

Literaturverzeichnis

- [1] HARIG, L.: *Logbuch eines Luftkutschers*. Stuttgart : Philipp Reclam jun., 1981
- [2] CASTLEMAN, JR., A. W. ; BOWEN, JR., K. H.: Clusters: Structure, Energetics, and Dynamics of Intermediate States of Matter. In: *Journal of Physical Chemistry* 100 (1996), S. 12911–12944
- [3] ZWIER, T. S.: The Spectroscopy of Solvation in Hydrogen-Bonded Aromatic Clusters. In: *Annual Review of Physical Chemistry* 47 (1996), S. 205–241
- [4] SHANG, Q. Y. ; BERNSTEIN, E. R.: Energetics, Dynamics, and Reactions of Rydberg State Molecules in van der Waals Clusters. In: *Chemical Reviews* 94 (1994), S. 2015–2025
- [5] HUISKEN, F.: Infrared Vibrational Predissociation Spectroscopy of Small Size-Selected Clusters. In: *Advances in Chemical Physics* 81 (1992), S. 63–140
- [6] JORTNER, J.: Level Structure and Dynamics of Clusters. In: *Berichte der Bunsen-Gesellschaft Physical Chemistry Chemical Physics* 88 (1984), S. 188–201
- [7] BRUTSCHY, B.: Ion-Molecule Reactions within Molecular Clusters. In: *Chemical Reviews* 92 (1992), S. 1567–1587
- [8] HABERLAND, H.: Experimental Methods. In: HABERLAND, H. (Hrsg.): *Clusters of Atoms and Molecules*. Berlin : Springer-Verlag, 1994, Kapitel 3
- [9] ŠPIRKO, V. ; ENKVIST, O. ; SOLÀN, P. ; SELZLE, H. L. ; SCHLAG, E. W. ; HOBZA, P.: Structure and vibrational dynamics of the benzene dimer. In: *The Journal of Chemical Physics* 111 (1999), S. 572–582
- [10] BIESKE, E. J. ; MAIER, J. P.: Spectroscopic Studies of Ionic Complexes and Clusters. In: *Chemical Reviews* 93 (1993), S. 2603–2621

- [11] BOESL, U. ; NEUSSER, H. J. ; SCHLAG, E. W.: Two-Photon Ionization of Polyatomic Molecules in a Mass Spectrometer. In: *Zeitschrift für Naturforschung* 33 a (1978), S. 1546–1548
- [12] NEUSSER, H. J.: Multi-Photon Mass Spectrometry and Unimolecular Ion Decay. In: *International Journal of Mass Spectrometry* 79 (1987), S. 141–181
- [13] LEVY, D. H.: Laser Spectroscopy of Cold Gas-Phase Molecules. In: *Annual Review of Physical Chemistry* 31 (1980), S. 197–225
- [14] ZHU, L. ; JOHNSON, P. H.: Mass analyzed threshold ionization spectroscopy. In: *The Journal of Chemical Physics* 94 (1991), S. 5769–5771
- [15] MÜLLER-DETHLEFS, K. ; SCHLAG, E. W.: High-Resolution Zero Kinetic Energy (ZEKE) Photoelectron Spectroscopy of Molecular Systems. In: *Annual Review of Physical Chemistry* 42 (1991), S. 109–136
- [16] KIMURA, K.: Photoelectron Spectroscopy of Excited States. In: *Advances in Chemical Physics* 60 (1985), S. 161–199
- [17] KANTROWITZ, A. ; GREY, J.: A High Intensity Source for the Molecular Beam. Part I. Theoretical. In: *Review of Scientific Instruments* 22 (1951), S. 328–332
- [18] ANDERSON, J. B. ; ANDRES, R. P. ; FENN, J. B.: Supersonic Nozzle Beams. In: ROSS, J. (Hrsg.): *Molecular Beams*. New York : Interscience Publishers, 1966, Kapitel 8
- [19] BIER, K.: Zur Wirkung von Verdichtungsstößen im Übergangsbereich zwischen gasdynamischer und molekularer Strömungsform. In: *Fortschritte der Physik* 11 (1963), S. 325–356
- [20] LIEPMANN, H. W. ; ROSHKO, A.: *Elements of Gas Dynamics*. New York : Wiley, 1957
- [21] ANDERSON, J. B. ; FENN, J. B.: Velocity Distributions in Molecular Beams from Nozzle Sources. In: *The Physics of Fluids* 8 (1965), S. 780–787
- [22] ANDERSON, J. B.: Molecular Beams from Nozzle Sources. In: WEGENER, P. P. (Hrsg.): *Molecular Beams and Low Density Gasdynamics*. New York : Marcel Dekker, Inc., 1974, Kapitel 1
