

CURRICULUM VITAE

Name	Bekhtereva
Given name	Elena
Date of birth	27 September, 1974
Place of birth	Tomsk, Russia
Home address	Tchernykh str., 28-93, Tomsk, 634049, Russia
Place of work	Department of General Physics, Tomsk Polytechnic University,
Position	Full Professor
Number of publications	191 (list of publications in English editions is enclosed)
Scientific degrees	2009 - given Diploma of Doctor of Phys.-Math.Sc. 2008 - defence dissertation of Doctor of Phys.-Math.Sc. 2005 - Academic rank of Assistant Professor in the specialty "Optics" (Decision of High Academic Qualification Commission 48C6(9.12.2005). 2001 - defence dissertation of Candidate of Phys.-Math.Sc.(corresponds to PhD degree)

BIOGRAPHY

2013 - up to now	Professor of General Physics Department of Tomsk Polytechnic University.
2008 - 2013	Professor of Physics Department of Tomsk State University.
2008	Defence of Doctoral thesis in physical-mathematical sciences, speciality code 01.04.02 "Theoretical Physics".
2005 - 2008	Doctorant of Tomsk State University.
2005	Academic rank of Assistant Professor is awarded. Specialty "Optics" (Decision of High Academic Qualification Commission N 48C6(9.12.2005).
2002 - 2005	Post Doctoral position in Tomsk State University. Assistant Professor of Tomsk State University, Physics Department.
2001	Defence of candidate thesis in physical-mathematical sciences, speciality code 01.04.05 "Optics".
1998 - 2001	PhD student of Tomsk State University.
1991 - 1997	Student of Tomsk State University, Physics Department.

GRANTS AND JOINT RESEARCH

- 2016-2018 Volkswagen Foundation Grant Number 90239,
"Sulfur in astrochemistry and astrobiology:
Laboratory and theoretical studies."
- 2016-2017 SOLEIL: AILES-A-High Resolution Interferometer beam-line,
Proposal Number 20160273,
"Line by line analysis of isotopic species
of ammonia for astrophysical interest."
- 2015 DAAD scholarship Personal Number 91578560
for joint research in Technische Universität Braunschweig
and stay during the period 05.06.2015-04.08.2015.

INVITED PROFESSORSHIPS AND JOINT RESEARCH

2001 (three months)	Visiting fellow at University of Science and Technology of China (Hefei, China)
2002 (three months)	Visiting fellow at University of Science and Technology of China (Hefei, China)
2002 (one month)	Professor at University of Bourgogne (Dijon, France)
2003 (two months)	Fellow at University of Wuppertal (Germany)
2003 (five months)	Visiting fellow ETH (Zurich, Switzerland)
2003 (one month)	Associated professor at University of Bourgogne (Dijon, France)
2004 (two months)	Associated professor at University of Science and Technology of China (Hefei, China)
2004 (three months)	Visiting professor at University of Oulu (Oulu, Finland)
2004 (four months)	Visiting fellow ETH (Zurich, Switzerland)
2005 (one month)	Associated professor at University of Bourgogne (Dijon, France)
2005 (five months)	Visiting fellow ETH (Zurich, Switzerland)
2005-2006 (two months)	Visiting professor at University of Science and Technology of China (Hefei, China)
2006 (five months)	Visiting fellow ETH (Zurich, Switzerland)
2007 (five months)	Visiting fellow at ETH (Zurich, Switzerland)
2007 (one month)	Associated professor at University of Bourgogne (Dijon, France)
2008 (five months)	Invited professor at ETH (Zurich, Switzerland)
2009 (one month)	Invited professor at University of Poznan (Poznan, Poland)
2009 (five months)	Invited professor fellow at ETH (Zurich, Switzerland)
2009 (one month)	Invited professor at University of Bourgogne (Dijon, France)
2010 (one month)	Invited fellow at ETH (Zurich, Switzerland)
2010 (two months)	Invited fellow at ETH (Zurich, Switzerland)
2011 (four months)	Invited professor at ETH (Zurich, Switzerland)
2012 (five months)	Invited professor at ETH (Zurich, Switzerland)
2013 (two months)	Invited professor at ETH (Zurich, Switzerland)
2014 (one months)	Invited professor at USTC (Hefei, China)
2014 (two months)	Invited professor at University of Braunschweig (Braunschweig, Germany)
2015 (two months)	Invited professor at University of

