Boudon, M. Rotger, L. Daumont, D.A. Bonhommeau, V.G. Tyuterev, M.L. Dubernet, "MeCaSDa and ECaSDa: Methane and ethene calculated spectroscopic databases for the virtual atomic and molecular data centre", *JQSRT*, **2013**, 130, 62-68
26. O. Denis-Alpizar, T. Stoecklin, P. Halvick, M.L. Dubernet, "Rotational relaxation of CS by collision with ortho- and para-H<sub>2</sub> molecules", *J. Chem. Phys.*, **2013**, 139, 204304
27. T. Stoecklin, O. Denis-Alpizar, P. Halvick, M.L. Dubernet, "Ro-vibrational relaxation of HCN in collisions with He: Rigid bender treatment of the bending-rotation interaction", *J. Chem. Phys.*, **2013**, 139, 124317
28. O. Denis-Alpizar, T. Stoecklin, P. Halvick, M.L. Dubernet, "The interaction of He with vibrating HCN: Potential energy surface, bound states, and rotationally inelastic cross sections", *J. Chem. Phys.*, **2013**, 139, 034304
29. M.L. Dubernet et al, "BASECOL2012: A Collisional Database Repository and Web Service within VAMDC", *Astr. & Astr.*, **2013**, 553, p A50
30. O. Denis-Alpizar, T. Stoecklin, P. Halvick, S. Marinakis, M.L. Dubernet, "Potential energy surface and ro-vibrational energy levels of the H<sub>2</sub>- CS van der Waals complex", *J. Chem. Phys.*, **2012**, 137, 234301.
31. F. Daniel, J.R. Goicoechea, J. Cernicharo, M.L. Dubernet, A. Faure, "On the influence of collisional rate coefficients on the water vapour excitation", *Astr. & Astr.*, **2012**, 547, A81
32. F. Daniel, M.L. Dubernet, A. Grosjean "Rotational excitation of 45 levels of ortho/para-H<sub>2</sub>O by excited ortho/para-H<sub>2</sub> from 5K to 1500K: state-to-state, effective, and thermalized rate coefficients", *Astr. & Astr.*, **2011**, 536 p A76+
33. Wang S. et al (ML Dubernet - Ordre alphabetique - Herschel Key Program) "Herschel observations of EXtra-Ordinary Sources (HEXOS): Methanol as a probe of physical conditions in Orion KL" *Astr. & Astr.*, **2011**, 527 p A95+
34. van Dishoeck, E. F. et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program) "Water in Star-forming Regions with the Herschel Space Observatory (WISH). I. Overview of Key Program and First Results" **Publications of the Astronomical Society of the Pacific**, (2011), vol. 123, p138-170.
35. F. Daniel, M.L. Dubernet, F. Pacaud, A. Grosjean "Rotational excitation of 20 levels of para-H<sub>2</sub>O by ortho-H<sub>2</sub> ( $j_2 = 1, 3, 5, 7$ ) at high temperature", *A&A*, **(2010)**, 517 p A13+
36. M.L. Dubernet and 26 authors. "Virtual Atomic and Molecular Data Center". *J. Quant. Spectrosc. Radiat. Tranfer* **(2010)** : 111, p 2151-2159
37. Phillips, T. G., E. A. Bergin, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program) "Herschel observations of EXtra-Ordinary Sources (HEXOS): Detection of hydrogen fluoride in absorption towards Orion KL." *A&A*, **(2010)**: 518, L109+.
38. Ossenkopf, V., H. S. P. Mueller, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program) "Detection of interstellar oxidaniumyl: Abundant H<sub>2</sub>O+ towards the star-forming regions DR21, Sgr B2, and NGC6334." *A&A*, **(2010)** : 518, L111+.

39. Bergin, E. A., T. G. Phillips, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel observations of EXtra-Ordinary Sources: the present and future of spectral surveys with Herschel/HIFI." **A&A**, (2010) : 521, L20+
40. Comito, C., P. Schilke, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel observations of deuterated water towards Sgr B2(M)", **A&A**, (2010) : 521, L38+
41. Crockett, N. R., E. A. Bergin, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel observations of EXtra-Ordinary Sources: The Terahertz spectrum of Orion KL seen at high spectral resolution." **A&A**, (2010): 521, L21+
42. Gupta, H., P. Rimmer, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Detection of OH<sup>+</sup> and H<sub>2</sub>O<sup>+</sup> towards Orion KL". **A&A**, (2010) : 521, L47+
43. Lis, D. C., J. C. Pearson, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel/HIFI discovery of interstellar chloronium (H<sub>2</sub>Cl<sup>+</sup>)". **A&A**, (2010): 521, L9+
44. Lis, D. C., T. G. Phillips, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel/HIFI measurements of the ortho/para ratio in water towards Sagittarius B2(M) and W31C". **A&A**, (2010) : 518, L26+
45. Melnick, G. J., V. Tollis, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel observations of EXtra-Ordinary Sources (HEXOS): Observations of H<sub>2</sub>O and its isotopologues towards Orion KL". **A&A**, (2010): 521, L27+
46. Qin, S.-L., P. Schilke, et al. (ML Dubernet - Ordre alphabetique - Herschel Key Program). "Herschel observations of extra-ordinary sources: Detecting spiral arm clouds by CH absorption lines". **A&A**, (2010) : 521, L14+
47. Rolffs, R., P. Schilke, et al. (ML Dubernet - - Ordre alphabetique - Herschel Key Program). "Reversal of infall in SgrB2(M) revealed by Herschel/HIFI observations of HCN lines at THz frequencies". **A&A**, (2010) : 521 L46
48. Schilke, P., C. Comito, et al. (ML Dubernet - - Ordre alphabetique - Herschel Key Program). "Herschel observations of ortho- and para-oxidaniumyl (H<sub>2</sub>O<sup>+</sup>) in spiral arm clouds toward Sgr B2(M)". **A&A**, (2010): 521, L11+
49. M.L. Dubernet, F. Daniel, A. Grosjean, C. Y. Lin, "Rotational excitation of ortho-H<sub>2</sub>O by para-H<sub>2</sub> ( $j_2 = 0, 2, 4, 6, 8$ ) at high temperature", **A&A**, (2009), **497**, 911-925.
50. L. Pagani, F. Daniel, M.L. Dubernet, "On the frequency of N<sub>2</sub>H<sup>+</sup> and N<sub>2</sub>D<sup>+</sup>", **A&A**, (2009), **494**, 719-727.
51. F. Daniel, J. Cernicharo, E. Roueff, M. Gerin and M.L. Dubernet, "The excitation of N<sub>2</sub>H<sup>+</sup> in interstellar molecular clouds. II- Observations", **Astrophysical Journal**, (2007), **667**, 980-1001
52. A. Faure, N. Crimier, C. Ceccarelli, P. Valiron, L. Wiesenfeld and M.L. Dubernet, "Quasi-classical rate coefficient calculations for the rotational (de)excitation of H<sub>2</sub>O by H<sub>2</sub>", **A.& A**, (2007), **472**, 1029-1035.
53. M.L. Dubernet, F. Daniel, A. Grosjean, A. Faure, P. Valiron, M. Wernli, L. Wiesenfeld, C. Rist, J. Noga, J. Tennyson, "Influence of a new potential energy surface on the rotational (de)excitation of H<sub>2</sub>O by H<sub>2</sub> at low temperature", **A.& A**, **2006**, **460**, 323-329.
54. F. Daniel, J. Cernicharo and M.L. Dubernet. "The Excitation of N<sub>2</sub>H<sup>+</sup> in Interstellar Molecular Clouds. I. Models", **Astrophysical Journal**, **2006**, **648**, 461-471.
55. F. Lique, M.L. Dubernet, A. Spielfiedel, N. Feautrier, "Rotational excitation of sulfur monoxide by collisions with Helium at high temperature", **A.& A**, **2006**, **450**, 399
56. M.L. Dubernet, E. Roueff, proceedings Joint Meeting ITC14 and ICAMDATA 2004, Toki, Japan. "Atomic and Molecular Databases in the context of Virtual Observatories". **Journal of Plasma and Fusion Research SERIES**, (2006), Vol 7, p 358-360
57. M.L. Dubernet, A. Grosjean, F. Daniel, D. Flower, E. Roueff, F. Daniel, N. Moreau, B. Debray, proceedings Joint Meeting ITC14 and ICAMDATA 2004, Toki, Japan. "Ro-vibrational Collisional Excitation Database : BASECOL". **Journal of Plasma and Fusion Research SERIES**, (2006), Vol 7, p 356-357
58. F. Daniel, M.L. Dubernet, M. Meuwly, J. Cernicharo and L. Pagani, **M.N.R.A.S.**, **2005**, **363**, 1083-1091 "Hyperfine selective excitation of N<sub>2</sub>H<sup>+</sup> by He : collisional rate constants"
59. M.L. Dubernet, P. Valiron, F. Daniel, A. Grosjean, F. Lique, N. Feautrier, A. Spielfiedel, A. Faure, M. Wernli, L. Wiesenfeld, C. Rist, **IAU Proceedings of Symposium 231 (2005)**, "Astrochemistry - Recent Successes and Current Challenges", Asilomar, USA "Collisional excitation rates in the ISM".

