

Bibliography

- [ABB98] A. Assion, T. Baumert, M. Bergt, T. Brixner, B. Kiefer, V. Seyfried, M. Strehle, and G. Gerber. *Science*, **282**, 919, (1998).
- [ABH01] J. U. Andersen, E. Bonderup, and K. Hansen. *J. Chem. Phys.*, **114**, 6518, (2001).
- [ABH02] J. U. Andersen, E. Bonderup, and K. Hansen. *J. Phys. B : At. Mol. Opt. Phys.*, **35**, R1–30, (2002).
- [ABH03] J. U. Andersen, E. Bonderup, K. Hansen, P. Hvelplund, B. Liu, U. V. Pedersen, and S. Tomita. *Eur. Phys. J. D*, **24**, 191, (2003).
- [ADJ99] I. Ali, R. Dörner, O. Jagutski, S. Nüttgens, V. Mergel, L. Spielberger, Kh. Khayyat, T. Vogt, H. Bräuning, K. Ullmann, R. Moshhammer, J. Ullrich, S. Hagmann, K.-O. Groeneveld, C. L. Cocke, and H. Schmidt-Böcking. *Nuc. Inst. Meth. Phys. Res. B*, **149**, 490–500, (1999).
- [ADK86] M. V. Ammosov, N. B. Delone, and V. P. Krainov. *Sov. Phys. JETP*, **64**, 1191, (1986).
- [AOB92] J. Abrefah, D. R. Olander, M. Balooch, and W. J. Siekhaus. *Appl. Phys. Lett.*, **60**, 1313, (1992).
- [BAH98] R. Bauernschmitt, R. Ahrichs, F. H. Hennrich, and M. M. Kappes. *J. Amer. Chem. Soc.*, **120**, 5052–5059, (1998).

- [Bau04] D. Bauer. *Intense laser field-induced multiphoton processes in single- and many-electron systems*. Habilitationsschrift, Technischen Universität Darmstadt, (2002).
- [BBL00] A. Ballard, K. Bonin, and J. Louderback. *J. Chem. Phys.*, **113**, 5732, (2000).
- [BCM01] D. Bauer, F. Ceccherini, A. Macchi, and F. Cornolti. *Phys. Rev. A*, **64**, 063203, (2001).
- [BCR04] V. R. Bhardwaj, P. B. Corkum, and D. M. Rayner. *Phys. Rev. Lett.*, **93**, 0430011, (2004).
- [BDN01] T. Brixner, N.H. Damrauer, P. Niklaus, and G. Gerber. *Nature*, **414**, 57, (2001).
- [BGe97] T. Baumert and G. Gerber. *Physica Scripta*, **72**, 53, (1997).
- [BHS01] M. Boyle, K. Hoffmann, C. P. Schulz, I. V. Hertel, E. E. B. Campbell, and R. D. Levine. *Phys. Rev. Lett.*, **87**, 273401, (2001).
- [BHS02] M. Boyle, K. Hoffmann, C. P. Schulz, I. V. Hertel, and E. E. B. Campbell. First Experimental Observations of Rydberg Series in C₆₀. In A. Douhal and J. Santamaria, editors, *Femtochemistry*, pages 126–132. World Scientific, Toledo, Spain, (2002).
- [BHS04] M. Boyle, M. Hedén, C. P. Schulz, E. E. B. Campbell, and I. V. Hertel. *Phys. Rev. A*, **70**, (2004).
- [BLS05] M. Boyle, T. Laarmann, I. Shchatsinin, C. P. Schulz, and I. V. Hertel. *J. Chem. Phys.*, **122**, 181103, (2005).
- [BML01] A. Bartlett, S. Minemoto, C. Lupulescu, S. Vajda, and L. Wöste. *Eur. Phys. J. D*, **16**, 127–131, (2001).

