Publications [h-factor = 31; i10-factor = 67]

127. **"Characterization of AlgMsp, an Alginate Lyase from *Microbulbifer* sp. 6532A"**
S. M. Swift, J. W. Hudgens, R. D. Heselpoth, P. M. Bales, and D. C. Nelson
PLOS ONE, 9(11), e112939 (2014). DOI: 10.1371/journal.pone.0112939

126. **"A New Mechanism for Regulating Proliferating Cell Nuclear Antigen (PCNA) Activity Identified by Mutational Analyses and Hydrogen/Deuterium Exchange Mass Spectrometry"**
Z. Li, R. Y.-C. Huang, D. C. Yopp, T. H. Hileman, T. J. Santangelo, J. Hurwitz, J. W. Hudgens, and *Z. Kelman*
Nucleic Acids Research, **42**, 5776-5789 (2014). DOI: 10.1093/nar/gku239

125. **"The Effects of Desialylation on Human α1-Acid Glycoprotein-Ligand Interactions"**
R. Y.-C. Huang and J. W. Hudgens
Biochemistry **52**, 7127–7136 (2013). DOI: 10.1021/bi4011094

124. **"Surface Mediated Assembly of Small, Metastable Gold Nanoclusters"**
J. M. Pettibone, W. A. Osborn, K. Rykaczewski, A. A. Talin, J. E. Bonevich, and J. W. Hudgens and M. D. Allendorf
Nanoscale **5**, 6558-6566 (2013). *DOI: 10.1039/c3nr01708g*

123. **"Reaction Network Governing Diphosphine-Protected Gold Nanocluster Formation from Nascent Cationic Platforms"**
J. M. Pettibone and J. W. Hudgens
Phys. Chem. Chem. Phys. **14**, 4142-4154 (2011). DOI: 10.1039/C2CP22865C

122. **"Predictive Gold Nanocluster Formation Controlled by Metal-ligand Complexes"**
J. M. Pettibone and J. W. Hudgens
Small **8**, 715-725 (2012). DOI: 10.1002/smll.201101777

121. **"Reaction Mechanism Governing the Formation of 1,3-bis(diphenylphosphino)propane-protected Gold Nanoclusters"**
J. W. Hudgens, J. M. Pettibone, T. P. Senftle, and R. N. Bratton
Inorg. Chem. **50**, 10178–10189 (2011). DOI: 10.1021/ic2018506

120. **"Gold Cluster Formation with Phosphine Ligands: Etching as a Size-Selective Synthetic Pathway for Small Clusters?"**
J. M. Pettibone and J. W. Hudgens
ACS Nano **5**, 2989–3002 (2011). DOI: 10.1021/nn200053b.

119. **"Synthetic Approach for Tunable, Size-Selective Formation of Monodisperse, Diphosphine-Protected Gold Nanoclusters"**
J. M. Pettibone and J. W. Hudgens
J. Phys. Chem. Lett **1**, 2536–2540 (2010). DOI: 10.1021/jz1009339

118. **"NIST Chemical Kinetics Database, NIST Standard Reference Database 17, Version 7.0 (Web Version)"** *J. A. Manion, R. E. Huie, R. D. Levin, D. R. Burgess Jr., V. L. Orkin, W. Tsang, W. S. McGivern, J. W. Hudgens, V. D. Knyazev, D. B. Atkinson, E. Chai, A. M. Tereza, C.-Y. Lin, T. C. Allison, W. G. Mallard, F. Westley, J. T. Herron, R. F. Hampson, and D. H. Frizzell,* National Institute of Standards and Technology; Gaithersburg, Maryland, 20899-8320. http://kinetics.nist.gov

117. **"Identification of Active Sites of Biomolecules II: Saccharide and Transition Metal Ion in Aqueous Solution"**
O. Coskuner, D. E. Bergeron, L. Rincon, J. W. Hudgens, and C. A. Gonzalez
J. Phys. Chem. A **113**, 2491–2499 (2009). DOI: 10.1021/jp805747f

