

LIST OF PUBLICATIONS

Cheuk-Yiu Ng

Total Publications (1973-present): 331

1. 1973 S. C. Hsu, C. Y. Ng and W. K. Li, "The Electronic and Geometric Structures of Some Xenon Oxyfluorides", *J. Molecular Structure* **16**, 125 (1973).
2. 1974 C. Y. Ng, Y. T. Lee and J. A. Baker, "Improved Potentials for Ne + Ar, Ne + Kr, and Ne + Xe", *J. Chemical Physics* **61**, 1996 (1974).
3. 1976 C. Y. Ng, B. H. Mahan and Y. T. Lee, "Photoionization with Molecular Beams: Autoionization Structure of Nitric Oxide Near the Threshold", *J. Chemical Physics* **65**, 1956 (1976).
4. 1976 C. Y. Ng, D. J. Trevor, B. H. Mahan and Y. T. Lee, "Photoionization Study of the Xe₂ van der Waals Molecules", *J. Chemical Physics* **65**, 4327 (1976).
5. 1977 C. Y. Ng, P. W. Tiedemann, B. H. Mahan and Y. T. Lee, "The Binding Energy Between NO and NO⁺", *J. Chemical Physics* **66**, 3985 (1977).
6. 1977 C. Y. Ng, D. J. Trevor, B. H. Mahan and Y. T. Lee, "Photoionization Studies of the Kr₂ and Ar₂ van der Waals Molecules", *J. Chemical Physics* **66**, 446 (1977).
7. 1977 C. Y. Ng, P. W. Tiedemann, B. H. Mahan and Y. T. Lee, "Photoionization Studies of the XeKr, XeAr, and KrAr Heteronuclear Rare Gas van der Waals Molecules", *J. Chemical Physics* **66**, 5737 (1977).
8. 1977 C. Y. Ng, D. J. Trevor, P. W. Tiedemann, B. H. Mahan and Y. T. Lee, "Photoionization Study of Polyatomic Dimers: Proton Affinities of H₂O and HF", *J. Chemical Physics* **67**, 4235 (1977).
9. 1979 S. T. Ceyer, P. W. Tiedemann, C. Y. Ng, B. H. Mahan and Y. T. Lee, "Photoionization of Ethylene Clusters", *J. Chemical Physics* **70**, 2138 (1979).
10. 1979 P. W. Tiedemann, S. L. Anderson, S. T. Ceyer, T. Hirooka, C. Y. Ng, B. H. Mahan and Y. T. Lee, "Proton Affinities of Hydrogen Halides Determined by the Molecular Beam Photoionization Method", *J. Chemical Physics* **71**, 605 (1979).
11. 1980 S. J. Sibener, R. J. Buss, C. Y. Ng and Y. T. Lee, "Development of a Supersonic O(³P₁), O(¹D₂) Atomic Oxygen Nozzle Beam Source", *Review of Scientific Instruments* **51**, 167 (1980).
12. 1980 M. E. Gress, S. H. Linn, Y. Ono, H. F. Prest and C. Y. Ng, "A Study of the Chemiionization Process CS₂(n) + CS₂ → CS₃⁺ + CS + e⁻ using the Molecular Beam Photoionization Method", *J. Chem. Phys. (communication)* **72**, 4242 (1980).
13. 1980 Y. Ono, S. H. Linn, H. F. Prest, M. E. Gress and C. Y. Ng, "Molecular Beam Photoionization Study of Carbon Disulfide, Carbon Disulfide Dimer and Clusters", *J. Chemical Physics* **73**, 2523 (1980).
14. 1980 Y. Ono, S. H. Linn, H. F. Prest and C. Y. Ng, "Higher Resolution Photoionization Study of NO near the Threshold", *J. Chemical Physics* **73**, 4855 (1980).
15. 1980 C. Y. Ng, *Gas Phase Ion Chemistry, Vol. 1*, edited by M. T. Bowers, an invited Book Review, *J. American Chemical Society* **102**, 6390 (1980).
16. 1981 Y. Ono, S. H. Linn, H. F. Prest, M. E. Gress and C. Y. Ng, "A Study of the High Rydberg State and Ion-molecule Reactions of Carbon Disulfide using the Molecular Beam Photoionization Method", *J. Chemical Physics* **74**, 1125 (1981).
17. 1981 Y. Ono, E. A. Osuch and C. Y. Ng, "Molecular Beam Photoionization Study of OCS, (OCS)₂, (OCS)₃, and OCS·CS₂", *J. Chemical Physics* **74**, 1645 (1981).
