

YUAN-PERN LEE (李遠鵬)

September 15, 2015

WORK ADDRESS:

新竹市國立交通大學應用化學系
暨分子科學研究所

Department of Applied Chemistry &
Institute of Molecular Science
National Chiao Tung University
Hsinchu, Taiwan 30010

TEL: (886)3-5131459

FAX: (886)3-5713491

E-mail: yplee@mail.nctu.edu.tw

HOME ADDRESS:

新竹市林森路57號9F
9F, 57, Lin-Shen Rd.
Hsinchu, Taiwan 300

TEL: (886)3-5255861

BIRTH: January 25, 1952 (in Hsinchu, Taiwan)

CITIZENSHIP: Taiwan

FAMILY: Married, with one daughter and one son

EDUCATION:

- B.S. (Chemistry), National Taiwan University, Taipei, Taiwan
August, 1969 – June, 1973.
- Ph.D. (Chemistry), University of California, Berkeley, CA, U. S. A.
September, 1975 – August, 1979.

EMPLOYMENT:

- Research Associate, Aeronomy Laboratory, National Oceanic and Atmospheric Administration–Environmental Research Laboratories (September, 1979 - August, 1981).
- Associate Professor, Department of Chemistry, National Tsing Hua University (August, 1981 – July, 1985).
- Professor, Department of Chemistry, National Tsing Hua University (August, 1985 – July, 2004).
- Chair Professor, Department of Applied Chemistry & Institute of Molecular Science, National Chiao Tung University (August, 2004 – present).
- Adjunct Research Fellow, Institute of Atomic & Molecular Sciences, Academia Sinica (April, 1988 – present).

ADMINISTRATIVE or VISITING POSITION:

- Director, NSC Regional Instrument Center at NTHU (1991 – 2003).
- Director, Institute of Molecular Science, National Chiao Tung University (August, 2004 – July, 2007).
- Dean, College of Science, National Chiao Tung University (August, 2005 – July, 2008).

- Endowed Chair on Advanced Energy Engineering (Mitsubishi Heavy Industries Ltd.), University of Tokyo, Japan (January-March, 1997).
講座教授(三菱重工業「先端能量工程」寄付講座教員), 日本東京大學。
- Visiting Scholar, University of California, Berkeley, CA, USA, (Sept. – Nov. 2002).
- Visiting Scholar, Stanford University, Stanford, CA, USA, (Feb. – May. 2009).
- JSPS Research Fellow, Japanese Society for the Promotion of Science (2009/7 – 2009/9)

MEMBERSHIP IN TECHNICAL SOCIETIES:

American Physical Society, fellow
Chinese Chemical Society in Taiwan
Asian Photochemistry Association

HONOR and AWARDS:

- ☺ Member of The World Academy of Sciences (TWAS), 2011.
世界科學院(TWAS)院士。
- ☺ 16th Excellent Academic Achievement Award, (The Phi Tau Phi Scholastic Honor Society of the Republic of China), 2011.
中華民國斐陶斐榮譽學會第16屆傑出成就獎。
- ☺ APA Award, (Asian and Oceanian Photochemistry Association), 2010.
亞洲及大洋洲光化學會傑出成就獎。
- ☺ Academician (Academia Sinica), 2008.
中央研究院第二十七屆院士。
- ☺ National Chair Professor (Ministry of Education, Taiwan), 1997-2000, 2000-2003.
教育部第一屆及四屆國家講座。(連得兩次, 已為終身榮譽)
- ☺ Outstanding Teaching Award (National Tsing Hua University), 1986及2000.
清華大學傑出優良教師(兩次)。
- ☺ Fellow (American Physical Society), 1999.
美國物理學會會士
Citation: "For developing and applying novel spectroscopic techniques for characterizing radical species, particular their kinetics and unstable structure"
- ☺ Academic Achievement Medal (The Chinese Chemical Society), 1996.
中國化學會八十五年化學學術獎章。
- ☺ Outstanding Scholarship (Foundation for the Advancement of Outstanding Scholarship, Taiwan), 1995-2000, 2003-2008, 2008-2013.
傑出人才講座(三次)。
- ☺ Award for Outstanding Principal Investigators (National Science Council, Taiwan), 1995-1998, 1998-2001.
國科會特約研究人員獎助(兩次, 每次三年)及傑出特約研究人員獎(2002)。
- ☺ Outstanding Research Award (National Science Council, Taiwan), 1989-1995.
國科會傑出研究獎(四次, 每次兩年)。
- ☺ 16th Wu Shan-Liang Award, 1993.
第十六屆吳三連獎。

- ☺ Academic Achievement Award in Science (Ministry of Education, Taiwan), 1990.
教育部理科學術獎。
- ☺ Chung-Shan Academic Research Award, 1988.
中山學術著作獎。

INVITED LECTURES IN INTERNATIONAL CONFERENCES:

1. "Product determination of some radical reactions using matrix-isolation/ FTIR detection", *Workshop on Stratospheric Ozone Chemistry*, Chemical Manufacturer's Association, Boulder, CO, U.S.A., June 27, 1986.
2. "Product determination of gaseous atmospheric reactions using matrix isolation-FTIR detection", *Symposium on Physical Chemical Problems in the Earth's Atmosphere*, 196th ACS National Meeting at Los Angeles, California, U.S.A., Sept. 26-30, 1988.
3. "Spectroscopy and photochemistry of small molecules in matrices", *Gordon Research Conference on Physics and Chemistry of Matrix Isolated Species*, Plymouth, New Hampshire, U.S.A., July 8-12, 1991.
4. "Spectroscopy and kinetics of radicals of atmospheric interest", *Twenty First International Symposium on Free Radicals*, Williamstown, Massachusetts, U.S.A., Aug. 4-9, 1991. (Plenary talk)
5. "Spectroscopic studies of small radicals (CH_3SO and CH_3S)", *SPIE Conference (Laser Techniques for State-Selected and State-to-State Chemistry)*, International Society for Optical Engineering, Los Angeles, California, U.S.A., Jan. 21-23, 1993.
6. "Application of the broadband CARS to the temperature measurements of propellant flames", *XIVth International Conference on Raman Spectroscopy*, Kowloon, Hong Kong, Aug. 22-26, 1994.
7. "Kinetics of free radicals of atmospheric interest", *4th Eurasia Conference on Chemical Sciences*, Kuala Lumpur, Malaysia, Dec. 17-20, 1994.
8. "Application of time-resolved Fourier-transform spectroscopy to chemical kinetics and dynamics", *12th Interdisciplinary Laser Science Conference (ILS-XII)*, Rochester, New York, U.S.A., Oct. 20-25, 1996.
9. "Matrix effects on laser photolysis of small molecules", *International Conference on Chemistry and Physics in Matrices*, Spital am Pyhrn, Austria, Aug. 2-7, 1997. (keynote speech)
10. "Time-resolved Fourier-transform spectroscopy – application to kinetics and dynamics", *First Japan-Taiwan Workshop on Molecular Dynamics*, Okazaki, Japan, March 24-26, 1997.
11. "Unravel laser photodissociative processes with time-resolved Fourier-transform IR spectroscopy", *The Second Joint Meeting of the World-Wide Chinese Physicists*, Taipei, Taiwan, Aug. 11-15, 1997.
12. "Two-color resonant four-wave mixing spectroscopy of CH in a flame", *Second Japan-Taiwan Workshop on Molecular Dynamics*, Hsi-tou, Taiwan, March 18-20, 1998.
13. "Applications of time-resolved Fourier-transform spectroscopy to photochemical studies", *XXIII Informal Conference on Photochemistry*, Pasadena, California, U. S. A., May 10-15, 1998.

14. "Application of step-scan Fourier-transform spectroscopy to gas kinetics", *French-Taiwanese Scientific Workshop on Molecular Dynamics and Dynamics of Alkali-Hydrogen Reactions*, Orsay, Franch, Oct. 12-14, 1998.
15. "Application of step-scan fourier-transform spectroscopy to gas kinetics", *3rd Japan-Taiwan Workshop on Chemical Kinetics*, Kyoto, Japan, March, 16-21, 1999.
16. "Formation and identification of novel isomeric species using matrix isolation technique", *Third International Conference on Low Temperature Chemistry*, Nagoya, Japan, July 26-30, 1999.
17. "Study of highly-predissociative states of free radicals using two-color resonant four-wave mixing technique", *Twenty-fifth International Symposium on Free Radicals*, Flagstaff, Arizona, U. S. A., Aug. 15-20, 1999. (Plenary talk)
18. "Formation and identification of novel isomeric species isolated in inert matrices", *Eighth Asian Chemical Congress*, Taipei, Taiwan, Nov. 22-24, 1999.
19. "Application of time-resolved Fourier-transform spectroscopy to photochemical studies", *Trombay Symposium on Radiation & Photochemistry (TSRP-2000)*, Mumbai (Bombay), India, Jan. 12-17, 2000.
20. "Three-center vs. four-center HCl-elimination in photolysis of vinyl chloride at 193 nm: bimodal rotational distribution of HCl ($v \leq 7$) detected with time-resolved Fourier-transform spectroscopy", Y.-P. Lee, *4th Japan-Taiwan Workshop on Chemical Kinetics*, Kaoshung, Taiwan, March, 14-17, 2000.
21. "Three-center vs. four-center elimination in photolysis of vinyl halides at 193 nm : bimodal rotational distribution of HX detected with time-resolved Fourier-transform spectroscopy", *The Fourth Asian International Seminar on Atomic and Molecular Physics*, Taipei, Taiwan, Oct. 13-18, 2000.
22. "Application of time-resolved Fourier-transform spectroscopy to dissociation dynamics", *Fourier-transform Spectroscopy 2001 Topical Meeting, Optical Society of America*, Coeur d'Alene, Idaho, U. S. A., Feb. 5-8, 2001.
23. "In search of spectral evidence of CH_2^+ ", *NRC-NSC Canada-Taiwan Workshop on Molecular Spectroscopy & Dynamics*, Ottawa, Canada, May 10-11, 2001.
24. "Production and identification of unusual species in matrices", *Euroconference Matrix 2001, The Chemistry and Physics of Matrix Isolated Species*, Wroclaw, Poland, July 7-13, 2001. (Plenary talk)
25. "Studying Reaction Intermediates and Reaction Dynamics/ Kinetics with Time-Resolved Fourier-transform Spectroscopy", *Twenty-sixth International Symposium on Free Radicals*, Assisi, Italy, Sept. 2-7, 2001. (Plenary talk)
26. "Application of Time-Resolved Fourier-Transform Spectroscopy to Photo-induced Systems: Reaction Intermediates and Kinetics", *Third Asian Photochemistry Conference*, Juhu Beach, Mumbai, India, Jan. 6-11, 2002.
27. "Application of Time-resolved Fourier-transform Spectroscopy to Reaction Dynamics", *Academia Sinica – Israel Academy of Sciences and Humanities Meeting Chemical Dynamics: From Small Molecules to Biomolecules*, Taipei, Taiwan, May 9-10, 2002.
28. "Structure and Reactivity of Challenging Molecular Systems by Novel Experimental Techniques", *Fifth Anniversary Celebration of NSC-NRC Collaborative Research*, Taipei, Taiwan, June 24-25, 2002.

29. "Photolysis of Oxalyl Chloride(ClCO)₂ at 248 nm : Emission of CO detected with time-resolved Fourier-transform spectroscopy", *The Fifth Asian International Seminar on Atomic and Molecular Physics (AI SAMP5)*, Nara, Japan, Oct. 1-5, 2002.
30. "Spectral Studies of Unstable Species Using Resonant Four-Wave Mixing and Time-resolved FTIR", *Kobe International Symposium 2002: Molecular Spectroscopy and Dynamics*, Kobe, Japan, Oct. 31-Nov. 2, 2002. (Plenary talk)
31. "Reaction dynamics of $\text{Cl} + \text{H}_2\text{S}$: rotational and vibrational distribution of HCl probed with time-resolved Fourier-transform spectroscopy", *Seventh East Asian Workshop on Chemical Reactions*, Taipei, Taiwan, March 27-29, 2003.
32. "Studies of Chemical Dynamics and Reaction Intermediates Using Time-Resolved Fourier-Transform Spectroscopy", *3rd Singapore International Chemical Conference (SICC-3)*, Singapore, Dec. 15-17, 2003.
33. "Four-center elimination in photolysis of fluorobenzene at 193 nm: internal energies of HF determined with time-resolved Fourier-transform spectroscopy", *Trombay Symposium on Radiation & Photochemistry (TSRP-2004)*, Mumbai (Bombay), India, Jan. 8-12, 2004.
34. "Applications of Time-Resolved Fourier-Transform Spectroscopy to Chemical Dynamics", *Conference on Physical Chemistry (CPC2004)*, Royal Australian Chemical Institute, Hobart, Tasmania, Australia, Feb. 1-5, 2004.
35. "Photodissociation dynamics using time-resolved Fourier-transform spectroscopy", *The 8th East Asian Workshop on Chemical Reactions*, Okazaki, Japan, March 8-10, 2004.
36. "Three-center and Four-center Elimination in Photodissociation: Internal Energy Distributions Probed with Time-resolved Fourier-transform Spectroscopy", *Gordon Research Conference on Atomic and Molecular Interactions*, New London, New Hampshire, U. S. A., July 11-16, 2004.
37. "Study of highly predissociative states with four-wave mixing spectroscopy", *Symposium Kanazawa 2004 – New Developments in High Resolution Molecular Spectroscopic Studies*, Kanazawa, Japan, Nov. 11-13, 2004.
38. "Production and IR characterization of novel species using matrix isolation", *The Fourth Asian Photochemistry Conference*, Taipei, Taiwan, Jan. 5-12, 2005. (Plenary talk)
39. "Spectroscopy for unstable species", *Annual meeting of the Spectroscopical Society of Japan*, Tokyo, Japan, May 10-12, 2005.
40. "Investigations of dynamics with time-resolved Fourier-transform spectroscopy", *21st Symposium on Chemical Kinetics and Dynamics*, Osaka, Japan, June 1-3, 2005.
41. "Studies of Gaseous Reaction Dynamics and Intermediates Using Time-Resolved Fourier-Transform Infrared Spectroscopy", *First Asian Spectroscopy Conference*, Bangalore, India, Jan. 29 – Feb. 3, 2007. (Plenary talk)