- [23] BECKER, E. W. ; BIER, K. ; HENKES, W.: Strahlen aus kondensierten Atomen und Molekeln im Hochvakuum. In: *Zeitschrift für Physik* 146 (1956), S. 333–338

- [24] HAGENA, O. F.: Cluster Beams from Nozzle Sources. In: WEGENER, P. P. (Hrsg.): *Molecular Beams and Low Density Gasdynamics*. New York : Marcel Dekker, Inc., 1974, Kapitel 2
- [25] VAN MOURIK, T. ; DUNNING, JR., T. H.: A new ab initio potential energy curve for the helium dimer. In: *The Journal of Chemical Physics* 111 (1999), S. 9248–9258
- [26] SCOLES, G. (Hrsg.): *Atomic and Molecular Beam Methods*. Oxford, New York : Oxford University Press, 1988
- [27] SPICE, J. E.: *Chemische Bindung und Struktur*. Braunschweig : Vieweg Verlag, 1971
- [28] KUTZELNIGG, W.: *Einführung in die Theoretische Chemie*. Bd. 2. Weinheim : Verlag Chemie, 1979
- [29] RIGBY, M. ; SMITH, E. B. ; WAKEHAM, W. A. ; MAITLAND, G. C.: *The Forces Between Molecules*. Oxford : Oxford University Press, 1986
- [30] AHLRICHS, R.: Convergence Properties of the Intermolecular Force Series (1/R-Expansion). In: *Theoretica Chimica Acta* 41 (1976), S. 7–15
- [31] HIRSCHFELDER, J. O. ; CURTISS, C. F. ; BIRD, R. B.: *Molecular Theory of Gases and Liquids*. New York : Wiley, 1964
- [32] JEFFREY, G. A.: *An Introduction to Hydrogen Bonding*. Oxford, New York : Oxford University Press, 1997
- [33] SCHUSTER, P.: Energy surfaces for hydrogen bonded systems. In: SCHUSTER, P. (Hrsg.) ; ZUNDEL, G. (Hrsg.) ; SANDORFY, C. (Hrsg.): *The Hydrogen Bond* Bd. 1. Amsterdam : North-Holland Publishing Company, 1976, Kapitel 2
- [34] LONGUET-HIGGINS, H. C. ; POPLE, J. A.: Electronic Spectral Shifts of Nonpolar Molecules in Nonpolar Solvents. In: *The Journal of Chemical Physics* 27 (1957), S. 192–194
- [35] HENKE, W. E. ; YU, W. ; SELZLE, H. L. ; SCHLAG, E. W. ; WUTZ, D. ; LIN, S. H.: Theoretical Study of Electronic Spectral Shifts of van der Waals Complexes. In: *Chemical Physics* 97 (1985), S. 205–215
- [36] AMIRAV, A. ; EVEN, U. ; JORTNER, J.: Microscopic solvation effects on excited-state energetics and dynamics of aromatic molecules in large van der Waals complexes. In: *The Journal of Chemical Physics* 75 (1981), S. 2489

- [37] BRUTSCHY, B.: *Energetik und Dynamik in ionischen Molekülaggregaten*, Freie Universität Berlin, Habilitationsschrift, 1989
- [38] GOTCH, A. J. ; ZWIER, T. S.: Multiphoton ionization studies of clusters of immiscible liquids. I. $C_6H_6-(H_2O)_n$, $n = 1,2$. In: *The Journal of Chemical Physics* 96 (1992), S. 3388–3401
- [39] GARRETT, A. W. ; ZWIER, T. S.: Multiphoton ionization studies of clusters of immiscible liquids. II. $C_6H_6-(H_2O)_n$, $n = 3-8$ and $(C_6H_6)_2-(H_2O)_n$. In: *The Journal of Chemical Physics* 96 (1992), S. 3402–3410
- [40] PHILIS, J. G. ; KOSMIDIS, C.: Resonant laser mass spectrometry: fragmentation patterns from $^{13}C_1$ naturally labeled molecules. In: *International Journal of Mass Spectrometry* 193 (1999), S. 69–75
- [41] LETOKHOV, V. S. ; MISHIN, V. I. ; PURETZKY, A. A.: Selective Photoionization of Atoms by Laser Radiation and its Applications. In: *Progress in Quantum Electronics* 5 (1977), S. 139–203
- [42] BOESL, U. ; NEUSSER, H. J. ; SCHLAG, E. W.: Multi-Photon Ionization in the Mass Spectrometry of Polyatomic Molecules: Cross Sections. In: *Chemical Physics* 55 (1980), S. 193–204
- [43] LIN, S. H. ; FUJIMURA, Y. ; NEUSSER, H. J. ; SCHLAG, E. W.: *Multiphoton Spectroscopy of Molecules*. Orlando : Academic Press, Inc., 1984