- [Bor96] Jens Borokowski. *Aufbau eines fs-lasers mit Anwendung zur MPI von Edelgasen*. PhD thesis, Universitt Bielefeld, (1996).
- [Boy00] M. Boyle. *Femtosecond Pulse Shaping*. Diploma, Freie Universitat, (2000).
- [BYW97] C. J. Bardeen, V. V. Yakovlev, K. R. Wilson, S. D. Carpenter, P. M. Weber, and W. S. Warren. *Chem. Phys. Lett.*, **280**, 151–158, (1997).
- [Cam03] E. E. B. Campbell. *Fullerene Collision Reactions*. Kluwer Academic Publishers, Dordrecht, The Netherlands, (2003).
- [CCC96] P. F. Coheur, M. Carleer, and R. Colin. *J. Phys. B : At. Mol. Opt. Phys.*, **29**, 4987–4995, (1996).
- [CHH00] E. E. B. Campbell, K. Hansen, K. Hoffmann, G. Korn, M. Tchaplyguine, M. Wittmann, and I. V. Hertel. *Phys. Rev. Lett.*, **84**, 2128, (2000).
- [CHH01] E. E. B. Campbell, K. Hoffmann, and I. V. Hertel. *Eur. Phys. J. D*, **16**, 345–348, (2001).
- [CHR01] E. E. B. Campbell, K. Hoffmann, H. Rottke, and I. V. Hertel. *J. Chem. Phys.*, **114**(4), 1716, (2001).
- [CHW03] E. Cormier, P.A. Hervieux, R. Wiehle, B. Witzel, and H. Helm. *Eur. Phys. J. D*, **26**, 83–90, (2003).
- [CJS03] H. Cederquist, J. Jensen, H. T. Schmidt, H. Zettergren, S. Tomita, B. A. Huber, and B. Manil. *Phys. Rev. A*, **67**, 062719, (2003).
- [CLe00] E. E. B. Campbell and R. D. Levine. *Annu. Rev. Phys. Chem.*, **51**, 65–98, (2000).
- [CUH91] E. E. B. Campbell, G. Ulmer, and I. V. Hertel. *Phys. Rev. Lett.*, **67**, 1986, (1991).

- [DAM03] S. Diaz-Tendero, M. Alcamí, and F. Martín. *J. Chem. Phys.*, **119**, 5545, (2003).
- [DDE96] M. S. Dresselhaus, G. Dresselhaus, and P. C. Eklund. *Science of Fullerenes and Carbon Nanotubes*. (1996).
- [DFG03] C. Daniel, J. Full, L. González, C. Lupulescu, J. Manz, A. Merli, S. Vajda, and L. Wöste. *Science*, **299**, 536, (2003).
- [DGo71] H. Dammann and K. Görtler. *Opt. Comm.*, **3**, 312–315, (1971).
- [DKr00] N. B. Delone and V. P. Krainov. *Multiphoton Processes in Atoms*. Springer, Berlin, second edition edition, (2000).
- [Doo03] Patrick Dooley. *Molecular Imaging Using Femtosecond Pulses*. Phd, McMaster University, (2003).
- [DRu96] J.-C. Diels and W. Rudolph. *Ultrashort Laser Pulse Phenomena*. Academic Press, San Diego, (1996).
- [DZH93] Z.-H. Dong, P. Zhou, J. M. Holden, P. C. Eklund, M. S. Dresselhaus, and G. Dresselhaus. *Phys. Rev. B*, **48**, 2862, (1993).
- [Eng86] P. C. Engelking. *J. Chem. Phys.*, **85**, 3103, (1986).
- [Eng87] P. C. Engelking. *J. Chem. Phys.*, **87**, (1987).
- [ESS95] C. Ellert, M. Schmidt, C. Schmitt, T. Reiners, and H. Haberland. *Phys. Rev. Lett.*, **75**, 1731–1734, (1995).
- [Fai87] F. H. M. Faisal. *Theory of Multiphoton Processes*. Physics of Atoms and Molecules. Plenum Press, New York, (1987).
- [FBM87] R. R. Freeman, P. H. Bucksbaum, H. Milchberg, S. Darack, D. Schumacher, and M. E. Geusic. *Phys. Rev. Lett.*, **59**(10), 1092, (1987).