116. **"Glycosidic Linkage Conformation of Methyl-α-mannopyranoside"**
O. Coskuner, D. E. Bergeron, L. Rincon, J. W. Hudgens, and C. A. Gonzalez
J. Chem. Phys. **129**, 045102 (2008). DOI: 10.1063/1.2958916
115. **"Ligand Exchange Reactions in the Formation of Diphosphine-Protected Gold Clusters"**
D.E. Bergeron, O. Coskuner, J.W. Hudgens, C.A. Gonzalez
J. Phys. Chem. C **112**, 12808–12814 (2008) DOI: 10.1021/jp804046e
114. **"Identification of Active Sites of Biomolecules I: methyl-α-mannopyranoside and Fe^{III}"**
O. Coskuner, D. E. Bergeron, L. Rincon, J. W. Hudgens, and C. A. Gonzalez
J. Phys. Chem. A **112**, 2940-2947 (2008). DOI: 10.1021/jp711759q
113. **"A Hadamard Transform Electron Ionization Mass Spectrometer"**
J. W. Hudgens and D. E. Bergeron
Rev. Sci. Instrum. **79**, 014102 (2008). DOI: 10.1063/1.2838174
112. **"Impact of Swapping Ethyl for Phenyl Groups on Diphosphine-protected Undecagold"**
J. S. Golightly, L. Gao, A. W. Castleman, Jr., D. E. Bergeron, J. W. Hudgens, R. J. Magyar, and C. A. Gonzalez
J. Phys. Chem. C **111**, 14625-14627 (2007), [DOI: 10.1021/jp076375p]
111. **"Ligand Dissociation and Core Fission from Diphosphine Protected Gold Clusters"**
D. E. Bergeron and J. W. Hudgens
J. Phys. Chem. C **111**, 8195-8201 (2007). DOI: 10.1021/jp0712811
110. **"Workshop on Combustion Simulation Databases for Real Transportation Fuels"**
T.C. Allison, D.R. Burgess, Jr., J.W. Hudgens, J.A. Manion, D.M. Matheu, W. Tsang; J.W. Hudgens, Editor
NISTIR 7155, National Institute of Standards & Technology, Gaithersburg, MD, Sept 4-5, 2003.
109. **"Chlorination Chemistry 4. *Ab initio* Study of the Addition, Metathesis, and Isomerization Channels Governing the Reaction of Chlorine Atom with Propargyl Chloride"**
J. W. Hudgens and C. Gonzalez
J. Phys. Chem. A 106, 6143-6153 (2002). DOI: 10.1021/jp013920s
108. **"Chlorination Chemistry 3. *Ab initio* Study of the Reaction of Chlorine Atom with Allene"**
J. W. Hudgens and C. Gonzalez
J. Phys. Chem. A 106, 1739-1745 (2002). DOI: 10.1021/jp013862a
107. **"Electronic Structure of BCl Determined by *ab initio* Calculations and Resonance-Enhanced Multiphoton Ionization Spectroscopy"**
K. K. Irikura, J. W. Hudgens and R. D. Johnson III
J. Phys. Chem. A **104**, 3800 (2000). DOI: 10.1021/jp994011u
106. **"Chlorination Chemistry 2. Rate Coefficients, Reaction Mechanism, and Spectrum of the Chlorine Adduct of Allene"**
D. B. Atkinson and J. W. Hudgens
J. Phys. Chem. A **104**, 811 (2000). DOI: 10.1021/jp9927247
105. **"Chlorination Chemistry 1. Rate Coefficients, Reaction Mechanisms, and Spectra of the Chlorine and Bromine Adducts of Propargyl Halides"**
D. B. Atkinson and J. W. Hudgens
J. Phys. Chem. A **103**, 7978-7989 (1999). DOI: 10.1021/jp991076o
104. **"Kinetic Studies of Reactions of IO Radicals Determined by Cavity Ring-down Spectroscopy"**
D. B. Atkinson, J. W. Hudgens and A. J. Orr-Ewing
J. Phys. Chem. A **103**, 6173-6180 (1999). DOI: 10.1021/jp9902497