- [44] GOODMAN, L. ; PHILIS, J.: Multiphoton Absorption Spectroscopy. In: ANDREWS, D. L. (Hrsg.): *Applied Laser Spectroscopy*. Weinheim : VCH-Verlagsgesellschaft mbH, 1992, Kapitel 8
- [45] HOLLAS, J. M.: *Moderne Methoden in der Spektroskopie*. Braunschweig : Vieweg & Sohn Verlagsgesellschaft mbH, 1995
- [46] TURNER, D. W. ; BAKER, C. ; BAKER, A. W. ; BRUNDEL, C. R.: *Molecular Photoelectron Spectroscopy*. London : Wiley-Interscience, 1970
- [47] KIMURA, K. ; KATSUMATA, S. ; ACHIBA, Y. ; YAMAZAKI, T. ; IWATA, S.: *Handbook of HeI Photoelectron Spectra of Fundamental Organic Molecules*. Tokyo : Japan Scientific Societies Press, 1981
- [48] COMPTON, R. N. ; MILLER, J. C.: Multiphoton Ionization Photoelectron Spectroscopy: MPI-PES. In: EVANS, D. K. (Hrsg.): *Laser Applications in Physical Chemistry*. New York : Marcel Dekker, Inc., 1989, Kapitel 6

- [49] DE BEER, E. ; BUMA, W. J. ; DE LANGE, C. A.: Resonance enhanced multiphoton ionization photoelectron spectroscopy and pulsed field ionization via the $F^1\Delta_2(\nu' = 0)$ and $f^3\Delta_2(\nu' = 0)$ Rydberg states of HCl. In: *The Journal of Chemical Physics* 99 (1993), S. 3252–3261
- [50] DE LANGE, C. A.: Laser photoelectron spectroscopy: mixed traits of excited states. In: *Journal of the Chemical Society Faraday Transaction* 94 (1998), S. 3409–3419
- [51] SATO, K. ; ACHIBA, Y. ; KIMURA, K.: The Ar-NO van der Waals complex studied by resonant multiphoton ionization spectroscopy involving photoion and photoelectron measurements. In: *The Journal of Chemical Physics* 81 (1984), S. 57–62
- [52] NAGANO, Y. ; ACHIBA, Y. ; SATO, K. ; KIMURA, K.: Photoelectron Spectra and Angular Distribution in Resonant Three-Photon Ionization of Atomic Iron: J Dependence. In: *Chemical Physics Letters* 93 (1982), S. 510–514
- [53] MOORE, J. H. ; DAVIS, C. D. ; COPLAN, M. A.: *Building Scientific Apparatus*. 2. Edition. Redwood City, Calif. : Addison-Wesley Publishing Company, Inc., 1996
- [54] Grundlagen der Vakuumtechnik, Berechnungen und Tabellen. In: *HV 200 Vakuum-Seriengeräte*. Leybold-Heraeus, 1997 (Teil 15 des Kataloges)
- [55] KRETSCHMANN. *Gasmischungsverfahren bei Messer Griesheim*. Private Mitteilung. 1997
- [56] MCCOUSTRA, M. R. S.: General Aspects of Laser Instrumentation. In: ANDREWS, D. L. (Hrsg.): *Applied Laser Spectroscopy*. Weinheim : VCH-Verlagsgesellschaft mbH, 1992, Kapitel 2
- [57] *OG-Spektrum Neon*. Betriebsanleitung der optogalvanische Kalibrier-einheit OCU_{Puls}. 1992
- [58] WILEY, W. C. ; MCLAREN, I. H.: Time-of-Flight Mass Spectrometer with Improved Resolution. In: *The Review of Scientific Instruments* 26 (1955), S. 1150–1157
- [59] BOESL, U. ; WEINKAUF, R. ; SCHLAG, E. W.: Reflectron time-of-flight mass spectrometry and laser excitation for the analysis of neutrals, ionized molecules and secondary fragments. In: *International Journal of Mass Spectrometry and Ion Processes* 112 (1992), S. 121–166
- [60] RING, S.: *Laserspektroskopische Untersuchungen zum Mechanismus von Ladungstransfer und Ionisation in molekularen Aggregaten*, Freie Universität Berlin, Dissertation, 1997

- [61] SANZONE, G.: Energy Resolution of the Conventional Time-of-Flight Mass Spectrometer. In: *The Review of Scientific Instruments* 41 (1970), S. 741–742
- [62] GÜTHE, Felix. *Berechnung der Parameter eines TOF-Massenspektrometers nach Wiley und McLaren*. Private Mitteilung. 1996