60. F. Lique, A. Spielfiedel, M.L. Dubernet, N. Feautier, **J. Chem. Phys.**, **2005**, **123**, 4316 “Rotational excitation of sulfur monoxide by collisions with Helium at low temperature”
61. F. Daniel, M.L. Dubernet and M. Meuwly, **J. Chem. Phys.**, **2004**, **121**, 4540 “Selective hyperfine excitation of  $\text{N}_2\text{H}^+$  by He : new potential energy surface, cross-sections and propensity rules”
62. A. Grosjean, M.L. Dubernet and C. Ceccarelli, **A.&A.**, **2003**, **408**, 1197-1203 “Collisional excitation rates of  $\text{H}_2\text{O}$  with  $\text{H}_2$  : II. Rotational excitation with ortho- $\text{H}_2$  at very low temperature and application to cold molecular clouds”.
63. G. Jolicard, O. Attabek, M.L. Dubernet-Tuckey and N. Balakrishnan, **J. Phys. B**, **2003**, **36**, 2777-2795. “Nonadiabatic molecular response to short, intense laser pulses: A wave operator generalized Floquet approach”
64. E. Roueff, M.L. Dubernet, D.R. Flower, J.T. Pottage, 4th Cologne-Bonn-Zermatt-Symposium, The Dense Interstellar Medium in Galaxies, **2003**, “Collisional excitation processes relevant to ISM studies”.
65. M.L. Dubernet and A. Grosjean, **A.&A.**, **2002**, **390**, 793-800. —“Collisional excitation rates of  $\text{H}_2\text{O}$  with para- $\text{H}_2$  : I. Pure rotational excitation rates at very low temperature.”
66. M.L. Dubernet, P.A. Tuckey, G. Jolicard, X. Michaut, et H. Berger, **J. Chem. Phys.**, **2001**, **114**, 1286-1294. —“Investigations of pure rotational transitions of  $\text{H}_2$  perturbed by He: II. High temperature calculations and extrapolations.”
67. X. Bruet, J. Bonamy and M.L. Dubernet-Tuckey, **Chem. Phys.**, **2000**, **254**, 297-307 ——“Broadening and shifting coefficients of Raman isotropic  $Q(j)(j=0, 1, 2)$  lines for pure  $\text{H}_2$ ; coupled states and semiclassical calculations.”
68. I. M. Grigoriev, R. Le Doucen, J. Boissoles, B. Calil, C. Boulet, J. M. Hartmann, X. Bruet, M. L. Dubernet, **J. Mol. Spect.**, **1999**, **198**, 249-256 —“Spectral Lineshape parameters revisited for HF in a bath of argon. I. Widths and shifts in the (0-0), (0-1) and (0-2) bands”.
69. M.L. Dubernet and P.A. Tuckey, **Chem. Phys. Lett.**, **1999**, **300** 275-280. —“Raman Q and S line broadening and shifting coefficients: some commonly used assumptions revisited”.
70. X. Michaut, R. Saint-Loup, H. Berger, M.L. Dubernet, P. Joubert and J. Bonamy, **J. Chem. Phys.**, **1998**, **109**, 951-961. —“Investigations of pure rotational transitions of  $\text{H}_2$  self-perturbed and perturbed by He: I. Measurement, modelling and quantum calculations”.
71. P. Joubert, M.L. Dubernet, J. Bonamy and D. Robert, **J. Chem. Phys.**, **1997**, **107** 3845–3852 “Quantum and semiclassical calculations of  $\text{H}_2$ -He vibrational line-shape parameters at high temperature”
72. M.L. Dubernet, F. Rebentrost, K.L. Kompa and R.D. Levine, **J. Chem. Phys.**, **1996**, **105** 953-964 “On the effects of an internal barrier on fast four-atom ion-molecule reactions”.
73. P. Joubert, M.L. Dubernet, J. Bonamy and D. Robert, **Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)**, **1996** “Specific collision-induced effects in vibrational spectroscopy of gaseous  $\text{H}_2$  and consequences in the diagnostic of combustion media”.
74. M.L. Dubernet and J.M. Hutson, **J. Phys. Chem.**, **1994**, **98** 5844-5854 “Van der Waals complexes containing open shell atoms. II: the energy levels of Cl-HCl”.
75. M.L. Dubernet and J.M. Hutson, **J. Chem. Phys.**, **1994**, **101** 1939-1958 “Van der Waals complexes containing open shell atoms. I: General Theory and bending levels”.
76. M.L. Dubernet and J.M. Hutson, **J. Chem. Phys.**, **1993**, **99**, 7477-7486 “The intermolecular potential of Ar-OH: Determination from high resolution spectroscopy”.
77. M.L. Dubernet, P.A. Tuckey and J.M. Hutson, **Chem. Phys. Lett.**, **1992**, **193**, 355-363 “Parity doubling in Open-Shell Van der Waals Complexes”.
78. M.L. Dubernet, M. Gargaud and R. McCarroll, **Astron. Astrophys.**, **1992**, **259**, 373-376 “Reaction rates of  $\text{C}^+$  with OH at low interstellar temperatures.”
79. M.L. Dubernet, D.R. Flower and J.M. Hutson, **J. Chem. Phys.**, **1991**, **94**, 7602-7618 —“The dynamics of open-shell Van der Waals Complexes”
80. M.L. Dubernet and R. McCarroll, **Z. für Physik D**, **1990**, **15**, 333-340 —“Rotational state dependence of rate constants for the reaction of ions with asymmetric top molecules at very low temperature: Application to the  $\text{N}^+/\text{H}_2\text{O}$  system.”
81. M.L. Dubernet and R. McCarroll, **Z. fur Physik D**, **1989**, **13**, 255-258 —“Rotational state dependence of ion-polar molecule reactions at very low temperature.”

82. M.L. Dubernet, Thèse de Doctorat de l'Université Pierre et Marie Curie, **19 Mai 1989**, en Physique Moléculaire théorique. “ Influence du mouvement de rotation moléculaire sur les constantes de vitesse des réactions ion-molécule polaire aux basses températures du milieu interstellaire.”

**Proceedings sans Referee -**

83. M.L. Dubernet, C.M. Zwölf, N. Moreau, Y.A. Ba and VAMDC Consortium, “VAMDC : Bridging the gap between producers, users and editors”, SF2A-2008, Eds: F. Herpin et al, **2018**
84. M.L. Dubernet, C.M. Zwölf, N. Moreau, Y.A. Ba and VAMDC Consortium, “ Atomic and Molecular Databases, VAMDC (Virtual Atomic and Molecular Data Centre)”, IAU General Assembly, Meeting #29, #2259913, Hawai 2015, to be published in 2016
85. M.L. Dubernet, G. Rixon, M. Doronin, VAMDC Collaboration, “ Virtual Atomic and Molecular Data Centre: Level 3 Service and Future Prospects”, International Astronomical Union General Assembly, Beijing 2012, Highlights of Astronomy, 2015, Volume 16, pp. 685-686
86. F. Le Petit et al (alphabetic order thereafter M.L. Dubernet)“VO-Paris Data Centre (VO-PDC)”, Astronomical Data Analysis Software and Systems XXI. Proceedings of a Conference held at Marriott Rive Gauche Conference Center, Paris, France, 6-10 November, 2011. ASP Conference Series, Vol. 461. Edited by P. Ballester, D. Egret, and N.P.F. Lorente. San Francisco: Astronomical Society of the Pacific, 2012., p 399
87. M.L. Dubernet, L. Nenadovic, M. Doronin, Astronomical Data Analysis Software and Systems XXI. Proceedings of a Conference held at Marriott Rive Gauche Conference Center, Paris, France, 6-10 November, 2011. ASP Conference Series, Vol. 461. Edited by P. Ballester, D. Egret, and N.P.F. Lorente. San Francisco: Astronomical Society of the Pacific, 2012., p.335. “A New Software to Combine Spectroscopic Data and Collisional Data within VAMDC”
88. M. Doronin, M.L. Dubernet and VAMDC Consortium, Astronomical Data Analysis Software and Systems XXI. Proceedings of a Conference held at Marriott Rive Gauche Conference Center, Paris, France, 6-10 November, 2011. ASP Conference Series, Vol. 461. Edited by P. Ballester, D. Egret, and N.P.F. Lorente. San Francisco: Astronomical Society of the Pacific, **2012**, p.331. “Virtual Atomic and Molecular Data Centre and Astrophysics: Level 2 Release”
89. F. Le Petit et al (M.L. Dubernet, alphabetic order), Astronomical Data Analysis Software and Systems XXI. Proceedings of a Conference held at Marriott Rive Gauche Conference Center, Paris, France, 6-10 November, 2011. ASP Conference Series, Vol. 461. Edited by P. Ballester, D. Egret, and N.P.F. Lorente. San Francisco: Astronomical Society of the Pacific, 2012., p.399 “VO-Paris Data Centre (VO-PDC)”
90. G. Rixon, M.L. Dubernet and VAMDC Consortium, ICAMDATA 2010, held in Vilnius, **2011**, vol. 1344, pages 107-115, Series: American Institute of Physics Conference Series, Ed. A. Bernotas, R. Karazija, & Z. Rudzikas. ”VAMDC–The Virtual Atomic and Molecular Data Centre–A New Way to Disseminate Atomic and Molecular Data–VAMDC Level 1 Release”
91. N. Walton, M.L. Dubernet, and VAMDC Consortium, ADASS (Astronomical Data Analysis Software and Systems XX), held in Boston, **2011**, Vol. 442, p89+, Ed. I. N. Evans, A. Accomazzi, D. J. Mink, & A. H. Rots, Series: Astronomical Society of the Pacific Conference Series. ”VAMDC: The Virtual Atomic and Molecular Data Center”
92. Y. Ralchenko, R.E.H. Clarck, M.L. Dubernet, S. Gagarin, D. Humbert, P.A. Loboda, N. Moreau, E. Roueff and D.R. Schultz, 6th International Conference on Atomic and Molecular Data and their Applications (ICAMDATA), held in Beijing, China, October 2008., Ed: S. Zhu, J. Yan , AIP Conference Proceedings, **2009**, Vol. 1125, p 207. “Development of new standards for exchange of atomic and molecular data”.
93. M.L. Dubernet, M. Gerin, “Atomic and Molecular Databases”, EAS Publications Series, Eds: L. Pagani and M. Gerin, **2009**, vol. 34, p. 119-129.
94. Le Sidaner, P. and Normand, J. and Shih, A. and Bertin, E. and Boisson, C. and Chilingarian, I. and de Batz, B. and Desert, J. M. and Dubernet, M.-L. et al, “ V.O. Paris Data Centre Portal”, SF2A-2008, Eds: C. Charbonnel, F. Combes, R. Samadi, **2008**, p 91.
95. N. Moreau, M.L. Dubernet, H. Müller, Astronomical Spectroscopy and Virtual Observatory, Proceedings of the EURO-VO Workshop, held at the European Space Astronomy Centre of ESA, Villafranca del Castillo, Spain, 21-23 March, 2007, Eds.: M. Guainazzi and P. Osuna, Published by the European Space Agency., **2008**, p.195. “VO access to CDMS spectroscopic database”.
96. E. Roueff , M.L. Dubernet, W.-U.L. Tchang-Brillet, Astronomical Spectroscopy and Virtual Observatory, Proceedings of the EURO-VO Workshop, held at the European Space Astronomy Centre of ESA, Villafranca del Castillo, Spain, 21-23 March, 2007, Eds.: M. Guainazzi and P. Osuna, Published by the European Space Agency., **2008**, p.203. “Electronic molecular transitions”.