103. **"Rate Coefficients for the Propargyl Radical Self-reaction and Oxygen Addition Reaction Measured using Ultraviolet Cavity Ring-down Spectroscopy"**
D. B. Atkinson and J. W. Hudgens
J. Phys. Chem. A **102**, 4242-4252 (1999). DOI: 10.1021/jp990468s
102. **"Fourth International Conference on Chemical Kinetics"**
R. E. Huie and J. W. Hudgens
J. Res. Nat. Inst. Stds. Tech., **103**, 425 (1998).
101. **"Evanescent Wave Cavity Ring-down Spectroscopy as a Probe of Surface Processes"**
A. C. R. Pipino, J. W. Hudgens and R. E. Huie
Chem. Phys. Lett. **280**, 104-*112* (1997). DOI: 10.1016/S0009-2614(97)01080-4
100. **"Evanescent Wave Cavity Ring-down Spectroscopy with a Total-internal-reflection Minicavity"**
A. C. R. Pipino, J. W. Hudgens and R. E. Huie
Rev. Sci. Instrum. **68**, 2978 (1997). DOI: 10.1063/1.1148230
99. **"Ion Pair States of the ClO Radical Observed by Resonance Enhanced Multiphoton Ionisation Spectroscopy"**
M. J. Cooper, T. Diez-Rojoa, L. J. Rogers, C. M. Western, M. N. R. Ashfold and J. W. Hudgens
Chem. Phys. Lett. **272**, 232 (1997). DOI: 10.1016/S0009-2614(97)88014-1
98. **"Chemical Kinetic Studies Using Ultraviolet Cavity Ring-Down Spectroscopic Detection: Self-reaction of Ethyl and Ethylperoxy Radicals and the Reaction, $O_2 + C_2H_5$ □ $C_2H_5O_2$"**
D. B. Atkinson and J. W. Hudgens
J. Phys. Chem. A **101**, 3901-3909 (1997). DOI: 10.1021/jp970240+
97. **"Electronic Structure of the BF_2 Radical Determined by *ab initio* Calculations and Resonance Enhanced Multiphoton Ionization Spectroscopy"**
D. B. Atkinson, K. K. Irikura and J. W. Hudgens
J. Phys. Chem. A **101**, 2045-2049 (1997). DOI: 10.1021/jp9623251
96. **"Spectroscopic Characterization of the AsF_2 Radical"**
J. L. Brum and J. W. Hudgens
J. Chem. Phys. **106**, 485-488 (1997). DOI:10.1063/1.473389
95. **"Structural and Thermochemical Properties of Hydroxymethyl (CH_2OH) Radicals and Cations Derived from Observations of $B^2A'(3p) \leftarrow X^2A$" Electronic Spectra and from *ab initio* Calculations"**
R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **100**, 19874-19890 (1996). DOI: 10.1021/jp961399+
94. **"Resonance Enhanced Multiphoton Ionisation of the SiF Radical: A Reinvestigation"**
M. N. R. Ashfold, J. Pearson, J. W. Hudgens and R. D. Johnson III
Chem. Phys. Lett. **263**, 138 (1996). DOI: 10.1016/S0009-2614(96)01153-0
93. **"Excited Electronic States of the SiF_2 Radical Studied by Resonance Enhanced Multiphoton Ionisation Spectroscopy and by *ab initio* Methods"**
R. D. Johnson III, J. W. Hudgens and M. N. R. Ashfold
Chem. Phys. Lett. **261**, 474-480 (1996). DOI: 10.1016/0009-2614(96)00990-6
92. **"Characterisation of the E $^1A_1$ Rydberg State of Ammonia by Resonance Enhanced Multiphoton Ionisation Spectroscopy"**
M. N. R. Ashfold, C. M. Western, J. W. Hudgens and R. D. Johnson III
Chem. Phys. Lett. **260**, 27 (1996). DOI: 10.1016/0009-2614(96)00803-2

91. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of the SnF Radical**
J. Pearson, R. N. Dixon, J. W. Hudgens and R. D. Johnson III
J. Chem. Phys. **104**, 4406 (1996). DOI:10.1063/1.471192
90. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of the PF Radical"**
J. D. Howe, M. N. R. Ashfold, C. M. Western and J. W. Hudgens
J. Chem. Phys. **104**, 2789-2800 (1996). DOI:10.1063/1.471102
89. **"Spectroscopy of the Fluoromethylene Radicals HCF and DCF by 2+1 Resonance Enhanced Multiphoton Ionization Spectroscopy and by *ab initio* Calculation"**
K. K. Irikura, J. W. Hudgens and R. D. Johnson III
J. Chem. Phys. **103**, 1303-1308 (1995). DOI:10.1063/1.469807
88. **"Importance of Chemistry in Non-Thermal Plasma Control of Volatile Organic Compounds and Air Toxics"**
A. W. Miziolek, J. T. Herron, W. G. Mallard, J. W. Hudgens, D. S. Green, W. Tsang and J-S Chang
Electromagnetic Devices and Processes in Environment Protection, International Conference ELECO '94, Kazimeirz Dolny, Poland (ISBN 83-86333-60-X), p. 65.
87. **"Observation of the PF_2 Radical by Resonance Enhanced Multiphoton Ionization Spectroscopy"**
J. D. Howe, M. N. R. Ashfold, J. W. Hudgens, and R. D. Johnson III
J. Chem. Phys. **101**, 3549-3557 (1994). DOI:10.1063/1.468429
86. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of the P_2 Radical"**
J. D. Howe, M. N. R. Ashfold and J. W. Hudgens
J. Chem. Phys. **101**, 833-835 (1994). DOI: 10.1063/1.468140
85. **"Multiphoton Ionization Spectroscopy of PCl_2 Radicals: Observation of Two New Rydberg States"**
J. L. Brum and J. W. Hudgens
J. Phys. Chem. **98**, 5587-5590 (1994). DOI: 10.1021/j100073a001
84. **"New Spectroscopy of Free Radicals Produced by the Reactions of Fluorine and Chlorine with Diborane"**
J. W. Hudgens, K. K. Irikura and R. D. Johnson III
Laser Techniques for State-Selected and State-to-State Chemistry II, 94/SPIE, J. Hepburn, ed., Proc. SPIE 2124, 108 (1994). DOI: 10.1117/12.178120
83. **"Electronic Spectrum of the α,α-Difluoroethyl Radical"**
J. L. Brum and J. W. Hudgens
J. Phys. Chem. **98**, 3645-3649 (1994). DOI: 10.1021/j100065a017
82. **"Detection and Characterization of Gas-Phase InCl using Resonance Enhanced Multiphoton Ionization"**
D. Dearden, R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **100**, 3422-3428 (1994). DOI:10.1063/1.467246
81. **"Aluminum Monochloride Excited States Observed by Resonance-Enhanced Multiphoton Ionization Spectroscopy"**
D. V. Dearden, R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **99**, 7521-7528 (1993). DOI:10.1063/1.465682
80. **"A New Rydberg Series in Atomic Boron"**
K. K. Irikura, R. D. Johnson III and J. W. Hudgens
J. Opt. Soc. B **10**, 763 (1993).