- [63] KRUIT, P. ; READ, F. H.: Magnetic field paralleliser for 2π electron-spectrometer and electron-image magnifier. In: *Journal of Physics E*. 16 (1983), S. 313–324
- [64] TREVOR, D. J. ; VAN WOERKOM, L. D. ; FREEMAN, R. R.: A parabolic mirror time-of-flight electron energy analyzer. In: *Review of Scientific Instruments* 60 (1989), S. 1051–1053
- [65] HSU, T. ; HIRSHFIELD, J. L.: Electrostatic energy analyzer using a nonuniform axial magnetic field. In: *Review of Scientific Instruments* 47 (1976), S. 236–238
- [66] BEAMSON, G. ; PORTER, H. Q. ; TURNER, D. W.: The collimating and magnifying properties of a superconducting field. In: *Journal of Physics E*. (1980), S. 64–66
- [67] TSUBOI, T. ; XU, E. Y. ; BAE, Y. K. ; GILLEN, K. T.: Magnetic bottle electron spectrometer using permanent magnets. In: *Review of Scientific Instruments* 59 (1988), S. 1357–1362
- [68] JACKSON, J. D.: *Klassische Elektrodynamik*. 2. Auflage. Berlin : de Gruyter, 1983
- [69] CHESHNOVSKY, O. ; YANG, S. H. ; PETTIETTE, C. L. ; CRAYCRAFT, M. J. ; SMALLEY, R. E.: Magnetic time-of-flight photoelectron spectrometer for mass-selected negative cluster ions. In: *Review of Scientific Instruments* 58 (1987), S. 2131–2137
- [70] KAISER, B. K.: *Untersuchung des Nichtmetall-Metall Übergangs in isolierten Quecksilberclustern mit Hilfe der Photoelektronenspektroskopie*, Philipps-Universität Marburg/Lahn, Dissertation, 1989
- [71] KAISER, B. K. *Berechnung der Elektronenbahnen im inhomogenen Magnetfeld*. Private Mitteilung. 1996
- [72] CHA, C.-Y. ; GANTEFÖR, G. ; EBERHARDT, W.: New experimental setup for photoelectron spectroscopy on cluster anions. In: *Review of Scientific Instruments* 63 (1992), S. 5661–5666
- [73] KIMMAN, J. ; KRUIT, P. ; VAN DER WIEL, M. J.: Highly Resolved Electron Spectra for Resonantly Enhanced Four-Photon Ionization of NO. In: *Chemical Physics Letters* 88 (1982), S. 576–580

- [74] HUANG, L. Q. ; CONZEMIUS, R. J. ; HOLLAND, G. E. ; HOUK, R. S.: Reduction of Signal Reflections for Fast-Pulse Recording with Micro-channel Plate Detectors. In: *Analytical Chemistry* 60 (1988), S. 1635–1637
- [75] ARZBERGER, P. ; BEILSCHMIDT, L. ; ELLERCKMANN, H. ; GUSE, R. ; KRAMER, H. ; MIELKE, K. ; SCHWENNER, H. ; STOBINSKI, H.-J.: *Tabellenbuch Informations- und Telekommunikationstechnik*. Bad Homburg vor der Höhe : Verlag Dr. Max Gehlen, 1998
- [76] SCHWARTZE, P. *Impedanzanpassung mit dem CLC449*. Private Mitteilung. 1999
- [77] WAVEMETRICS, Inc.. – <http://www.WaveMetrics.com>
- [78] KOMARNICKI, O.: *Programmiermethodik*. Berlin : Springer-Verlag, 1971
- [79] v. GOETHE, J. W.: *Ausgabe letzter Hand*. Bd. 49/50. 1833
- [80] TSUTSUMI, K. ; SATO, S. ; KIMURA, K. *ZEKE Study of Anisole-Argon*. Private Mitteilung. 1999
- [81] WRIGHT, T. G. ; CORDES, E. ; DOPFER, O. ; MÜLLER-DETHLEFS, K.: Zero-kinetic-energy (ZEKE) Photoelectron Spectroscopy of the Hydrogen-bonded Phenol-Methanol Complex. In: *Journal of the Chemical Society Faraday Transaction* 89 (1993), S. 1609–1621
- [82] SHINOHARA, H. ; SATO, S. ; KIMURA, K.: Zero Kinetic Energy (ZEKE) Photoelectron Study of Fluorobenzene-Argon van der Waals Complexes. In: *The Journal of Physical Chemistry* 101 (1997), S. 6736–6740
- [83] VONDRÁK, T. ; SATO, S. ; KIMURA, K.: Cation Vibrational Spectra of Indole and Indole-Argon van der Waals Complex. A Zero Kinetic Energy Photoelectron Study. In: *The Journal of Physical Chemistry* 101 (1997), S. 2384–2389