97. M.L. Dubernet, 5th International Conference on Atomic and Molecular Data and their Applications (ICAMDATA), held in Meudon, France, 15-19 October 2006., Ed: E. Roueff, AIP Conference Proceedings, **2007**, Vol. 901. “The Virtual Observatory: its goals and the relevance of atomic and molecular data”.
98. N. Crimier, A. Faure, C. Ceccarelli, P. Valiron, L. Wiesenfeld, M.L. Dubernet, Molecules in Space and Laboratory, Dec. 2007, “Impact of new collisional coefficients on the water line emission”.
99. N. Crimier, A. Faure, C. Ceccarelli, P. Valiron, L. Wiesenfeld, M.L. Dubernet, “Impact of new collisional coefficients on the water line emission”, SF2A-2007: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics held in Grenoble, France, July 2-6, 2007, Eds.: J. Bouvier, A. Chalabaev, and C. Charbonnel, **2007**, p.241
100. P. Le Sidaner, M.L. Dubernet et al, “Latest VO development at VO-Paris Data Centre”, SF2A-2007: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics held in Grenoble, France, July 2-6, 2007, Eds.: J. Bouvier, A. Chalabaev, and C. Charbonnel, **2007**, p.71
101. M.L. Dubernet, N. Moreau, P. Osuna, M. Guanazzi, J. Salgado, E. Roueff, I. Barbarisi, SF2A-**2006**: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics Eds.: D. Barret, F. Casoli, G. Lagache, A. Lecavelier, L. Pagani, p.87. “Definition and Implementation of VO standards for the Access of Atomic and Molecular Linelists”.
102. N. Moreau, M.L. Dubernet, SF2A-**2006**: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics Eds.: D. Barret, F. Casoli, G. Lagache, A. Lecavelier, L. Pagani, p.95. “Automatic access to BASECOL database and scientific applications”
103. Le Sidaner, P. and Dubernet, M.-L. et al, SF2A-**2006**: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics Eds.: D. Barret, F. Casoli, G. Lagache, A. Lecavelier, L. Pagani, p.93. “Latest VO developments at Paris VO Data Center”
104. Lique, F. and Spielfiedel, A. and Dubernet, M.-L. and Feautrier, N. and Cernicharo, J., SF2A-**2006**: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics Eds.: D. Barret, F. Casoli, G. Lagache, A. Lecavelier, L. Pagani, p.243, “Rotational excitation of sulfur monoxide by collisions with Helium at low temperature”
105. L. Wiesenfeld, A. Faure, M. Wernli, P. Valiron, F. Daniel, M.L. Dubernet, A. Grosjean, J. Tennyson, ASTROCHEMISTRY: From Laboratory Studies to Astronomical Observations. AIP Conference Proceedings, Volume 855, pp. 245-252 (**2006**) – “Recent advances in Calculating Molecular Collision Rates”
106. N. Moreau and M.L. Dubernet, Astronomical Data Analysis Software and Systems XV ASP Conference Series, Vol. 351, Proceedings of the Conference Held 2-5 October 2005 in San Lorenzo de El Escorial, Spain. Edited by Carlos Gabriel, Christophe Arviset, Daniel Ponz, and Enrique Solano. San Francisco: Astronomical Society of the Pacific, **2006**, p.391 - “VO access to BASECOL database”
107. M.L. Dubernet, P. Le Sidaner, et al, Proceedings Astronomical Data Analysis Software and Systems XV, Madrid, **2005**, p. 47, ASP Conference Series, Vol. XXX, Ed. C. Gabriel, C. Arviset, D. Ponz and E. Solano. “VO Paris Federation between Paris Observatory, IAP, IPSL and CEA”
108. F. Daniel, J. Cernicharo, M. L. Dubernet, Semaine de l’Astrophysique Française, meeting held in Strasbourg, France, June 27-July 1, **2005**, p 393, Eds.: F. Casoli, T. Contini, J.M. Hameury and L. Pagani. EdP-Sciences, Conference Series, “Excitation of  $N_2H^+$  in dark clouds”.
109. F. Genova, M. L. Dubernet, et al, Semaine de l’Astrophysique Française, meeting held in Strasbourg, France, June 27-July 1, **2005**, p. 15, Eds.: F. Casoli, T. Contini, J.M. Hameury and L. Pagani. EdP-Sciences, Conference Series, “VO-France”
110. H. Abgrall, M. Bruston, M. Cornille, J. Crovisier, J. Dubau, M.-L. Dubernet-Tuckey, M. Eidelsberg, N. Feautrier, A. Lesage, F. Launay, E. Roueff, F. Rostas, S. Sahal, A. Spielfiedel, C. Stehle, W.-Ü. L. Tchang-Brillet, proceedings SF2A-2004: Semaine de l’Astrophysique Française, meeting held in Paris, France, June 14-18, **2004**. Eds.: F. Combes, D. Barret, T. Contini and F. Meynardier. EdP-Sciences, Conference Series, p. 325. “MOLAT : Atomic and Molecular Physics Databases of the Paris Observatory”.
111. M.L. Dubernet, proceedings SF2A-2004: Semaine de l’Astrophysique Française, meeting held in Paris, France, June 14-18, **2004**. Eds.: F. Combes, D. Barret, T. Contini and F. Meynardier. EdP-Sciences, Conference Series, p. 183. “Atomic and Molecular Databases and their integration in Virtual Observatories”
112. F. Lique, A. Spielfiedel, M. L. Dubernet, N. Feautrier, Semaine de l’Astrophysique Française, meeting held in Paris, France, June 14-18, **2004**. Eds.: F. Combes, D. Barret, T. Contini and F. Meynardier. EdP-Sciences, Conference Series, p. 135. “Rotational excitation of SO by He at low temperature”.