79. **"Detection of ^{11}BF and ^{10}BF by Resonance-Enhanced Multiphoton Ionization"**
K. K. Irikura, R. D. Johnson III and J. W. Hudgens
Laser Techniques for State-Selected and State-to-State Chemistry II, 94/SPIE, **62**, 1697 (1993).
78. **"New Ways to Optically Detect CH_2 and HCF Radicals Using Resonance Enhanced Multiphoton Ionization Spectroscopy"**
J. W. Hudgens, R. D. Johnson III and K. K. Irikura
Laser Techniques for State-Selected and State-to-State Chemistry, 93/SPIE, Cheuk-Yiu Ng, ed., Proc. SPIE 1858, 15-21 (1993). DOI: 10.1117/12.143083
77. **"Electronic Spectra of the Heteroisotopic CH_2D and CD_2H Radicals by Resonance- Enhanced Multiphoton Ionization"**
J. L. Brum, R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **98**, 3732-3736 (1993). DOI:10.1063/1.464051
76. **"New Electronic Spectra of the CHFCl Radical Observed with Resonance Enhanced Multiphoton Ionization"**
J. W. Hudgens, R. D. Johnson III and B. P. Tsai
J. Chem. Phys. **98**, 1925-1932 (1993). doi:10.1063/1.464226
75. **"Detection and Characterization of Gas-Phase GaCl Using Resonance Enhanced Multiphoton Ionization"**
D. Dearden, R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **97**, 8880-8885 (1992). doi:10.1063/1.463362
74. **"Triplet Rydberg States of the Imidogen Radical Characterized via Two Photon Resonance Enhanced Multiphoton Ionisation Spectroscopy"**
S. G. Clement, M. N. R. Ashfold, C. M. Western, R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **97**, 7064-7072 (1992). DOI: 10.1063/1.463532
73. **"Two New Electronic States of CH_2"**
K. K. Irikura, R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **96**, 6131-6133 (1992). DOI: 10.1021/j100194a010
72. **"Electronic Spectrum of the $SiCl_3$ Radical"**
K. K. Irikura, R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **96**, 4306-4310 (1992). DOI: 10.1021/j100190a038
71. **"Triplet Excited States of the NH(ND) Radical Revealed via Two Photon Resonant Multiphoton Ionization Spectroscopy"**
S. G. Clement, M. N. R. Ashfold, C. M. Western, R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **96**, 5538 (1992). DOI: 10.1063/1.462691
70. **"Spectra and *ab initio* Calculations of Difluoromethyl Radicals and Cations"**
D. Dearden, J. W. Hudgens, R. D. Johnson III, B. P. Tsai and S. Kafafi
J. Phys. Chem. **96**, 585-594 (1992). DOI: 10.1021/j100181a017
69. **"Detection of CH_2 (X^3B_1) Radicals by 3+1 Resonance Enhanced Multiphoton Ionization Spectroscopy"**
K. K. Irikura and J. W. Hudgens
J. Phys. Chem. **96**, 518-519 (1992). DOI: 10.1021/j100181a006
68. **"Kinetics of the Reaction, $CCl_3 + Br_2$, and the Thermochemistry of the CCl_3 Radical and Cation"**
J. W. Hudgens, R. D. Johnson III, R. S. Timonen, J. A. Seetula and D. Gutman
J. Phys. Chem. **95**, 4400-4405 (1991). DOI: 10.1021/j100164a043