- [84] VONDRÁK, T. ; SATO, S. ; V. Špirko ; KIMURA, K.: Zero Kinetic Energy (ZEKE) Photoelectron Spectroscopic Study of Thioanisole and Its van der Waals Complexes with Argon. In: *The Journal of Physical Chemistry* 101 (1997), S. 8631–8638
- [85] COCKETT, M. C. R. ; OKUYAMA, K. ; KIMURA, K.: Laser threshold photoelectron spectra of cis and trans rotational isomers of p-dimethoxybenzene-Ar_n (n=0,1,2): Observation of the intermolecular van der Waals stretching and bending vibrational modes in the cation. In: *The Journal of Chemical Physics* 97 (1992), S. 4679–4689

- [86] TAKAHASHI, M. ; KIMURA, K.: Molecular Ion Vibrational Spectroscopy by a Time-Resolved REMPI Threshold Photoelectron Technique. In: *Springer Proceedings in Physics (Time Resolved Vibrational Spectroscopy)* Bd. 68. 1992, S. 327–330
- [87] FUKE, K. ; YOSHIUCHI, H ; KAYA, K. ; ACHIBA, Y. ; SATO, K. ; KIMURA, K.: Multiphoton Ionization Photoelectron Spectroscopy and Two-Color Multiphoton Ionization Threshold Spectroscopy On the Hydrogen Bonded Phenol and 7-Azaindole in a Supersonic Jet. In: *Chemical Physics Letters* 108 (1984), S. 179–184
- [88] SATO, K. ; ACHIBA, Y. ; KIMURA, K.: The Ar-NO van der Waals complex studied by resonant multiphoton ionization spectroscopy involving photoion and photoelectron measurements. In: *The Journal of Chemical Physics* 81 (1984), S. 57–62
- [89] TAKAHASHI, M. ; K., Okuyama ; KIMURA, K.: Two-color threshold photoelectron spectroscopy: cation vibrational spectroscopy. In: *Journal of Molecular Structure* 249 (1991), S. 47–54
- [90] RABALAIS, J. W.: *Principles of Ultraviolet Photoelectron Spectroscopy*. New York : J. Wiley & Sons, Inc., 1977
- [91] MEEK, Jon T. ; LONG, S. R. ; REILLY, James P.: Observation of Polyatomic Ion Vibrational State Distribution by Laser Photoelectron Spectroscopy. In: *The Journal of Physical Chemistry* 86 (1982), S. 2809–2811
- [92] WILSON, JR., E. B.: The Normal Modes and Frequencies of Vibration of the Regular Plane Hexagon Model of the Benzene Molecule. In: *Physical Review* 45 (1934), S. 706–714
- [93] OPPEL, M. *Berechnung des Toluols und seines Kations*. Private Mitteilung. 2000
- [94] MØLLER, C. ; PLESSET, M. S.: Note on an Approximation Treatment for Many-Electron Systems. In: *Physical Review* 46 (1934), S. 618–622
- [95] LU, K.-T. ; EIDEN, G. C. ; WEISSHAAR, J. C.: Toluene Cation: Nearly Free Rotation of the Methyl Group. In: *The Journal of Physical Chemistry* 96 (1992), S. 9742–9748
- [96] FUSON, N. ; GARRIGOU-LAGRANGE, C. ; JOSIEN, M. L.: Spectre infrarouge et attribution des vibrations des toluènes $C_6H_5CH_3$, $C_6H_5CD_3$ et $C_6D_5CD_3$. In: *Spectrochimica Acta* 16 (1960), S. 106–127
- [97] PITZER, K. S. ; SCOTT, D. W.: The Thermodynamics and Molecular Structure of Benzene and Its Methyl Derivates. In: *Journal of the American Chemical Society* 65 (1943), S. 803–829

- [98] SCHRADER, B.: *Raman/Infrared Atlas of Organic Compounds*. 2. Weinheim : VCH Verlagsgesellschaft mbH, 1989
- [99] HOPKINS, J. B. ; POWERS, D. E. ; SMALLEY, R. E.: Vibrational relaxation in jet-cooled alkylbenzenes. I. Absorption spectra. In: *The Journal of Chemical Physics* 72 (1980), S. 5039–5048
- [100] GINSBURG, N. ; ROBERTSON, W. W. ; MATSEN, F. A.: The Near Ultraviolet Absorption Spectrum of Toluene Vapor. In: *The Journal of Chemical Physics* 14 (1946), S. 511–517
- [101] KROGH-JESPERSEN, K. ; RAVA, R. P. ; GOODMAN, L.: Two-Photon Ionization Spectrum of the $^1L_b \leftarrow S_0$ Transition in Toluene. In: *Chemical Physics* 44 (1979), S. 295–302