113. M. L. Dubernet, B. Debray, A. Grosjean, D. Flower, A. Faure, T. Stoecklin, P. Valiron, F. Daniel, N. Feautrier, E. Roueff, A. Spielfiedel, Semaine de l’Astrophysique Française, meeting held in Paris, France, June 14-18, **2004**. Eds.: F. Combes, D. Barret, T. Contini and F. Meynardier. EdP-Sciences, Conference Series, p. 123. “Ro-vibrational Collisional Excitation Database (<http://basecol.obspm.fr>)”
114. F. Daniel, M. L. Dubernet, A. Grosjean, Semaine de l’Astrophysique Française, meeting held in Paris, France, June 14-18, **2004**. Eds.: F. Combes, D. Barret, T. Contini and F. Meynardier. EdP-Sciences, Conference Series, p. 122. “Rotational collisional excitation of  $H_2O$  by  $H_2$ : collisional rate coefficients and pressure broadening/shifting coefficients between 5K and 300K”.
115. M.L. Dubernet, B. Debray, A. Grosjean, M. Bruston, F. Combes, M. Cornille, D. Egret, C. Stéhlé, L. Tchang-Brillet, C. Zeippen, Proceedings ADASS XIII, **2003**, Strasbourg, “Access to Atomic and Molecular Data/Databases in the VO”
116. N. Feautrier, A. Spielfiedel, M.L. Dubernet, 1er Congreso Nacional de Astrofisica Molecular: Una vision general del potencial de los grupos de quimica espanoles antres los nuevos desafios de la Astrofisica. Heled in Cuidad Real, Espana, 1-4 Diciembre, **2003**, p.28. “Molecule H<sub>2</sub>/He potential energy surfaces and collisional cross sections”.
117. M.L. Dubernet, B. Debray, J. Le Bourlot, A. Walters, Proceedings SF2A-2003: Semaine de l’Astrophysique Française, meeting held in Bordeaux, France, June 16-20, **2003**. Eds.: F. Combes, D. Barret and T. Contini. EdP-Sciences, Conference Series, p. 159. “Atomic and molecular databases for Astrophysics”
118. F. Daniel, M.L. Dubernet, L. Pagani, Proceedings SF2A-2003: Semaine de l’Astrophysique Française, meeting held in Bordeaux, France, June 16-20, **2003**. Eds.: F. Combes, D. Barret and T. Contini. EdP-Sciences, Conference Series, p. 205. “ Hyperfine selective collisional excitation of N<sub>2</sub>H<sup>+</sup> by He”
119. B. Debray, M.L. Dubernet, A. Grosjean, E. Oblak, J.M. Petit, C. Reylé, A. Robin, Proceedings ADASS XII, **2002**, Baltimore, “ Turning Besançon Observatory on-line facilities into the VO - Galactic Model Simulation, Binary Star, Molecular Collisional and TNO data bases.”

### Ouvrage/Rapports techniques/Logiciels

120. M.L. Dubernet, L. Nenadovic, “SPECTCOL: Spectroscopic and Collisional Data Retrieval”, Astrophysics Source Code Library, record ascl:1111.005, **2011**
121. M.L. Dubernet and VAMDC collaboration, “ VAMDC Infrastructure 2012 ” that can be accessed from the portal <http://portal.vamdc.eu>
122. M.L. Dubernet and VAMDC collaboration, “VAMDC Standards 2012”, <http://vamdc.eu/standards>
123. M. Doronin, M.L. Dubernet and VAMDC collaboration, “VAMDC Portal 2012”, <http://portal.vamdc.eu>
124. Publication de la base de données BASECOL: <http://basecol.obspm.fr> - 1995 et 2012
125. M.L. Dubernet, D. Humbert, R.E.H. Clark, Yu. Ralchenko, E. Roueff, D.R. Schultz, “XML schema for Atomic, Molecular and Solid Data ”, **Version 0.1, September 2009**, Edited by M.L. Dubernet, D. Humbert, Yu. Ralchenko [<http://www-amdis.iaea.org/xml/>]
126. P. Osuna, M. Guainazzi, J. Salgado, M.L. Dubernet, E. Roueff, IVOA, **Version 1.0, July 2009**, “Simple Spectral Lines Data Model”, Éditeurs: P. Osuna, J. Salgado [<http://www.ivoa.net/Documents/SSLDL/>]
127. J. Salgado, P. Osuna, M. Guainazzi, I. Barbarisi, M.L. Dubernet, D. Tody, IVOA, **Version 1.0, July 2009**, “Simple Line Access Protocol” [<http://www.ivoa.net/Documents/SLAP/>]

### INVITED CONFERENCES, ORAL CONTRIBUTION TO WORKSHOPS, SEMINARS

- Invited Conferences

1. **September 2022 : SPIG2022, Belgrade, Serbia**, <http://spig2022.ipb.ac.rs/invited.html>, “Towards a Global Network for Laboratory Astrophysics Activities and Data”, M.L. Dubernet
2. **August 2022 : IAU General Assembly, Symposium 371, Busan, Korea**, <https://pml.nist.gov/iau-symposium371> Keynote Lecture : “Databases of atomic and molecular data”, M.L. Dubernet
3. **December 2021: Joint ICTP-IAEA Workshop on Atomic Processes in Plasmas: Data-driven Research, on-line**, “VAMDC Applications”, M.L. Dubernet and VAMDC Collaboration
4. **Aout 2020 : SPIG2020, Belgrade, Serbia, on-line**“VAMDC : Results and Perspective”, M.L. Dubernet and VAMDC Collaboration
5. **November 2019 : MolSSI Workshop, Blackburg, USA**“XSAMS and Standardization in VAMDC”, M.L. Dubernet, N. Moreau, C.M. Zwolf, Y.A. Ba, and VAMDC Consortium

6. **November 2018 : ICAMDATA, Boston, USA** “VAMDC and Data Citation”, M.L. Dubernet, C.M. Zwolf, N. Moreau, Y.A. Ba, and VAMDC Consortium
7. **August 2018 : IAU, Vienna, Austria - Commission B5** “VAMDC - A resource for Atomic and Molecular Data”, M.L. Dubernet, N. Moreau, C.M. Zwolf, Y.A. Ba, and VAMDC Consortium
8. **July 2018 : Data-Driven Plasma Science Conference, 2018, York, UK** “VAMDC, bridging the gap between producers, users and editors”, M.L. Dubernet, N. Moreau, C.M. Zwolf, Y.A. Ba, and VAMDC Consortium
9. **July 2018 : SF2A, session plénière pour ASOV, Bordeaux, France** “VAMDC, bridging the gap between producers, users and editors”, M.L. Dubernet, N. Moreau, C.M. Zwolf, Y.A. Ba, and VAMDC Consortium
10. **April 2018 : NASA Laboratory Astrophysics 2018, Athens, Georgia, USA** “Virtual Atomic and Molecular Data Centre : current statuts and prospects”, M.L. Dubernet, N. Moreau, C.M. Zwolf, Y.A. Ba, C. Richard, V. Boudon and VAMDC Consortium
11. **April 2018 : EWASS2018, Liverpool, UK** “Virtual Atomic and Molecular Data Centre : current statuts and prospects”, M.L. Dubernet, N. Moreau, C.M. Zwolf, Y.A. Ba, C. Richard, V. Boudon and VAMDC Consortium
12. **November 2017 : ESEP Workshop, Meudon, France** “The Virtual Atomic and Molecular Data Centre”, C.M. Zwolf, N. Moreau, ML Dubernet and VAMDC Consortium
13. **July 2016 : ASOS12, Sao Paulo, Brazil** “Atomic and Molecular Databases, VAMDC (Virtual Atomic and Molecular Data Centre) ”, ML Dubernet and VAMDC Collaboration
14. **January 2016 : q-PaCE 2016, Dhanbad, India** “Achievements and Future of the Virtual Atomic and Molecular Data Centre (VAMDC) ”, ML Dubernet, C.M. Zwolf, N. Moreau, Y.A. Ba
15. **August 2015: IAU General Assembly, Hawai 2015** “Atomic and Molecular Databases, VAMDC (Virtual Atomic and Molecular Data Centre) ”, ML Dubernet and VAMDC Collaboration
16. **June 2014: GEISA Workshop, Paris, France** “Introduction to the Virtual Atomic and Molecular Data Centre (VAMDC) ”, ML Dubernet and VAMDC Collaboration
17. **May 2014: IST-Africa Workshop, Ile Maurice** “Experience and Feedbacks from the sustainability for the Virtual Atomic and Molecular Data Centre E-Infrastructure”, C.M. Zwolf, ML Dubernet, Y.A. Ba, N. Moreau and VAMDC Collaboration
18. **July 2013: SFP - Mini-Colloque: Low energy astrophysics, Marseille 2013** “Virtual Atomic and Molecular Data Centre”, M.L. Dubernet
19. **Sept. 2012: IAU General Assembly, Beijing 2012** “Virtual Atomic and Molecular Data Center: Level 3 service and Future Prospects”, M.L. Dubernet and VAMDC Consortium.
20. **April 2011: Workshop Astrochemistry: Molecular Networks connecting the Universe, Amsterdam** “VAMDC: A Virtual and Atomic Data Centre”, M.L. Dubernet.
21. **Sept. 2010 : ICAMDATA 2010, Vilnius, Lithuania - Review Lecture,** “VAMDC: A Virtual and Atomic Data Center : A new way to disseminate A. & M. Data ”, M.L. Dubernet.
22. **Sept. 2010 : The 5th Zermatt ISM-Symposium : Conditions and Impact of Star Formation** “New results with Herschel and beyond”, **Zermatt, Switzerland**, “Collision Rate Coefficients”, M.L. Dubernet, E. Roueff, F. Daniel, T. Stoecklin, A. Grosjean
23. **Sept 2009: CCLAR2009-Venezuela** “Virtual and Atomic Data Center”, M.L. Dubernet
24. **July 2009: XVIth symposium on High Resolution Molecular Spectroscopy. 5-10 july, Lake Baikal, Russia** “VAMDC: A Virtual and Atomic Data Center”, M.L. Dubernet
25. **Octobre 2008: ICAMDATA, Beijing, Chine.** “Development of new standards for exchange of atomic and molecular data”. Y. Ralchenko, R.E.H. Clarck, M.L. Dubernet et al. (présentée par Y. Ralchenko).
26. **Aout 08: Atmospherics Spectroscopy Applications, Reims, France** “Micro-Physics Databases, Tools and Virtual Observatory”, M.L. Dubernet
27. **Juin 08: Astronet Symposium, Liverpool, UK** “Micro-Physics Databases, Tools and Virtual Observatory”, Panel D, M.L. Dubernet
28. **Juin 08: Astronet Symposium, Liverpool, UK** “Micro-Physics Databases, Tools and Virtual Observatory for application to the Interstellar Medium”, Panel C, M.L. Dubernet
29. **Mai 08: The Molecular Universe: An international meeting on the Physics and Chemistry of the Interstellar Medium, Arcachon** “Micro-Physics Databases, Tools and Virtual Observatory for application to the Interstellar Medium”, M.L. Dubernet.
30. **Décembre 06: Scientific Preparation of HERSCHEL, Leiden.** “Ro-vibrational Databases”, M.L. Dubernet
31. **Octobre 06: ICAMDATA, Meudon, France.** “The Virtual Observatory: its goals and the relevance of atomic and molecular data”, M.L. Dubernet
32. **Juin 06: SF2A 2006, Grenoble, France.** “Molecular Universe Network : An interdisciplinary programme of the physics and chemistry of molecules in space”, M.L. Dubernet