67. **"New Rydberg States of Aluminum Monofluoride Observed by Resonance Enhanced Multiphoton Ionization Spectroscopy"**
D. Dearden, R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **95**, 4291-4292 (1991). DOI: 10.1021/j100164a022
66. **"Multiphoton Ionization SiH_3 and SiD_3 Radicals II: Three Photon Resonance-Enhanced Spectra Observed between 460 and 600 nm"**
R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **94**, 5331 (1991). DOI: 10.1063/1.460518
65. **"New Electronic States of the NH and ND Radicals Observed between 258 and 288 nm by Resonance Enhanced Multiphoton Ionization"**
R. D. Johnson III and J. W. Hudgens
J. Chem. Phys. **92**, 6420 (1990). DOI: 10.1063/1.458321
64. **"Experimental and *ab initio* Studies of Electronic Structures of the CCl_3 Radical and Cation"**
J. W. Hudgens, R. D. Johnson III, B. P. Tsai and S. Kafafi
J. Am. Chem. Soc. **112**, 5763-5772 (1990). DOI: 10.1021/ja00171a015
63. **"New Electronic States of the NH and ND Observed by Resonance Enhanced Multiphoton Ionization Spectroscopy"**
R. D. Johnson III and J. W. Hudgens
1st International Conference of Laboratory Research for Planetary Atmospheres (NASA Conf. Publ. 3077), K. Fox, J. E. Allen, Jr., L.J. Steif, and D. T. Quillen, eds., p. 164.
62. **"Electronic Spectra of SF_2 Radicals between 295 and 495 nm Observed with Resonance Enhanced Multiphoton Ionization Spectroscopy"**
R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **94**, 3273-3276 (1990). DOI: 10.1021/j100371a011
61. **"Multiphoton Ionization of SiH_3 and SiD_3 Radicals: Electronic Spectra, Vibrational Analyses of the Ground and Rydberg States, and Ionization Potential"**
R. D. Johnson III, B. P. Tsai and J. W. Hudgens
J. Chem. Phys. **91**, 3340 (1989). DOI: 10.1063/1.456909
60. **"New Electronic State of SiH and SiD Radicals Observed by Resonance Enhanced Multiphoton Ionization Spectroscopy"**
R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **93**, 6268-6270 (1989). DOI: 10.1021/j100354a003
59. **"Electronic Spectra of CF_2Cl and $CFCl_2$ Radicals Observed by Resonance- Enhanced Multiphoton Ionization"**
B. P. Tsai, R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **93**, 5334-5336 (1989). DOI: 10.1021/j100351a004
58. **"Spectrum (310 to 360 nm) and Ionization Potential of the Silyl Radical"**
R. D. Johnson III, B. P. Tsai and J. W. Hudgens
AIP Conf. Proc. **191**, 497-499 (1989). DOI: 10.1063/1.38617
57. **"Two Photon Resonance Enhanced Multiphoton Ionization Detection and Spectroscopy of Gas Phase Germyl (GeH_3) Radicals"**
J. W. Hudgens, R. D. Johnson III and B. P. Tsai
AIP Conf. Proc. **191**, 475-477 (1989). DOI: 10.1063/1.2931562
56. **"Ab Initio Calculations of the Electronic Structure and Vibrational Frequencies of the Dichloromethyl Radical and Cation"**

S. Kafafi and J. W. Hudgens
J. Phys. Chem. **93**, 3474-3479 (1989). DOI: 10.1021/j100346a023

55. **"Resonance Enhanced Multiphoton Ionization Spectra of the GeF and GeCl Radicals between 400 and 500 nm"**
R. D. Johnson III, B. P. Tsai and J. W. Hudgens
J. Chem. Phys. **89**, 6064 (1988). DOI: 10.1063/1.455421

54. **"The Electronic Spectrum of the GeH_3 Radical"**
R. D. Johnson III, B. P. Tsai and J. W. Hudgens
J. Chem. Phys. **89**, 4558 (1988). DOI: 10.1063/1.454796

53. **"A New Electronic Spectrum of the SiH_3 Radical Observed Using Multiphoton Ionization Spectroscopy"**
R. D. Johnson III, B. P. Tsai and J. W. Hudgens
Resonance Ionization Spectroscopy and Its Applications, (Institute of Physics Conf. Ser. No. 94, Institute of Physics, Bristol, UK, 1988), p. 133-136.

52. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of 2-Butene-1-yl (C_4H_7) Between 455-485 nm"**
B. P. Tsai, R. D. Johnson III and J. W. Hudgens
Resonance Ionization Spectroscopy and Its Applications, (Institute of Physics Conf. Ser. No. 94, Institute of Physics, Bristol, UK, 1988), p. 129.

51. **"Resonance Enhanced Multiphoton Ionization Detection of GeF and GeCl Radicals"**
J. W. Hudgens, R. D. Johnson III and B. P. Tsai
Resonance Ionization Spectroscopy and Its Applications, (Institute of Physics Conf. Ser. No. 94, Institute of Physics, Bristol, UK, 1988), p. 125-128.

50. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of SiCl Between 400 and 500 nm"**
R. D. Johnson III and J. W. Hudgens
Advances in Laser Science III, No. 172, Optical Science and Engineering Series, No. 9, A. C. Tam, J. L. Gole, and W. C. Stwalley, eds., American Institute of Physics Conf. Proc. **172**, 340-342 (1988). DOI: 10.1063/1.37336

49. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of $CHCl_2$ and $CDCl_2$"**
J. W. Hudgens and G. R. Long
Advances in Laser Science III, No. 172, Optical Science and Engineering Series, No. 9, A. C. Tam, J. L. Gole, and W. C. Stwalley, eds., American Institute of Physics Conf. Proc. **172**, 337-339 (1988). DOI: 10.1063/1.37335

48. **"Multiphoton Ionization Spectroscopy of SiCl Radicals between 430 and 520 nm"**
R. D. Johnson III, E. Fang and J. W. Hudgens
J. Phys. Chem. **92**, 3880-3883 (1988). DOI: 10.1021/j100324a040

47. Erratum: **"Two Photon Resonance Enhanced Multiphoton Ionization Spectroscopy of Gas Phase $O_2(a\ ^1\Delta_g)$ Molecules between 305-350 nm"**
R. D. Johnson III, G. R. Long and J. W. Hudgens
J. Chem. Phys. **89**, 3930 (1988). DOI: 10.1063/1.455745

46. **"Progress in Resonance Enhanced Multiphoton Ionization Spectroscopy of Transient Free Radicals"**
J. W. Hudgens
Advances in Multi-photon Processes and Spectroscopy, Vol. 4, S. H. Lin, ed., World Scientific Publishing Co., Singapore, (1988), pp. 171-296.

