

Thomas Elsaesser

Publications in refereed journals and books

January 8, 2010

358. **Photoinduced structural dynamics of polar solids studied by femtosecond x-ray diffraction**
T. Elsaesser and M. Woerner
Acta Cryst. A **66**, 168 (2010, invited paper)
357. **Femtosecond powder diffraction with a laser-driven hard x-ray source**
F. Zamponi, Z. Ansari, M. Woerner, and T. Elsaesser
Opt. Express **18**, 947 (2010)
356. **Ultrafast structural dynamics of polar solids studied by femtosecond x-ray diffraction**
T. Elsaesser, C. von Korff Schmising, N. Zhavoronkov, M. Bargheer, M. Woerner, M. Braun, P. Gilch, W. Zinth, I. Vrejoiu, D. Hesse, and M. Alexe
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 101 (invited paper)
355. **Ultrafast vibrational dynamics of adenine-thymine base pairs in hydrated DNA**
J.R. Dwyer, L. Szyk, E.T.J. Nibbering, and T. Elsaesser
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 535
354. **Nano-confined light and electron sources driven by few-cycle optical pulses**
C.C. Neacsu, C. Ropers, T. Elsaesser, M. Albrecht, R. Olmon, M.B. Raschke, and C. Lienau
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 708
353. **Teasing a quasiparticle - the ultrafast nonlinear response of the Frohlich polaron in GaAs**
P. Gaal, W. Kuehn, K. Reimann, M. Woerner, T. Elsaesser, and R. Hey
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 188
352. **Rabi oscillations in a shallow donor system driven by intense THz radiation**
P. Gaal, W. Kuehn, K. Reimann, M. Woerner, T. Elsaesser, and R. Hey
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 657
351. **Femtosecond x-ray diffraction study of the ultrafast coupling between magnetization and structure in the ferromagnet SrRuO₃**
C. v. Korff Schmising, M. Bargheer, A. Harpoeth, N. Zhavoronkov, Z. Ansari, M. Woerner, T. Elsaesser, I. Vrejoiu, D. Hesse, and M. Alexe
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 107

350. **Ultrafast temperature jumps in liquid water studied by infrared pump and x-ray absorption probe spectroscopy**
G. Gavrilu, P. Wernet, K. Godehusen, C. Weniger, E.T.J. Nibbering, T. Elsaesser, and W. Eberhardt
Ultrafast Phenomena XVI, P. Corkum, S. de Silvestri, K.A. Nelson, E. Riedle, R.W. Schoenlein (Eds.), Springer, Berlin 2009, p. 505
349. **Ultrafast memory loss and relaxation processes in hydrogen bonded systems**
T. Elsaesser
Biol. Chem. **390**, 1125 (2009) (invited paper)
348. **Two-dimensional infrared spectroscopy of intermolecular hydrogen bonds in the condensed phase**
T. Elsaesser
Acc. Chem. Res. **42**, 1220 (2009) (invited paper)
347. **Pathways for H₂O bend vibrational relaxation in liquid water**
R. Rey, F. Ingrosso, T. Elsaesser, and J.T. Hynes
J. Phys. Chem. A **113**, 8949 (2009)
346. **Ultrafast energy transfer from the intramolecular bending vibration to librations in liquid water**
F. Ingrosso, R. Rey, T. Elsaesser, and J. T. Hynes
J. Phys. Chem. A **113**, 6657 (2009)
345. **Ultrafast x-ray science: probing transient structures in condensed matter - Editorial**
T. Elsaesser
Appl. Phys. A **96**, 1 (2009)
344. **Time-resolved x-ray absorption spectroscopy of infrared-laser induced temperature jumps in liquid water**
G. Gavrilu, K. Godehusen, C. Weniger, E. T. J. Nibbering, T. Elsaesser, W. Eberhardt, and P. Wernet
Appl. Phys. A **96**, 11 (2009)
343. **Femtosecond hard x-ray plasma sources with a kilohertz repetition rate**
F. Zamponi, Z. Ansari, C. v. Korff Schmising, P. Rothhardt, N. Zhavoronkov, M. Woerner, T. Elsaesser, M. Bargheer, T. Tobitzsch-Ryll, and M. Haschke
Appl. Phys. A **96**, 51 (2009)
342. **Ultrafast structural dynamics of perovskite superlattices**
M. Woerner, C. v. Korff Schmising, M. Bargheer, N. Zhavoronkov, I. Vrejoiu, D. Hesse, M. Alexe, and T. Elsaesser
Appl. Phys. A **96**, 83 (2009)
341. **Ultrafast x-ray experiments on structural changes in single crystals of polar molecules**
M. Braun, C. Root, F.J. Lederer, T.E. Schrader, W. Zinth, C. von Korff Schmising, M. Bargheer, T. Elsaesser, and M. Woerner
Appl. Phys. A **96**, 107 (2009)