18. 1981 S. H. Linn, Y. Ono and C. Y. Ng, "A Study of the Ion-molecule Half Reactions O₂⁺($\tilde{\alpha}^4\Pi_u$)(O₂)_m → O_{2m+1}⁺ + O, m = 1, 2 or 3, using the Molecular Beam Photoionization Method", *J. Chemical Physics* **74**, 3348 (1981).
19. 1981 S. H. Linn, Y. Ono and C. Y. Ng, "Molecular Beam Photoionization Study of CO, N₂, NO Dimers and Clusters", *J. Chemical Physics* **74**, 3342 (1981).

20. 1981 Y. Ono and C. Y. Ng, "The Heat of Formation of C_2H^+ ", *J. Chemical Physics* **74**, 6985 (1981).
21. 1981 J. Erickson and C. Y. Ng, "Molecular Beam Photoionization Study of SO_2 and SO_2 Dimer", *J. Chemical Physics* **75**, 1650 (1981).
22. 1981 S. H. Linn and C. Y. Ng, "Molecular Beam Photoionization Study of CO_2 , N_2O Dimers and Clusters", *J. Chemical Physics* **75**, 4921 (1981).
23. 1982 Y. Ono, E. A. Osuch and C. Y. Ng, "Higher Resolution Photoionization Study of Acetylene near the Threshold", *J. Chemical Physics* **76**, 3905 (1982).
24. 1982 C. Y. R. Wu and C. Y. Ng, "Autoionization States of SO_2 ", *J. Chem. Phys.* **76**, 4406 (1982).
25. 1982 Y. Ono and C. Y. Ng, "A Study of the Unimolecular Decomposition of the $(C_2H_2)_3^+$ Complex", *J. American Chemical Society* **104**, 4752 (1982).
26. 1982 Y. Ono and C. Y. Ng, "A Study of the Unimolecular Decomposition of the $(C_2H_2)_2^+$ Complex", *J. Chemical Physics* **77**, 2947 (1982).
27. 1983 S. H. Linn, J. M. Brom, Jr., W.-B. Tzeng and C. Y. Ng, "Molecular Beam Photoionization Study of $HgCl_2$ ", *J. Chemical Physics* **78**, 37 (1983).
28. 1983 S. H. Linn, W.-B. Tzeng, J. M. Brom, Jr., and C. Y. Ng, "Molecular Beam Photoionization Study of $HgBr_2$ and HgI_2 ", *J. Chemical Physics* **78**, 50 (1983).
29. 1983 H. F. Prest, W.-B. Tzeng, J. M. Brom, Jr., and C. Y. Ng, "Molecular Beam Photoionization Study of H_2S ", *International J. of Mass Spectrometry and Ion Physics* **50**, 315 (1983).
30. 1983 H. F. Prest, W.-B. Tzeng, J. M. Brom, Jr., and C. Y. Ng, "Photoionization Study of $(H_2S)_2$ and $(H_2S)_3$ ", *J. American Chemical Society* **105**, 7531 (1983).
31. 1983 C. Y. Ng, "Molecular Beam Photoionization Studies of Molecules and Clusters", *Advances in Chemical Physics* **52**, 265-362 (1983).
32. 1984 Y. Ono, S. H. Linn, W.-B. Tzeng and C. Y. Ng, "A Study of the Unimolecular Decomposition of the $(C_2H_4)_2^+$ Complex", *J. Chemical Physics* **80**, 1482 (1984).
33. 1984 C. L. Liao, C. X. Liao and C. Y. Ng, "A State-Selected Study of the Symmetric Charge Transfer Reaction $H_2^+ + H_2$ ", *Chemical Physics Letters* **103**, 418 (1984).
34. 1984 S. H. Linn, J. M. Brom, Jr., C. L. Liao, C. X. Liao and C. Y. Ng, "Photoionization Study of Hg_2 ", *Chemical Physics Letters* **105**, 645 (1984).
35. 1984 C. L. Liao, C. X. Liao and C. Y. Ng, "A Study of the Symmetric Charge Transfer Reaction $H_2^+ + H_2$ Using the High Resolution Photoionization and Crossed Ion-Neutral Beam Methods", *J. Chemical Physics* **81**, 5672 (1984).
36. 1985 S. H. Linn, J. M. Brom, Jr., W.-B. Tzeng and C. Y. Ng, "Photoionization Study of $HgAr$ ", *J. Chemical Physics* **82**, 648 (1985).