42. "Application of step-scan time-resolved Fourier-transform infrared spectroscopy to reaction dynamics and intermediates", *62nd OSU International Symposium on Molecular Spectroscopy*, Columbus, Ohio, U. S. A., June 18-22, 2007. (Plenary talk)
43. "Spectroscopy with the p-H₂ matrix", *Gordon Conference on Matrix Isolated Species, Physics & Chemistry*, Bates College, Lewiston, Maine, U. S. A., July 15-20, 2007.
44. "Experimental and theoretical investigations of unstable species: CH₃OO and C₆H₅O", Y.-P. Lee, *Joint Symposium on Computational Chemistry*, Hanoi, Vietnam, Dec. 21-22, 2007.
45. "Rovibronic bands of the A ²B₂ ← X ²B₁ transition of C₆H₅O and C₆D₅O detected with cavity ringdown absorption near 1.15-1.32 μm", *2008 ACS Meeting*, New Orleans, LA, U. S. A., April 6-10, 2008.
46. "Spectroscopy of small molecules in solid p-H₂", *The Seventh International Conference on Low Temperature Chemistry, ICLTC7*, Helsinki, Finland, August, 24-28, 2008. (Plenary talk)
47. "Studies of Reaction Dynamics and Intermediates using Time-resolved Fourier-transform Infrared Spectroscopy", *The 3rd BK21 International Symposium on Materials Chemistry 2008*, Busan, Korea, Oct. 20, 2008.
48. "Infrared absorption of matrix-isolated vinyl radicals", *Workshop on vinyl*, Fukuoka, Japan, Oct. 30-31, 2008. (fail to attend due to health reasons)
49. "Studies of Reaction Dynamics and Intermediates using Time-resolved Fourier-transform Infrared Spectroscopy", *The 5th Asian Photochemistry Conference*, Beijing, China, Nov. 1-4, 2008. (fail to attend due to health reasons)
50. "Rotation and Reaction of small molecules in solid p-H₂", *Dynamics and Spectroscopy of Small Molecules and Biomolecules*, Taipei, Taiwan, Nov. 9-12, 2008.
51. "Studies of reaction dynamics and intermediates using time-resolved fourier-transform infrared spectroscopy", *The 3rd Winter School of Asian CORE program: "Frontiers of Materials, Photo-, and Theoretical Molecular Sciences"*, Taipei, Taiwan, Jan. 16-19, 2009. (Plenary lecture)
52. "Applications of time-resolved fourier-transform infrared absorption to spectroscopy of gaseous transient species", *The 5th International Conference on Advanced Vibrational Spectroscopy (ICAVS5)*, Melbourne, Australia, July 13-17, 2009.
53. "Studying reaction intermediates using time-resolved fourier-transform infrared absorption spectroscopy", *30TH International Symposium on Free Radicals*, Savonlinna, Finland, July 25-30, 2009.
54. "Studying reaction intermediates using time-resolved fourier-transform infrared spectroscopy and p-H₂ matrix isolation technique", *1st NCTU-NAIST Workshop on Molecular/Nano Science*, Hsinchu, Taiwan, Nov. 11-13, 2009.
55. "IR spectra of molecular complexes studied with time-resolved fourier-transform infrared absorption and IR-VUV time-of-flight-mass technique", *Spectroscopic*

Signatures of Molecular Complexes/Ions in Our Atmosphere and Beyond, Varanasi, India, Feb. 2-4, 2010. (**Keynote Speaker**)

56. "Experimental techniques for studying molecular complexes: matrix isolation using *p*-H₂, step-scan FTIR absorption, and IR-VUV time-of-flight mass techniques", *Solvay Workshop on Molecular Complexes in Our Atmosphere and Beyond*, Brussels, Apr. 20-23, 2010. (**Chairman with talk**) (因火山爆發取消)
57. "Spectral characterization of unstable species", *RIES-CIS Workshop*, Hokkaido, Japan, July. 22-25, 2010.
58. "Vibration of unstable species using time-resolved FTIR and IR-VUV time-of-flight mass detection techniques", *2010 Vibrational Spectroscopy Gordon Research Conference*, Biddeford, USA, Aug. 1-6, 2010.
59. "Studying infrared absorption of reaction intermediates using step-scan FTIR and *p*-H₂ matrix isolation techniques", *Symposium of Molecular Science*, Japan, Sept. 15-19, 2010. (**Plenary talk**)
60. "IR spectra of unstable species studies with time-resolved Fourier-transform absorption and IR-VUV time-of-flight-mass techniques", *6th Asian Photochemistry Conference*, Wellington, New Zealand, Nov. 14-18, 2010. (**APA Award Lecture**)
61. "Infrared spectra of unstable species studied with time-resolved Fourier-transform absorption spectroscopy and IR-VUV time-of-flight mass techniques", *The International Chemical Congress of Pacific Basin Societies*, Hawaii, USA, Dec. 15-20, 2010.
62. "IR spectra of unstable species studied with time-resolved fourier-transform absorption and IR-VUV time-of-flight-mass techniques", *The 4th Cross Strait Workshop on Chemical Dynamics and Kinetics*, Hsinchu, Taiwan, Feb. 18-21, 2011.
63. "Infrared spectra of free radicals and small molecules isolated in solid *p*-H₂", *The International Conference on Physics and Chemistry of Matrix Isolated Species*, Vancouver, Canada, July 10-15, 2011. (**Plenary talk**)
64. "Infrared spectra of C₆H₆Cl and C₆H₇⁺ isolated in solid *p*-H₂", *The 31st International Symposium on Free Radicals*, Port Douglas, Australia, July 24-29, 2011. (**Hot topics**)
65. "Studying reaction intermediates using step-scan FTIR and *p*-H₂ matrix isolation techniques", *International Conference on Photochemistry*, Beijing, China, Aug. 7-12, 2011.
66. "Applications of transient IR absorption spectroscopy", *The 14th Asian Chemical Congress*, Bangkok, Thailand, Sept. 5-8, 2011.
67. "Some applications of transient infrared absorption spectroscopy", *12th International Symposium of Research Institute of Electronic Science*, Sapporo, Japan, Nov. 21-22, 2011.

68. "Spectroscopy of reaction intermediates using *p*-H₂ matrix isolation, step-scan FTIR, and IR-VUV ionization techniques", *The Third Asian Spectroscopy Conference*, Xiamen, China, Nov. 28 - Dec. 1, 2011. (Plenary lecture)
69. "Studying reaction dynamics and characterization of transient species using infrared spectroscopy", *5th Cross-strait Dynamic Symposium* (第五屆海峽兩岸動力學會議), Anhui, China, Aug. 27-30, 2012.
70. "Some applications of transient infrared absorption spectroscopy", *RIES-CIS Symposium*, Hokkaido, Japan, Oct. 25-27, 2012. (Plenary lecture)
71. "Comparison of the reaction CH₂I + O₂ in the gaseous phase and in solid para-hydrogen: IR spectra of CH₂OO and CH₂IOO", Y.-T. Su, Y.-H. Huang, H. Witek, Y.-F. Lee, and Y.-P. Lee, *2013 GRC on Molecular Energy Transfer*, Ventura, USA, Jan. 13-18, 2013. (Discussion leader)
72. "Identification of reaction intermediates using transient infrared absorption", *The 93rd Chemical Society of Japan Annual Meeting 2013*, Shiga, Japan, Mar. 21-25, 2013. (Invited lecture)
73. "Some applications using para-hydrogen: IR spectra of free radicals and reactions involving H₂ (v=1)", *Chemistry and Physics at Low Temperatures*, Jyväskylä, Finland, July 14-19, 2013.
74. "Infrared spectra of protonated pyrene and coronene and their neutral counterparts in solid para-hydrogen", *32nd International Symposium on Free Radicals*, Postam, Germany, July 21-26, 2013. (Hot topic talk)
75. "Infrared absorption and reaction kinetics of the criegee intermediate CH₂OO produced from UV-irradiated CH₂I₂ + O₂", *International Conference on Photochemistry*, Leuven, Belgium, July 21-26, 2013.
76. "Transient infrared spectrum of the criegee intermediate CH₂OO and its fast reaction kinetics", *The 15th Asian Chemical Congress*, Singapore, Aug. 19-23, 2013.
77. "Transient infrared absorption and reaction kinetics of the simplest criegee intermediate CH₂OO", *7th International Conference on Advanced Vibrational Spectroscopy*, Kobe, Japan, Aug. 25-31, 2013.
78. "Study of the CH₂I+O₂ reaction with step-scan time-resolved infrared absorption spectroscopy", *6th Cross-strait Dynamic Symposium* (第六屆海峽兩岸動力學會議), Hualien, Taiwan, Feb. 16-19, 2014.
79. "Infrared spectra of protonated coronene and its neutral counterpart in solid parahydrogen: Implications to the unidentified interstellar infrared emission bands", *247th ACS National Meeting*, Dallas, USA, Mar. 16-20, 2014.
80. "The extremely rapid self-reaction of CH₂OO and detailed kinetics of the CH₂I + O₂ system", *RIKEN-NCTU Joint Workshop*, Saitama, Japan, June 5-6, 2014.

81. "Infrared spectra of protonated aromatic hydrocarbons and their neutral counterparts in solid *para*-hydrogen", *69th International Symposium on Molecular Spectroscopy*, Champaign, USA, June 16-20, 2014.
82. "Infrared absorption of unstable species and protonated species in solid *para*-hydrogen", *Chemistry and Physics at Low Temperatures (CPLT 2014)*, Suzdal, Russia, Aug. 24-29, 2014. **(Invited lecture)**
83. "The detailed kinetics of the CH₂I + O₂ system and observation of CH₂OO, CH₂IOO, and dioxirane", *RIES-CIS Symposium*, Sapporo, Japan, Sept. 10-11, 2014. **(Invited lecture)**
84. "Infrared absorption spectra of the Criegee intermediate CH₂OO, dioxirane, and ICH₂OO detected with a step-scan FTIR", *Eleventh Asian International Seminar on Atomic and Molecular Physics (AISAMP11)*, Sendai, Japan, Oct. 6-10, 2014.
85. "Infrared spectra of protonated species and their neutral counterparts isolated in solid *para*-hydrogen", *Second Workshop on Experimental Laboratory Astrophysics*, Hawaii, USA, Feb. 23-26, 2015.
86. "Matrix effects in solid *para*-hydrogen", *2nd Symposium on Weak Molecular Interactions*, Tokyo, Japan, Mar. 5-6, 2015. **(Plenary talk)**
- 87.

INVITED LECTURES IN FOREIGN INSTITUTES

1. Jet Propulsion Laboratory, Pasadena, CA, U.S.A. (1988/9).
2. Aeronomy Laboratory, National Oceanic and Atmospheric Administration, Boulder, CO, U.S.A. (1989/7).
3. Department of Chemical Engineering, Rensselaer Polytec Institute, Troy, NY, U.S.A. (1991/8).
4. Department of Chemistry, Univ. Virginia, Charlottesville, VA, U.S.A. (1991/12).
5. Department of Chemistry/Department of Electric Engineering, State University of San Diego, San Diego, CA, U.S.A. (1993/1).
6. Jet Propulsion Laboratory, Pasadena, CA, U.S.A. (1993/1).
7. Department of Chemistry, Hong Kong University of Science and Technology, Hong Kong (1996/2).
8. Department of Chemistry, Hokkaido University, Hokkaido, Japan (1997/2).
9. Department of Chemistry, Kyoto University, Kyoto, Japan (1997/2).
10. Department of Mechanical Engineering, University of Tokyo, Tokyo, Japan (1997/2).
11. Institute of Physical and Chemical Research, RIKEN, Wako City, Japan (1997/2).
12. Department of Chemistry, University of Tokyo, Komaba campus, Japan (1997/3).
13. National Institute for Environmental Studies, Tsukuba, Japan (1997/3).