33. **Juin 06: 9th Biennal HITRAN Database Conference, Boston.** “BASECOL database and implementation of VO standards for the exchange of atomic and molecular data”, M.L. Dubernet, N. Moreau, P. Osuna, M. Guanazzi, J. Salgado, E. Roueff
34. **Mai 06: Complex Molecules in Space: Present status and prospects with ALMA, Aarhus, Danemark.** “Tools for ALMA: data, databases, analysis software and the Virtual Observatory”, M.L. Dubernet, A. Walters
35. **Aout 05: IAU 231, Astrochemistry - Recent Successes and Current Challenges, Asilomar, USA.** “Collisional excitation rates in the ISM”, M.L. Dubernet
36. **Juin 05: SF2A-2005, Strasbourg.** “VO-France”, M.L. Dubernet on behalf of the ”Conseil Scientifique de VO-France
37. **Juin 05: SF2A-2005, Strasbourg.** “Rotational excitation of sulfur monoxide by collisions with helium at low temperature”, given by F. Lique, with authors: F. Lique, A. Spielfiedel, M. L. Dubernet, N. Feautrier, J. Cernicharo.
38. **Dec. 2004: Scientific Preparation of HERSCHEL, Leiden.** “Inelastic collisions”, M.L. Dubernet, F. Daniel, F. Lique, A. Spielfiedel, N. Feautrier
39. **June 2004: 8th Biennal HITRAN Database Conference, Boston.** “Access to databases of Atomic and Molecular Data in the Virtual Observatory”, M.L. Dubernet-Tuckey
40. **June 2004: SF2A-2004, Paris.** “Atomic and Molecular Databases and their integration in Virtual Observatories”, M.-L. Dubernet
41. **Mars 2004: Workshop pour la préparation scientifique de HERSCHEL, Leiden.** “Collisional Excitation Processes of water ”. M.L. Dubernet, A. Grosjean, F. Daniel
42. **Dec. 2003 : 1er Congreso Nacional de Astrofisica Molecular, Ciudad Real, Espana.** “Molecule H<sub>2</sub>/He potential energy surfaces and collisional cross sections”, N. Feautrier, A. Spielfiedel, M.L. Dubernet.
43. **Sept. 2003: 4th Cologne-Bonn-Zermatt-Symposium, The Dense Interstellar Medium in Galaxies.** “Collisional excitation processes relevant to ISM studies”, E. Roueff, M.L. Dubernet, D.R. Flower, J.T. Pottage.
44. **Juin 2003: SF2A, Bordeaux.** “Atomic and Molecular Databases for Astrophysics”. M.L. Dubernet
45. **Juillet 2002: PN PCMI, Bordeaux.** “Excitation collisionnelle ro-vibrationnelle : méthodes, résultats et applications pour H<sub>2</sub>O-H<sub>2</sub>. ” M.L. Dubernet, A. Grosjean, C. Ceccarelli and A. Faure
46. **Octobre 2001: Workshop pour la préparation scientifique de HERSCHEL, Leiden.** “Rotational excitation of H<sub>2</sub>O”. M.L. Dubernet
47. **Juil. 96: XII International Symposium and School on High Resolution Molecular Spectroscopy, St. Petersburg.** “Specific collision-induced effects in vibrational spectroscopy of gaseous H<sub>2</sub> and consequences in the diagnostic of combustion media”. P. Joubert, M.L. Dubernet, J. Bonamy and D. Robert
48. **Juil. 94: Colloque Journées de Spectroscopie Moléculaire.** “Complexes de Van der Waals atome-molécule où l’atome est à couche ouverte. Surfaces d’énergie potentielle, Spectre de Cl-HCl”. M.L. Dubernet et J.M. Hutson

- **Oral Contribution to Conferences and Workshops**

1. **25-29 Sept 2022 : 12th ICAMDATA, Bari, Italy,** “FAIR principles in VAMDC”, CM Zwolf, M.-L. Dubernet
2. **8 August 2022 : IAU GA, Division B day, Busan, Korea**, [https://www.iauga2022.org/program/program\\_05\\_2.aspx](https://www.iauga2022.org/program/program_05_2.aspx) “Organisation of the working group session, M.-L. Dubernet
3. **26 April 2022 : IVOA Interop Workshop, Canada, on-line**, <https://wiki.ivoa.net/twiki/bin/view/IVOA/InterOp> “FAIR usage of Laboratory Astrophysics Data in Astro applications IAU B2-B5 WG and Role of IV<sub>O</sub>A”, M.-L. Dubernet
4. **11 April 2022 : ASOV Workshop, Paris, France**, <https://asov.obspm.fr/journeesasov/>, “Atomic and Molecular Data in Astrophysics, IAU and VAMDC”, M.-L. Dubernet
5. **28th September 2021 : ECLA 2021 Conference, Capri, Italy**, on-line. Short presentation on “Feedback on a structured European project: VAMDC” for the purpose of Laboratory Astrophysics Organisation in Europe, M.-L. Dubernet
6. **June 2018 : PCMI Meeting, Marseille** “VAMDC and BASECOL”, M.-L. Dubernet, N. Moreau, C. M. Zwolf, Y.A. Ba
7. **November 2016 : ECLA, Madrid, Spain** “VAMDC evolution towards bridging laboratory astrophysics and astrophysics”, C. M. Zwolf, N. Moreau, M.-L. Dubernet
8. **Juin 15: SF2A 2015, Toulouse, France.** “Virtual Atomic and Moqlecular Data Centre”, M.L. Dubernet, N. Moreau, Y.A. Ba, C.M. Zwolf, and VAMDC Consortium
9. **March 2015: Workshop on Databases, University of Grenoble, France.** “VAMDC ”, M.L. Dubernet and VAMDC Consortium