340. **Catastrophic optical mirror damage in diode lasers monitored during single pulse operation**
M. Ziegler, J.W. Tomm, D. Reeber, T. Elsaesser, U. Zeimer, H.E. Larsen, P.M. Petersen, and P.E. Andersen
Appl. Phys. Lett. **94**, 191101 (2009)
339. **Phase-resolved two-dimensional spectroscopy based on collinear n-wave mixing in the ultrafast time domain**
W. Kuehn, K. Reimann, M. Woerner, and T. Elsaesser
J. Chem. Phys. **130**, 164503 (2009)
338. **Ultrafast redistribution of vibrational energy after excitation of NH stretching modes in DNA oligomers**
V. Kozich, L. Szyk, E.T.J. Nibbering, W. Werncke, and T. Elsaesser
Chem. Phys. Lett. **473**, 171 (2009)
337. **Ultrafast carrier dynamics in graphite**
M. Breusing, C. Ropers, and T. Elsaesser
Phys. Rev. Lett. **102**, 086809 (2009)
336. **Ultrafast dynamics of N-H and O-H stretching excitations in hydrated DNA oligomers**
L. Szyk, J.R. Dwyer, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. **357**, 36 (2009)
335. **Micro-thermography of diode lasers: the impact of light propagation on image formation**
J. LeClech, M. Ziegler, J. Mukherjee, J.W. Tomm, T. Elsaesser, J.P. Landesman, B. Corbett, J.G. McInerney, J.P. Reithmaier, S. Deubert, A. Forchel, W. Nakwaski, and R.P. Sarzala
J. Appl. Phys. **105**, 014502 (2009)
334. **Ultrafast phase-resolved pump-probe measurements on a quantum cascade laser**
W. Kuehn, W. Parz, P. Gaal, K. Reimann, M. Woerner, T. Elsaesser, T. Müller, J. Darmo, K. Unterrainer, M. Austerer, G. Strasser, L.R. Wilson, J.W. Cockburn, A.B. Krysa, and J.S. Roberts
Appl. Phys. Lett. **93**, 151106 (2008)
333. **Miniband-related 1.4-1.8 μm luminescence of Ge/Si quantum dot superlattices**
V. G. Talalaev, G. E. Cirlin, A. A. Tonkikh, N. D. Zakharov, P. Werner, U. Gösele, J. W. Tomm, and T. Elsaesser
in: Handbook of Self Assembled Semiconductor Nanostructures for Novel Devices in Photonics and Electronics, M. Henini ed. (Elsevier Science 2008) pp. 324-345
332. **An anchoring strategy for photoswitchable biosensor technology: azobenzene-modified SAMs on Si(111)**
P. Dietrich, F. Michalik, R. Schmidt, C. Gahl, G. Mao, M. Breusing, M. Raschke, B. Priwiesch, T. Elsaesser, R. Mendelsohn, M. Weinelt, and K. Rück-Braun
Appl. Phys. A **93**, 285 (2008)

331. **Ultrafast vibrational dynamics of adenine-thymine base pairs in DNA oligomers**
J.R. Dwyer, L. Szyk, E.T.J. Nibbering, and T. Elsaesser
J. Phys. Chem. B **112**, 11194 (2008)
330. **Ultrafast magnetostriction and phonon-mediated stress in a photoexcited ferromagnet**
C. v. Korff Schmising, A. Harpoeth, N. Zhavoronkov, Z. Ansari, C. Aku-Leh, M. Woerner, T. Elsaesser, M. Bargheer, M. Schmidbauer, I. Vrejoui, D. Hesse, and M. Alexe
Phys. Rev. B **78**, 060404(R) (2008)
329. **Ultrafast temperature jump in liquid water studied by a novel infrared pump - x-ray probe technique**
P. Wernet, G. Gavrilu, K. Godehusen, C. Weniger, E.T.J. Nibbering, and W. Eberhardt
Appl. Phys. A **92**, 511 (invited paper)
328. **Light confinement at ultrasharp metallic tips**
C. Ropers, C.C. Neacsu, M.B. Raschke, M. Albrecht, C. Lienau, and T. Elsaesser
Jap. J. Appl. Phys. **47**, 6051 (2008)
327. **Ultrafast structural dynamics of hydrogen bonds in the liquid phase**
T. Elsaesser
L'Actualité Chimique **320/21**, 27 (2008)
326. **Carrier wave Rabi flopping on radiatively coupled shallow donor transitions in n-type GaAs**
P. Gaal, W. Kuehn, K. Reimann, M. Woerner, T. Elsaesser, and R. Hey
Phys. Rev. B **77**, 235204 (2008)
325. **Ultrafast coherent spectroscopy of semiconductor quantum dots**
C. Lienau and T. Elsaesser
in: Semiconductor Nanostructures, D. Bimberg (Ed.), Springer, Berlin 2008, p. 301-328.
324. **Real-time studies of reversible lattice dynamics by femtosecond x-ray diffraction**
C. v. Korff Schmising, M. Bargheer, M. Woerner, and T. Elsaesser
Z. Kristallographie **223**, 283 (2008, invited paper)
323. **Cavity enhanced thermal emission from semiconductor lasers**
M. Ziegler, J.W. Tomm, T. Elsaesser, C. Monte, J. Hollandt, H. Kissel, J. Biesenbach
J. Appl. Phys. **103**, 104508 (2008)
322. **Surface recombination and facet heating in high-power diode lasers**
M. Ziegler, V. Talalaev, J.W. Tomm, T. Elsaesser, P. Ressel, B. Sumpf, and G. Erbert
Appl. Phys. Lett. **92**, 203506 (2008)