45. **"A New Electronic Spectrum of the SiH_3 Radical Observed by Multiphoton Ionization Spectroscopy"**
R. D. Johnson III and J. W. Hudgens
Chem. Phys. Lett. **141**, 163 (1987). DOI: 10.1016/0009-2614(87)85002-9
44. **"Two Photon Resonance Enhanced Ionization Spectra of the 3p D $^2\Pi_r$ (v'=0,1,2) ←←X $^2\Pi_r$ (v"=0) Bands of the CF Radical Between 355 and 385 nm"**
R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **91**, 6189-6191 (1987). DOI: 10.1021/j100308a025
43. **"Resonance Enhanced Multiphoton Ionization Spectroscopy of $CHCl_2$ and $CDCl_2$"**
G. R. Long and J. W. Hudgens
J. Phys. Chem. **91**, 5870-5872 (1987). DOI: 10.1021/j100307a011
42. **"Multiphoton Ionization Spectra of Radical Products in the F(^{2}P) + Ketene System: Spectral Assignments and Formation Reaction for CH2F, Observation of CH and CF"**
J. W. Hudgens, C. S. Dulcey, G. R. Long and D. J. Bogan
J. Chem. Phys. **87**, 4546 (1987). DOI: 10.1063/1.452867
41. **"Two Photon Resonance Enhanced Multiphoton Ionization Spectroscopy of Gas Phase O_2(a $^1\Delta_g$) Molecules between 305-350 nm"**
R. D. Johnson III, G. R. Long and J. W. Hudgens
J. Chem. Phys. **87**, 1977 (1987) . DOI: 10.1063/1.453170
40. **"Detection of Gas-Phase Methoxy Radicals by Resonance-Enhanced Multiphoton Ionization"**
G. R. Long, R. D. Johnson III and J. W. Hudgens
J. Phys. Chem. **90**, 4901-4903 (1986). **DOI:** 10.1021/j100412a001
39. **"Multiphoton Ionization Spectroscopy and Vibrational Analysis of a 3p Rydberg State of the Hydroxymethyl Radical"**
C. S. Dulcey and J. W. Hudgens
J. Chem. Phys. **84**, 5262 (1986). DOI: 10.1063/1.449935
38. **"Two and Three Photon Resonance Enhanced Multiphoton Ionization and Spectroscopy of the Gas Phase Methyl Radical"**
T. G. DiGiuseppe, J. W. Hudgens and M. C. Lin
Lasers as Reactants and Probes in Chemistry, W. M. Jackson and A. B. Harvey, eds., Howard University Press, Washington, D. C. (1985), p. 121.
37. **"Multiphoton Ionization of Radicals: Pyrolysis and Infrared Multiphoton Generated CF_3 and CH_3"**
M. T. Duignan, T. G. DiGiuseppe, J. W. Hudgens and J. R. Wyatt
Lasers as Reactants and Probes in Chemistry, W. M. Jackson and A. B. Harvey, eds., Howard University Press, Washington, D. C. (1985), p. 113.
36. **"Infrared Fluorescence from CO_2 Excited SF_6 Observed Under Nearly Collisionless Conditions"**
J. W. Hudgens and J. D. McDonald
Lasers as Reactants and Probes in Chemistry, W. M. Jackson and A. B. Harvey, eds., Howard University Press, Washington, D. C. (1985), p. 71.
35. **"Multiphoton Ionization Detection of Gas-Phase Benzyl Radicals"**
M. A. Hoffbauer and J. W. Hudgens
J. Phys. Chem. **89**, 5152-5154 (1985). DOI: 10.1021/j100270a005