- [FES97] M. Foltin, O. Echt, P. Scheier, B. Dünser, R. Wörgötter, R. Muigg, and T. D. Märk. *J. Chem. Phys.*, **107**, 6246, (1997).
- [FGS85] P. Falkensteiner, H. Grosse, F. Schöberl, and P. Hertel. *Comp. Phys. Comm.*, **34**, 287–293, (1985).
- [FKM03] Ch. Fabian, M. Kitzler, N. Milosevic, and T. Brabec. *J. Mod. Opt.*, **50**(3/4), 589, (2003).
- [FLS93] M. Foltin, M. Lezius, P. Scheier, and T. D. Märk. *J. Chem. Phys.*, **98**, 9624, (1993).
- [FRo97] O. Frank and J.-M. Rost. *Chem. Phys. Lett.*, **271**, 367–371, (1997).
- [FRR96] Th. Freudenberg, W. Radloff, H.-H. Ritze, V. Stert, K. Weyers, F. Noack, and I. V. Hertel. *Z. Phys. D*, **36**, 349–364, (1996).
- [GME04b] K. Gluch, S. Matt-Leubner, O. Echt, B. Concina, P. Scheier, and T. D. Märk. *J. Chem. Phys.*, **121**, 2137, (2004).
- [GME04a] K. Gluch, S. Matt-Leubner, O. Echt, R. Deng, J. U. Andersen, P. Scheier, and T. D. Märk. *Chem. Phys. Lett.*, **385**, 449–455, (2004).
- [GMJ86] M. E. Geusic, T. J. McIlrath, M.F. Jarrold, L. A. Bloomfield, R. R. Freeman, and W. L. Brown. *J. Chem. Phys.*, **84**, 2421, (1986).
- [HAA00] D. Hathiramani, K. Aichele, W. Arnold, K. Huber, E. Salzborn, and P. Scheier. *Phys. Rev. Lett.*, **85**, 3604, (2000).
- [Han04] K. Hansen. *Chem. Phys. Lett.*, **383**, 270–275, (2004).
- [HCC91] R. E. Haufler, Y. Chai, L. P. F. Chibante, M. R. Fraelich, R. B. Weisman, R. F. Curl, and R. E. Smalley. *J. Chem. Phys.*, **95**, 2197, (1991).
- [HCF94] H. Hohmann, C. Callegari, S. Furrer, D. Grosenick, E. E. B. Campbell, and I. V. Hertel. *Phys. Rev. Lett.*, **73**(14), 1919, (1994).

- [HEF95] H. Hohmann, R. Ehlich, S. Furrer, O. Kittelmann, J. Ringling, and E. E. B. Campbell. *Z. Phys. D*, **33**, 143–151, (1995).
- [HHC03] K. Hansen, K. Hoffmann, and E. E. B. Campbell. *J. Chem. Phys.*, **119**(5), 2513–2522, (2003).
- [HHM96] K. Hansen, H. Hohmann, R. Müller, and E. E. B. Campbell. *J. Chem. Phys.*, **105**(14), 6088, (1996).
- [HLS05] I. V. Hertel, T. Laarmann, and C. P. Schulz. Ultrafast excitation, ionization and fragmentation of C₆₀. In *Adv. At. Mol. Opt. Phys.*, volume 51. Elsevier, (2005).
- [HMB97] K. Hansen, R. Müller, P. Brockhaus, E. E. B. Campbell, and I. V. Hertel. *Z. Phys. D*, **42**, 153, (1997).
- [HMH97] K. Hansen, R. Müller, H. Hohmann, and E. E. B. Campbell. *Z. Phys. D*, **40**, 361, (1997).
- [HMM00] T. Hornung, R. Meier, and M. Motzkus. *Chem. Phys. Lett.*, **326**, 445–453, (2000).
- [Hof00] K. Hoffmann. *Femtosekunden-Laserspektroskopie an Fullerenen*. Ph. D., Freien Universität, (2000).
- [HPR96] K. A. Holbrook, M. J. Pilling, and S. H. Robertson. *Unimolecular Reactions: Second Edition*. John Wiley and Sons, Chichester, (1996).
- [HSV92] I. V. Hertel, H. Steger, J. de Vries, B. Weisser, C. Menzel, B. Kamke, and W. Kamke. *Phys. Rev. Lett.*, **68**, 784, (1992).
- [JGA02] H. O. Jeschke, M. E. García, and J. A. Alonso. *Chem. Phys. Lett.*, **352**, 154–162, (2002).
- [JKa00] R. Jaensch and W. Kamke. *Mol. Materials*, **13**, 163–172, (2000).