10. **October 2014: PCMI Colloquium, Rennes, France** “The Virtual Atomic and Molecular Data Centre (VAMDC): Science Use Cases and the VAMDC Consortium”, M.L. Dubernet, Y.A. Ba, N. Moreau, C.M. Zwolf and VAMDC Collaboration.
11. **January 2014, Action Specificque VO-France, Paris** “VAMDC Breaking News”, C.M. Zwolf, N. Moreau, Y.A. Ba, M.L. Dubernet
12. **Oct. 2012, ICAMDATA, NIST, USA: Panel Session and VAMDC-USA day** “Introduction to VAMDC”, M.L. Dubernet
13. **June 2012, ASTR-GAIA Meeting, Heidelberg, Germany** “New advances in Atomic and Molecular Data Infrastructure”, M.L. Dubernet
14. **January 2012, Action Specificque VO-France, Paris** “VAMDC: Virtual Atomic and Molecular Data Center”, M.L. Dubernet
15. **Nov. 2011, ASA Workshop, Grenoble** “VAMDC: Virtual Atomic and Molecular Data Center”, M.L. Dubernet
16. **Oct. 2011, Interop IVOA Pune, India** “VAMDC and Data Access”, N. Walton, G. Rixon, M.L. Dubernet
17. **Oct. 2011, Interop IVOA Pune, India** “VAMDC and Level 2 Service Implementation”, N. Walton, G. Rixon, M.L. Dubernet
18. **Juin 2011: SF2A, Session PCMI, Paris** “Structure Européenne et Nationale en Physique Atomique et Moléculaire”. M.L. Dubernet
19. **Mai 2009, Interop IVOA Strasbourg** “ VAMDC and news about XSAMS”, M.L. Dubernet
20. **Avril 2009, Workshop ALMA organisé par Action Spécifique ALMA, Grenoble** “Databases”. M.L. Dubernet, S. Marinakis, V. Wakelam, A. Walters.
21. **Mai 2008, Interop IVOA Trieste** “ Atomic and Molecular Line Data Model: new propositions”, M.L. Dubernet
22. **Juillet 2007, MAPSO OT-KP “Mapping SGR B2 & ORION”, a Herschel Open Time Key Program team meeting 3, CSIC, Madrid, Spain.** “Comparison of ortho-water by H<sub>2</sub> using quantum calculations: comparison with previous calculations and QCT calculations”, F. Daniel, M.L. Dubernet (présenté par F. Daniel).
23. **Juillet 2007, MAPSO OT-KP “Mapping SGR B2 & ORION”, a Herschel Open Time Key Program team meeting 3, CSIC, Madrid, Spain.** “News from Basecol”, M.L. Dubernet, F. Daniel (présenté par F. Daniel).
24. **Mai 2007, EGEE meeting, Budapest**, “ French participation to the Astronomy and Astrophysics Cluster”, M.L. Dubernet
25. **3-4 Mai 2007, Workshop on ”A+M/PSI Data Exchange”, NIST, Gaithersburg, USA.** “Virtual Observatory and Relevance to Atomic and Molecular Data”, M.L. Dubernet
26. **Mai 2007: FP6 “Molecular Universe” Annual network and Review Meeting.** “Excitation of H<sub>2</sub>O by H<sub>2</sub>, He: Quantum Calculations”, M.L. Dubernet
27. **Mars 2007, Euro-VO Workshop, ESAC/Villafranca, Spain.** “Electronic molecular transitions”, E. Roueff, M.L. Dubernet, W.-U.L. Tchang-Brillet (présenté par E. Roueff)
28. **Mars 2007, Euro-VO Workshop, ESAC/Villafranca, Spain.** “VO access to CDMS spectroscopic database”, N. Moreau, M.L. Dubernet, H. Müller (présenté par N. Moreau)
29. **Juillet 2006: MAPSO OT-KP “Mapping SGR B2 & ORION”, a Herschel Open Time Key Program team meeting 2, CSIC, Madrid, Spain.** “Basecol Database (<http://basecol.obspm.fr/>)”, M.L. Dubernet
30. **Avril 2006: Workshop on Numerical Simulation in the VO, Paris.** “BASECOL database”, M.L. Dubernet
31. **Avril 2006: Workshop “Masse de Données en Astrophysique”,** “Structuration Données Atomiques and Moléculaires”, M.L. Dubernet
32. **December 2005: FP6 “Molecular Universe” Annual network meeting,** “Progresses with the BASECOL database”, M.L. Dubernet
33. **December 2005: FP6 “Molecular Universe” Annual network meeting,** “Excitation of N<sub>2</sub>H<sup>+</sup> by He: molecular calculations and astrophysical modelling”, F. Daniel, M.L. Dubernet, J. Cernicharo
34. **October 2005: Interoperability Meeting of the IVOA, Madrid.** “ Atomic and Molecular Line Data Model”, given by M. Guainazzi, on behalf of the working group: M.L. Dubernet, P. Osuna, M. Guainazzi, E. Roueff, J. Salgado.
35. **May 2005: Interoperability Meeting of the IVOA, Kyoto, Japan.** “ Atomic and Molecular Line Data Model”, M.L. Dubernet, P. Osuna
36. **Sep. 2004: Interoperability Meeting of the IVOA, Pune, India.** “ Access of Atomic and Molecular Physics in the VO”, M.L. Dubernet-Tuckey
37. **Apr. 2004: Atelier Transfert Radiatif V/IR/mm et Application au VLTI et ALMA, Meudon.** “Bases de données en physique atomique et moléculaire pour IR et mm”, M.L. Dubernet-Tuckey

38. **Dec. 2003 : Forum sur la simulation numérique en astrophysique.** “Collisional excitation processes”, M.L. Dubernet (présenté par P. Valiron car MLD absente)
39. **Nov. 2003 : Forum Bases, traitements de données et Observatoires Virtuels**, Meudon. “Bases de Physique atomique et moléculaires”. M.L. Dubernet.
40. **Mai 2003 : Atelier sur les bases de données de physique atomique et moléculaire**, Meudon. “BASECOL : processus d’excitation ro-vibrationnelle”. M.L. Dubernet.
41. **Mai 2001: Réunion GDR PCMI**, Paris. “Taux d’excitation ro-vibrationnelle”. M.L. Dubernet.
42. **Mars 98: European CARS Workshop**, Besançon. “Pure rotational stimulated Raman spectroscopy of H<sub>2</sub>-X mixtures (X≡ He, Ar, N<sub>2</sub>, H<sub>2</sub>O)”. Co-auteur : *H. Berger, X. Michaut, R. Saint-Loup, M.L. Dubernet, P. Joubert, J. Bonamy and D. Robert* (donné par H. Berger)
43. **Mars 97: European CARS Workshop**, Heidelberg (Germany). “Quantum calculation and measurement of width and shift for pure rotational lines in H<sub>2</sub>-He mixtures at high temperature.” M.L. Dubernet, P. Joubert, J. Bonamy and D. Robert
44. **Avril 94: Faraday Discussion 97**, Durham (UK). “Ar-OH potential energy surfaces”. M.L. Dubernet and J.M. Hutson
45. **Jany. 94: European Conference on Unstable Species**, Les Houches (France). “Atom-Molecule Van der Waals complexes containing open-shell molecules ” co-auteur : *J.M. Hutson and M.L. Dubernet*, donné par J.M. Hutson.

- **Seminars**

1. **27 June 2023, IRAP, Univ. Paul Sabatier, Toulouse.** “VAMDC: Current services and suggestions for the future”, M.L. Dubernet, Yaye Awa Ba, N. Moreau, C.M. Zwölf
2. **22 Septembre 2022, IUPAC en ligne.** “Webinar : Chemistry in Astrophysics”, M.L. Dubernet, Yaye Awa Ba, N. Moreau, C.M. Zwölf
3. **26 Juillet 2022, KISTI, Corée du Sud.** “Second French Plan for Open Science”, M.L. Dubernet
4. **26 Juillet 2022, KISTI, Corée du Sud.** “VAMDC e-infrastructure, Open Science for atomic and molecular data”, M.L. Dubernet
5. **20 Juillet 2022, KFE, Corée du Sud.** “Open Science Initiatives, VAMDC, FAIR Issues : General Overview ”, M.L. Dubernet
6. **13 Juillet 2022, IUPAC en ligne.** “VAMDC e-infrastructure, Open science for atomic and molecular data and further prospects ”, M.L. Dubernet, Yaye Awa Ba, N. Moreau, C.M. Zwölf
7. **15 April 2022: University of Rennes, France.** “Laboratory Astrophysics Data at IAU B5 commission WG : Encouraging FAIRness”, M.L. Dubernet
8. **13 Juillet 2022: IUPAC - remote.** “Laboratory Astrophysics Data at IAU B5 commission WG : Encouraging FAIRness”, M.L. Dubernet
9. **15 April 2022: University of Rennes, France.** “Laboratory Astrophysics Data at IAU B5 commission WG : Encouraging FAIRness”, M.L. Dubernet
10. **14 April 2022: University of Rennes, France.** “BASECOL in VAMDC”, M.L. Dubernet, Yaye Awa Ba, N. Moreau, C.M. Zwölf
11. **January 2022: KASI, Daejeon, Korea.** “Atomic and Molecular Data in Astrophysics”, M.L. Dubernet
12. **July 2013: University of Flinders, Australia.** “VAMDC and SUP@VAMDC”, M.L. Dubernet
13. **Mars 2010: NIFS Headquarters, Toki, Japan.** “ VAMDC and XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
14. **Aout 2008: IAEA Headquarters, Vienne, Austria.** “XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
15. **15-16 Mai 2008: IAEA Headquarters, Vienne, Austria.** “XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
16. **22 April 08: Institut UTINAM, Observatoire de Besançon**, “Les standards de Physique Atomique et Moléculaire et l’OV”. M.L. Dubernet
17. **4 April 08: CCT Prénissation et mise à disposition des Informations Numériques, CNES, Toulouse.** “Les standards de Physique Atomique et Moléculaire et l’OV”. M.L. Dubernet
18. **Feb. 2008: Institut Carnot de Bourgogne, Dijon**, “Make available laboratory Data, Evaluation of Data, Standards for Atomic and Molecular Data”, M.L. Dubernet
19. **1-2 October 2007: IAEA Headquarters, Vienne, Austria.** “XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
20. **Mai 2007: Institute of Applied Physics and Computational Mathematics (IAPCM), Beijing, China.** “Virtual Observatory and Relevance to Atomic and Molecular Data”, M.L. Dubernet
21. **Mars 2007: MPI für Radioastronomie, Bonn, Germany.** “Virtual Observatory Paris Data Center”, M.L. Dubernet

22. **2-3 April 2007: IAEA Headquarters, Vienne, Austria.** “XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
23. **11-13 October 2006: Observatoire de Paris.** “XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
24. **23-24 March 2006: IAEA Headquarters, Vienne, Austria.** “XML Schema for Atomic and Molecular Data: Molecular Data”, M.L. Dubernet
25. **Printemps 2006: LPMAA, Université Paris 6, France.** “From Observations to Quantum Chemistry Collisional Excitation rate coefficients of Molecules by H<sub>2</sub>, He”, M.L. Dubernet
26. **Mai 2003: Université de Bâle.** “Collisional Excitation Processes : From scientific preparation of astrophysical observations to van der Waals systems”. M.L. Dubernet
27. **Avril 94: Université de Toulouse, IRSAMC.** “Les molécules de Van der Waals ayant des atomes à couche ouverte”. M.L. Dubernet et J.M. Hutson
28. **Avril 94: Hebrew University, Jerusalem.** “Atom–Molecule Van der Waals complexes containing open-shell molecules”. M.L. Dubernet and J.M. Hutson
29. **1992: CECAM, Paris.** Workshop international sur la dynamique des complexes de van der Waals. “Influence des résonnances de Feshbach sur l’étape initiale de nucléation”. M.L. Dubernet et J.M. Hutson
30. **1990: Université de Durham, UK.** “Rotational state dependence of rate constants for the reaction of ions with asymmetric top molecules at very low temperature”