- [102] MONS, M. ; LE CALVÉ, J. ; PIUZZI, F. ; DIMICOLI, I.: Resonant two-photon ionization spectra of the external vibrational modes of the chlorobenzene-, phenol-, and toluene-rare gas (Ne, Ar, Kr, Xe) van der Waals complexes. In: *The Journal of Chemical Physics* 92 (1990), S. 2155–2165
- [103] POPLE, J. A. ; SCOTT, A. P. ; WONG, M. W. ; RADOM, L.: Scaling Factors for Obtaining Fundamental Vibrational Frequencies and Zero-Point Energies from HF/6-31G* and MP2/6-31G* Harmonic Frequencies. In: *Israel Journal of Chemistry* 33 (1993), S. 345–350
- [104] ELAND, J. H. D.: *Photoelectron Spectroscopy*. London : Butterworths, 1974
- [105] DEBIES, T. P. ; RABALAIS, J. W.: Photoelectron Spectra of Substituted Benzenes II. Seven Valence Electron Substituents. In: *Journal of Electron Spectroscopy and Related Phenomena* 1 (1972/73), S. 355–370
- [106] BALFOUR, W. J.: The 275-nm Absorption System of Anisole. In: *Journal of Molecular Spectroscopy* 109 (1985), S. 60–72
- [107] JANES, C.: *Das photochemische und das photophysikalische Verhalten von van der Waals-Clustern*, Freie Universität Berlin, Dissertation, 1989
- [108] BREEN, P. J. ; BERNSTEIN, E. R. ; SECOR, H. V. ; SEEMAN, J. I.: Spectroscopic Observation and Geometry Assignment of the Minimum Energy Conformations of Methoxy-Substituted Benzenes. In: *Journal of the American Chemical Society* 111 (1989), S. 1958–1968
- [109] CARDINI, G. ; CALIFANO, S. *Berechnung des Anisols und seines Kations*. Private Mitteilung. 2000

- [110] HOTTMANN, K. *He(I)-Photoelektronenspektrum des Anisols*. Private Mitteilung. 2000
- [111] STEPHENSON, C. V. ; COBURN, JR., W. C. ; WILCOX, W. S.: The vibrational spectra and assignments of nitrobenzene, phenyl isocyanate, phenyl isothiocyanate, thionylaniline and anisole. In: *Spectrochimica Acta* 17 (1961), S. 933–946
- [112] GREEN, J. H. S.: Vibrational spectra of benzene derivatives-III. Anisole, ethylbenzene, phenetole methyl phenyl sulphide and ethyl phenyl sulphide. In: *Spectrochimica Acta* 18 (1962), S. 39–50
- [113] OWEN, N. L. ; HESTER, R. E.: Vibrational spectra and torsional barriers of anisole and some monohalogen derivatives. In: *Spectrochimica Acta* 25A (1969), S. 343–354
- [114] BALFOUR, W. J.: The vibrational spectrum of anisole. In: *Spectrochimica Acta* 39A (1983), S. 795–800
- [115] BOYALL, D. ; REID, K. L.: Modern studies of intramolecular vibrational energy redistribution. In: *Chemical Society Reviews* 26 (1997), S. 223–232
- [116] KLASINC, L. ; KOVAČ, B. ; GÜSTEN, H.: Photoelectron Spectra of Acenes, Electronic Structure and Substitution Effects. In: *Pure and Applied Chemistry* 55 (1983), S. 289–298
- [117] WEAST, R. C. (Hrsg.) ; ASTLE, M. J. (Hrsg.) ; BEYER, W. H. (Hrsg.): *CRC Handbook of Chemistry and Physics*. 68. Boca Raton, Florida : CRC Press, Inc., 1987-1988
- [118] MONS, M. ; LE CALVÉ, J.: Effect of the substituent on the potential energy surfaces and vibrational mode structure in the monosubstituted benzene-argon van der Waals complex. In: *Chemical Physics* 146 (1990), S. 195–205
- [119] MONS, M. ; LE CALVÉ, J. ; PIUZZI, F. ; DIMICOLI, I.: R2PI Spectra of the External Vibrational Modes of the Chlorobenzene-, Phenol- and Toluene-Rare Gas (Ne, Ar, Kr, Xe) van der Waals Complexes. In: *NATO advanced study institutes series B* 227 (1990), S. 421–430