- [JKE97] R. Jacquemin, S. Kraus, and W. Eberhardt. *Solid State Comm.*, **105**, 449, (1997).
- [JMU98] O. Jagutski, V. Mergel, K. Ullmann-Pfleger, L. Spielberger, U. Meyer, R. Dörner, and H. Schmidt-Böcking. *Proc. SPIE*, **3438**, 322, (1998).
- [Jor92] J. Jortner. *Z. Phys. D*, **24**, 247–275, (1992).
- [JRa92] R. S. Judson and H. Rabitz. *Phys. Rev. Lett.*, **68**, 1500, (1992).
- [JWP93] G. Javahery, H. Wincel, S. Petrie, and K. D. Bohme. *Chem. Phys. Lett.*, **204**, 467, (1993).
- [Kas28a] L. S. Kassel. *J. Phys. Chem.*, **32**, 225, (1928).
- [Kas28b] L. S. Kassel. *J. Phys. Chem.*, **32**, 1065, (1928).
- [Kel65] L. V. Keldysh. *Sov. Phys. JETP*, **20**, 1307–1314, (1965).
- [KHB85] H.W. Kroto, J.R. Heath, S.C. O'Brien, R.F. Curl, and R.E. Smalley. *Nature*, **318**, 162, (1985).
- [KLF90] W. Krätschmer, L.D. Lamb, K. Fostiropoulos, and D. Huffman. *Nature*, **347**, 354, (1990).
- [KRG89] R. Kosloff, S. A. Rice, P. Gaspard, S. Tersigni, and D. J. Tannor. *Chem. Phys.*, **139**, 201–220, (1989).
- [KTr93] D. J. Kane and R. Trebino. *IEEE J. Quan. Electron.*, **29**, 571–579, (1993).
- [KTo94] S. G. Kim and D. Tománek. *Phys. Rev. Lett.*, **72**, 2418, (1994).
- [LBI02] M. Lezius, V. Blanchet, M. Y. Ivanov, and A. Stolow. *J. Chem. Phys.*, **117**, 1575, (2002).
- [LBR01] M. Lezius, V. Blanchet, D. M. Rayner, D. M. Villeneuve, A. Stolow, and M. Y. Ivanov. *Physical Review Letters*, **86**(1), 51, (2001).

- [LDE01] S. Link, H. A. Dürr, and W. Eberhardt. *J. Phys.: Cond. Matt.*, **13**, 7873, (2001).
- [LGK98] S. Linden, H. Giessen, and J. Kuhl. *Phys. Stat. Sol. B*, **206**, 119, (1998).
- [Lif00] C. Lifshitz. *Int. J. Mass Spec.*, **198**, 1, (2000).
- [LLi01] J. Laskin and C. Lifshitz. *J. Mass. Spec.*, **36**, 459, (2001).
- [LSc99] W. Lucha and F. F. Schöberl. *Int. J. Mod. Phys. C*, **10**, 607, (1999).
- [LTC98] S. Larochelle, A. Talebpour, and S. L. Chin. *J. Phys. B : At. Mol. Opt. Phys.*, **31**, 1201–1214, (1998).
- [LWu92] K. R. Lykke and P. Wurz. *J. Phys. Chem.*, **96**, 3191–3193, (1992).
- [Lyk95] K. R. Lykke. *Phys. Rev. A*, **52**, 1354–1357, (1995).
- [Mar52] R. A. Marcus. *J. Chem. Phys.*, **20**, 359, (1952).
- [MDC89] J. H. Moore, C. C. Davis, and M. A. Coplan. *Building Scientific Apparatus*. Addison-Wesley Publishing Company, Reading, Massachusetts, (1989).
- [MES99b] S. Matt, O. Echt, M. Sonderegger, R. David, P. Scheier, J. Laskin, C. Lifshitz, and T. D. Märk. *Chem. Phys. Lett.*, **303**, 379–386, (1999).
- [MES01] S. Matt, O. Echt, P. Scheier, and T. D. Märk. *Chem. Phys. Lett.*, **348**, 194–202, (2001).
- [MFS00] R. Moshhammer, B. Feuerstein, W. Schmitt, A. Dorn, C. D. Schröter, J. Ullrich, H. Rottke, C. Trump, M. Wittmann, G. Korn, K. Hoffmann, and W. Sandner. *Phys. Rev. Lett.*, **84**, 447, (2000).
- [MHH03] K. Mehlig, K. Hansen, M. Hedén, A. Lassesson, A. V. Bulgakov, and E. E. B. Campbell. *J. Chem. Phys.*, **120**, 4281, (2004).