14. Institute of Molecular Sciences, Okazaki, Japan, (1997/3).
15. Takasago Research & Development Center, Takasago, Japan, (1997/3).
16. Institute of Laser Chemistry, Fudan University, Shanghai, PRC (1997/5).
17. Jet Propulsional Laboratory, Pasadena, CA, U.S.A. (1997/10).
18. Steacie Institute for Molecular Sciences, National Research Council, Ottawa, Canada (1998/8).
19. Department of Chemistry, University of Waterloo, Waterloo, Canada (1998/8).
20. Department of Chemistry, Georgia Institute of Technology, Atlanta, Georgia, U.S.A. (1999/8).
21. Department of Chemistry, Emory University, Atlanta, Georgia, U.S.A. (1999/8).
22. Department of Chemistry, U. C. Berkeley, California, U.S.A. (2002/9).
23. Department of Chemistry, U. C. Riverside, California, U.S.A. (2002/10).
24. Aeronomy Laboratory, National Oceanic and Atmospheric Administration, Boulder, CO, U.S.A. (2002/10).
25. Department of Chemistry, Univ. Pennsylvania, Philadelphia, PA, U.S.A. (2002/10).
26. Department of Chemistry, Princeton University, Princeton, NY, U.S.A. (2002/10).
27. Service de Chimie quantique et Photophysique, Université libre de Bruxelles, Brussels, Belgium (2005/8, 2006/8, and 2007/9).
28. Department of Chemistry, Univ. British Columbia, Vancouver, Canada (2006/9), Prominent Scientist Program of NRC.
29. Steacie Institute for Molecular Sciences, National Research Council, Ottawa, Canada (2006/9), Prominent Scientist Program of NRC.
30. Department of Chemistry, Univ. Tokyo, Tokyo, Japan (2007/3).
31. Research Institute for Electronic Science, Hokaido University, Sapporo, Japan (2007/10).
32. Department of Chemistry, Stanford University, Stanford, CA, USA (2009/3).
33. Department of Chemistry, Univ. South California, CA, USA (2009/4).
34. Department of Astronomy, California Institute of Technology, CA, USA (2009/4).
35. Department of Chemistry, Univ. British Columbia, Vancouver, Canada (2009/4).
36. Chemical Science Division, Earth System Research Laboratory, NOAA, Boulder, CO, USA (2009/5).
37. JILA, Univ. Colorado, Boulder, CO, USA (2009/5).
38. Research Institute for Electronic Science, Hokaido University, Sapporo, Japan (2009/8).
39. Deaprtment of Chemistry, Kyushu Univ., Kyushu, Japan (2009/8).
40. Faculty of Engineering Science, Osaka Univ., Osaka, Japan (2009/8).

41. Quantum Chemistry Research Institute, Kyoto, Japan (2009/8).
42. Department of Chemistry, Tohoku Univ., Sendai, Japan (2009/8).
43. Department of Chemistry, University of Alberta, Edmonton, Canada (2011/09).
44. Advanced Science Institute, RIKEN, Tokyo, Japan (2012/12).
45. Department of Chemistry, Hiroshima University, Hiroshima, Japan (2013/8).

SERVICE

• **Symposium Organizer**

1. Workshop on Atmospheric Chemical Kinetics, Hsinchu, Taiwan, April 27-28, 1989.
2. Workshop on Thermal and Electronic Excitation of Molecules in Gaseous and Condensed Phases, Hsinchu, Taiwan, August 9-10, 1990.
3. Workshop on Combustion Chemistry, Hsinchu, Taiwan, March 22-23, 1993.
4. Application of Laser Techniques to Atmospheric Chemistry (I-1), Hsinchu, Taiwan, July 11, 1997.
5. Second Japan-Taiwan Workshop on Molecular Dynamics, Hsi-tou, Taiwan, March 18-20, 1998
6. Application of Laser Techniques to Atmospheric Chemistry (I-2), Hsinchu, Taiwan, June 1, 1998.
7. Application of Laser Techniques to Atmospheric Chemistry (I-3), Hsinchu, Taiwan, June 28, 1999.
8. Application of Laser Techniques to Atmospheric Chemistry (II-1), Hsinchu, Taiwan, July 13, 2000.
9. NRC-NSC Canada-Taiwan Workshop on Molecular Spectroscopy & Dynamics, Ottawa, Canada, May 10-11, 2001.
10. Application of Laser Techniques to Atmospheric Chemistry (II-2), Hsinchu, Taiwan, June 22, 2001.
11. Application of Laser Techniques to Atmospheric Chemistry (II-3), Taipei, Taiwan, July 12, 2002.
12. Applications of Lasers and Synchrotron Radiation to Important Interstellar Species (1), Hsinchu, Taiwan, July 4, 2003.
13. 27th International Symposium on Free Radicals, Taipei, Taiwan, Aug 17-22, 2003. (Changed to July 25-30, 2004 due to SARS)
14. Joint Symposia on Chemical Kinetics and Renewable Energy: From Gas Phase to Condensed Phase, Hsinchu, Taiwan, June 5-9, 2007.
15. The First NCTU-NAIST Workshop on Molecular/Nano Science 2009, Hsinchu, Taiwan, Nov. 11-13, 2009.
16. 2011 Spring Symposium of Photochemistry Association in Taiwan, Hsinchu, Taiwan, Feb. 15-16, 2011.
17. 2011 RIES-CIS Symposium, Hsinchu, Taiwan, Oct. 28-29, 2011.

18. The First RIKEN-NCTU Symposium on Physical and Chemical Science, Apr. 26-27, 2013.

- **Leader of Group Projects**

1. Laser Spectroscopy and Laser Chemistry, National Science Council, 1989-1992, 6 participants.
2. Application of Laser Techniques to Study Important Species in Atmospheric Chemistry, National Science Council, 1996-1999, 10 participants.
3. Structure, Reactivity and Dynamics of Challenging Molecular Systems by Novel Experimental Techniques-- A Collaboration between SIMS, National Research Council, Canada and Laser Chemistry Laboratory, National Tsing Hua University, 1999-2002, 10 participants.
4. Application of Laser Techniques to Study Important Species in Atmospheric Chemistry (II), National Science Council, 1999-2002, 10 participants.
5. Applications of Lasers and Synchrotron Radiation to Important Interstellar Species, National Science Council, 2002-2005, 7 participants.
6. Preparation and Interfacial Electron Transfer of Novel InN/TiO₂ Nanocrystalline Thin Films for Solar Energy Conversion Applications, National Nanoproject, National Science Council, 2005-2008, 4 participants.
7. Center for Interdisciplinary Sciences, ATU project, Ministry of Education, 2006-present, 50 participants.
8. Continued Training Program for Talented Students in Fundamental Science, Ministry of Education, 2007-2011, 11 participants.
9. Novel Vibrational Spectroscopy and Dynamics - from gas phase to sensitized solar cells, National Science Council, 2009-2014, 5 participants.
10. Novel vibrational spectroscopy and dynamics - from gas-phase molecules, solar cells, to biological cells, 2014-2019, 7 participants.
- 11.

- **Advisory Committee of International Conferences**

1. International Advisory Committee of the Ohio State University International Symposium on Molecular Spectroscopy (1995-1998 and 2008-2011).
2. Advisory Committee of the Gordon Conference on Molecular Electronic Spectroscopy and Dynamics (1997 and 2000).
3. International Program Advisory Committee, VUV-13, Trieste, Italy (2001).
4. International Committee of the Third Asian Photochemistry Conference, Maharashtra, India (2002).
5. International Advisory Committee of International Symposium on Free Radicals (2003~).
6. Steering Committee of the Matrix Isolation Symposium (2003-2011).
7. Advisory Committee of the Asia Spectroscopy Conference (2006-2014)
8. International Advisory Committee, Department of Chemistry, KAIST (Korea)

9. International Scientific Committee of Belgium Solvay Institute Workshop on Molecular Complexes in our Atmosphere and Beyond (2010)
10. Scientific Advisory Group of UV/Vis+ Spectra Data Base (2011)
11. Editorial Board of E-Journal of Chemistry (2012~)
12. Editorial Board of Journal of Molecular Spectroscopy. (2012/8/1-2015/7/31)
13. Editorial Board of Journal of Photochemistry and Photobiology C: Photochemistry Reviews. (2014/1/1~)
14. Guest Editor, The Journal of Molecular Spectroscopy, Memorial Issue for Marilyn Jacox (2015)

- **Others**

1. Reviewer of "Scientific Assessment of Ozone Depletion: 1989", World Meteorological Organization, Report No. 20.
2. One of the lead authors of Chapter 5, "Scientific Assessment of Ozone Depletion: 1991", World Meteorological Organization, Report No. 25.
3. Reviewer of "Scientific Assessment of Ozone Depletion: 1994", World Meteorological Organization.
4. Reviewer of "Scientific Assessment of Ozone Depletion: 1998", World Meteorological Organization.
5. Reviewer of the following international journals:
 Journal of Chemical Physics (U.S.A.)
 Journal of Physical Chemistry (U.S.A.)
 Canadian Journal of Physics (Canada)
 International Journal of Chemical Kinetics
 Journal of Geological Research, Atmosphere
 Journal Molecular Spectroscopy
 Chemical Physics
 Physical Chemistry Chemical Physics (UK)
6. Editor, J. Chinese Chemical Society
7. Advisory Board, Natural Science Division, National Science Council (國科會自然處諮議委員及計劃審議委員)
8. Councilor, Asian Photochemical Association, 2005-2007.
9. Trustee of the 5th Committee, Spring Foundation of NCTU (財團法人交大思源基金會第五屆董事), 2006-2009.
10. Council of Academic Reviewal & Evaluation Committee, Ministry of Education (教育部學審會委員), 2007-2008.
11. Executive Councilor of Academic Reviewal & Evaluation, Ministry of Education (教育部學審會常委), 2009-2010.

TEACHING

- Undergraduate : Physical Chemistry I (Thermodynamics), Physical Chemistry II (Quantum Chemistry), Physical Chemistry III (Kinetics), General Chemistry, General Chemistry Laboratory, Instrumental Analysis, Laser Chemistry Laboratory, Introduction to Vibrational Spectroscopy.
- Graduate : Thermodynamics, Chemical Kinetics, Chemical Dynamics, Laser Chemistry, Modern Techniques in Physical Chemistry, Special Topics in Physical Chemistry, Infrared Spectroscopy.

RESEARCH INTEREST :

1. Kinetic and dynamic studies on reactions of free radicals important in atmospheric and combustion chemistry:
 - ⇒ Dynamic studies of photolytic processes or bimolecular reactions using time-resolved step-scan Fourier-transform emission spectroscopy.
 - ⇒ Dynamic studies on photodissociation reactions using photofragmentation translational spectroscopy (utilizing VUV ionization with synchrotron radiation).
 - ⇒ Determination of rate coefficients or equilibrium constant using discharge flow/LIF or resonance fluorescence technique.
 - ⇒ Determination of rate coefficients at high temperatures using a diaphragless shock tube.
 - ⇒ Determination of reaction products using the discharge-flow/matrix-isolation/FTIR technique.
2. Spectral studies of free radicals and novel unstable species important in atmospheric, combustion, and planetary chemistry:
 - ⇒ Production and IR characterization of novel species produced in low temperature matrices including *p*-H₂.
 - ⇒ IR absorption spectroscopy of unstable species using time-resolved step-scan Fourier-transform absorption spectroscopy.
 - ⇒ Mass-selective IR spectroscopy using VUV/IR photoionization TOF detection.
 - ⇒ NIR cavity ringdown spectroscopy of free radicals.
 - ⇒ Degenerate four-wave mixing and two-color resonant four-wave mixing spectroscopy: application to predissociative species and species in high overtones.
 - ⇒ VUV photoabsorption and photoionization using synchrotron radiation.
 - ⇒ Laser-induced fluorescence of species in a supersonic jet or in a matrix.
 - ⇒ Lifetimes and quenching rates of gaseous free radicals.
 - ⇒ High-resolution FTIR spectroscopy of extremely weak absorption for gaseous species.
3. Ultrafast spectroscopy and dynamics.
 - ⇒ Transient UV and IR absorption, time-resolved fluorescence for solutions and solids.
 - ⇒ Sum-frequency generation on interfaces (in preparation).
4. Quantum chemical calculations on geometry, IR spectrum, and energy of free radicals or weakly-bound species.

PUBLICATION LIST

Yuan-Pern Lee

September 15, 2015

(A) Refereed Paper

SCI ver. 2013

1. "Chemiluminescence of SO ($\tilde{c}^1 \Sigma^- \rightarrow \tilde{a}^1 \Delta$) in solid argon", Y.-P. Lee and G. C. Pimentel, *J. Chem. Phys.* **69**, 3063 (1978).
2. "Chemiluminescence of S₂ in solid argon", Y.-P. Lee and G. C. Pimentel, *J. Chem. Phys.* **70**, 692 (1979).
3. "Diatomic sulfur: low-lying bound molecular electronic states of S₂", W. C. Swope, Y.-P. Lee, and H. F. Schaefer III, *J. Chem. Phys.* **70**, 947 (1979).
4. "Sulfur oxide: low-lying bound molecular electronic states of SO", W. C. Swope, Y.-P. Lee, and H. F. Schaefer III, *J. Chem. Phys.* **71**, 3761 (1979).
5. "Formic acid chemiluminescence from cryogenic reaction between triplet methylene and oxygen", Y.-P. Lee and G. C. Pimentel, *J. Chem. Phys.* **74**, 4851 (1981).
6. "Chemiluminescence of ethylene in an inert matrix and the probable infrared spectrum of methylene", Y.-P. Lee and G. C. Pimentel, *J. Chem. Phys.* **75**, 4241 (1981).
7. "The chemiluminescent reactions Ba + N₂O and Ba + O₃ in solid argon", S. R. Long, Y.-P. Lee, O. D. Krogh, and G. C. Pimentel, *J. Chem. Phys.* **77**, 226 (1982).
8. "Laser magnetic resonance spectroscopy of ClO and kinetic studies of the reactions of ClO with NO and NO₂", Y.-P. Lee, R. M. Stimpfle, R. A. Perry, J. A. Mucha, K. M. Evenson, D. A. Jennings and C. J. Howard, *Int. J. Chem. Kinet.* **14**, 711 (1982).
9. "Temperature dependence of the rate constant and the branching ratio for the reaction Cl + HO₂", Y.-P. Lee and C. J. Howard, *J. Chem. Phys.* **77**, 756 (1982).
10. "Absolute rate constant measurement of the reaction OH + H₂S using discharge flow-resonance fluorescence technique", N.-S. Wang and Y.-P. Lee, *Proc. Natl. Sci. Counc., R.O.C.(A)* **9**, 87 (1985).
11. "Chemiluminescence of CaO from the Ca + N₂O and Ca + O₃ reactions in solid argon", C.-S. Wei, S.-W. Guo, and Y.-P. Lee, *J. Chem. Phys.* **82**, 2942 (1985).
12. "Temperature dependence of the rate constant for the reaction OH + H₂S in He, N₂, and O₂", Y.-L. Lin, N.-S. Wang, and Y.-P. Lee, *Int. J. Chem. Kinet.* **17**, 1201 (1985).
13. "Chemiluminescence of CaCl from the Ca + Cl₂ reaction in argon matrix", S.-W. Guo, J.-W. Chang and Y.-P. Lee, *J. Chin. Chem. Soc.* **32**, 215 (1985).