2016 (two months)	Braunschweig (Braunschweig, Germany) Invited professor at University of Braunschweig (Braunschweig, Germany)
2017 (two months)	Invited professor at University of Braunschweig (Braunschweig, Germany)

LIST OF PUBLICATIONS

1. Xian-huai Wang, O. N. Ulenikov, G. A. Onopenko, E. S. Bekhtereva, Sheng-gui He, Shui-ming Hu, Hai Lin, and Qing-shi Zhu, "High Resolution Study of the First Hexad of D₂O", J. Mol. Spectrosc., v. 200, p. 25-33 (2000).
2. Sheng-gui He, O. N. Ulenikov, G. A. Onopenko, E. S. Bekhtereva, Xian-huai Wang, Shui-ming Du, Hai Lkn, and Qing-shi Zhu, "Higr Resolution Fourier Transform Spectrum of the D₂O Molecule in the Region of the Second Triad of Interacting Vibrational States", J. Mol. Spectrosc., v. 200, p. 34-39 (2000).
3. Shui-minl Hu, O. N. Ulenikov, G. A. Onopenko, E. S. Bekhtereva, Sheng-gui He, Xiang-huai Wang, Hai Lin, and Qing-shi Zhu, "Bigh Resolution Study of Sgrongly Iiteracting Vibrational Bands of HDO in the Region of 7600 - 8100 cm⁻¹", J. Mol. Spectrosd., v. 203, p. 228-234 (2000).
4. O. N. Ulenikov, H. Bürger, and W. Jerzembeck, Y. A. Onopenko, E. A. Zhabina, and Yu. B. Yuhnik, "High Resolution Stuidy of the $n\nu_2$, $n = 3, 2, 3$, Vib-Rotational Bands of D₂Se", J. Mol. Spectrosc., v. 204, p. 195-203 (2000).
5. O. N. Ulenikov, Sheng-gui He, G. A. Onopenko, E. S. Bekhtereva, Xiang-huai Wang, Shui-ming Hu, Hai Lin, and Qing-shi Zhu, "High Resolution Study of the $(\nu_1 + \nu_2/2 + \nu_3 = 3)$ Poliad of Strongly Interacting Vibrational Bands of D₂O", J. Mol. Spectrosc., v. 204, p. 216-225 (2000).
6. Jing-jing Zheng, O. N. Ulenikov, G. A. Onopenko, E. S. Bekhtereva, Sheng-gui He, Xiann-huai Wang, Shui-ming Hu, Hai Lin, and Qing-shi Zhu, "High Resolution Vibration - Rotation Spectrum of the D₂O Molecule in the Region Near the $(2\nu_1 + \nu_2 + \nu_3)$ Absorption Band", Molec. Phys., v. 99, p. 931-937 (2001).
7. O. N. Ulenikov, Shui-ming Hu, E. S. Bekhtereva, G. A. Onopenko, Xiang-huai Wang, Sheng-gui He, Jing-jing Zheng, and Qing-shi Zhu, "High Resolution Fourier Transform Spectrum of HDO in the Region of 6140 - 7040 cm⁻¹", J. Mol. Spectrosc., v. 208, p. 224-235 (2001).
8. O. N. Ulenikov, G. A. Onopenko, E. S. Bekhtereva, E. A. Sinitsin, H. Bürger, and W. Jerzembeck, "Isotopic Effects in the XH₃ (C_{3v}) Molecules: The Lowest Vibrational Bands of PH₂D", J. Mol. Spectrosc., v. 208, p.