34. **"Detection of SiF Radicals by Multiphoton Ionization Spectroscopy"**
C. S. Dulcey and J. W. Hudgens
Chem. Phys. Lett. **118**, 444-447 (1985). DOI: 10.1016/0009-2614(85)85408-7
33. **"Multiphoton Ionization Spectroscopy of ClO and BrO Radicals"**
M. T. Duignan and J. W. Hudgens
J. Chem. Phys. **82**, 4426 (1985). DOI: 10.1063/1.448745
32. **"Observation of the 3s $^2A_1$ Rydberg States of Allyl and 2-Methylallyl Radicals with Multiphoton Ionization Spectroscopy"**
J. W. Hudgens and C. S. Dulcey
J. Phys. Chem. **89**, 1505-1509 (1985). DOI: 10.1021/j100254a039
31. **"Multiphoton Ionization Spectroscopy of the Fluoromethyl Radical"**
C. S. Dulcey, D. J. Bogan and J. W. Hudgens
Laser techniques in the extreme ultraviolet; Proceedings of the Second Topical Meeting, Boulder, CO, March 5-7, 1984, Harris, S. E.; Lucatorto, T. B., Eds. American Institute of Physics (AIP Conference Proceedings, No. 119, Subseries on Optical Science and Engineering, No. 5), New York (1984), p. 156. DOI: 10.1063/1.34658
30. **"Detection of Iron in Lithium Niobate by Laser-Induced Fluorescence of Sputtered Atoms"**
V. M. Bermudez, J. W. Hudgens and M. A. Hoffbauer
Appl. Optics ***22***, 3681-3683 (1983). DOI: 10.1364/AO.22.003681 [PDF]
29. **"Multiphoton Ionization Spectroscopy of the Hydroxymethyl Radical"**
C. S. Dulcey and J. W. Hudgens
Bull. Soc. Chim. Belg. **92**, 583 (1983).
28. **"Spectroscopy and Detection of Free Radicals with Resonance Enhanced Multiphoton Ionization"**
J. W. Hudgens, T. G. DiGiuseppe, C. S. Dulcey and M. C. Lin
Bull. Soc. Chim. Belg. **92**, 582 (1983).
27. **"Two Photon Resonance Enhanced Multiphoton Ionization and State Assignments of the Methyl Radical"**
J. W. Hudgens, T. G. DiGiuseppe and M. C. Lin
J. Chem. Phys. **79**, 571 (1983). DOI: 10.1063/1.445857
26. **"Detection of CH_2OH Radicals by Resonance Enhanced Multiphoton Ionization**
C. S. Dulcey and J. W. Hudgens
J. Phys. Chem. **87**, 2296 (1983). DOI: 10.1021/j100236a012
25. **"Resonance Enhanced Multiphoton Ionization of the Trifluoromethyl Radical, CF_3"**
M. T. Duignan, J. W. Hudgens and J. R. Wyatt
Laser Techniques for Extreme Ultraviolet Spectroscopy, T. J. McIlrath and R. R. Freedman, eds., American Institute of Physics Conferences Proceedings, New York (1982), Vol. **90**, p. 397-399. DOI: 10.1063/1.33735
24. **"Multiphoton Ionization of the Trifluoromethyl Radical"**
M. Duignan, J. W. Hudgens and J. R. Wyatt
J. Phys. Chem. **86**, 4156-4161 (1982). DOI: 10.1021/j100218a013
23. **"Laser Physics I: State Selective Excitation"**
J. Pfab, J. Hager, W. Krieger, C. V. Boughton, R. E. Miller, H. Zacharias, M. M. T. Loy, P. A. Roland, A. Sudbo, B. E. Lehmann, C. H. Chen, G. S. Hurst, M. G. Payne, R. D. Willis, S. D. Kramer, E. E. Marinero, C. T. Rettner, R. N. Zare, H. Rottke, K. H. Welge, C. C. Wang, M. T. Myers, D. Zhou, J. W. Hudgens, T. G. DiGiuseppe, M. C. Lin, E. Riedle, H. J. Neusser, E. W.

Schlag, J. Pfeifler, P. G. Carrick, R. F. Curl, Jr., F. K. Tittel, C. G. Atkins, G. Hancock, R. F. Menefee, R. R. Hall, M. J. Berry and D. M. Burland
Appl. Phys. B **28**, 117-123 (1982). DOI: 10.1007/BF00697836