14. "Rate constant of OH + OCS reaction over the temperature range 255-483 K", B.-M. Cheng and Y.-P. Lee, *Int. J. Chem. Kinet.* **18**, 1303 (1986).
15. "The C_2N_2 $a^3\Sigma_u^+ \rightarrow X^1\Sigma_g^+$ chemiluminescence in matrices", J.-W. Chang and Y.-P. Lee, *J. Mol. Struct.* **157**, 155 (1987).
16. "The S_{21} lines of the $A^2\Sigma^+(v=1) \leftarrow X^2\Pi(v=0)$ transition of OH and OD", Y.-P. Lee, S.-R. Lin, and S.-T. Lee, *J. Quant. Spectrosc. Rad. Trans.* **38**, 163 (1987).
17. "Rate constant for the reaction of OH radical with dimethyl sulfide", Y.-C. Hsu, D.-S. Chen, and Y.-P. Lee, *Int. J. Chem. Kinet.* **19**, 1073 (1987).
18. "Product determination of gaseous radical reactions using matrix isolation-FTIR detection", Y.-P. Kuo, S.-S. Ju, and Y.-P. Lee, *J. Chin. Chem. Soc.* **34**, 161 (1987).
19. "Radiative lifetime and quenching of the \tilde{A}^2A_1 state of CH_3O radical", S.-R. Lin, J.-B. Nee, and Y.-P. Lee, *J. Chem. Phys.* **88**, 171 (1988).
20. "Linestrengths of the band $a^1\Delta_g(v=0) - X^3\Sigma_g^-(v=0)$ of $^{16}O_2$ ", L.-B. Lin, Y.-P. Lee, and J. F. Ogilvie, *J. Quant. Spectrosc. Rad. Trans.* **39**, 375 (1988).
21. "Application of the linear prediction Z-transform and auto-regression to FTIR spectral analysis", Y.-P. Lee and D.-S. Chen, *Microchim. Acta [Wien]* **I**, 85 (1988).
22. "Red and near-infrared laser-induced emission of S_2 in an Ar matrix", S.-Y. Chiang and Y.-P. Lee, *J. Chem. Phys.* **89**, 13 (1988).
23. "The infrared absorption spectrum of hydroxyl radicals in solid argon", B.-M. Cheng, J. F. Ogilvie and Y.-P. Lee, *Chem. Phys. Lett.* **151**, 109 (1988).
24. "Strengths of absorption lines in the vibration-rotational band $v=5 \leftarrow v=0$ of NO $X^2\Pi_r$ ", Y.-P. Lee and J. F. Ogilvie, *Infrared Phys.* **28**, 321 (1988).
25. "Laser-induced emission of CH_3O in solid argon", S.-Y. Chiang, Y.-C. Hsu and Y.-P. Lee, *J. Chem. Phys.* **90**, 81 (1989).
26. "Production and trapping of gaseous dimeric ClO: the infrared spectrum of chlorine peroxide (ClOOC) in solid argon", B.-M. Cheng and Y.-P. Lee, *J. Chem. Phys.* **90**, 5930 (1989).
27. "Linestrengths in the vibration-rotational band 3-0 of gaseous $^1H^{35}Cl$ and the electric dipole-moment function", J. F. Ogilvie and Y.-P. Lee, *Chem. Phys. Lett.* **159**, 239 (1989).
28. "Kinetics of the reaction of OH + SO_2 in He, N_2 , and O_2 low pressure", Y.-Y. Lee, W.-C. Kao, and Y.-P. Lee, *J. Phys. Chem.* **94**, 4535 (1990).
29. "Kinetics of the reaction OH + NH_3 in the range 273 - 433 K", W.-K. Diao, T.-L. Tso, and Y.-P. Lee, *J. Phys. Chem.* **94**, 5261 (1990).
30. "Radiative lifetimes of the $\tilde{A}^2A_1(v_3=0-2)$ states of CH_3S ", Y.-Y. Lee, S.-Y. Chiang, and Y.-P. Lee, *J. Chem. Phys.* **93**, 4487 (1990).

31. "Termolecular rate coefficients and the standard enthalpy of reaction $\text{OH} + \text{CS}_2 + \text{M} \rightarrow \text{HOCS}_2 + \text{M}$ ", E. W.-G. Diau, and Y.-P. Lee, *J. Phys. Chem.* **95**, 379 (1991).
32. "Photolysis of nitric acid in solid argon: the infrared absorption of peroxyxynitrous acid (HOONO)", B.-M. Cheng, J.-W. Lee and Y.-P. Lee, *J. Phys. Chem.* **95**, 2814 (1991).
33. "Kinetics of the reaction $\text{OH} + \text{C}_2\text{H}_4$ in He, N_2 , and O_2 at low pressure", C.-H. Kuo and Y.-P. Lee, *J. Phys. Chem.* **95**, 1253 (1991).
34. "Production and trapping of HOSO_2 from the gaseous reaction $\text{OH} + \text{SO}_2$: the infrared absorption of HOSO_2 in solid argon", Y.-P. Kuo, B.-M. Cheng and Y.-P. Lee, *Chem. Phys. Lett.* **177**, 195 (1991).
35. "Vibronic analysis of the $\tilde{A}^2A_1 - \tilde{X}^2E$ laser-induced fluorescence of jet-cooled CH_3S ", S.-Y. Chiang and Y.-P. Lee, *J. Chem. Phys.* **95**, 66 (1991).
36. "Kinetics of the reactions of CS_2OH with O_2 , NO , and NO_2 ", E. W.-G. Diau and Y.-P. Lee, *J. Phys. Chem.* **95**, 7726 (1991).
37. "Detailed rate coefficients and the enthalpy change of the equilibrium reaction $\text{OH} + \text{C}_2\text{H}_4 \xrightleftharpoons{\text{M}} \text{HOC}_2\text{H}_4$ over the temperature range 544 - 673 K", E. W.-G. Diau and Y.-P. Lee, *J. Chem. Phys.* **96**, 377 (1992).
38. "Laser-induced emission of SO in matrices: the $\tilde{c}^1\Sigma^- \rightarrow \tilde{a}^1\Delta$ and the $\tilde{A}^3\Delta \rightarrow \tilde{X}^3\Sigma^-$ transitions", C.-C. Zen, F.-T. Tang, and Y.-P. Lee, *J. Chem. Phys.* **96**, 8054 (1992).
39. "Intensities of lines in the band $a^1\Delta_g(v=0) - X^3\Sigma_g^-(v''=0)$ of $^{16}\text{O}_2$ in absorption", Y.-T. Hsu, Y.-P. Lee, and J. F. Ogilvie, *Spectrochimica Acta* **48A**, 1227 (1992).
40. "The enthalpy change and the detailed rate coefficients of the equilibrium reaction $\text{OH} + \text{C}_2\text{H}_2 \xrightleftharpoons{\text{M}} \text{HOC}_2\text{H}_2$ over the temperature range 627 - 713 K", L.-H. Lai, Y.-C. Hsu, and Y.-P. Lee, *J. Chem. Phys.* **97**, 3092 (1992).
41. "Photolysis of nitric acid in solid nitrogen", W.-J. Chen, W.-J. Lo, B.-M. Cheng, and Y.-P. Lee, *J. Chem. Phys.* **97**, 7167 (1992).
42. "Spectral and kinetic studies of free radicals of atmospheric interest", Y.-P. Lee, *J. Chin. Chem. Soc.* **39**, 503 (1992). (invited paper)
43. "Spectroscopic studies of small radicals (CH_3S)", Y.-P. Lee, *Proceedings of the Laser Techniques for State-Selected and State-to-State Chemistry*, Los Angeles, California, SPIE Proceeding No. **1858**, 44 (1993).
44. "Infrared absorption spectrum of HOC_2H_4 in solid Ar", Y.-P. Kuo and Y.-P. Lee, *J. Chem. Phys.* **99**, 3272 (1993).
45. "Lifetimes and quenching of the $\tilde{A}^2A(v'_3=0-2) \rightarrow \tilde{X}^2A$ fluorescence of HSO ", W.-C. Hung and Y.-P. Lee, *J. Chin. Chem. Soc.* **40**, 407 (1993).
46. "Vibronic analysis of the $\tilde{A} \rightarrow \tilde{X}$ laser-induced fluorescence of jet-cooled methoxy (CH_3O) radical", Y.-Y. Lee, G.-H. Wann, and Y.-P. Lee, *J. Chem. Phys.* **99**, 9465 (1993).

47. "Kinetics studies of the reaction $\text{HSO} + \text{O}_3$ ", Y.-Y. Lee, N.-S. Wang, and Y.-P. Lee, *J. Chem. Phys.* **100**, 387 (1994).
48. "Application of the broad-band CARS to the temperature measurements of propellant flames", Y.-P. Lee and D.-M. Chen, *Proceedings of the Fourteenth International Conference on Flame Spectroscopy, Hong Kong*, p. 426 (1994).
49. "Detailed rate coefficients and the enthalpy change of the equilibrium reaction $\text{OH} + \text{C}_6\text{H}_6 + \text{M} \leftrightarrow \text{HOC}_6\text{H}_6 + \text{M}$ over the temperature range 345 - 385 K", S.-C. Lin, T.-C. Kuo, and Y.-P. Lee, *J. Chem. Phys.* **101**, 2098 (1994).
50. "Infrared absorption of cis-cis peroxyntrous acid (HOONO) in solid argon", W.-J. Lo and Y.-P. Lee, *J. Chem. Phys.* **101**, 5494 (1994).
51. "Ultraviolet absorption of cis-cis and trans-perp peroxyntrous acid (HOONO) in solid argon", W.-J. Lo and Y.-P. Lee, *Chem. Phys. Lett.* **229**, 357 (1994).
52. "Temperature dependence of the rate coefficient of the reaction $\text{OH} + \text{CF}_3\text{CH}_2\text{F}$ over the range 255 - 424 K" G.-H. Leu and Y.-P. Lee, *J. Chin. Chem. Soc.* **41**, 645 (1994).
53. "New spectral techniques: time-resolved Fourier-transform spectroscopy and two-color laser-induced grating spectroscopy". Y.-P. Lee, P.-S. Yeh, G.-H. Leu, W.-C. Hung, S.-C. Hung, and I.-C. Chen, *J. Chin. Chem. Soc.* **42**, 205 (1995). (invited paper)
54. "Infrared absorption of *cis*- and *trans*-alkali-metal peroxyntrites (MOONO , $\text{M}=\text{Li}$, Na , and K) in solid argon", W.-J. Lo, Y.-P. Lee, J.-H. M. Tsai, H.-H. Tsai, T. P. Hamilton, J. G. Harrison, and J. S. Beckman, *J. Chem. Phys.* **103**, 4026 (1995).
55. "Ultraviolet absorption of *cis* and *trans* potassium peroxyntrite (KOONO) in solid argon", W.-J. Lo, Y.-P. Lee, J.-H. M. Tsai, and J. S. Beckman, *Chem. Phys. Lett.* **242**, 147 (1995).
56. "Laser-induced fluorescence of the $\text{A}^2\Pi_u - \text{X}^2\Pi_g$ transition of CS_2^+ in solid Ne: reanalysis of vibronic spectra", C.-C. Zen and Y.-P. Lee, *Chem. Phys. Lett.* **244**, 177 (1995).
57. "Photodissociation of HNO_3 at 193 nm: near-infrared emission of NO detected by time-resolved Fourier transform spectroscopy", P.-S. Yeh, G.-H. Leu, Y.-P. Lee, and I.-C. Chen, *J. Chem. Phys.* **103**, 4879 (1995).
58. "Threshold and cage effect for photodissociation of H_2O in solid Ne and Ar", B.-M. Cheng, W.-J. Lo, L.-H. Lai, W.-C. Hung, and Y.-P. Lee, *J. Chem. Phys.* **103**, 6303 (1995).
59. "Detection of CH in an oxyacetylene flame using two-color resonant four-wave mixing technique", W.-C. Hung, M.-L. Huang, Y.-C. Lee, and Y.-P. Lee, *J. Chem. Phys.* **103**, 9941 (1995).
60. "Infrared absorption of cyclic and *trans*- NaNO_2 and KNO_2 in solid argon", W.-J. Lo, M.-Y. Shen, C.-H. Yu, and Y.-P. Lee, *J. Chem. Phys.* **104**, 935 (1996).
61. "Laser-induced fluorescence and phosphorescence of C_{60} isolated in solid Ne", W.-C. Hung, C.-D. Ho, C.-P. Liu, and Y.-P. Lee, *J. Phys. Chem.* **100**, 3927 (1996).
62. "Isomers of SO_3 : infrared absorption of OSOO in solid argon", S.-H. Jou, M.-Y. Shen, C.-H. Yu, and Y.-P. Lee, *J. Chem. Phys.* **104**, 5745 (1996).