9. Jing-jing Zheng, O. N. Ulenikov, E. S. Bekhtereva, Yun Ding, Sheng-gui He, Shui-ming Hu, Xiang-huai Wang, and Qing-shi Zhu, "High Resolution Rotational Analysis of Deuterated Hypochlorous Acid: Ground State, (100) and (020) Vibrational Bands", *J. Mol. Spectrosc.*, v. 209, p. 105-115 (2001).

10. Yun Ding, O. N. Ulenikov, E. S. Bekhtereva, Jing-jing Zheng, Sheng-gui He, Shui-ming Hu, Xiang-huai Wang, and Qing-shi Zhu, "High Resolution Rotational Analysis of the Lowest D - O Overtone Bands of Deuterated Hypochlorous Acid: $2\nu_1$ and $3\nu_1$ ", *J. Mol. Spectrosc.*, v. 209, c. 233-241 (2001).

11. O. N. Ulenikov, Shui-ming Hu, E. S. Bekhtereva, G. A. Onopenko, Xiang-huai Wang, Sheng-gui He, Jing-jing Zheng, and Qing-shi Zhu, "High Resolution Fourier Transform Spectrum of D₂O in the Region Near 0.97 μm ", *J. Mol. Spectrosc.*, v. 210, p. 18-27 (2001).

12. O. N. Ulenikov, H. Bürger, and W. Jerzembeck, G. A. Onopenko, E. S. Bekhtereva, and O. L. Petrunina, "On the Ground Vibrational States of the PH₂D and PHD₂ Molecules", *J. Mol. Struct.*, v. 599, p. 225-237 (2001).

13. Shui-ming Hu, O. N. Ulenikov, E. S. Bekhtereva, G. A. Onopenko, Sheng-gui He, Hai Lin, Ji-Xin Cheng, and Qing-shi Zhu, "High Resolution Fourier Transform Intra-Cavity Laser Absorption Spectroscopy of D₂O in the Region of the $4\nu_1 + \nu_3$ Band", *J. Mol. Spectrosc.*, v. 212, p. 89-95 (2002).

14. O. N. Ulenikov, E. S. Bekhtereva, O. L. Petrunina, H. Bürger, and W. Jerzembeck, "High Resolution Study of the Three Lowest Infrared Bands of PHD₂", *J. Mol. Spectrosc.*, v. 214, p. 1-10 (2002).

15. O. N. Ulenikov, E. S. Bekhtereva, H. A. Onopenko, and E. A. Sinitsin, "On the Determination of the Equilibrium Structure of the PH₃ Molecule", *J. Mol. Spectrosc.*, v. 216, p. 252-258 (2002).

16. O. N. Ulenikov, E. S. Bekhtereva, V. A. Kozinskaia, Jing-jing Zheng, Sheng-gui He, Shui-ming Hu, Qing-shi Zhu, C. Leroy, and L. Pluchart, "On the Study of Resonance Interactions and Splittings in the PH₃ Molecule: ν_1 , ν_3 , $\nu_2 + \nu_4$, and $2\nu_4$ Bands", *J. Mol. Spectrosc.*, v. 215, p. 295-308 (2002).

17. O. N. Ulenikov, O. L. Petrunina, E. S. Bekhtereva, E. A. Sinitsin, H.

Bürger, and W. Jerzembeck, "High Resolution Infrared Study of PHD₂: The P - H Stretching Bands ν_1 and $2\nu_1$ ", J. Mol. Spectrosc., v. 215, p. 85-92 (2002).

18. O. N. Ulenikov, E. S. Bekhtereva, O. L. Khabibulina, H. Bürger, and W. Jerzembeck, "High Resolution Study of the ν_1/ν_5 and $2\nu_1/\nu_1 + \nu_5$ P - H Stretching Bands of PH₂D", J. Mol. Spectrosc., v. 219, p. 13-29 (2003).

19. O. N. Ulenikov, E. S. Bekhtereva, O. L. Khabibulina, H. Bürger, and W. Jerzembeck, "Rotational Analysis of the ν_2 and $2\nu_2$ P - D Stretching Bands of PH₂D", J. Mol. Spectrosc., v. 217, p. 288-297 (2003).