- [120] SATO, S. ; BYODO, K. ; KOJIMA, T. ; SHINOHARA, H. ; KIMURA, K. *Zero-Kinetic-Energy (ZEKE) Electron Spectra of van der Waals Complexes of Alkybenzenes with Argon*. Posterpräsentation auf der Beijing International Conference On Photoelectron Spectroscopy: Molecules, Ions and Clusters. 1999

- [121] INOUE, H. ; SATO, S. ; KIMURA, K.: Observation of van der Waals vibrations in zero kinetic energy (ZEKE) photoelectron spectra of toluene-Ar van der Waals complex. In: *Journal of Electron Spectroscopy and Related Phenomena* 88-91 (1998), S. 125–130
- [122] TAKAHASHI, M. ; OZEKI, H. ; KIMURA, K.: Vibrational spectra of aniline-Ar_n van der Waals cations (n=1 and 2) observed by two-color “threshold photoelectron” [zero kinetic energy (ZEKE)-photoelectron] spectroscopy. In: *The Journal of Chemical Physics* 96 (1992), S. 6399–6406
- [123] SNYDER, R. G.: On the infrared spectrum of dibenzene chromium. In: *Spectrochimica Acta* 15 (1959), S. 807–819
- [124] SAITO, H. ; KAKIUTI, Y. ; TSUTSUI, M.: Infra-red assignments of dibenzenechromium(I) and ditoluenechromium(I) iodides and the C-H out of plane force constants of their ligand molecules. In: *Spectrochimica Acta* 23 A (1967), S. 3013–3023
- [125] KROSS, R. D. ; FASSEL, V. A. ; MARGOSHES, M.: The Infrared Spectra of Aromatic Compounds. II. Evidence Concerning the Interaction of π -Electrons and σ -Bond Orbitals in C-H Out-of-plane Bending Vibrations. In: *Journal of the American Chemical Society* 78 (1956), S. 1332–1335
- [126] SCHWENTNER, N. ; KOCH, E. E. ; OPHIR, Z. ; JORTNER, J.: Photoelectron Energy Distribution Measurements from Benzene in Rare Gas Matrices. In: *Chemical Physics* 34 (1978), S. 281–285
- [127] WEBER, P. M. ; BUONTEMPO, J. T. ; NOVAK, F. ; RICE, S. A.: van der Waals bond stretch and bend frequencies in the molecules tetrazine-X (X=Xe, Kr and Ar). In: *The Journal of Chemical Physics* 88 (1988), S. 6082–6091
- [128] MENAPACE, J. A. ; BERNSTEIN, E. R.: Calculation of the Vibronic Structure of Solute/Solvent van der Waals Clusters. In: *Journal of Physical Chemistry* 91 (1987), S. 2533–2544
- [129] EVEN, U. ; AMIRAV, A. ; LEUTWYLER, S. ; ONDRECHEN, M. J. ; BERKOVITCH-YELLIN, Z. ; JORTNER, J.: Energetics and Dynamics of Large Van der Waals Molecules. In: *Faraday Discussions of the Chemical Society* 73 (1982), S. 153–172
- [130] KETTLEY, J. C. ; PALMER, T. F. ; SIMONS, J. P. ; AMOS, A. T.: Electronic Spectral Shifts of Large van der Waals Molecules. In: *Chemical Physics Letters* 126 (1985), S. 107–112

- [131] PRABHUMIRASHI, L. S. ; NARAYANAN, D. K. ; BHIDE, A. S.: Excited state dipole moments of some monosubstituted benzenes from solvent effect on electronic absorption spectra. In: *Spectrochimica Acta* 39A (1983), S. 663–668
- [132] KITTEL, C.: *Einführung in die Festkörperphysik*. 7. München : R. Oldenburg, 1988
- [133] CHEWTER, L. A. ; MÜLLER-DETHLEFS, K. ; SCHLAG, E. W.: Determination of the Ionization Energy of the Benzene-Argon-Complex by Zero Kinetic Energy Photoelectron Spectroscopy. In: *Chemical Physics Letter* 135 (1987), S. 219–228
- [134] OPPEL, M. *Berechnung der Struktur des Anisol-Ammoniak-Dimeres und seines Kations*. Private Mitteilung. 2000
- [135] HAGER, J. ; IVANCO, M. ; SMITH, M. A. ; WALLACE, S. C.: Two-Color Threshold Photoionization Spectroscopy of Jet-Cooled Indole Clusters. In: *Chemical Physics* 105 (1986), S. 397–416
- [136] NOBELI, I. ; YEOH, S. L. ; PRICE, S. L. ; TAYLOR, R.: On the hydrogen bonding abilities of phenols and anisoles. In: *Chemical Physics Letters* 280 (1997), S. 196–202