321. **Visualization of the heat flow in high-power diode lasers by lock-in thermography**
M. Ziegler, J.W. Tomm, T. Elsaesser, G. Erbert, F. Bugge, W. Nakwaski, and R.P. Sarzala
Appl. Phys. Lett. **92**, 103513 (2008)
320. **Real-time thermal imaging of catastrophic optical damage in red-emitting high-power diode lasers**
M. Ziegler, J.W. Tomm, T. Elsaesser, C. Matthiesen, M.B. Sanayeh, and P. Brick
Appl. Phys. Lett. **92**, 103514 (2008)
319. **Accurate determination of absolute temperatures of GaAs based high-power diode lasers**
M. Ziegler, J.W. Tomm, F. Weik, T. Elsaesser, C. Monte, J. Hollandt, H. Kissel, G. Seibold, and J. Biesenbach
SPIE Proc. **6876**, 68761A (2008)
318. **Nonlinear terahertz and midinfrared response of n-type GaAs**
M. Woerner, P. Gaal, W. Kuehn, K. Reimann, T. Elsaesser, R. Hey, and K.H. Ploog
Adv. Solid State Phys. **47**, Springer Heidelberg, 2008, pp. 237-249
317. **Temperature dependence of the two-dimensional infrared spectrum of liquid H₂O**
D. Kraemer, M.L. Cowan, A. Paarmann, N. Huse, E.T.J. Nibbering, T. Elsaesser, and R.J.D. Miller
Proc. Nat. Acad. Sci. Am. **105**, 437 (2008)
316. **Internal motions of a quasiparticle governing its ultrafast nonlinear response**
P. Gaal, W. Kuehn, K. Reimann, M. Woerner, T. Elsaesser, and R. Hey
Nature **450**, 1210 (2007)
315. **Ultrafast structure and polarization dynamics in nanolayered perovskites studied by femtosecond x-ray diffraction**
C. v. Korff Schmiesing, M. Bargheer, M. Kiel, N. Zhavoronkov, M. Woerner, T. Elsaesser, I. Vrejoiu, D. Hesse, and M. Alexe
J. Phys. Conf. Ser. **92**, 012177 (2007)
314. **Coherent dynamics of hydrogen bonds in liquids studied by femtosecond vibrational spectroscopy**
T. Elsaesser
in: Coherent Vibrational Dynamics, S. de Silvestri, G. Cerullo, G. Lanzani (Eds.), Taylor & Francis, New York 2007, pp. 49-91
313. **Ultrafast vibrational dynamics and anharmonic couplings of hydrogen-bonded dimers in solution**
T. Elsaesser, N. Huse, J. Dreyer, J.R. Dwyer, K. Heyne, and E.T.J. Nibbering
Chem. Phys. **341**, 175 (2007)
312. **Ultrafast optical excitations of metallic nanostructures: from light confinement to a novel electron source**
C. Ropers, T. Elsaesser, G. Cerullo, M. Zavelani-Rossi, and C. Lienau
New J. Phys. **9**, 397 (2007)