20. O. N. Ulenikov, E. S. Bekhtereva, T. D. Homiak, T. R. Huet, F. Herregodts, H. Bürger, and W. Jerzembeck, "High Resolution Study of the $6\nu_1$ P - H Stretching Band of the PHD₂ Molecule", J. Mol. Spectrosc., v. 222, p. 153-158 (2003).

21. O. N. Ulenikov, Yu. B. Yuhnik, E. S. Bekhtereva, N. E. Tyabaeva, H. Bürger, W. Jerzembeck, and L. Fusina, "High Resolution Fourier Transform Spectrum of PD₃ in the Region of the Stretching Overtone Bands $2\nu_1$ and $\nu_1 + \nu_3$ ", J. Mol. Spectrosc., v. 221, p. 250-260 (2003).

22. O. N. Ulenikov, E. S. Bekhtereva, V. A. Kozinskaia, Jing-jing Zheng, Sheng-gui He, Shui-ming Hu, Qing-shi Zhu, C. Leroy, and L. Pluchart, "High Resolution Spectrum of the $\nu_1 + \nu_4(E)$, $\nu_1 + \nu_4(E)$, $\nu_3 + \nu_4(E)$, $\nu_3 + \nu_4(A_1)$, and $\nu_3 + \nu_4(A_2)$ Bands of the PH₃ Molecule: Assignment and Preliminary Analysis", JQSRT, v. 83, p. 599-618 (2004).

23. O. N. Ulenikov, Yu. B. Yuhnik, E. S. Bekhtereva, N. E. Tyabaeva, H. Bürger, W. Jerzembeck, and L. Fusina, "Erratum to "High Resolution Fourier Transform Spectrum of PD₃ in the Region of the Stretching Overtone Bands $2\nu_1$ and $\nu_1 + \nu_3$ ", J. Mol. Spectrosc., v. 224, p. 194-195 (2004).

24. O. N. Ulenikov, A. -W. Liu, E. S. Bekhtereva, O. V. Gromova, L. -Y. Hao, S. -M- Hu, "On the Study of High Resolution Rovibrational Spectrum of H₂S in the Region of 7300 - 7900 cm⁻¹", J. Mol. Spectrosc., v. 226, p. 57-70 (2004).

25. O. N. Ulenikov, E. S. Bekhtereva, S. V. Grebneva, H. Bürger, W. Jerzembeck, and C. Leroy, "High Resolution Study of Some Doubly Excited Vibrational States of PH₂D: The $\nu_1 + \nu_2$, $\nu_2 + \nu_5$, $\nu_2 + \nu_3$, and $\nu_2 + \nu_6$

Bands", J. Mol. Spectrosc., v. 226, p. 7-23 (2004).

26. O. N. Ulenikov, E. S. Bekhtereva, N. A. Sanzharov, and Per Jensen, "A Refined Potential Energy Function for the Electronic Ground State of H₂Se", J. Mol. Spectrosc., v. 227, p. 1-12 (2004).

27. O. N. Ulenikov, A. -W. Liu, E. S. Bekhtereva, S. V. Grebneva, W. -P. Deng, O. V. Gromova, and S. -M. Hu, "High-Resolution Fourier Transform Spectrum of H₂S in the Region of 8500 - 8900 cm⁻¹", J. Mol. Spectrosc., v. 228, p. 110-119 (2004).

28. O. N. Ulenikov, E. S. Bekhtereva, S. V. Grebneva, H. Hollenstein, and M. Quack, "High Resolution Fourier Transform Spectrum of CH₂D₂ in the Region of 2350 - 2650 cm⁻¹: The Bands $\nu_5 + \nu_7$, $2\nu_9$, $\nu_3 + \nu_4$, $\nu_3 + \nu_7$, and $\nu_5 + \nu_9$ ", Phys. Chem. Chem. Phys., v. 7(6), p. 1142-1150 (2005).

29. O. N. Ulenikov, S. -M. Hu, E. S. Bekhtereva and Q. -S. Zhu, "On the Study of High Resolution Rovibrational Spectrum of HDO in the Region of 8900 - 9500 cm⁻¹: Some Remarks about "Effective Hamiltonians" Conception", J. Mol. Spectrosc., v. 231, p. 57-65 (2005).