63. "Vibronic analysis of the $\tilde{B}^2A - \tilde{X}^2A$ " laser-induced fluorescence of jet-cooled C_2H_5S ", W.-C. Hung, M.-Y. Shen, and Y.-P. Lee, *J. Chem. Phys.* **105**, 5722 (1996).
64. "Photoionization spectra and ionization thresholds of CH_3SO , CH_3SOH , and $CH_3SS(O)CH_3$ ", W.-C. Hung, M.-Y. Shen, Y.-P. Lee, N.-S. Wang, and B.-M. Cheng, *J. Chem. Phys.* **105**, 7402 (1996).
65. "Isomers of SO_2 : infrared absorption of SOO in solid argon", L.-S. Chen, C.-I Lee, and Y.-P. Lee, *J. Chem. Phys.* **105**, 9454 (1996).
66. "Spectra of the vibronic transition $A-X$ of S_2^+ in solid neon", C.-C. Zen, Y.-P. Lee, and J. F. Ogilvie, *Spectrochimica Acta.* **A52**, 1727 (1996).
67. "Effect of polarization on stimulated emission pumping spectroscopy of the $B^3\Pi_{0^+u} - X^1\Sigma_g^+$ system of jet-cooled Br_2 via two-color resonant four-wave mixing ", A. Kumar, W.-C. Hung, C.-C. Hsiao, and Y.-P. Lee, *Chem. Phys. Lett.* **269**, 22 (1997).
68. "IR absorption spectra and vibrational analysis of isotopic KNO_3 in solid Ar", W.-J. Lo, M.-y. Shen, and Y.-P. Lee, *J. Mol. Spectrosc.* **183**, 119 (1997).
69. "Laser-photolysis / time-resolved Fourier-transform absorption spectroscopy: formation and quenching of $HCl(v)$ in the chain reaction $Cl/Cl_2/H_2$ ", J. Eberhard, P.-S. Yeh, and Y.-P. Lee, *J. Chem. Phys.* **107**, 6499 (1997).
70. "Valence-level photoemission spectroscopy and photon-stimulated ion desorption studies of CH_3Cl adsorbed on $Al(111)$ surface using synchrotron radiation", S. C. Yang, J. M. Chen, C.-R. Wen, Y. J. Hsu, Y.-P. Lee, T. J. Chuang, and Y. C. Liu, *Surf. Sci.* **385**, L1010 (1997).
71. "Photoionization efficiency spectrum and ionization energy of C_2H_5SO ", B.-M. Cheng, W.-C. Hung, W.-C. Chen, C.-h. Yu, and Y.-P. Lee, *J. Chem. Phys.* **107**, 8794 (1997).
72. "Photoionization spectra and ionization energies of $HSCl$, $HSSSH$, $SSCl$ and $HSSCl$ formed in the reaction system $Cl/Cl_2/H_2S$ ", J. Eberhard, W.-C. Chen, C.-h. Yu, Y.-P. Lee, and B.-M. Cheng, *J. Chem. Phys.* **108**, 6197 (1998).
73. "Absorption and fluorescence of the of $OCIO \tilde{A}^2A_2 \rightarrow \tilde{X}^2B_1$ in solid Ne, Ar, and Kr. I. Vibrationally unrelaxed $\tilde{A} \rightarrow \tilde{X}$ emission", C.-P. Liu, L.-H. Lai, Y.-Y. Lee, S.-C. Hung, and Y.-P. Lee, *J. Chem. Phys.* **109**, 978 (1998).
74. "Laser photolysis of $OCIO$ in solid Ne, Ar, and Kr. II. Site specificity, mode specificity, and effects of matrix hosts", L.-H. Lai, C.-P. Liu, and Y.-P. Lee, *J. Chem. Phys.* **109**, 988 (1998).
75. "Highly predissociative levels of $CH B^2\Sigma^+$ state detected with two-color resonant four-wave mixing spectroscopy ", A. Kumar, W.-C. Hung, C.-C. Hsiao, and Y.-P. Lee, *J. Chem. Phys.* **109**, 3824 (1998).
76. "Photoionization studies of sulfur radicals and products of their reactions", B.-M. Cheng, E. P. Chew, W.-C. Hung, J. Eberhard, and Y.-P. Lee, *J. Synchrotron Rad.* **5**, 1041 (1998).
77. "Adsorption and photon-stimulated desorption of CCl_4 on an $Al(111)$ surface investigated with synchrotron radiation", J.-M. Chen, R.-G. Liu, Y.-J. Hsu, S.-C. Yang, Y.-C. Liu, Y.-P. Lee, C.-R. Wen, and T. J. Chuang, *J. Chem. Phys.* **109**, 8027 (1998).
78. "Observation of saturation dip in degenerate four-wave mixing and two-color resonant four-wave mixing spectra of jet-cooled CH ", A. Kumar, C.-C. Hsiao, Y.-Y. Lee, and Y.-P. Lee, *Chem. Phys. Lett.* **297**, 300

(1998)

79. "Isomers of N₂O₃: observation of *trans-cis* N₂O₃ in solid Ar", C.-I Lee, Y.-P. Lee, X. Wang, and Q.-Z. Qin, *J. Chem. Phys.* **109**, 10446 (1998).
80. "Two-color resonant four-wave mixing spectra of the band $C^2\Sigma - X^2\Pi(1-1)$ of CH in a flame", X. Li, A. Kumar, C.-C. Hsiao, and Y.-P. Lee, *J. Phys. Chem. A* **103**, 6162 (1999).
81. "Highly predissociative levels of D²Π state of CH studied with two-color resonant four-wave mixing technique", X. Li and Y.-P. Lee, *J. Chem. Phys.* **111**, 4942 (1999).
82. "Photodissociation of 1,1-difluoroethene (CH₂CF₂) at 193 nm monitored with step-scan time-resolved Fourier-transform infrared emission spectroscopy", S.-R. Lin and Y.-P. Lee, *J. Chem. Phys.* **111**, 9233 (1999).
83. "Photo-induced fractionation of water isotopomers in the Martian atmosphere", B.-M. Cheng, E. P. Chew, C.-P. Liu, M. Bahou, Y.-P. Lee, Y. L. Yung, and M. F. Gerstell, *Geophys. Res. Lett.* **26**, 3657 (1999).
84. "Wavenumbers, strengths, widths and shifts with pressure of lines in four bands of ¹⁶O₂ in the systems $a^1\Delta_g - X^3\Sigma_g^-$ and $b^1\Sigma_g^+ - X^3\Sigma_g^-$ ", S.-L. Cheah, Y.-P. Lee, and J. F. Ogilvie, *J. Quant. Spectrosc. Radiative Transfer.* **64**, 467 (2000).
85. "Production and IR absorption of cyclic CS₂ in solid Ar", M. Bahou, Y.-C. Lee, and Y.-P. Lee, *J. Am. Chem. Soc.* **122**, 661 (2000).
86. "Laser-induced phosphorescence of SO₂ in solid neon: direct observation of the b^3A_2 state", C.-C. Zen, I-C. Chen, Y.-P. Lee, and A. J. Merer, *J. Phys. Chem. A* **104**, 771 (2000).
87. "Production and infrared absorption spectrum of ClSO₂ in matrices", M. Bahou, S.-F. Chen, and Y.-P. Lee, *J. Phys. Chem. A* **104**, 3613 (2000).
88. "Temperature dependence of rate coefficients of reactions of NO₂ with CH₃S and C₂H₅S", B.-F. Chang, T.-T. Wang, N.-S. Wang, Y.-L. Hwang, and Y.-P. Lee, *J. Phys. Chem. A* **104**, 5525 (2000).
89. "The visible absorption spectrum of OBrO isolated in solid Ne", Y.-C. Lee and Y.-P. Lee, *J. Phys. Chem. A* **104**, 6951 (2000).
90. "I. Three-center vs. four-center HCl-elimination in photolysis of vinyl chloride at 193 nm: bimodal rotational distribution of HCl ($v \leq 7$) detected with time-resolved Fourier-transform spectroscopy", S.-R. Lin, S.-C. Lin, Y.-C. Lee, Y.-C. Chou, I-C. Chen, and Y.-P. Lee, *J. Chem. Phys.* **114**, 160 (2001).
91. "Detection of ClCO with time-resolved Fourier-transform infrared absorption spectroscopy", S.-H. Chen, L.-K. Chu, Y.-J. Chen, I-C. Chen, and Y.-P. Lee, *Chem. Phys. Lett.* **333**, 365 (2001).
92. "Formation of CH₃CFCl⁺ from photoionization of CH₃CFCl₂: An application of threshold photoelectron photoion coincidence (TPEPICO) technique", S.-Y. Chiang, Y.-C. Lee, and Y.-P. Lee, *J. Phys. Chem. A* **105**, 1226 (2001).
93. "Ultraviolet absorption spectrum of cyclic CS₂ in solid Ar", W.-J. Lo and Y.-P. Lee, *Chem. Phys. Lett.* **336**, 71 (2001).
94. "Three-center versus four-center elimination in photolysis of vinyl fluoride and vinyl bromide at 193 nm: Bimodal rotational distribution of HF and HBr ($v \leq 5$) detected with time-resolved Fourier-transform

- spectroscopy", S.-R. Lin, S.-C. Lin, Y.-C. Lee, Y.-C. Chou, I.-C. Chen, and Y.-P. Lee, *J. Chem. Phys.* **114**, 7396 (2001).
95. "Enhancement of deuterated ethane on Jupiter", A. Y. T. Lee, Y. L. Yung, B.-M. Cheng, M. Bahou, C.-Y. Chung, and Y.-P. Lee, *Astrophys. J.* **551**, L93 (2001).
 96. "Photodissociation thresholds of OH produced from CH₃OH in solid Ne and Ar", B.-M. Cheng, C.-P. Liu, W.-J. Lo, and Y.-P. Lee, *Nuclear Instru. Methods Phys. Res. A* **467-468**, 1461 (2001).
 97. "Temperature dependence of absorption cross-section of H₂O, HOD, and D₂O in the spectral region 140-193 nm", C.-Y. Chung, E. P. Chew, B.-M. Cheng, M. Bahou, and Y.-P. Lee, *Nuclear Instru. Methods Phys. Res. A* **467-468**, 1572 (2001).
 98. "Absorption cross sections of HCl and DCl in 135-232 nm: Implications for photodissociation on Venus", M. Bahou, C.-Y. Chung, Y.-P. Lee, B.-M. Cheng, Y. L. Yung, and L. C. Lee, *Astrophys. J.* **559**, L179 (2001).
 99. "Formation of CH₄ ($v_4 = 1$) in the reaction Cl + CH₄ studied using time-resolved Fourier-transform absorption spectroscopy", Y.-J. Chen, S.-L. Dai, and Y.-P. Lee, *J. Chem. Phys.* **115**, 6513 (2001).
 100. "Photodissociation of Glycidyl Azide Polymer with a Nd:YAG Laser at 1.064 μm ", A. Kumar, Y.-P. Lee, and D.-M. Chen, *Combust. Flame* **126**, 1736 (2001).
 101. "Isomers of SNO₂: production and infrared spectra of *cis*- and *trans*-OSNO from irradiated inert matrices containing OCS and NO₂", M. Bahou and Y.-P. Lee *J. Chem. Phys.* **115**, 10694 (2001).
 102. "Theoretical calculations and infrared absorption spectra of *ap*- and *sp*-methyl vinyl ketone in Solid Ar", K. Sankaran and Y.-P. Lee, *J. Phys. Chem. A* **106**, 1190 (2002).
 103. "Experimental and theoretical studies on VUV absorption cross sections and photodissociation of CH₃OH, CH₃OD, CD₃OH, and CD₃OD", B.-M. Cheng, M. Bahou, W.-C. Chen, C.-H. Yu, Y.-P. Lee, and L. C. Lee, *J. Chem. Phys.* **117**, 1633 (2002).
 104. "Quantitative spectral analysis of HCl and DCl in 120-220 nm: Effects of singlet-triplet mixing", B.-M. Cheng, C.-Y. Chung, M. Bahou, Y.-P. Lee, and L. C. Lee, *J. Chem. Phys.* **117**, 4293 (2002).
 105. "Experimental and theoretical studies on Rydberg states of CH₂CO in the region 120-220nm", S.-Y. Chiang, M. Bahou, Y.-J. Wu, and Y.-P. Lee, *J. Chem. Phys.* **117**, 4306 (2002).
 106. "Infrared spectra of CO in absorption and evaluation of radial functions for potential energy and electric dipolar moment", J. F. Ogilvie, S.-L. Cheah, Y.-P. Lee, and S. P. A. Sauer, *Theor. Chim. Acc.* **108**, 85 (2002).
 107. "Two-color resonant four-wave mixing spectroscopy of the X ¹A₁ (500) state of SO₂ in a supersonic jet", Y. Matsuda and Y.-P. Lee, *Chem. Phys. Lett.* **362**, 235 (2002).
 108. "Thermal analysis and PLIF imaging of reacting flow behind a disc stabilizer with a central fuel jet", J.-T. Yang, C.-C. Chang, K.-L. Pan, Y.-P. Kang, and Y.-P. Lee, *Combust. Sci. Tech.* **174**, 71 (2002).
 109. "Nonresonant two-photon mass analyzed threshold ionization and zero kinetic energy photoelectron investigation of the \tilde{X}^2B_1 ground state of CH₂CO⁺ and CD₂CO⁺", S. Wang, Y. Shi, Z. J. Jakubek, M. Barnett, B. Simard, K. Müller-Dethlefs, C.-P. Liu, and Y.-P. Lee, *J. Chem. Phys.* **117**, 6546 (2002).