- [MRS04] A. N. Markevitch, D. A. Romanov, S. M. Smith, H. B. Schlegel, M. Y. Ivanov, and R. J. Levis. *Phys. Rev. A*, **69**, 013401, (2004).
- [MSR03] A. N. Markevitch, S. M. Smith, D. A. Romanov, H. B. Schlegel, M. I. Ivanov, and R. J. Levis. *Phys. Rev. A*, **68**, 011402, (2003).
- [OHC88] S. C. O'Brien, J. R. Heath, R. F. Curl, and R. E. Smalley. *J. Chem. Phys.*, **88**(1), 220, (1988).
- [PDR88] A. P. Peirce, M. A. Dahleh, and H. Rabitz. *Phys. Rev. A*, **37**, 4950, (1988).
- [PNi93] M. J. Puska and R. M. Nieminen. *Phys. Rev. A*, **47**, 1181, (1993).
- [PWL90] J. S. Patel, A. M. Weiner, D. E. Laird, and J. R. Wullert. *Opt. Lett.*, **15**, 326, (1990).
- [Ram56] N.F. Ramsey. *Molecular Beams*. Oxford University Press, Oxford, (1956).
- [Rei03] K. L. Reid. *Annu. Rev. Phys. Chem.*, **54**, 397–423, (2003).
- [RHB02] A. Rüdell, R. Hentges, U. Becker, H. S. Chakraborty, M. E. Madjet, and J. M. Rost. *Phys. Rev. Lett.*, **89**, 125503, (2002).
- [RHR90] P. P. Radi, M.-T. Hsu, M. E. Rincon, P. R. Kemper, and M. T. Bowers. *Chem. Phys. Lett.*, **174**, 223, (1990).
- [RLe98] F. Remacle and R. D. Levine. *Int. J. Quantum Chem.*, **67**, 85, (1998).
- [Rob75a] M. B. Robin. *Higher Excited States of Polyatomic Molecules, Vol. 1*, volume 1. Academic, New York, (1975).
- [RRa27] O. K. Rice and H. C. Ramsperger. *J. Amer. Chem. Soc.*, **49**, 1617–1629, (1927).
- [RRa28] O. K. Rice and H. C. Ramsperger. *J. Amer. Chem. Soc.*, **50**, 617, (1928).

- [RWK01] A. Reinköster, U. Werner, N. M. Kabachnik, and H. O. Lutz. *Phys. Rev. A*, **64**, 023201, (2001).
- [RZE93] R. Ramanathan, J. A. Zimmermann, and J. R. Eyler. *J. Chem. Phys.*, **98**, 7838, (1993).
- [SBT02] R. Stoian, M. Boyle, A. Thoss, A. Rosenfeld, G. Korn, E. E. B. Campbell, and I. V. Hertel. *Appl. Phys. Lett.*, **80**, 353–5, (2002).
- [SFH00] S. H. Schwartz, A. Fardi, K. Haghighat, A. Langereis, H. T. Schmidt, and H. Cederquist. *Phys. Rev. A*, **63**, 013201, (2000).
- [SHF01] G. Stobrawa, M. Hacker, T. Feurer, D. Zeidler, M. Motzkus, and F. Reichel. *Appl. Phys. B*, **72**, 627–630, (2001).
- [SHH95] H. Steger, J. Holzapfel, A. Hielscher, W. Kamke, and I. V. Hertel. *Chem. Phys. Lett.*, **234**, 455–459, (1995).
- [SLH98] V. Schyja, T. Lang, and H. Helm. *Phys. Rev. A*, **57**, 3692, (1998).
- [SLK92] P. Sandler, C. Lifshitz, and C. E. Klots. *Chem. Phys. Lett.*, **200**, 445, (1992).
- [SPS02] A. G. Stepanov, M. T. Portella-Oberli, A. Sassara, and M. Chergui. *Chem. Phys. Lett.*, **358**, 516, (2002).
- [SDW94] P. Scheier, B. D ünser, R. Wörgötter, M. Lezius, R. Robl, and T. D. Märk. *Int. J. Mass Spec. Ion Proc.*, **138**, 77, (1994).
- [SVK92] H. Steger, J. de Vries, W. Kamke, I. V. Hertel, and T. Drewello. *Chem. Phys. Lett.*, **194**, 452, (1992).
- [SWe01a] C. P. Schick and P. M. Weber. *J. Phys. Chem. A*, **105**, 3725–3734, (2001).
- [TAI01] B. Torralva and R. E. Allen. Bond softening and breathing mode excitation in c60 following an ultrashort laser pulse. (2001).