22. **"Multiphoton Ionization and Fragmentation Mechanisms of CS_2"**
M. Seaver, J. W. Hudgens and J. J. DeCorpo
Chem. Phys. **70**, 63 (1982). DOI: 10.1016/0301-0104(82)85105-7
21. **"New Electronic States in CH_3 Observed Using Multiphoton Ionization"**
T. G. DiGiuseppe, J. W. Hudgens and M. C. Lin
J. Chem. Phys. **76**, 3337 (1982). DOI:10.1063/1.443332
20. **"Multiphoton Ionization of CH_3 Radicals in the Gas Phase"**
T. G. DiGiuseppe, J. W. Hudgens and M. C. Lin
J. Phys. Chem. **86**, 36-41 (1982). DOI: 10.1021/j100390a008
19. **"Studies of the Multiphoton Ionization of Organic Phosphonates"**
J. W. Hudgens to U. S. Army Armament Research and Development Command, Chemical Systems Laboratory, Aberdeen Proving Grounds, July 1982.
18. **"Multiphoton Ionization Mass Spectrometry"**
J. J. DeCorpo, J. W. Hudgens, M. Seaver and J. R. Wyatt
Dynamic Mass Spectrometry, Vol. 6, D. Price and J. F. J. Todd, eds., Heydon & Son, Ltd., London, England (1982), Vol. **90**, p. 397.
17. **"Discrete and Quasicontinuum Level Fluorescence from Infrared Multiphoton Excited SF_6"**
J. W. Hudgens and J. D. McDonald
J. Chem. Phys. **76**, 173 (1982). DOI:10.1063/1.44275
16. **"Detection of Gas Phase Methyl Radicals Using Multiphoton Ionization"**
T. G. DiGiuseppe, J. W. Hudgens and M. C. Lin
Chem. Phys. Lett. **82**, 267-269 (1981). DOI: 10.1016/0009-2614(81)85153-6
15. **"Selective Multiphoton Ionization of Geometric Isomers: cis- and trans-1,2-Dichloroethene"**
J. W. Hudgens, M. Seaver and J. J. DeCorpo
J. Phys. Chem. **85**, 761 (1981). DOI: 10.1021/j150607a008
14. **"Energy Redistribution Observed in Infrared Multiphoton Excited C_2F_5Cl"**
J. W. Hudgens and J. D. McDonald
J. Chem. Phys. **74**, 1510-1511 (1981). DOI: 10.1063/1.441172
13. **"Characterization of Multiphoton Mass Spectrometry"**
J. J. DeCorpo, J. W. Hudgens, M. E. Seaver, M. C. Lin, F. E. Saalfeld and J. R. Wyatt
Advances in Mass Spectrometry, Vol. **8A**, A. Quayle, ed., Heyden and Son, Ltd., London, England, (1980), p. 133.
12. **"ArF Laser Multiphoton Ionization Mass Spectrometry of Organic Molecules"**
M. Seaver, J. W. Hudgens and J. J. DeCorpo
Int. J. Mass Spectro. and Ion Phys. **34**, 159 (1980). DOI: 10.1016/0020-7381(80)85023-6
11. **"Chemical and Biochemical Applications of Lasers, C. B. Moore, ed."**
J. W. Hudgens
Applied Optics **19**, 262 (1980).

10. **"Infrared Chemiluminescence Investigation of Reactions of Methyl Radicals with Oxygen and Fluorine"**
M. G. Moss, J. W. Hudgens and J. D. McDonald
J. Chem. Phys. **72**, 3486 (1980). DOI: 10.1063/1.439611
9. **"Infrared Laser Driven Reverse Internal Conversion in Carbonyl Fluoride"**
J. W. Hudgens, J. R. Durant, Jr., D. J. Bogan and R. A. Coveleskie
J. Chem. Phys. **70**, 5906-5907 (1979). DOI: 10.1063/1.437420
8. **"Production, Detection and Reactions of the CH Radical"**
J. E. Butler, L. P. Goss, M. C. Lin and J. W. Hudgens
Chem. Phys. Lett. **63**, 104-107 (1979). DOI: 10.1016/0009-2614(79)80467-4
7. **"Observation of OH(v=0,1) in the Reactions of $O(^3P)$ with HCl(v=0,1,2)"**
J. E. Butler, J. W. Hudgens, M. C. Lin and G. K. Smith
Chem. Phys. Lett. **63**, 216-220 (1979). DOI: 10.1016/0009-2614(78)80280-2
6. **"Studies of the Navy-ARPA Chemical Laser (NACL) Exhaust"**
J. J. DeCorpo, J. W. Hudgens, R. S. Olfky and J. R. Wyatt, R. C. Clark and J. R. Thompson
NRL Formal Report No. 8273, 22 Dec 1978.
5. **"Chemical Applications of Lasers"**
A. P. Baronavski, J. E. Butler, J. W. Hudgens, M. C. Lin, J. R. McDonald and M. E. Umstead
Advances in Laser Chemistry, A. Zewail, ed., California Institute of Technology (1978), p. 62.
4. **"In Situ Studies of the Infrared Multiple Photon Laser Induced Decomposition of CF_2Cl_2 and $CFCl_3$"**
J. W. Hudgens
J. Chem. Phys. **68**, 777 (1978). DOI: 10.1063/1.435728
3. **"Infrared Chemiluminescence Study of the Reaction of Translationally Hot Hydrogen Atoms with ICl"**
J. W. Hudgens and J. D. McDonald
J. Chem. Phys. **67**, 3401-3403 (1977). DOI: 10.1063/1.435294
2. **"Infrared Chemiluminescence Studies of the Reaction of Oxygen Atoms with CS_2 and CS"**
J. W. Hudgens, J. T. Gleaves and J. D. McDonald
J. Chem. Phys. **64**, 2528 (1976). DOI: 10.1063/1.432502
1. **"Infrared Chemiluminescence Studies of the Reaction of Fluorine Atoms with Monosubstituted Ethylene Compounds"**
J. G. Moehlmann, J. T. Gleaves, J. W. Hudgens and J. D. McDonald
J. Chem. Phys. **60**, 4790 (1974). DOI: 10.1063/1.1680982

Patents

2. **"Method of Mass Spectrometry (A photochemically induced charge exchange ionizer)"**
J. W. Hudgens
U. S. Pat. Off. File # 506090, 20 June 1983.
1. **"Intra-Cavity Total Reflection for High Sensitivity Measurement of Optical Properties"**
A. C. R. Pipino and J. W. Hudgens
U. S. Pat. Off. Patent # 5943136, 24 August 1999.