110. "Isomers of S₂O: IR absorption spectra of cyclic S₂O in solid Ar", W.-J. Lo, Y.-J. Wu, and Y.-P. Lee, *J. Chem. Phys.* **117**, 6655 (2002).
111. "Experimental and theoretical studies of rate coefficients of the reaction O(³P) + HCl at high temperatures", C.-C. Hsiao, Y.-P. Lee, N. S. Wang, J. H. Wang, and M. C. Lin, *J. Phys. Chem. A* **106**, 10231 (2002).
112. "Absorption cross sections and solar photodissociation rate of deuterated isotopomers of methanol", B.-M. Cheng, M. Bahou, Y.-P. Lee, and L. C. Lee, *J. Geophys. Res.* **107**, 10.1029/2001JA000309 (2002).
113. "Three-center vs. four-center elimination of haloethene: internal energies of HCl and HF on photolysis of CF₂CHCl at 193 nm determined with time-resolved Fourier-transform spectroscopy", C.-Y. Wu, C.-Y. Chung, Y.-C. Lee, and Y.-P. Lee, *J. Chem. Phys.* **117**, 9785 (2002).
114. "The matrix isolation spectrum of the CH₂⁺ ion", P. R. Bunker, W. P. Kraemer, P. Jensen, Y.-C. Lee, and Y.-P. Lee, *J. Mol. Spectrosc.* **216**, 419 (2002).
115. "Dissociative photoionization of CH₂Cl₂ and enthalpy of formation of CHCl⁺: experiments and calculations", S.-Y. Chiang, M. Bahou, K. Sankaran, Y.-P. Lee, H.-F. Lu, and M.-D. Su, *J. Chem. Phys.* **118**, 62 (2003).
116. "Photolysis of oxalyl chloride (ClCO)₂ at 248 nm: emission of CO (v' ≤ 3, J' ≤ 51) detected with time-resolved Fourier-transform spectroscopy", C.-Y. Wu, Y.-P. Lee, J. F. Ogilvie, and N. S. Wang, *J. Phys. Chem. A* **107**, 2389 (2003).
117. "Strengths of absorption features in vibration-rotational band v = 6 ← v = 0 of ¹⁴N¹⁶O X ²Π_r in the near infrared region", Y.-P. Lee, S.-L. Cheah, and J. F. Ogilvie, *Infrared Phys. Tech.* **44**, 199 (2003).
118. "State-resolved dynamics of photofragmentation", Y.-P. Lee, *Annu. Rev. Phys. Chem.* **54**, 215 (2003).
119. "Isomers of Ge₂N₂: production and IR absorption of GeNNGe in solid N₂", M. Bahou, K. Sankaran, Y.-J. Wu, Y.-P. Lee, D. Rayner, and B. Simard, *J. Chem. Phys.* **118**, 9710 (2003)
120. "Reaction dynamics of Cl + H₂S: rotational and vibrational distribution of HCl probed with time-resolved Fourier-transform spectroscopy", K.-S. Chen, S.-S. Cheng, and Y.-P. Lee, *J. Chem. Phys.* **119**, 4229 (2003).
121. "Ultraviolet absorption spectrum of cyclic S₂O in solid Ar", W.-J. Lo, Y.-J. Wu, and Y.-P. Lee, *J. Phys. Chem. A* **107**, 6944 (2003).
122. "Investigation of some Rydberg states of ketene by two-photon resonance-enhanced multiphoton-ionization spectroscopy", S. Wang, Y. Shi, S. Dénoimmée, B. Simard, and Y.-P. Lee, *J. Chem. Phys.* **119**, 7772 (2003).
123. "Highly predissociative levels of CH₃S (A ²A₁) detected with degenerate four-wave mixing", C.-P. Liu, Y. Matsuda, and Y.-P. Lee, *J. Chem. Phys.* **119**, 12335 (2003).
124. "Experiments and calculations on rate coefficients for pyrolysis of SO₂ and the reaction O + SO at high temperatures" by C.-W. Lu, Y.-J. Wu, Y.-P. Lee, R. S. Zhu, and M. C. Lin, *J. Phys. Chem. A* **107**, 11020 (2003).
125. "Quantitative spectroscopic and theoretical study of the optical absorption spectra of H₂O, HOD, and D₂O in the 125-145 nm region", B.-M. Cheng, C.-Y. Chung, M. Bahou, Y.-P. Lee, L. C. Lee, R. Harrevelt, and

- M. C. Hemert, J. Chem. Phys. **120**, 224 (2004).
126. "Infrared matrix-isolation spectroscopy using pulsed deposition of *p*-H₂", Y.-J. Wu, X. Yang, and Y.-P. Lee*, J. Chem. Phys. **120**, 1168 (2004).
 127. "Reaction dynamics of Cl + CH₃SH: rotational and vibrational distributions of HCl probed with time-resolved Fourier-transform spectroscopy", S.-S. Cheng, Y.-J. Wu, and Y.-P. Lee*, J. Chem. Phys. **120**, 1792 (2004).
 128. "Detection of ClSO with time-resolved Fourier-transform infrared absorption spectroscopy", L.-K. Chu and Y.-P. Lee*, J. Chem. Phys. **120**, 3179 (2004).
 129. "Experimental and *ab initio* studies of photoionization and dissociative photoionization of CH₂Br₂", S.-Y. Chiang,* Y.-S. Fang, K. Sankaran, and Y.-P. Lee, J. Chem. Phys. **120**, 3270 (2004).
 130. "Isomers of HSCO: IR absorption spectra of *t*-HSCO in solid Ar", W.-J. Lo, H.-F. Chen, Y.-J. Wu, and Y.-P. Lee*, J. Chem. Phys. **120**, 5717 (2004).
 131. "Photolysis of oxalyl chloride (ClCO)₂ at 193 nm : Emission of CO(*v* ≤ 6, *J* ≤ 60) detected with time-resolved Fourier-transform spectroscopy", C.-Y. Wu, Y.-P. Lee*, and N. S. Wang, J. Chem. Phys. **120**, 6957 (2004).
 132. "Infrared cavity ringdown spectroscopy of jet-cooled polycyclic aromatic hydrocarbons", A. J. Huneycutt, R. N. Casaes, B. J. McCall, C.-Y. Chung, Y.-P. Lee, and R.-J. Saykally,* ChemPhysChem **5**, 321 (2004).
 133. "Experimental and theoretical investigations of rate coefficients of the reaction S(³P) + O₂ in the temperature range 298-878 K", C.-W. Lu, Y.-J. Wu, Y.-P. Lee*, R. S. Zhu, and M. C. Lin,* J. Chem. Phys. **121**, 8271, (2004).
 134. "Molecular elimination in photolysis of fluorobenzene at 193 nm: internal energy of HF determined with time-resolved Fourier-transform spectroscopy", C.-Y. Wu, Y.-J. Wu, and Y.-P. Lee*, J. Chem. Phys. **121**, 8792, (2004).
 135. "Isomers of OCS₂: IR absorption spectra of OSCS and O(CS₂) in solid Ar", W.-J. Lo, H.-F. Chen, P.-H. Chou, and Y.-P. Lee*, J. Chem. Phys. **121**, 12371 (2004).
 136. "Photodissociation dynamics of vinyl chloride investigated with a pulsed slit-jet and time-resolved Fourier-transform spectroscopy", M. Bahou and Y.-P. Lee*, Aus. J. Chem. **57**, 1161 (2004).
 137. "Two-color resonant four-wave spectroscopy of highly predissociated levels in the \tilde{A}^2A_1 state of CH₃S", C.-P. Liu, S. A. Reid, and Y.-P. Lee*, J. Chem. Phys. **122**, 124313 (2005).
 138. "Experimental and theoretical studies of rate coefficients for the reaction O(³P) + CH₃OH at high temperatures", C.-W. Lu, S.-L. Chou, Y.-P. Lee*, S. Xu, Z. F. Xu, and M. C. Lin*, J. Chem. Phys. **122**, 244314 (2005).
 139. "Preparation and spectral characterization of novel species in matrices", Y.-P. Lee*, J. Chin Chem. Soc. **52**, 641 (2005).
 140. "Isomers of GeNO and Ge(NO)₂: production and infrared absorption of GeNO and ONGeNO in solid Ar", J.-B. Chou, M. Bahou, Y.-P. Lee*, D. Rayner, and B. Simard, J. Chem. Phys. **123**, 054321 (2005).
 141. "Photodissociation dynamics of formyl fluoride (HFCO) at 193 nm: Branching ratios and distributions of

- kinetic energy", S.-H. Lee,* C.-Y. Wu, S.-K. Yang, and Y.-P. Lee*, J. Chem. Phys. **123**, 074326 (2005).
142. "Isomers of NCO₂: IR absorption spectra of ONCO in solid Ne", Y.-J. Wu and Y.-P. Lee*, J. Chem. Phys. **123**, 174301 (2005).
143. "Detection of vibration-rotational band 5 – 0 of ¹²C¹⁶O X ¹Σ⁺ with cavity ringdown absorption near 0.96 μm", C.-Y. Chung, J. F. Ogilvie, and Y.-P. Lee*, J. Phys. Chem. A **109**, 7854 (2005).
144. "Molecular elimination in photolysis of *o*- and *p*-fluorotoluene at 193 nm: internal energy of HF determined with time-resolved Fourier-transform spectroscopy", S.-K. Yang, S.-Y. Liu, H.-F. Chen, and Y.-P. Lee*, J. Chem. Phys. **123**, 224304 (2005).
145. "Internal rotation and spin conversion of CH₃OH in solid *para*-hydrogen", Y.-P. Lee*, Y.-J. Wu, R. M. Lees, L.-H. Xu, and J. T. Hougen, Science **311**, 365 (2006).
146. "Intensities of vibration-rotational bands 3 – 0 to 6 – 0 of ¹⁴N¹⁶O X ²Π, and an experimental evaluation of the radial function for electric dipolar moment", Y.-P. Lee, S.-L. Cheah, and J. F. Ogilvie*, Infrared Physics Tech. **47**, 227 (2006).
147. "Infrared absorption of CH₃SO₂ detected with time-resolved Fourier-transform spectroscopy", L.-K. Chu and Y.-P. Lee*, J. Chem. Phys. **124**, 244301 (2006).
148. "The B³Σ⁻ state of the SO radical", C.-P. Liu, N. L. Elliott, C. M. Western,* Y.-P. Lee, and R. Colin, J. Mol. Spectrosc. **238**, 213 (2006).
149. "Absorption cross sections of NH₃, NH₂D, NHD₂, and ND₃ in the spectral range 140–220 nm and its implication for planetary isotopic fractionation", B.-M. Cheng, H.-C. Lu, H.-K. Chen, M. Bahou, Y.-P. Lee, A. M. Mebel, L. C. Lee, M.-C. Liang, and Y. L. Yung, Astrophys. J. **647**, 1535 (2006).
150. "Distribution of internal state of CO from O (¹D) + CO determined with time-resolved Fourier-transform spectroscopy", H.-F. Chen and Y.-P. Lee*, J. Phys. Chem. A **110**, 12096 (2006).
151. "Photodissociation dynamics of fluorobenzene (C₆H₅F) at 157 and 193 nm: branching ratios and distributions of kinetic energy", S.-H. Lee,* C.-Y. Wu, S.-K. Yang, and Y.-P. Lee*, J. Chem. Phys. **125**, 144301 (2006).
152. "Experimental and theoretical investigation of rate coefficients of the reaction S (³P) + OCS in the temperature range 298–985 K", C.-W. Lu, Y.-J. Wu, Y.-P. Lee*, R. S. Zhu, and M. C. Lin*, J. Chem. Phys. **125**, 164329 (2006).
153. "Infrared spectra of C₂H₂ under jet-cooled and *para*-H₂ matrix conditions", Y.-C. Lee, V. Venkatesan, Y.-P. Lee*, P. Macko, K. Didiriche, and M. Herman*, Chem. Phys. Lett. **435**, 247 (2007). (SCI: [1.991](#))
154. "Isotopic fractionation of nitrogen in ammonia in the troposphere of Jupiter", M.-C. Liang*, B.-M. Cheng*, H.-C. Lu, H.-K. Chen, M. S. Alam, Y.-P. Lee*, and Y. L. Yung*, Astrophys. J. **657**, L117 (2007). (SCI: [6.28](#))
155. "Infrared absorption of C₆H₅SO₂ detected with time-resolved Fourier-transform spectroscopy", L.-K. Chu and Y.-P. Lee*, J. Chem. Phys. **126**, 134311 (2007). (SCI: [3.122](#))
156. "Infrared absorption of gaseous ClCS detected with time-resolved Fourier-transform spectroscopy", L.-K. Chu, H.-L. Han, and Y.-P. Lee*, J. Chem. Phys. **126**, 174310 (2007). (SCI: [3.122](#))