311. **Grating coupling of surface plasmons onto metallic tips**
C. Ropers, C.C. Neacsu, T. Elsaesser, M. Albrecht, M.B. Raschke, and C. Lienau
Nano Lett. **7**, 2784 (2007)
310. **Coupled ultrafast lattice and polarization dynamics in ferroelectric nanolayers**
C. von Korff Schmising, M. Bargheer, M. Kiel, N. Zhavoronkov, M. Woerner, T. Elsaesser, I. Vrejoiu, D. Hesse, and M. Alexe
Phys. Rev. Lett. **98**, 257601 (2007)
309. **Accurate time delay determination for femtosecond x-ray diffraction experiments**
C. von Korff Schmising, M. Bargheer, M. Kiel, N. Zhavoronkov, M. Woerner, T. Elsaesser, I. Vrejoiu, D. Hesse, and M. Alexe
Appl. Phys. B **88**, 1 (2007)
308. **Mode-selective O-H stretching relaxation in a hydrogen bond studied by ultrafast vibrational spectroscopy**
W. Werncke, V. Kozich, J. Dreyer, S. Ashihara, and T. Elsaesser
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 448
307. **2D-IR photon echo spectroscopy of pure liquid water - combination of novel nanofluidics and diffractive optics deciphers ultrafast structural dynamics**
A. Paarmann, D. Kraemer, M.L. Cowan, B.D. Bruner, R.J.D. Miller, N. Huse, J. Dwyer, E.T.J. Nibbering, and T. Elsaesser
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 335
306. **Ultrafast relaxation dynamics in O-H bending and librational excitations in liquid H₂O**
S. Ashihara, N.Huse, E.T.J. Nibbering, and T. Elsaesser
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 436
305. **Femtosecond x-ray diffraction of DIABN single crystals**
M. Braun, C. Root, T.E. Schrader, P. Gilch, W. Zinth, M. Bargheer, C. v. Korff-Schmiesing, M. Kiel, N. Zhavoronkov, M. Woerner, and T. Elsaesser
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 725
304. **Probing strain propagation in nanolayered perovskites by diffraction of femtosecond x-ray pulses**
C. v. Korff-Schmiesing, M. Bargheer, M. Kiel, N. Zhavoronkov, M. Woerner, T. Elsaesser, I. Vrejoiu, D. Hesse, and M. Alexe
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 713
303. **Nonlinear THz spectroscopy on n-type GaAs**
P. Gaal, K. Reimann, M. Woerner, T. Elsaesser, R. Hey, and K.H. Ploog
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 799

302. **A nanometer-sized femtosecond electron source at 80 MHz repetition rate**
C. Ropers, D.R. Solli, C.P. Schulz, C. Lienau, and T. Elsaesser
Ultrafast Phenomena XV, P. Corkum, D. Jonas, R. J. D. Miller, A. M. Weiner (Eds.), Springer Berlin 2007, p. 743
301. **Ultrafast changes of molecular crystal structure induced by dipole solvation**
M. Braun, C. v. Korff-Schmising, M. Kiel, N. Zhavoronkov, J. Dreyer, M. Bargheer, T. Elsaesser, C. Root, T.E. Schrader, P. Gilch, W. Zinth, and M. Woerner
Phys. Rev. Lett. **98**, 248301 (2007)
300. **Simultaneous ultrafast probing of intramolecular vibrations and photoinduced charge carriers in rubrene using broadband time-domain THz spectroscopy**
M. Koeberg, E. Hendry, J.M. Schins, H. A. van Laarhoven, C. F. J. Flipse, K. Reimann, M. Woerner, T. Elsaesser, and M. Bonn
Phys. Rev. B **75**, 195216 (2007)
299. **Schwingende Nanoschichten im Röntgen-Stroboskop**
M. Bargheer, C. von Korff Schmising, M. Woerner, and T. Elsaesser
Physik in unserer Zeit **38**, 60 (2007)
298. **Vibrational dynamics of hydrogen bonds**
E. T. J. Nibbering, J. Dreyer, O. Kühn, J. Bredenbeck, P. Hamm, T. Elsaesser
in: Analysis and control of ultrafast photoinduced reactions, L. Wöste, O. Kühn (Eds.), Springer Heidelberg 2007, p. 597
297. **Ultrafast structural dynamics of water induced by dissipation of vibrational energy**
S. Ashihara, N. Huse, A. Espagne, E.T.J. Nibbering, and T. Elsaesser
J. Phys. Chem. A **111**, 743 (2007)
296. **Localized multiphoton emission of femtosecond electron pulses from metal nanotips**
C. Ropers, D.R. Solli, C.P. Schulz, C. Lienau, and T. Elsaesser
Phys. Rev. Lett. **98**, 043907 (2007)
295. **Transient thermal properties of high-power diode laser bars**
M. Ziegler, F. Weik, J.W. Tomm, T. Elsaesser, W. Nakwaski, R.P. Sarzala, D. Lorenzen, J. Meusel, and A. Kozłowska
Appl. Phys. Lett. **89**, 263506 (2006)
294. **Ultrafast dynamics of vibrational N-H stretching excitations in the 7-azaindole dimer**
J. R. Dwyer, J. Dreyer, E. T. J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **432**, 146 (2006)
293. **Ultrafast hole burning in intersubband absorption lines of GaN/AlN superlattices**
Z. Wang, K. Reimann, M. Woerner, T. Elsaesser, D. Hofstetter, E. Baumann, F.R. Giorgetta, H. Wu, W.J. Schaff, and L.F. Eastman
Appl. Phys. Lett. **89**, 151103 (2006)