30. J. Lohilahti, O. N. Ulenikov, E. S. Bekhtereva, V. -M. Horneman, and S. Alanko, "The Fundamental Bands ν_3 /, ν_4 , and ν_6 of D₂¹³CO", J. Mol. Spectrosc., v. 231, p. 108-116 (2005).

31. L. Pluchart, C. Leroy, N. A. Sanzharov, F. Michelot, E. S. Bekhtereva, and O. N. Ulenikov, "Vibrational Modes of the Stibine Molecule", J. Mol. Spectrosc., v. 232, p. 107-124 (2005).

32. C. Leroy, O. N. Ulenikov, E. S. Bekhtereva, G. A. Onopenko, and T. D. Chudinova, and "High-Resolution Study of the Six Lowest Doubly Excites Vibrational States of PH₂D", J. Mol. Spectrosc., v. 234, p. 228-237 (2005).

33. O. N. Ulenikov, A. -W. Liu, E. S. Bekhtereva, O. V. Gromova, L. -Y. Hao, and S. -M. Hu, "High-Resolution Fourier Transform Spectrum of H₂S in the Region of the Second Hexade", J. Mol. Spectrosc., v. 234, p. 287-295 (2005).

34. O. N. Ulenikov, E. S. Bekhtereva, Yu. B. Yuhnik, and H. Bürger, "A High Resolution Infrared Study of the ν_1 and ν_3 Bands, and the Equilibrium Structure of AsD₃", J. Mol. Struct., v. 780-781, p. 115-123 (2006).

35. J. Lohilahti, O. N. Ulenikov, E. S. Bekhtereva, S. Alanko, and R. Anttila "High Resolution Infrared Study of D₂CO in the Region of 1780-2400 cm⁻¹: Assignment and Preliminary Analysis", J. Mol. Struct., v. 780-781, p. 182-205 (2006).
36. A. -W. Liu, O. N. Ulenikov, G. A. Onopenko, O. V. Gromova, E. S. Bekhtereva, L. Wan, L. - Y. Hao, S. -M. Hu, and J. -M. Flaud, "Global Fit of the High Resolution Infrared Spectrum of D₂S", J. Mol. Spectrosc., v. 238, p. 23-40 (2006).
37. O. N. Ulenikov, An-Wen Liu, E. S. Bekhtereva, G. A. Onopenko, O. V. Gromova, L. Wan, Shui-Ming Hu, and J. -M. Flaud, "Joint Ro-Vibrational Analysis of the HDS High Resolution Infrared Data", J. Mol. Spectrosc., v. 240, p. 32-44 (2006).
38. O. N. Ulenikov, E. S. Bekhtereva, A. S. Bulavenkova, C. Leroy, and H. Bürger, "High Resolution Study of AsHD₂: Ground State and Three Lowest Bending Fundamental Bands, ν_3 , ν_4 , and ν_6 ", J. Mol. Spectrosc., v. 240, p. 102-111 (2006).
39. O. N. Ulenikov, E. S. Bekhtereva, S. V. Grebneva, H. Hollenstein, and M. Quack, "High Resolution Ro-Vibrational Analysis of Vibrational States of A₂ Symmetry of the Dideuterated Methane CH₂D₂: States ν_5 and $\nu_7 + \nu_9$ ", Molec. Phys., v. 104, p. 3371-3386 (2006).
40. N. A. Sanzharov, C. Leroy, E. S. Bekhtereva, and O. N. Ulenikov, "On the Study of the Vibrational Energies of Arsine Molecule", J. Mol. Spectrosc., v. 247, p. 1-24 (2008).
- 414 O. N. Ulenikov, E. S. Bekhtereva, O. V. Gromova, T. V. Chudinova, W. Jerzembeck, and H. Bürger, "High Resolution IR Spectrum of AsH₂D: Ro-vibrational Analysis of the Bending Triad Bands ν_3 , ν_4 , and ν_6 ", J. Mol. Spectrosc., v. 251, p. 114-122 (2008).
42. O. N. Ulenikov, E. S. Bekhtereva, C. Leroy, and O. V. Gromova, "On the Determination of the Intramolecular Potential Function for a Polyatomic Molecule: H₂S", Russ. Phys. J., v. 51, p. 18 - 25 (2008).
43. O. N. Ulenikov, E. S. Bekhtereva, Yu. B. Yukhnik, O. G. Vershinina, and H. Bürger, "High-Resolution Study of AsH₂D Stretching Fundamental