37. 1985 C.-Y. Lee, A. E. DePristo, C. L. Liao, C. X. Liao and C. Y. Ng, "Kinetic Energy Dependence of the Total Symmetric Electron Transfer Cross Section for the $H_2^+(v_0) + H_2(v_0)$ System", *Chemical Physics Letters* **116**, 534 (1985).
38. 1985 C. L. Liao, C. X. Liao and C. Y. Ng, "A State-to-State Study of the Symmetric Charge Transfer Reaction $Ar^+(^2P_{3/2,1/2}) + Ar(^1S_0)$ ", *J. Chem. Phys.* **82**, 5489 (1985).
39. 1985 J. D. Shao and C. Y. Ng, "A State-Selected Study of the Reaction $H_2^+(v_0) + H_2(v_0 = 0) \rightarrow H_3^+ + H$ ", *Chemical Physics Letters* **118**, 481 (1985).
40. 1985 W.-B. Tzeng, Y. Ono, S. H. Linn and C. Y. Ng, "A Study of the Unimolecular Decompositions of the $(C_3H_6)_2^+$ and $(c-C_3H_6)_2^+$ Complexes", *J. Chemical Physics* **83**, 2803 (1985).
41. 1985 W.-B. Tzeng, Y. Ono, S. H. Linn and C. Y. Ng, "A Study of the Unimolecular Decompositions of the $(C_2H_4)_3^+$ Complex", *J. Chemical Physics* **83**, 2813 (1985).
42. 1985 C. Y. Ng, "Autoionization Resonances Observed in the Photoionization Efficiency Spectra of HgX_2^+ , X = Cl, Br, and I, and their Fragments", Report for the Workshop on *Autoionization of Atoms and Small Molecules*, Argonne National Laboratory. May 2-3, 1985.

43. 1986 C. L. Liao and C. Y. Ng, "Vibrational State Distributions of $H_2^+(v')$ Resulting from the Electron Transfer Reactions $H_2^+(v_o' = 0,1) + H_2(v_o'' = 0) \rightarrow H_2(v') + H_2^+(v'')$ in the Collisional Energy Range of 2-16 eV", *J. Chemical Physics* **84**, 197 (1986).
44. 1986 C. L. Liao and C. Y. Ng, "Molecular Beam Photoionization Study of S_2 ", *J. Chemical Physics* **84**, 778 (1986).
45. 1986 C. L. Liao, R. Xu and C. Y. Ng, "Fine Structure Effect on the Charge Transfer Reaction of $Ar^+(^2P_{3/2,1/2}) + N_2(X^1\Sigma_g^+, v=0)$ ", *J. Chemical Physics* **84**, 1948 (1986).
46. 1986 C. L. Liao and C. Y. Ng, "Photoionization Studies of HgKr and HgXe", *J. Chemical Physics* **84**, 1142 (1986).
47. 1986 J. D. Shao and C. Y. Ng, "A Vibrational-State-Selected Study of the Reaction $H_2^+(v_o') + H_2(v_o'' = 0) \rightarrow H_3^+ + H$ Using the Tandem Photoionization Mass Spectrometry and Radio Frequency Ion Guide Methods", *J. Chemical Physics* **84**, 4317 (1986).
48. 1986 C. L. Liao, J. D. Shao, R. Xu, G. D. Flesch, Y. G. Li and C. Y. Ng, "A State-to-State Study of the Electron Transfer Reactions $Ar^+(^2P_{3/2,1/2}) + N_2(X, v=0) \rightarrow Ar(^1S_o) + N_2^+(X, v')$ ", *J. Chemical Physics* **85**, 3874 (1986).
49. 1986 C. L. Liao, R. Xu, and C. Y. Ng, "A State-to-State Study of the Electron Transfer Reactions $N_2^+(X, v'=0-2) + Ar(^1S_o) \rightarrow N_2(X, v) + Ar^+(^2P_{3/2,1/2})$ ", *J. Chemical Physics* **85**, 7136 (1986).
50. 1986 J. D. Shao, Y. G. Li, G. D. Flesch and C. Y. Ng, "Absolute Spin-Orbit-State Excitation Cross Sections for the Reactions $Ar^+(^2P_{3/2}) + Ar(^1S_o)$ and $Ar^+(^2P_{3/2}) + N_2(X, v=0)$ ", *Chemical Physics Letters* **132**, 58 (1986).
51. 1987 J. D. Shao, Y. G. Li, G. D. Flesch, and C. Y. Ng, "Absolute State-to-State Cross Sections for the reactions $N_2^+(X, v'=0-2) + Ar(^1S_o) \rightarrow N_2(X, v) + Ar^+(^2P_{3/2,1/2})$ ", *J. Chemical Physics* **86**, 170 (1987).