292. **Excitation mechanisms of coherent phonons unravelled by femtosecond x-ray diffraction**
M. Bargheer, N. Zhavoronkov, J.C. Woo, D.S. Kim, M. Woerner, and T. Elsaesser
Phys. stat. sol. (b) **243**, 2389 (2006)
291. **Miniband-related 1.4 - 1.8 μm luminescence of Ge/Si quantum dot superlattices**
V.G. Talalaev, G.E. Girlin, A.A. Tonkikh, N.D. Zakharov, P. Werner, U. Gösele, J.W. Tomm, and T. Elsaesser
Nanoscale Res. Lett., DOI 10.1007/s11671-006-9004-x (17 pages, 2006)
290. **Mode-selective O-H stretching relaxation in a hydrogen bond studied by ultrafast vibrational spectroscopy**
V. Kozich, J. Dreyer, S. Ashihara, W. Werncke, and T. Elsaesser
J. Chem. Phys. **125**, 074504 (2006)
289. **High repetition rate ultrafast x-ray source from the femtosecond laser produced plasma**
N. Zhavoronkov, C. v. Korff Schmising, M. Bargheer, M. Woerner, T. Elsaesser, O. Klimo, and J. Limpouch
Journal de Physique **133**, 1201 (2006)
288. **Coherent low-frequency motions in condensed phase hydrogen bonding and transfer**
T. Elsaesser
in: Handbook of Hydrogen Transfer, R.L. Schowen, J.P. Klinman, J.T. Hynes, H.H. Limbach (Eds.), Wiley, Weinheim 2006, p. 459
287. **Strain propagation in nanolayered perovskites probed by ultrafast x-ray diffraction**
C. v. Korff Schmising, M. Bargheer, M. Kiel, N. Zhavoronkov, M. Woerner, T. Elsaesser, L. Vrejoiu, D. Hesse, and M. Alexe
Phys. Rev. B **73**, 212202 (2006)
286. **Ultrafast dynamics of intersubband excitations in quantum wells and quantum cascade structures**
T. Elsaesser
in: Intersubband transitions in quantum structures, R. Paiella (Ed.), McGraw Hill, New York 2006, p. 135.
285. **Vibrational couplings and ultrafast relaxation of the O-H bending mode in liquid H_2O**
S. Ashihara, N. Huse, A. Espagne, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **424**, 66 (2006)
284. **Nonlinear THz response of n-type GaAs**
P. Gaal, K. Reimann, M. Woerner, T. Elsaesser, R. Hey, and K. Ploog
Phys. Rev. Lett. **96**, 187402 (2006)
283. **Phonon sidebands of intersubband absorption in AlGaIn/GaN high-electron-mobility transistors**
Z. Wang, K. Reimann, M. Woerner, T. Elsaesser, D. Hofstetter, J. Hwang, W.J. Schaff, and L.F. Eastman
Physica E **32**, 562 (2006)