157. "Experimental and theoretical studies of rate coefficients for the reaction $O(^3P) + C_2H_5OH$ at high temperatures", C.-W. Wu, Y.-P. Lee*, S. Xu, and M. C. Lin*, *J. Phys. Chem. A* **111**, 6693 (2007). (SCI: 2.775)
158. "Rovibronic bands of the $\tilde{A} \leftarrow \tilde{X}$ transition of CH_3OO and CD_3OO detected with cavity ringdown absorption near 1.2-1.4 μm ", C.-Y. Chung, C.-W. Cheng, Y.-P. Lee*, H.-Y. Liao, E. N. Sharp, P. Rupper, and T. A. Miller*, *J. Chem. Phys.* **127**, 044311 (2007). (SCI: 3.122)
159. "Relaxation dynamics of ruthenium complexes in solution, PMMA and TiO_2 films: the roles of self quenching and interfacial electron transfer", C.-W. Chang, C. K. Chou, I.-J. Chang, Y.-P. Lee, and E. W.-G. Diau*, *J. Phys. Chem. C* **111**, 13288 (2007). (SCI: 4.835)
160. "Photodissociation dynamics of phenol", C.-M. Tseng, Y. T. Lee, M.-F. Lin, C.-K. Ni, S.-Y. Liu, Y.-P. Lee*, Z. F. Xu, and M. C. Lin, *J. Phys. Chem. A* **111**, 9463 (2007). (SCI: 2.775)
161. "Photoabsorption cross sections of NH_3 , NH_2D , NHD_2 , and ND_3 in the spectral range 110-144 nm", Y.-J. Wu, H.-C. Lu, H.-K. Chen, B.-M. Cheng*, Y.-P. Lee*, and L. C. Lee*, *J. Chem. Phys.* **127**, 154311 (2007). (SCI: 3.122)
162. "Infrared absorption of gaseous CH_3OO detected with a step-scan Fourier-transform spectrometer", D.-R. Huang, L.-K. Chu, and Y.-P. Lee*, *J. Chem. Phys.* **127**, 234318 (2007). (SCI: 3.122)
163. "Theoretical investigation of molecular properties of the first excited state of phenoxy radical", C.-W. Cheng, Y.-P. Lee, and H. Witek*, *J. Phys. Chem. A* **112**, 2648 (2008). (SCI: 2.775)
164. "Infrared absorption spectra of vinyl radicals isolated in solid Ne", Y.-J. Wu, M.-Y. Lin, B.-M. Cheng*, H.-F. Chen, and Y.-P. Lee*, *J. Chem. Phys.* **128**, 204509 (2008). (SCI: 3.122)
165. "Direct spectral evidence of single-axis rotation and *ortho*-hydrogen-assisted nuclear spin conversion of CH_3F in solid *para*-hydrogen", Y.-P. Lee*, Y.-J. Wu, and J. T. Hougen, *J. Chem. Phys.* **129**, 104502 (2008). Selected as Editors' choice, *Science* **322**, 16 (2008). (SCI: 3.122)
166. "Rovibronic bands of the $\tilde{A} \ ^2B_2 \leftarrow \tilde{X} \ ^2B_1$ transition of C_6H_5O and C_6D_5O detected with cavity ringdown absorption near 1.2 μm ", C.-W. Cheng, H. Witek, and Y.-P. Lee*, *J. Chem. Phys.* **129**, 154307 (2008). (SCI: 3.122)
167. "Dynamics of reactions $O(^1D) + C_6H_6$ and C_6D_6 ", H.-F. Chen, C.-W. Liang, J. J. Lin*, Y.-P. Lee*, J. F. Ogilvie, Z. F. Xu, and M. C. Lin*, *J. Chem. Phys.* **129**, 174303 (2008). (SCI: 3.122)
168. "The ν_7 , ν_8 , and ν_{11} bands of propynal, C_2HCHO , in the 650 cm^{-1} region", A. R. W. McKellar*, J. K.G. Watson, L.-K. Chu, and Y.-P. Lee, *J. Mol. Spectrosc.* **252**, 230 (2008). (SCI: 1.529)
169. "Theoretical investigation of molecular properties of the first excited state of the thiophenoxy radical", C.-W. Cheng, Y.-P. Lee, and H. Witek*, *J. Phys. Chem. A* **112**, 11998 (2008). (SCI: 2.775)
170. "Internal energy of HCl upon photolysis of 2-chloropropene at 193 nm investigated with time-resolved Fourier-transform spectroscopy and quasi-classical trajectories", C.-M. Chang, Y.-H. Huang, S.-Y. Liu, Y.-P. Lee*, M. Pombar-Pérez, E. Martínez-Núñez, and S. A. Vázquez*, *J. Chem. Phys.* **129**, 224301 (2008). (SCI: 3.122)
171. "Distribution of vibrational states of CO_2 in the reaction $O(^1D) + CO_2$ from time-resolved Fourier-transform infrared emission spectra", H.-F. Chen, H.-C. Chiang, H. Matsui, S. Tsuchiya*, and Y.-P.

- Lee*, J. Phys. Chem. A **113**, 3431 (2009). (SCI: 2.775)
172. "Infrared absorption of gaseous *c*-ClCOOH and *t*-ClCOOH recorded with a step-scan Fourier-transform spectrometer", L.-K. Chu and Y.-P. Lee*, J. Chem. Phys. **130**, 174304 (2009). (SCI: 3.122)
173. "Femtosecond transient absorption of zinc porphyrins with oligo(phenylethynyl) linkers in solution and on TiO₂ films", C.-W. Chang, L. Luo, C.-K. Chou, C.-F. Lo, C.-Y. Lin, C.-S. Hung, Y.-P. Lee, and E. W.-G. Diau*, J. Phys. Chem. C **113**, 11524 (2009). (SCI: 4.835)
174. "Electric field effects on photoluminescence of polyfluorene thin films: dependence on excitation wavelength, field strength, and temperature", M. S. Mehata, C.-S. Hsu, Y.-P. Lee, and N. Ohta*, J. Phys. Chem. C **113**, 11907 (2009). (SCI: 4.835)
175. "Comparison of geometric, electronic, and vibrational properties for all pentagon/hexagon-bearing isomers of fullerenes C₃₈, C₄₀, and C₄₂", E. Malolepsza, Y.-P. Lee, H. A. Witek*, S. Irle, C.-F. Lin, and H.-M. Hsieh, Int. J. Quantum Chem. **109**, 1999 (2009). (SCI: 1.166)
176. "Reaction dynamics of O(¹D, ³P) + OCS studied with time-resolved Fourier transform IR spectroscopy and quantum-chemical calculations", H.-C. Chiang, N. S. Wang, S. Tsuchiya*, H.-T. Chen, Y.-P. Lee*, and M. C. Lin*, J. Phys. Chem. A **113**, 13260 (2009). (SCI: 2.775)
177. "Infrared absorption of GeNNO isolated in solid Ar", Z.-M. Jiang, J. Glatthaar, and Y.-P. Lee*, J. Chem. Phys. **131**, 144504 (2009). (SCI: 3.122)
178. "Transient infrared absorption of *t*-CH₃C(O)OO, *c*-CH₃C(O)OO, and α -lactone recorded in gaseous reactions of CH₃CO and O₂", S.-Y. Chen and Y.-P. Lee*, J. Chem. Phys. **132**, 114303 (2010). (SCI: 3.122)
179. "Diminished cage effect in solid *p*-H₂: infrared spectra of ClSCS, ClCS, and ClSC in an irradiated *p*-H₂ matrix containing Cl₂ and CS₂", C.-W. Huang, Y.-C. Lee, and Y.-P. Lee*, J. Chem. Phys. **132**, 164303 (2010). (SCI: 3.122)
180. "Electric-field-induced enhancement/quenching of photoluminescence of π -conjugated polymer S3-PPV: excitation energy dependence", M. S. Mehata, C.-S. Hsu, Y.-P. Lee, and N. Ohta*, J. Phys. Chem. B **114**, 6258 (2010). (SCI: 3.377)
181. "Advances in use of *p*-H₂ as a novel host for matrix IR spectroscopy", M. Bahou, C.-W. Huang, Y.-L. Huang, J. Glatthaar, and Y.-P. Lee*, J. Chin. Chem. Soc. **57**, 771 (2010). (SCI: 0.856)
182. "Ordering, interaction and reactivity of the low-lying $n\pi^*$ and $\pi\pi^*$ excited triplet states of acetophenones**", S. Yabumoto, S. Shigeto, Y.-P. Lee, and H.-o Hamaguchi*, Angew. Chem. Int. Ed. **49**, 9201 (2010). (SCI: 11.336)
183. "Theoretical interpretation of the UV-Vis spectrum of the CS₂/Cl complex in the spectral region 320–550 nm", C. Camacho, C.-W. Cheng, H. Witek*, and Y.-P. Lee, J. Phys. Chem. A **114**, 11008 (2010). (SCI: 2.775)
184. "Diminished cage effect in solid *p*-H₂: infrared absorption of CH₃S observed from photolysis in situ of CH₃SH, CH₃SCH₃ or CH₃SSCH₃ isolated in *p*-H₂ matrices", M. Bahou and Y.-P. Lee*, J. Chem. Phys. **133**, 164316 (2010). (SCI: 3.122)
185. "Transient infrared spectra of CH₃SOO and CH₃SO observed with a step-scan Fourier-transform spectrometer", L.-K. Chu and Y.-P. Lee*, J. Chem. Phys. **133**, 184303 (2010). (SCI: 3.122)

186. "Site-selective reaction of Cl + propene in solid para-hydrogen: exclusive formation of 2-chloropropyl radicals", J. Amicangelo and Y.-P. Lee*, J. Phys. Chem. Lett. **1**, 2956 (2010). (SCI: 6.687)
187. "Synthesis and electron-transfer properties of benzimidazole-functionalized ruthenium complexes for highly efficient dye-sensitized solar cells", W.-K. Huang, C.-W. Cheng, S.-M. Chang, Y.-P. Lee, and Eric Diau*, Chem. Comm. **46**, 8992 (2010). (SCI: 6.718)
188. "Infrared absorption of CH₃OSO detected with time-resolved Fourier-transform spectroscopy", J.-D. Chen and Y.-P. Lee*, J. Chem. Phys. **134**, 094304 (2011). Selected for the April 2011 issue of Virtual Journal of Ultrafast Science. (SCI: 3.122)
189. "Franck-Condon simulation of the $A^1B_2 \rightarrow X^1A_1$ dispersed fluorescence spectrum of fluorobenzene and its rate of the internal conversion", R. He, L. Yang, C. Zhu*, M. Yamaki, Y.-P. Lee, and S. H. Lin, J. Chem. Phys. **134**, 094313 (2011). (SCI: 3.122)
190. "He(I) ultraviolet photoelectron spectroscopy of benzene and pyridine in supersonic molecular beams using photoelectron imaging", S.-Y. Liu, K. Almana, J. Matsumoto, K. Nishizawa, H. Kohguchi, Y.-P. Lee, and T. Suzuki*, J. Phys. Chem. A **115**, 2953 (2011). (SCI: 2.775)
191. "Infrared absorption of CH₃SO₂ observed upon irradiation of a *p*-H₂ matrix containing CH₃I and SO₂", Y.-F. Lee and Y.-P. Lee*, J. Chem. Phys. **134**, 124314 (2011). (SCI: 3.122)
192. "Infrared absorption of methanol clusters (CH₃OH)_{*n*} with *n* = 2–6 recorded with a time-of-flight mass spectrometer using IR depletion and VUV ionization", H.-L. Han, C. Camacho, H. A. Witek, and Y.-P. Lee*, J. Chem. Phys. **134**, 144309 (2011). (SCI: 3.122)
193. "Blue/Near UV light emission from hybrid InN/TiO₂ nanoparticle films", C.-W. Wu, C.-W. Lu, Y.-P. Lee, Y.-J. Wu*, B.-M. Cheng, and M. C. Lin*, J. Mater. Chem. **21**, 8540 (2011). (SCI: 6.626)
194. "Infrared spectrum of mass-selected CH₃S radicals investigated with infrared + vacuum ultraviolet photoionization", H.-L. Han, L. Fu, and Y.-P. Lee*, Chem. Phys. Lett. **515**, 1 (2011). (Frontier Article) (SCI: 1.991)
195. "Photodissociation dynamics of benzaldehyde (C₆H₅CHO) at 266, 248, and 193 nm", A. Bagchi, Y.-H. Huang, Z. F. Xu, P. Raghunath, Y. T. Lee, C.-K. Ni*, M. C. Lin*, and Y.-P. Lee*, Chem. Asian J. **6**, 2961 (2011). (SCI: 3.935)
196. "Reactions between chlorine atom and acetylene in solid para-hydrogen: Infrared spectrum of the 1-chloroethyl radical", B. Golec and Y.-P. Lee*, J. Chem. Phys. **135**, 174302 (2011). (SCI: 3.122)
197. "Infrared absorption of gaseous benzoylperoxy radical C₆H₅C(O)OO recorded with a step-scan Fourier-transform spectrometer", B. Golec, J.-D. Chen, and Y.-P. Lee*, J. Chem. Phys. **135**, 224302 (2011). (SCI: 3.122)
198. "Infrared spectrum of the 2-chloroethyl radical in solid para-hydrogen", J. C. Amicangelo*, B. Golec, M. Bahou, and Y.-P. Lee*, Phys. Chem. Chem. Phys. **14**, 1014 (2012). (SCI: 4.198)
199. "Infrared absorption of CH₃OSO and CD₃OSO radicals produced upon photolysis of CH₃OS(O)Cl and CD₃OS(O)Cl in *p*-H₂ matrices", Y.-F. Lee, L.-J. Kong, and Y.-P. Lee*, J. Chem. Phys. **136**, 124510 (2012). (SCI: 3.122)
200. "A new method for investigating infrared spectra of protonated benzene (C₆H₇⁺) and cyclohexadienyl radical (*c*-C₆H₇) using para-hydrogen", M. Bahou, Y.-J. Wu*, and Y.-P. Lee*, J. Chem. Phys. **136**, 154304