52. 1988 K. Norwood, J.-H. Guo, G. Luo, and C. Y. Ng, "Photoion-Photoelectron Coincidence Studies of Small van der Waals Dimers and Clusters", in R. Naaman and Z. Vager, Eds., *The Structure of Small Molecules and Ions* (Plenum, New York, 1988).
53. 1988 W.-B. Tzeng, H.-M. Yin, W.-Y. Leung, J.-Y. Luo, S. Nourbakhsh, G. D. Flesch and C. Y. Ng, "A 193 nm Laser Photofragmentation Time-of-Flight Mass Spectrometric Study of CS_2 and CS_2 Clusters," *J. Chemical Physics* **88**, 1658 (1988).
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55. 1988 C. Y. Ng, "State-Selected and State-to-State Ion-Molecule Reactions by Photoionization Methods", in *Techniques for the Study of Gas-Phase Ion-Molecule Reactions*; J. M. Farrar and W. H. Saunderson, Jr., Eds.; (Wiley: New York, 1988), p. 417.
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60. 1989 K. Norwood, J.-H. Guo, G. Luo, and C. Y. Ng, "A Photoion-Photoelectron Coincidence Study of $(CO)_2$ and $(CO)_3$ ", *J. Chemical Physics* **90**, 6026 (1989).
61. 1989 K. Norwood and C. Y. Ng, "Photoion-Photoelectron Coincidence Spectroscopy of the Transient Molecules SO and S_2O ", *Chemical Physics Letters* **156**, 145 (1989).
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63. 1989 K. Norwood and C. Y. Ng, "A State-Selected Study of the Unimolecular Decomposition of $C_2H_2^+(A,B)$ Using the Photoion-Photoelectron Coincidence Method", *J. Chemical Physics* **91**, 2898 (1989).
64. 1990 K. Norwood and C. Y. Ng, "Observation of a SO_2^+ Threshold Photoelectron Band in the Energy Range 14.4-15.5 eV", *J. Chemical Physics* **92**, 1513 (1990).
65. 1990 G. D. Flesch and C. Y. Ng, "A Study of the Reaction $O^+(^4S) + N_2$ Using the Tandem Photoionization Mass Spectrometric Method", *J. Chemical Physics* **92**, 3235 (1990).
66. 1990 G. D. Flesch and C. Y. Ng, "Observation of the Formation of N^+ and ArN^+ in the Collisions of $Ar^+(^2P_{3/2,1/2})$ with N_2 ", *J. Chemical Physics*, **92**, 2876 (1990).
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68. 1990 K. Norwood and C. Y. Ng, "Photoionization of Hydrogen Atom Near the Ionization Threshold", *J. Chemical Physics* **93**, 1480 (1990).
69. 1990 S. Nourbakhsh, C.-L. Liao, and C. Y. Ng, "A 193nm Laser Photofragmentation Time-of-Flight Mass Spectrometric Study of CH_3SSCH_3 , $SSCH_3$, and SCH_3 ", *J. Chemical Physics* **92**, 6587 (1990).
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71. 1990 C.-L. Liao, R. Xu, G. D. Flesch, M. Baer, and C. Y. Ng, "I. Experimental and Theoretical State-Selected and State-to-State Absolute Total Cross Sections: the $H_2^+(X,v) + Ar$ Reaction", *J. Chemical Physics* **93**, 4818 (1990).
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78. 1991 S. Nourbakhsh, K. Norwood, H.-M. Yin, C.-L. Liao, and C. Y. Ng, "Vacuum Ultraviolet Photodissociation and Photoionization Studies of CH_3SCH_3 and SCH_3 ", *J. Chem. Phys.* **95**, 5014 (1991).
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85. 1991 K. Norwood, A. Ali, and C. Y. Ng, "A Photoelectron-Photoion Study of H_2O and $(\text{H}_2\text{O})_2$ ", *J. Chem. Phys.* **95**, 8029 (1991).
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88. 1991 G. D. Flesch and C. Y. Ng, "State-Selected Cross Sections for the Reaction $\text{O}^+(^4S) + \text{CO}_2$ ", *J. Geophys. Res.* **96**, 21403 (1991).
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93. 1992 M. Baer and C. Y. Ng, editors, *State-Selected and State-to-State Ion-Molecule Reaction Dynamics II: Theory* (Wiley, New York, 1992), *Adv. Chem. Phys.* Vol. **82**, 576 pages.
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