282. **Radiative coupling of intersubband transitions in GaAs/AlGaAs multiple quantum wells**
T. Shih, K. Reimann, M. Woerner, T. Elsaesser, I. Waldmüller, A. Knorr, R. Hey, and K. H. Ploog,
Physica E **32**, 262 (2006)
281. **Recent progress in ultrafast x-ray diffraction**
M. Bargheer, N. Zhavoronkov, M. Woerner, and T. Elsaesser
Chem. Phys. Chem. **7**, 783 (2006, invited paper)
280. **Carrier dynamics in laterally strain-modulated InGaAs quantum wells**
V. Talalaev, J.W. Tomm, T. Elsaesser, U. Zeimer, J. Fricke, A. Knauer, H. Kissel, M. Weyers, G.G. Tarasov, J. Grenzer, and U. Pietsch
Appl. Phys. Lett. **87**, 262103 (2005)
279. **Deep level emission from high-power diode laser bars detected by multi-spectral infrared imaging**
A. Kozłowska, P. Wawrzyniak, J.W. Tomm, F. Weik, and T. Elsaesser
Appl. Phys. Lett. **87**, 153503 (2005)
278. **Apertureless near-field vibrational imaging of block-copolymer nanostructures with ultrahigh spatial resolution**
M.B. Raschke, L. Molina, T. Elsaesser, D.H. Kim, W. Knoll, and K. Hinrichs
Chem. Phys. Chem. **6**, 2197 (2005)
277. **Generation of single-cycle THz transients with high electric field amplitudes**
T. Bartel, P. Gaal, K. Reimann, M. Woerner, and T. Elsaesser
Opt. Lett. **30**, 2805 (2005)
276. **Anharmonic couplings underlying ultrafast vibrational dynamics of hydrogen bonds in liquids**
N. Huse, B.D. Bruner, M.L. Cowan, J. Dreyer, E.T.J. Nibbering, R.J.D. Miller, and T. Elsaesser
Phys. Rev. Lett. **95**, 147402 (2005)
275. **Ultrafast vibrational relaxation of O-H bending and librational excitations in liquid H₂O**
N. Huse, S. Ashihara, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **404**, 389 (2005)
274. **Ultrafast memory loss and energy redistribution in the hydrogen bond network of liquid H₂O**
M.L. Cowan, B.D. Bruner, N. Huse, B. Chugh, J. Dwyer, E.T.J. Nibbering, T. Elsaesser, and R.J.D. Miller
Nature **434**, 199 (2005)
273. **Cascaded energy redistribution upon O-H stretching excitation in an intramolecular hydrogen bond**
K. Heyne, M. Petkovic, E.T.J. Nibbering, O. Kühn, and T. Elsaesser
in: *Ultrafast Phenomena XIV*, T. Kobayashi et al. (Eds.), Springer, Berlin 2005, p. 389

272. **Phase-resolved nonlinear response of modulation-doped quantum wells under femtosecond intersubband excitation**
T. Shih, C.W. Luo, K. Reimann, M. Woerner, T. Elsaesser, I. Waldmüller, A. Knorr, R. Hey, and K.H. Ploog
in: *Ultrafast Phenomena XIV*, Springer, Berlin 2005, p. 292
271. **Heterodyne 2D-IR photon echo spectroscopy of multi-level OH stretching coherences in hydrogen bonds**
N. Huse, B.D. Bruner, M.L. Cowan, J. Dreyer, E.T.J. Nibbering, T. Elsaesser, and R.J.D. Miller
in: *Ultrafast Phenomena XIV*, T. Kobayashi et al. (Eds.), Springer, Berlin 2005, p. 407
270. **Nonlinear response of radiatively coupled intersubband transitions of quasi-two dimensional electrons**
T. Shih, K. Reimann, M. Woerner, T. Elsaesser, I. Waldmüller, A. Knorr, R. Hey, and K.H. Ploog
Phys. Rev. B **72**, 195338 (2005)
269. **Optical control of excitons in a pair of quantum dots coupled by the dipole-dipole interaction**
T. Unold, K. Mueller, C. Lienau, T. Elsaesser, A.D. Wieck
Phys. Rev. Lett. **94**, 137404 (2005)
268. **Comparison of focusing optics for femtosecond x-ray diffraction**
M. Bargheer, N. Zhavoronkov, R. Bruch, H. Legall, H. Stiel, M. Woerner, and T. Elsaesser
Appl. Phys. B **80**, 715 (2005)
267. **Optical phonon sidebands of electronic intersubband absorption in strongly polar semiconductor heterostructures**
Z. Wang, K. Reimann, M. Woerner, T. Elsaesser, D. Hofstetter, J. Hwang, W.J. Schaff, and L.F. Eastman
Phys. Rev. Lett. **94**, 037403 (2005)
266. **Generation of ultrashort K_α radiation from quasipoint interaction area of femtosecond pulses with thin films**
N. Zhavoronkov, Y. Gritsai, M. Bargheer, M. Woerner, and T. Elsaesser
Appl. Phys. Lett. **86**, 244107 (2005)
265. **Analysis of thermal images from diode lasers: temperature profiling and reliability screening**
A. Kozłowska, M. Latoszek, J.W. Tomm, F. Weik, T. Elsaesser, M. Zbrozczyk, M. Bugajski, B. Spellenberg, and M. Bassler
Appl. Phys. Lett. **86**, 203503 (2005)
264. **Microfocus Cu K_α source for femtosecond x-ray science**
N. Zhavoronkov, Y. Gritsai, M. Bargheer, M. Woerner, T. Elsaesser, F. Zamponi, I. Uschmann, and E. Förster
Opt. Lett. **30**, 1737 (2005)
263. **Ultrafast coherent spectroscopy of single semiconductor quantum dots**
C. Lienau, T. Unold, K. Mueller, T. Elsaesser
SPIE Proc. **5825**, 118 (2005)