- [137] SYAGE, J. A. ; STEADMAN, J.: Probing Double-Minima Ion-Molecule Reaction Coordinates by Photoelectron Spectroscopy of Clusters: $\text{PhOH}^+ + \text{NH}_3 \rightarrow \text{PhO} + \text{NH}_4^+$. In: *Journal of Physical Chemistry* 96 (1992), S. 9606–9608
- [138] SOLGADI, D. ; JOUVET, C. ; TRAMER, A.: Resonance-Enhanced Multiphoton ionization Spectra and Ionization Thresholds of Phenol- $(\text{NH}_3)_n$ Clusters. In: *The Journal of Physical Chemistry* 92 (1988), S. 3313–3315
- [139] BAUM, J. C. ; MCCLURE, D. S.: The Ultraviolet Transitions of Benzoic Acid. 2. Hydrogen Bonding in the Ground and Excited States. In: *Journal of the American Chemical Society* 101 (1979), S. 2340–2343
- [140] UMEYAMA, H. ; MOROKUMA, K.: Origin of Alkyl Substituent Effect in the Proton Affinity of Amines, Alcohols, and Ethers. In: *Journal of the American Chemical Society* 98 (1976), S. 4400–4404
- [141] JOUVET, C. ; LARDEUX-DEDONDER, C. ; RICHARD-VIARD, M. ; SOLGADI, D. ; TRAMER, A.: Reactivity of Molecular Clusters in the Gas Phase. Proton-Transfer Reaction in Neutral Phenol- $(\text{NH}_3)_n$ and Phenol- $(\text{C}_2\text{H}_5\text{NH}_2)_n$. In: *The Journal of Physical Chemistry* 94 (1990), S. 5041–5048

- [142] OPPEL, M. *Berechnung der Struktur des neutralen Anisol-Kohlendioxid-Dimeren*. Private Mitteilung. 1999
- [143] CARDINI, G. *Berechnung des neutralen Anisols-Kohlendioxid-Dimeren*. Private Mitteilung. 1999
- [144] CHAMPAGNE, B. B. ; PFANSTIEL, J. F. ; PRATT, D. W. ; ULSH, R. C.: Ar and CH₄ van der Waals complexes of 1-and 2-fluoronaphthalene: A perturbed spherical top attached to a surface. In: *The Journal of Chemical Physics* 102 (1995), S. 6432–6443
- [145] BECUCCI, M. ; PIETRAPERZIA, G. ; LAKIN, N. M. ; CASTELLUCCI, E. ; BRÉCHIGNAC, P.: High-resolution spectroscopy of aniline-rare gas Van der Waals complexes: results and comparison with theoretical predictions. In: *Chemical Physics Letters* 260 (1996), S. 87–94
- [146] NEUSSER, H. J. ; KRAUSE, H.: Binding Energy and Structure of van der Waals Complexes of Benzene. In: *Chemical Reviews* 94 (1994), S. 1829–1843
- [147] LAHMANI, F. ; LARDEUX-DEDONDOR, C. ; SOLGADI, D. ; ZEHACKER, A.: Spectroscopic Study of the Anisole-Benzene Complex Formed in a Supersonic Free Jet. In: *Journal of Physical Chemistry* 93 (1989), S. 3984–3989
- [148] BERDEN, G. ; MEERTS, W. L. ; SCHMITT, M. ; KLEINERMANN, K.: High resolution UV spectroscopy of phenol and the hydrogen bonded phenol-water cluster. In: *The Journal of Chemical Physics* 104 (1996), S. 972–982
- [149] ONDA, M. ; TONDA, A. ; MORI, S. ; YAMAGUCHI, I.: Microwave Spectrum of Anisole. In: *Journal of Molecular Structure* 144 (1986), S. 47–51
- [150] MEOT-NER (MAUTNER), M. ; HAMLET, P. ; HUNTER, E. P. ; FIELD, F. H.: Bonding Energies in Association Ions of Aromatic Compounds. Correlations with Ionization Energies. In: *Journal of the American Chemical Society* 100 (1978), S. 5466–5471
- [151] KNEE, J. L. ; KHUNDKAR, L. R. ; ZEWAHL, A. H.: Picosecond photofragment spectroscopy. III. Vibrational predissociation of van der Waals' clusters. In: *The Journal of Chemical Physics* 87 (1987), S. 115–127
- [152] STEPHENSON, T. A. ; RADLOFF, P. L. ; RICE, S. A.: ${}^1B_{2u} \leftrightarrow {}^1A_{1g}$ Spectroscopy of jet-cooled benzene: Single vibronic level fluorescence studies. In: *Journal of Chemical Physics* 81 (1984), S. 1060–1072