## CONTRIBUTIONS PAR POSTER -

1. **Avril 2018 : NASA Laboratory Astrophysics Workshop, Athens, Georgia, USA.** “BASECOL 2018”, Y. A. Ba, N. Moreau, C. M. Zwölf and M.L. Dubernet.
2. **Nov. 2016 : ECLA, Madrid, Spain.** “BASECOL scientific and technical quality evolution”, N. Moreau, Y. A. Ba, C. M. Zwölf and M.L. Dubernet.
3. **Juillet 15: CRS, Salamanca, Spain.** “ New potential energy surface for the HCS<sup>+</sup>-He system and inelastic rate coefficients”, E. Quintas-Sánchez, M.L. Dubernet, P. Tuckey.
4. **Aout 14: MOLEC, Götteborg, Sweden.** “ Mixed Quantum/Classical (MQCT) of inelastic scattering”, A. Semenov, M.L. Dubernet, D. Babikov.
5. **Aout 14: PAMO, Reims, France.** “Semi-Calssical calculations of rotational state-to-state relaxation rates for H<sub>2</sub>O-H<sub>2</sub>O collisions ”, C. Boursier and M.L. Dubernet
6. **Juin 14: SF2A 14, Paris, France.** “Scientific Use Cases for the Virtual Atomic and Molecular Data Center ”, M.L. Dubernet, J. Aboudarham, Y.A. Ba, M. Boizot, S. Bottinelli, E. Caux, C. Endres, J.M. Glorian, F. Henry, M. Lamy, P. Le Sidaner, T. Moller, C. Rénié, E. Roueff, P. Schilke, C. Vestel.
7. **July 2013: SFP, Marseille** “Peut-on utiliser l’infrastructure e-science VAMDC pour l’enseignement ?”, M.L. Dubernet, N. Moreau, J. Tuckey, F. Maas, M. Zacharia, M. Puech
8. **Oct. 2012: ICAMDATA, NIST, USA** “Virtual Atomic and Molecular Data Centre: An interoperable infrastructure”, M.L. Dubernet and VAMDC Consortium
9. **Oct. 2012: ICAMDATA, NIST, USA** “BASECOL2012: A Collisional Database Repository and Web Service within VAMDC”, underlineM.L. Dubernet and BASECOL collaboration
10. **Nov 2011: ADASS XXI, Paris** “VAMDC Virtual Atomic and Molecular Centre? and Astrophysics: Level 2 release”, M. Doronin, M.L. Dubernet and VAMDC Consortium
11. **Nov 2011: ADASS XXI, Paris** “SPECTCOL: A new software to combine spectroscopic data and collisional data within VAMDC”, M.L. Dubernet and L. Nenadovic
12. **July 2011: The Quantum Reactive Scattering Conference, Sante Fe, USA** “Collisional Excitation of H<sub>2</sub>O by H<sub>2</sub>, BASECOL and VAMDC”, F. Daniel, M.L. Dubernet, A. Grosjean, E. Roueff
13. **July 2011: The Quantum Reactive Scattering Conference, Sante Fe, USA** “VAMDC: Virtual Atomic and Molecular Data Centre”, M.L. Dubernet and VAMDC Consortium
14. **May-June 2011 : The Molecular Universe, Posters from the proceedings of the 280th Symposium of the International Astronomical Union held in Toledo, Spain, May 30-June 3, 2011, p395** “BASECOL and VAMDC: A new way to access and manipulate molecular collisional data for interstellar applications”. F. Daniel, M.L. Dubernet, M. Doronin, L. Nenadovic, J. Bureau (presented by F. Daniel).

15. **Mars 2010: ECRI 2010 (European Conference on Research Infrastructure ” VAMDC: Virtual Atomic and Molecular Data Center”.** M.L. Dubernet et al. , on behalf of Consortium (presented by N. Walton, Cambridge, UK)
16. **April 2010: 5th EGEE User FORUM ” VAMDC: Virtual Atomic and Molecular Data Center”.** M.L. Dubernet et al., on behalf of Consortium (presented by L. Molina, LPMAA)
17. **Mai 2010: PAH and The Universe, Toulouse ”The PAH project in VAMDC”.** G. Mula, C. Joblin, G. Mallochi, A. Simon and M.L. Dubernet
18. **January 2009, Gordon Research Conference on Energy Transfer, Ventura, CA, USA** “ The basecol collisional excitation database: recent and future developments of a useful tool for studies of interstellar and circumstellar media”, M.L. Dubernet, F. Daniel, N. Moreau, S. Marinakis, D. Flower, A. Faure, T. Stoecklin, A. Grosjean, J. Cernicharo.
19. **October 2008, 6th International Conference on Atomic and Molecular Data and Their Applications** , “Virtual Atomic and Molecular Data Centre: An e-science Platform for the exchange of AM Data and Services”. M.L. Dubernet.
20. **October 2007: EGEE Meeting, Budapest, Hongrie**, “Astronomy and Astrophysics applications on EGEE from Paris, Lyon and Strasbourg observatories”. M.L. Dubernet, J.-M. Alimi, S. Baek et al.
21. **September 2007: ADASS XVII, London, UK**. “Astrophysics in EGEE”. C. Vuerli, F. Pasian, G. Taffoni, H. Kornmayer, L. Hluchy, M. Lechner, M.L. Dubernet, E. Valentijn, E.M. Gonzalez, A. Belic.
22. **Aout 07: JENAM 2007, Yerevan, Armenia**. “Some VO Implementations in Paris VO Data Centre-II: SLAP access via VOSpec client to LERMA Atomic & Molecular VO-server”, N. Moreau and M.L. Dubernet
23. **Juin 07: SF2A 07, Grenoble, France**. “Paris VO Data Center 07: une fédération de laboratoires et de projets autour de l’Observatoire Virtuel, Observatoire de Paris, IAP, IPSL et CEA ”, P. Le Sidaner, M.L. Dubernet, J. Normand, A. Shih, G. Simon
24. **Juin 07: COMET XX, Bordeaux, France**. “Rotational collisional excitation of o-H<sub>2</sub>O by H<sub>2</sub>: collisional rate coefficients at high temperature”, F. Daniel, M.L. Dubernet
25. **Mai 07: ECAMP IX, The 9th European Conference on Atoms Molecules & Photons, Crete**. “Recent Adances in calculating collisional rates for astrophysics”, A. Faure, P. Valiron, L. Wiesenfeld, J. Tennyson, M.L. Dubernet, V. Kokouline, C.H. Greene
26. **Juin 06: SF2A 06, Paris, France**. “Excitation of H<sub>2</sub>O by H<sub>2</sub>: Influence of a new potential energy surface”, M.L. Dubernet, F. Daniel, A. Grosjean, P. Valiron, M. Wernli, L. Wiesenfeld, C. Rist, J. Noga, J. Tennyson
27. **Juin 06: SF2A 06, Paris, France**. “Paris VO Data Center 06: une fédération de laboratoires et de projets autour de l’Observatoire Virtuel, Observatoire de Paris, IAP, IPSL et CEA ”, P. Le Sidaner, M.L. Dubernet, G. Simon
28. **Juin 06: SF2A 06, Paris, France**. “Definition et Implementation of VO Standards for the Access of Atomic and Molecular Linelists”, N. Moreau and M.L. Dubernet
29. **Aout 05: IAU 231, Astrochemistry - Recent Successes and Current Challenges, Asilomar, USA**. “Characterizing the densest parts of dark clouds through N2H+ observations”, F. Daniel, J. Cernicharo, M.L. Dubernet
30. **2004: ICAMDATA**, Toki, Japan. “Atomic and Molecular Databases in the context of Virtual Observatories”. M.L. Dubernet, E. Roueff.
31. **2004: 8th ECAMP**, Rennes. “N<sub>2</sub>H<sup>+</sup> hyperfine cross sections and propensity rules”. F. Daniel, M. L. Dubernet, M. Meuwly.
32. **2004: PCMI**, Gerardmer. “Calculs des taux d’excitation et des élargissements de raies de H<sub>2</sub>O par H<sub>2</sub>”. F. Daniel, M. L. M. Dubernet, A. Grosjean, J. Cernicharo.
33. **2004: PCMI**, Gerardmer. “Excitation des niveaux hyperfins de N<sub>2</sub>H<sup>+</sup> par He : Taux d’excitation et Règles de propensité”. F. Daniel, M. L. Dubernet, M. Meuwly.
34. **2004: SF2A**, Paris. “Rotational excitation of SO by He at low temperature”
35. **2004: European Theonet Meeting**, Bertinoro (Italie). “Rotational excitation of SO by collision with He”. Lique F, Spielfiedel A, Dubernet M L, Senent Diez M.L. and Feautrier N
36. **2004: RCTF**, Pau. “Excitation rotationnelle de SO par He à basse température”. F. Lique, A. Spielfiedel, M. L. Dubernet, N. Feautrier.