262. **Coherent low-frequency motions of hydrogen-bonded acetic acid dimers in the liquid phase**
K. Heyne, N. Huse, J. Dreyer, E.T.J. Nibbering, and T. Elsaesser
J. Chem. Phys. **121**, 902 (2004)
261. **Development of an applicator for multiphoton PDT**
G. Grasczew, M. Bastian, S. Rakowsky, T.A. Roelofs, E. Balanos, P.M. Schlag, G. Steinmeyer, and T. Elsaesser
SPIE Proc. **5463**, 68 (2004)
260. **Coherent vs. incoherent charge transport in semiconductor quantum cascade structures**
M. Woerner, F. Eickemeyer, K. Reimann, T. Elsaesser, S. Barbieri, C. Sirtori, T. Mueller, R. Bratschitsch, K. Unterrainer, and G. Strasser
SPIE Proc. **5352**, 333 (2004)
259. **Femtosecond near-field spectroscopy of single quantum dots**
C. Lienau, T. Guenther, T. Unold, K. Mueller, and T. Elsaesser
SPIE Proc. **5352**, 16 (2004)
258. **Cascaded energy redistribution upon O-H stretching excitation in an intramolecular hydrogen bond**
K. Heyne, E.T.J. Nibbering, T. Elsaesser, M. Petkovic, and O. Kühn
J. Phys. Chem. A **108**, 6083 (2004)
257. **Femtosecond mid-infrared spectroscopy of low-energy excitations in solids**
T. Elsaesser
Appl. Phys. A **79**, 1627 (2004)
256. **Sub-picosecond efficient laser driven hard X-ray source operated at a kHz repetition rate**
N. Zhavoronkov, Y. Gritsai, G. Korn, and T. Elsaesser
Appl. Phys. B **79**, 663 (2004)
255. **Coherent atomic motions in a nanostructure studied by femtosecond x-ray diffraction**
M. Bargheer, N. Zhavoronkov, Y. Gritsai, J.C. Woo, D.S. Kim, M. Woerner, and T. Elsaesser
Science **306**, 1771 (2004)
254. **Ultrafast structural changes in condensed matter**
T. Elsaesser
Humboldt Spektrum, Heft 3/4, 106 (2004)
253. **Coherent charge transport in semiconductor quantum cascade structures**
M. Woerner, K. Reimann, and T. Elsaesser
J. Phys.: Condensed Matter **16**, R25 (2004) (invited review)
252. **Nonlinear terahertz spectroscopy of semiconductor nanostructures**
C.W. Luo, K. Reimann, M. Woerner, and T. Elsaesser
Appl. Phys. A **78**, 435 (2004)

251. **Optical Stark effect in a quantum dot: Ultrafast polarization control of single excitons**
T. Unold, K. Müller, C. Lienau, T. Elsaesser, S. Eshlaghi, and A. Wieck
Phys. Rev. Lett. **92**, 157401 (2004)
250. **Near-field autocorrelation spectroscopy of disordered semiconductor quantum wells**
C. Lienau, F. Intonti, T. Guenther, T. Elsaesser, V. Savona, R. Zimmermann, and E. Runge
Phys. Rev. B **69**, 085302 (2004)
249. **Rabi oscillations of intersubband transitions in GaAs/AlGaAs MQWs**
C.W. Luo, K. Reimann, M. Woerner, T. Elsaesser, R. Hey, and K.H. Ploog
Semicond. Sci. Technol. **19**, S285 (2004)
248. **Space and time resolved coherent optical spectroscopy of single quantum dots**
T. Unold, K. Mueller, C. Lienau, and T. Elsaesser
Semicond. Sci. Technol. **19**, S260 (2004)
247. **Femtosecond intersubband dynamics of electrons in AlGaIn/GaN high-electron-mobility transistors**
Z. Wang, K. Reimann, M. Woerner, T. Elsaesser, D. Hofstetter, J. Hwang, W.J. Schaff, and L.F. Eastman
Semicond. Sci. Technol. **19**, S463 (2004)
246. **Ultrafast vibrational dynamics of hydrogen bonds in the condensed phase**
E.T.J. Nibbering, and T. Elsaesser
Chem. Rev. **104**, 1887 (2004, invited review)
245. **Device deformation during low-frequency pulsed operation of high-power diode bars**
A. Gerhardt, F. Weik, T. QuocTran, J.W. Tomm, T. Elsaesser, J. Biesenbach, H. Müntz, G. Seibold, and M.L. Biermann
Appl. Phys. Lett. **84**, 3525 (2004)
244. **Phase-resolved nonlinear response of a two-dimensional electron gas under femtosecond intersubband excitation**
C.W. Luo, K. Reimann, M. Woerner, and T. Elsaesser
Phys. Rev. Lett. **92**, 047402/1-4 (2004)
243. **Ultrafast vibrational dynamics of hydrogen-bonded dimers in solution**
T. Elsaesser, K. Heyne, N. Huse, and E.T.J. Nibbering
in: Ultrafast molecular events in chemistry and biology, M.M. Martin, J.T. Hynes (Eds.), Elsevier, Amsterdam 2004, p.157