Bands: ν_2 and ν_1/ν_5 ", J. Mol. Spectrosc., v. 252, p. 41-46 (2008).

44. O. N. Ulenikov, E. S. Bekhtereva, S. Albert, S. Bauerecker, H. Hollenstein, and M. Quack, "High Resolution Near Infrared Spectroscopy and Vibrational Dynamics of Dideuteromethane (CH_2D_2)", J. Phys. Chem. A, v. 113, p. 2218-2231 (2009).

45. O. N. Ulenikov, E. S. Bekhtereva, C. Leroy, O. V. Gromova, and A. L. Fomchenko, "On the Determination of Intramolecular Potential Energy Surface of Polyatomic Molecules: Hydrogen Sulfide and Formaldehyde as an Illustration", J. Mol. Spectrosc., v. 255, p. 88 - 100 (2009).

46. O. N. Ulenikov, E. S. Bekhtereva, V. -M. Horneman, S. Alanko, and O. V. Gromova, "High Resolution Study of the $3\nu_1$ Band of SO_2 ", J. Mol. Spectrosc., v. 225, p. 111 - 121 (2009).

47. O. N. Ulenikov, E. S. Bekhtereva, and C. Leroy, "On the local Mode Behaviour of the XH_2/XD_2 and XD/XH Fragments with Respect to the Deuterated Species of the Near Local Mode $\text{XH}_3(\text{C}_{3v})$ Molecule", Molec. Phys., v. 107, p. 1409 - 1416 (2009).

48. O. N. Ulenikov, E. S. Bekhtereva, S. Alanko, V. -M. Horneman, O. V. Gromova, and C. Leroy, "On the High Resolution Spectroscopy and Intramolecular Potential Function of SO_2 ", J. Mol. Spectrosc., v. 257, p. 137 - 156 (2009).

49. O. N. Ulenikov, G. A. Onopenko, E. S. Bekhtereva, T. M. Petrova, A. M. Solodov, A. A. Solodov, "High Resolution Study of the $\nu_5 + \nu_{12}$ Band of C_2H_4 ", Molec. Phys., v. 108(5), p. 637 - 647 (2010).

50. O. N. Ulenikov, E. S. Bekhtereva, S. Albert, S. Bauerecker, H. Hollenstein, and M. Quack, "High Resolution Infrared Spectroscopy and Global Vibrational Analysis for the CH_3D and CHD_3 Isotopomers of Methane", Molec. Phys., v. 108(7-9), p. 1209 - 1240 (2010).

51. O. N. Ulenikov, E. S. Bekhtereva, S. Alanko, V. -M. Horneman, O. V. Gromova, and C. Leroy, "On the Study of Highly Excited "Hot" Bands in the SO_2 Molecule: $\nu_2 + 3\nu_3 - \nu_2$ and $2\nu_1 + \nu_2 + \nu_3 - \nu_2$ ", Molec. Phys., v. 108(10), p. 1253 - 1261 (2010).

52. O. N. Ulenikov, E. S. Bekhtereva, C. Leroy, and A. L. Fomchenko, "On

the "Expanded Local Mode" Approach Applied to the Methane Molecule", J. Mol. Spectrosc., v. 264, p. 61 - 65 (2010).