37. **2004: SF2A, Paris - 8th ECAMP, Rennes - PCMI, Gerardmer - ICAMDATA, Toki, Japan**, “Ro-vibrational Collisional Excitation Database (<http://basecol.obspm.fr>)”. M. L. Dubernet, B. Debray, F. Daniel, A. Grosjean, D. Flower, E. Roueff, A. Faure, T. Stoecklin, P. Valiron, J. Cernicharo, N. Feautrier, A. Spielfiedel, T. Stoecklin.
38. **2004: SF2A, Paris - 8th ECAMP, Rennes**. “Rotational collisional excitation of  $H_2O$  by  $H_2$ : collisional rate coefficients and pressure broadening/shifting coefficients between 5K and 300K”. F. Daniel, M. L. Dubernet, A. Grosjean.
39. **2004: SF2A, Paris - ICAMDATA, Toki, Japan**. “MOLAT : Atomic and Molecular Physics Databases of the Paris Observatory”. H. Abgrall, M. Bruston, M. Cornille, J. Crovisier, J. Dubau, M.-L. Dubernet-Tuckey, M. Eidelsberg, N. Feautrier, A. Lesage, F. Launay, E. Roueff, F. Rostas, S. Sahal, A. Spielfiedel, C. Stehle, W.-Ü. L. Tchang-Brillet.
40. **2003: ADASS**, Strasbourg. “Access to Atomic and Molecular Data/Databases in the VO”. M.L. Dubernet, B. Debray, A. Grosjean, M. Bruston, F. Combes, M. Cornille, D. Egret, C. Stéhlé, L. Tchang-Brillet, C. Zeippen
41. **2003: SF2A**, Bordeaux. “Hyperfine selective collisional excitation of  $N_2H^+$  by He”. Daniel F. and M.L. Dubernet
42. **2002: PCMI**, Bordeaux. “Excitation collisionnelle rotationnelle de  $H_2O$  par para- $H_2$ ”. A. Grosjean and M.L. Dubernet
43. **2002: PAMO2002**, Bourges. “Excitation collisionnelle ro-vibrationnelle: excitation de  $H_2O$  par  $H_2$ .” M.L. Dubernet and A. Grosjean
44. **2000: MOLEC XIII**, Jerusalem, Israël. “Raman lineshape parameters of  $H_2$ -He: a need for accurate molecular collision calculations”. M.L. Dubernet and P.A. Tuckey
45. **1999: 16th Colloquium on High Resolution Spectroscopy**, Dijon “Comparison between Coupled States (CS) and Semiclassical (SC) calculations of  $Q(j)$  ( $j=0,1,2$ ) line broadening and line shifting parameters in pure  $H_2$ .” X. Bruet, J. Bonamy and M.L. Dubernet-Tuckey
46. **1998: GDR Physico-Chimie du milieu interstellaire**, Toulouse “Des applications dans le MIS?” X. Bruet and M.L. Dubernet-Tuckey.
47. **1998: European CARS workshop**, Besançon “Quantum close coupling calculations of line shape parameters for  $Q(0)$  and  $Q(1)$  lines in pure  $H_2$ ”. X. Bruet and M.L. Dubernet
48. **1997: 15th Colloquium on High Resolution Spectroscopy**, Glasgow, GB. “Pure rotational Raman lines  $S_0(j=0-4)$  of  $H_2$ : frequencies, broadening and shifting coefficients as a function of temperature for different perturbers”. X. Michaut, R. Saint-Loup, H. Berger, M.L. Dubernet, P. Joubert, J. Bonamy and D. Robert
49. **1997: 15th Colloquium on High Resolution Spectroscopy**, Glasgow, GB. “Quantum and semi-classical calculations of line broadening coefficients for  $S_0(j)$  lines of  $H_2$ -He and  $H_2$ -Ar at high temperature. Comparisons with experiment”. M.L. Dubernet, P. Joubert, J. Bonamy, D. Robert, X. Michaut, R. Saint-Loup and H. Berger
50. **1997: European CARS workshop**, Heidelberg, Germany. “Stimulated Raman investigations of pure rotational transitions of  $H_2$ -mixtures for  $H_2$  CARS thermometry”, X. Michaut, R. Saint-Loup, H. Berger, P. Joubert, M.L. Dubernet, J. Bonamy and D. Robert
51. **1996: International conference on Raman Spectroscopy**, Pittsburgh, USA “The  $H_2$  raman Q branch profiles in the diagnostic of cryogenic combustion”, P. Joubert, M.-L. Dubernet, J. Bonamy, D. Robert, J.-P. Berger, P. Sinclair, X. Michaut, R. Saint-Loup and H. Berger
52. **1994: Workshop on Stereodynamics and active control in chemical reaction**, Paris, France. “Theoretical studies of fast ion-molecule reactions”. M.L. Dubernet and F. Rebentrost
53. **1994: MOLEC X**, Salamanca, Spain. “Atom-molécule Van der Waals complexes containing open-shell atoms”. M.L. Dubernet and J.M. Hutson
54. **1994: MOLEC X**, Salamanca, Spain. “Fast diatomic ion - diatom reactions.  $N_2^+(v,j) + H_2 \rightarrow N_2H^+ + H$  (1) et  $H_2^+(v,j) + N_2 \rightarrow N_2H^+ + H$  (2).”. M.L. Dubernet, F. Rebentrost and R.D. Levine
55. **1994: Colloque DIAM**, Albi, France. “Réactions rapides ion diatomique-molécule.  $N_2^+(v,j) + H_2 \rightarrow N_2H^+ + H$  (1) et  $H_2^+(v,j) + N_2 \rightarrow N_2H^+ + H$  (2).”. M.L. Dubernet, F. Rebentrost et R.D. Levine

56. **1994: Colloque DIAM**, Albi, France. "Complexes de Van der Waals atome-molécule où l'atome est à couche ouverte. Surfaces d'énergie potentielle, Spectre de Cl-HCl". M.L. Dubernet et J.M. Hutson
57. **1994: Faraday Discussion 97**, Durham, England. "Atom-molecule Van der Waals complexes containing open-shell atoms". M.L. Dubernet and J.M. Hutson
58. **1993: DIAM**, Bourges, France. "Résonnances de Feshbach dans l'étape initiale de nucléation". M.L. Dubernet and J.M. Hutson
59. **1993: DIAM**, Bourges, France. "Ar-OH(X<sup>2</sup> $\Pi$ ): Détermination de surfaces d'énergie potentielle à partir de données spectroscopiques". M.L. Dubernet and J.M. Hutson
60. **1993: DIAM**, Bourges, France. "Analyse de la dynamique du complexe de Van der Waals Cl-HCl". M.L. Dubernet and J.M. Hutson
61. **1991: ICPEAC XVII**, Brisbane, Australie. "Semi-empirical determination of the Ar-OH interaction potential". M.L. Dubernet, J.M. Hutson and D.R. Flower
62. **1991: ICPEAC XVII**, Brisbane, Australie. "Reactive collisions between ions and polar molecules at low temperatures: application to the C<sup>+</sup>/OH system". M.L. Dubernet, M. Gargaud and R. McCarroll
63. **1991: GDR Physico-Chimie des molécules interstellaires**, Paris, France. "Molécule de van der Waals ar-OH: potentiel intermoléculaire". M.L. Dubernet, D.R. Flower and J.M. Hutson
64. **1991: GDR Physico-Chimie des molécules interstellaires**, Paris, France. "Collisions réactives entre C<sup>+</sup> et OH aux très basses températures". M.L. Dubernet, M. Gargaud and R. McCarroll
65. **1991: DIAM**, Bourges, France. 1 poster sur les molécules de van der Waals. M.L. Dubernet, D.R. Flower and J.M. Hutson
66. **1991: DIAM**, Bourges, France. 1 poster sur les réaction ion-molécule. M.L. Dubernet, M. Gargaud and R. McCarroll
67. **1990: Molec VIII**, Allemagne. "Reactive collisions between ions and polar molecules at low temperatures: application to the C<sup>+</sup>/OH system". M.L. Dubernet, M. Gargaud and R. McCarroll
68. **1990: ATMOP**, Belfast, UK. "Bound states of the OH-Ar dimer". M.L. Dubernet, J.M. Hutson and D.R. Flower
69. **1989: ICPEAC XVI**, New York, USA. 1 poster sur les réactions ion-molecule. M.L. Dubernet and R. McCarroll
70. **1989: GDR Physico-Chimie des molécules interstellaires**, Orsay, France. "Influence de l'orientation du moment dipolaire dans les réactions d'ions et de molécules asymétriques polaires". M.L. Dubernet and R. McCarroll
71. **1988: Molec VII**, Assisi, Italie. 1 poster sur les réactions ion-molecule. M.L. Dubernet and R. McCarroll
72. **1987: Summer School of NATO ASI** "Collision Theory for Atoms and Molecules", Cortona, Italy.
73. **1986: Molec VI**, Aussois, France. "Reactions of ions with polar molecules at very low temperature: perturbed rotational states model". M.L. Dubernet and R. McCarroll

- **PCMI** Programme National Physico-Chimie du Milieu Interstellaire
- **ICAMDATA** International Conference on Atomic and Molecular Data
- **MOLEC** European Conference on Dynamics of Molecular Collisions
- **ICPEAC** International Conference on the Physics of Electronic and Atomic Collisions
- **ATMOP** Atomic and Molecular Processes
- **GDR** Groupement de Recherche
- **DIAM** Colloque sur la Dynamique des Ions, Atomes et Molécules