- (2012). Selected as Editor's choice, (2012). (SCI: 3.122)
201. "Infrared absorption of gaseous benzoyl radical C_6H_5CO recorded with a step-scan Fourier-transform spectrometer", S.-Y. Lin and Y.-P. Lee*, J. Phys. Chem. A **116**, 6366 (2012). (SCI: 2.775)
 202. "Design and characterization of heteroleptic ruthenium complexes containing benzimidazole ligands for dye-sensitized solar cells: the effect of fluorine substituents on photovoltaic performance", W.-K. Huang, H.-P. Wu, P.-L. Lin, Y.-P. Lee, and Eric W.-G. Diau*, J. Phys. Chem. Lett. **3**, 1830 (2012). (SCI: 6.687)
 203. "Study of the reactive excited-state dynamics of delipidated bacteriorhodopsin upon surfactant treatments", C.-W. Cheng, Y.-P. Lee*, and L.-K. Chu*, Chem. Phys. Lett. **539**, 151 (2012). (SCI: 1.991)
 204. "Electroabsorption and electrophotoluminescence of poly(2,3-diphenyl-5-hexyl-p-phenylene vinylene)", M. S. Mehata, C.-S. Hsu, Y.-P. Lee, and N. Ohta*, J. Phys. Chem. C **116**, 14789 (2012). (SCI: 4.835)
 205. "Infrared absorption of *trans*-1-chloromethylallyl and *trans*-1-methylallyl radicals produced in photochemical reactions of *trans*-1,3-butadiene and Cl_2 in solid *para*-hydrogen", M. Bahou, J.-Y. Wu, K. Tanaka, and Y.-P. Lee*, J. Chem. Phys. **137**, 084310 (2012). (SCI: 3.122)
 206. "Extrinsic charge traps in disordered organic materials", L.-B. Lin*, C.-W. Cheng, C.-A. Dai, and Y.-P. Lee, J. Appl. Phys. **112**, 073715 (2012). (SCI: 2.185)
 207. "Dynamics of the reactions of $O(^1D)$ with CD_3OH and CH_3OD studied with time-resolved Fourier-transform IR spectroscopy", C.-K. Huang, Z.-F. Xu, M. Nakajima*, Hue M. T. Nguyen, M. C. Lin*, S. Tsuchiya*, and Y.-P. Lee*, J. Chem. Phys. **137**, 164307 (2012). (SCI: 3.122)
 208. "Infrared absorption of methanethiol clusters $(CH_3SH)_n$, $n = 2-5$, recorded with a time-of-flight mass spectrometer using IR depletion and VUV ionization", L. Fu, H.-L. Han, and Y.-P. Lee*, J. Chem. Phys. **137**, 234307 (2012). (SCI: 3.122)
 209. "Formation and infrared absorption of protonated naphthalenes ($1-C_{10}H_9^+$ and $2-C_{10}H_9^+$) and their neutral counterparts in solid *para*-hydrogen", M. Bahou, Y.-J. Wu*, and Y.-P. Lee*, Phys. Chem. Chem. Phys. **15**, 1907 (2013). (SCI: 4.198)
 210. "Reactions between atomic chlorine and pyridine in solid *para*-hydrogen: infrared spectrum of the 1-chloropyridinyl (C_5H_5N-Cl) radical", P. Das, M. Bahou, and Y.-P. Lee*, J. Chem. Phys. **138**, 054307 (2013). (SCI: 3.122)
 211. "Infrared identification of the σ -complex of $Cl-C_6H_6$ in the reaction of chlorine atom and benzene in solid *para*-hydrogen", M. Bahou, H. Witek, and Y.-P. Lee*, J. Chem. Phys. **138**, 074310 (2013). (SCI: 3.122)
 212. "Effects of hydrogen bonding on internal conversion of GFP-like chromophores. I. The *para*-amino systems", G.-J. Huang, C.-W. Cheng, H.-Y. Hsu, Ch. Prabhakar, Y.-P. Lee*, Eric W.-G. Diau*, and J.-S. Yang*, J. Phys. Chem. B **117**, 2695 (2013). (SCI: 3.377)
 213. "Effects of hydrogen bonding on internal conversion of GFP-like chromophores. II. The *meta*-amino system", C.-W. Cheng, G.-J. Huang, H.-Y. Hsu, Ch. Prabhakar, Y.-P. Lee*, Eric W.-G. Diau*, and J.-S. Yang*, J. Phys. Chem. B **117**, 2705 (2013). (SCI: 3.377)
 214. "Infrared absorption spectrum of the simplest Criegee intermediate CH_2OO ", Y.-T. Su, Y.-H. Huang, H. A. Witek*, and Y.-P. Lee*, Science **340**, 174 (2013). (SCI: 31.477)
 215. "Infrared spectra of protonated pyrene and its neutral counterpart in solid *para*-hydrogen", M. Bahou, Y.-J.

- Wu*, and Y.-P. Lee*, J. Phys. Chem. Lett. **4**, 1989 (2013). (SCI: 6.687)
216. "Infrared absorption of 3-propenonyl ($\bullet\text{CH}_2\text{CHCO}$) radical generated upon photolysis of acryloyl chloride [$\text{CH}_2\text{CHC}(\text{O})\text{Cl}$] in solid *para*- H_2 ", P. Das and Y.-P. Lee*, J. Chem. Phys. **139**, 084320 (2013). (SCI: 3.122)
217. "Topology of conical/surface intersections among five low-lying electronic states of CO_2 : Multireference configuration interaction calculations", B. Zhou, C. Zhu*, Z. Wen, Z. Jiang, J. Yu, Y.-P. Lee, and S. H. Lin, J. Chem. Phys. **139**, 154302 (2013). (SCI: 3.122)
218. "Infrared spectra of the 1-pyridinium ($\text{C}_5\text{H}_5\text{NH}^+$) cation and pyridinyl ($\text{C}_5\text{H}_5\text{NH}$ and 4- $\text{C}_5\text{H}_6\text{N}$) radicals isolated in solid *para*-hydrogen", B. Golec, P. Das, M. Bahou, and Y.-P. Lee*, J. Phys. Chem. A **117**, 13680 (2013). (SCI: 2.775)
219. "Infrared spectra of protonated coronene and its neutral counterpart in solid parahydrogen: Implications for the unidentified interstellar infrared emission bands", M. Bahou, Y.-J. Wu*, and Y.-P. Lee*, Angew. Chem. Int. Ed. **53**, 1021 (2014). (SCI: 11.336)
220. "Transient infrared absorption spectra of reaction intermediates detected with a step-scan Fourier-transform infrared spectrometer", Y.-H. Huang, J.-D. Chen, K.-H. Hsu, L.-K. Chu*, and Y.-P. Lee*, J. Chin. Chem. Soc. **61**, 47 (2014). (Invited Mini-Review). (SCI: 0.856)
221. "Infrared spectra of free radicals and protonated species produced in *para*-hydrogen matrices", M. Bahou, P. Das, Y.-F. Lee, Y.-J. Wu, and Y.-P. Lee*, Phys. Chem. Chem. Phys. **16**, 2200 (2014). (Invited Perspective Article). (SCI: 4.198)
222. "Extremely rapid self-reaction of the simplest Criegee intermediate CH_2OO and its implications in atmospheric chemistry", Y.-T. Su, H.-Y. Lin, R. Putikam, H. Matsui, M. C. Lin*, and Y.-P. Lee*, Nat. Chem. **6**, 477 (2014). (SCI: 23.297)
223. "Femtosecond infrared transient absorption dynamics of benzimidazole-based ruthenium complexes on TiO_2 films for dye-sensitized solar cells", H.-Y. Hsu, C.-W. Cheng, We.-K. Huang, Y.-P. Lee*, and Eric W.-G. Diau*, J. Phys. Chem. C **118**, 16904 (2014). (SCI: 4.835)
224. "Bimolecular reaction of $\text{CH}_3 + \text{CO}$ in solid *p*- H_2 : infrared absorption of acetyl radical (CH_3CO) and $\text{CH}_3\text{-CO}$ complex", P. Das and Y.-P. Lee*, J. Chem. Phys. **140**, 244303 (2014). (SCI: 3.122)
225. "Alcohol dimers – how much diagonal OH anharmonicity?", F. Kollipost, K. Papendorf, Y.-F. Lee, Y.-P. Lee, and M. A. Suhm*, Phys. Chem. Chem. Phys. <http://pubs.rsc.org/en/content/articlehtml/2014/cp/c4cp01418a-fn1> **16**, 15948 (2014). (SCI: 4.198)
226. "Femtosecond excitonic relaxation dynamics of perovskite on mesoporous films of Al_2O_3 and NiO nanoparticles", H.-Y. Hsu, C.-Y. Wang, A. Fathi, J.-W. Shiu, C.-C. Chung, P.-S. Shen, T.-F. Guo, P. Chen, Y.-P. Lee, and Eric W.-G. Diau*, Angew. Chem. Int. Ed. **53**, 9339 (2014). (SCI: 11.336)
227. "Critical interpretation of CH- and OH- stretching regions for infrared spectra of methanol clusters $(\text{CH}_3\text{OH})_n$ ($n = 2-5$) using self-consistent-charge density functional tight-binding molecular dynamics simulations", Y. Nishimura, Y.-P. Lee, S. Irle, and H. Witek*, J. Chem. Phys. **141**, 094303 (2014). (SCI: 3.122)
228. "Detailed mechanism of the $\text{CH}_2\text{I} + \text{O}_2$ reaction: Yield and self-reaction of the simplest Criegee intermediate CH_2OO ", W.-L. Ting, C.-H. Chang, Y.-F. Lee, H. Matsui, Y.-P. Lee*, and Jim J.-M. Lin*, J.

- Chem. Phys. **141**, 104308 (2014). (SCI: [3.122](#))
229. "Reaction dynamics of $O(^1D) + HCOOD/DCOOH$ investigated with time-resolved Fourier-transform infrared emission spectroscopy", S.-C. Huang, N. T. Nghia, R. Putikam, H. M. T. Nguyen, M. C. Lin*, S. Tsuchiya*, and Y.-P. Lee*, J. Chem. Phys. **141**, 154313 (2014). (SCI: [3.122](#))
230. "Infrared absorption of gaseous CH_2BrOO detected with a step-scan Fourier-transform absorption spectrometer", Y.-H. Huang and Y.-P. Lee*, J. Chem. Phys. **141**, 164302 (2014). (SCI: [3.122](#))
231. "Infrared identification of proton-bound rare-gas dimers $(XeHXe)^+$, $(KrHKr)^+$, and $(KrHXe)^+$ and their deuterated species in solid hydrogen", M. Tsuge, J. Kalinowski, R. B. Gerber*, and Y.-P. Lee*, J. Phys. Chem. A **119**, 2651 (2015). (Special Issue: Markku Rasänen Festschrift) (SCI: [2.775](#))
232. "Infrared absorption of CH_3O and CD_3O radicals isolated in solid *para*- H_2 ", Y.-F. Lee, W.-T. Chou, B. A. Johnson, D. P. Tabor, E. L. Sibert III*, and Y.-P. Lee*, J. Mol. Spec. **310**, 57 (2015). (Spectroscopy of Radicals and Ions in Memory of Marilyn Jacox) (SCI: [1.529](#))
233. "Infrared absorption of iodomethylperoxy (*syn*- ICH_2OO) radical generated upon photolysis of CH_2I_2 and O_2 in solid *para*- H_2CH_2IOO matrix", Y.-F. Lee and Y.-P. Lee*, Mol. Phys. DOI: [10.1080/00268976.2015.1012129](#) (Special Issue: John Maier) (SCI: [1.642](#))
234. "Infrared identification of the Criegee intermediates *syn*- and *anti*- CH_3CHOO and their distinct conformation-dependent reactivity", H.-Y. Lin, Y.-H. Huang, X. Wang, J. M. Bowman*, Y. Nishimura, H. A. Witek*, and Y.-P. Lee*, Nat. Comm. **6**, 7012 (2015). (SCI: [10.742](#))
235. "Two HCl-elimination channels and two CO-formation channels detected with time-resolved infrared emission upon photolysis of acryloyl chloride [$CH_2CHC(O)Cl$] at 193 nm", P.-W. Lee, P. G. Scrape, L. J. Butler*, and Y.-P. Lee*, J. Phys. Chem. A DOI: [10.1021/jp512376a](#) (Special Issue: 100 Years of Combustion Kinetics at Argonne) (SCI: [2.775](#))
236. "Infrared spectrum of the simplest Criegee intermediate CH_2OO at resolution 0.25 cm^{-1} and new assignments of bands $2\nu_9$ and ν_5 ", Y.-H. Huang, J. Li*, H. Guo, and Y.-P. Lee*, J. Chem. Phys. **142**, 214301 (2015). (SCI: [3.122](#))
237. "Spectroscopy and kinetics of gaseous Criegee intermediates", Y.-P. Lee*, J. Chem. Phys. **143**, 020901 (2015). (Perspective Article) (SCI: [3.122](#))