- [TAG01] S. Tomita, J. U. Andersen, C. Gottrup, P. Hvelplund, and U. V. Pedersen. *Phys. Rev. Lett.*, **87**, 073401, (2001).
- [TAH03] S. Tomita, J. U. Andersen, K. Hansen, and P. Hvelplund. *Chem. Phys. Lett.*, **382**, 120–125, (2003).
- [THD00] M. Tchapyguine, K. Hoffmann, O. Dühr, H. Hohmann, G. Korn, H. Rottker, M. Wittmann, I. V. Hertel, and E. E. B. Campbell. *J. Chem. Phys.*, **112**(6), 2781, (2000).
- [TNE01] B. Torralva, T. A. Niehaus, M. Elstner, S. Suhai, Th. Frauenheim, and R. E. Allen. *Phys. Rev. B*, **64**, 153105, (2001). and private communication from Th. Frauenheim.
- [TRi85] D.J. Tannor and S. A. Rice. *J. Chem. Phys.*, **83**, 5013, (1985).
- [UMD97] J. Ullrich, R. Moshhammer, R. Dörner, O. Jagutski, V. Mergel, H. Schmidt-Böcking, and L. Spielberger. *J. Phys. B : At. Mol. Opt. Phys.*, **30**, 2917, (1997).
- [VAC88] Vacuumschmelze. *Magnetische Abschirmungen*. Hanau, (1988).
- [VBK01] S. Vajda, A. Bartlett, E.-C. Kaposta, T. Leisner, C. Lupulescu, S. Minemoto, P. Rosendo-Francisco, and L. Wöste. *Chem. Phys.*, **267**, 231–239, (2001).
- [VHC98] R. Vandenbosch, B. P. Henry, C. Cooper, M. L. Gardel, J. F. Liang, and D. I. Will. *Phys. Rev. Lett.*, **81**, 1821, (1998).
- [Wei37] V. Weisskopf. *Phys. Rev.*, **52**, 295–303, (1937).
- [Wei00] A. M. Weiner. *Rev. of Sci. Inst.*, **71**, 1929, (2000).
- [WGr83] J. M. Wiesenfeld and B. I. Greene. *Phys. Rev. Lett.*, **51**, 1745, (1983).

- [WMc55] W.C. Wiley and I.H. McLaren. *Review of Scientific Instruments*, **26**(12), 1150–1157, (1955).
- [WRE93] K.-A. Wang, A. M. Rao, P. C. Eklund, M. S. Dresselhaus, and G. Dresselhaus. *Phys. Rev. B*, **48**, 11375, (1993).
- [WWB99] T. C. Weinacht, J. L. White, and P. H. Bucksbaum. *J. Phys. Chem. A*, **103**, 10166, (1999).
- [YHD93] C. Yeretjian, K. Hansen, F. Diedrich, and R. L. Whetten. *Z. Phys. D*, **26**, S300–304, (1993).
- [YKK96] H. Yasumatsu, T. Kondow, H. Kitgawa, K. Tabayashi, and K. Shobatake. *J. Chem. Phys.*, **104**(3), 899, (1996).
- [ZEB91] J. A. Zimmerman, J. R. Eyler, S. B. H. Bach, and S. W. McElvany. *J. Chem. Phys.*, **94**, 3556, (1991).
- [ZMN94] U. Zimmermann, N. Malinowski, U. Näher, S. Franck, and T. P. Martin. *Z. Phys. D*, **31**, 85–93, (1994).
- [ZSG03] G. P. Zhang, X. Sun, and T. F. George. *Phys. Rev. B*, **68**, 165410, (2003).