53. O. N. Ulenikov, O. V. Gromova, E. S. Bekhtereva, C. Leroy, I. B. Bolotova, V. -M. Horneman, and S. Alanko, "High Resolution Study of the $\nu_1 + 2\nu_2 - \nu_2$ and $2\nu_2 + \nu_3 - \nu_2$ "Hot" Bands and Ro-Vibrational Re-Analysis of the $\nu_1 + \nu_2/\nu_2 + \nu_3/3\nu_2$ Poliad of the SO₂ Molecule", Journal of Quantitative Spectroscopy and Radiative Transfer, v. 112, p. 486 - 512 (2011).

54. O. N. Ulenikov, A. L. Fomchenko, E. S. Bekhtereva, O. V. Gromova, and C. Leroy, "On the "Expanded Local Mode" Approach Applied to the Methane Molecule: Isotopic Substitution CH₂D₂ \leftarrow CH₄", Molec. Phys., v. 109, p. 2111- 2130 (2011).

55. O. N. Ulenikov, O. V. Gromova, E. S. Bekhtereva, I. B. Bolotova, I. A. Konov, V. -M. Horneman, and C. Leroy, "High Resolution Analysis of the SO₂ Spectra in the Region of 2600 - 2900 cm⁻¹: $2\nu_3$, $\nu_2 + 2\nu_3 - \nu_2$, and $2\nu_1 + \nu_2$ Bands", Journal of Quantitative Spectroscopy and Radiative Transfer, v. 113, p. 500 - 517 (2012).

56. O. N. Ulenikov, E. S. Bekhtereva, M. R. Konova, Yu. V. Krivchikova, and V. -M. Horneman, "On the Improvement of the Rotational Structure of ¹³CH₃D Ground Vibrational State", Molec. Phys., v. 111, p. 2228 - 2232 (2013).

57. O. N. Ulenikov, G. A. Onopenko, O. V. Gromova, E. S. Bekhtereva, and V. -M. Horneman, "Re-Analysis of the (100), (001), and (020) Rotational Structure of SO₂ on the Basis of High Resolution FTIR Spectra", Journal of Quantitative Spectroscopy and Radiative Transfer, v. 130, p. 220 - 232 (2013).

58. O. N. Ulenikov, O. V. Gromova, E. S. Bekhtereva, A. S. Belova, S. Bauerecker, C. Maul, C. Sydow, and V. -M. Horneman "High Resolution Analysis of the (111) Vibrational State of SO₂", Journal of Quantitative Spectroscopy and Radiative Transfer, v. 144, p. 1 - 10 (2014).

59. O. N. Ulenikov, O. V. Gromova, E. S. Bekhtereva, N. I. Raspopova, P. G. Sennikov, M. A. Koshelev, I. A. Velmuzhova, A. P. Velmuzhov, and A. D. Bulanov, "High Resolution Study of ^MGeH₄ ($M = 76, 74$) in the Dyad Region", Journal of Quantitative Spectroscopy and Radiative Transfer, v. 144, p. 11 - 26 (2014).

60. O. N. Ulenikov, O. V. Gromova, E. S. Bekhtereva, G. A. Onopenko, Yu. S. Aslapovskaya, S. Bauerecker, and V. -M. Horneman, "High Resolution FTIR Study of the Lowest Hot Bands of C_2H_4 ", *Journal of Quantitative Spectroscopy and Radiative Transfer*, v. 149, p. 318 - 333 (2014).
61. O. N. Ulenikov, E. S. Bekhtereva, A. L. Fomchenko, A. G. Litvinskaya, C. Leroy, and M. Quack, "On the "Expanded Local Mode" Approach Applied to the Methane Molecule: Isotopic Substitution $CH_3D \leftarrow CH_4$ and $CHD_3 \leftarrow CH_4$ ", *Molecular Physics*, v. 112, p. 2529 - 2556 (2014).
62. O. N. Ulenikov, O. V. Gromova, E. S. Bekhtereva, C. Maul, S. Bauerecker, M. G. Gabona, and T. L. Tan, "High Resolution Ro- Vibrational Analysis of Interacting Bands ν_4 , ν_7 , ν_{10} , and ν_{12} of $^{13}C_2H_4$ ", *Journal of Quantitative Spectroscopy and Radiative Transfer*, v. 151, p. 224 - 238 (2014).
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