242. **Optical dephasing of coherent intersubband transitions in a quasi-two-dimensional electron gas**
I. Waldmüller, J. Förstner, S.C. Lee, A. Knorr, M. Woerner, K. Reimann, R.A. Kaindl, T. Elsaesser, R. Hey, and K.H. Ploog
Phys. Rev. B **69**, 205307 (2004)
241. **High repetition rate femtosecond laser driven hard X-ray source and its application for diffraction experiments**
N. Zhavoronkov, Y. Gritsai, P. Mischev, A. Savelev, G. Korn, and T. Elsaesser
in: Ultrafast Optics IV, F. Krausz, G. Korn, P. Corkum, and I.A. Walmsley (Eds.), Springer Verlag, Berlin 2004, p. 323
240. **A mid-infrared photon echo study of liquid water**
J. Stenger, D. Madsen, P. Hamm, E.T.J. Nibbering, and T. Elsaesser
in: Ultrafast Phenomena XIII, R.J.D. Miller, M.M. Murnane, N.F. Scherer, A.M. Weiner (Eds.), Springer Berlin 2003, p. 577
239. **Ultrafast site-specific mid-infrared spectroscopy of excited-state intramolecular proton transfer**
M. Rini, A. Kummrow, J. Dreyer, E.T.J. Nibbering, and T. Elsaesser
in: Ultrafast Phenomena XIII, R.J.D. Miller, M.M. Murnane, N.F. Scherer, A.M. Weiner (Eds.), Springer Berlin 2003, p. 465
238. **Ultrafast coherent electron transport in quantum cascade structures**
F. Eickemeyer, K. Reimann, M. Woerner, T. Elsaesser, S. Barbieri, C. Sirtori, G. Strasser, T. Müller, R. Bratschitsch, and K. Unterrainer
in: Ultrafast Phenomena XIII, R.J.D. Miller, M.M. Murnane, N.F. Scherer, A.M. Weiner (Eds.), Springer Berlin 2003, p. 356
237. **Ultrafast coherent spectroscopy of a single quantum dot**
T. Guenther, C. Lienau, T. Elsaesser, M. Glanemann, V.M. Axt, T. Kuhn, S. Eshlagi, and A.D. Wieck
in: Ultrafast Phenomena XIII, R.J.D. Miller, M.M. Murnane, N.F. Scherer, A.M. Weiner (Eds.), Springer Berlin 2003, p. 345 (invited paper)
236. **Coherent vibrational dynamics of intermolecular hydrogen bonds in acetic acid dimers studied by ultrafast mid-infrared spectroscopy**
K. Heyne, N. Huse, E.T.J. Nibbering, and T. Elsaesser
J. Phys. C: Cond. Matter **15**, S129 (2003)
235. **Ultrafast relaxation and anharmonic coupling of O-H stretching and bending excitations in cyclic acetic acid dimers**
K. Heyne, N. Huse, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **382**, 19 (2003)

234. **Transient luminescence of dense InAs/GaAs quantum dot arrays**
J.W. Tomm, Y.I. Mazur, G.G. Tarasov, Z.Ya. Zhuchenko, H. Kissel, W.T. Mas-
selink, and T. Elsaesser
Phys. Rev. B **67**, 045326 (8 pages, 2003)
233. **KHz sources of hard x-ray and fast ions with femtosecond laser plasmas**
A. Thoss, M. Richardson, G. Korn, M. Faubel, H. Stiel, U. Voigt, and T. Elsaesser
J. Opt. Soc. Am. B **20**, 224 (2003)
232. **Direct field-resolved detection of THz transients with megavolt/cm am-
plitudes**
K. Reimann, R.P. Smith, A.M. Weiner, T. Elsaesser, and M. Woerner
Opt. Lett. **28**, 471 (2003)
231. **Vibrational multi-level coherences due to anharmonic couplings in inter-
molecular hydrogen bonds**
N. Huse, K. Heyne, J. Dreyer, E.T.J. Nibbering, and T. Elsaesser
Phys. Rev. Lett. **91**, 197401 (2003)
230. **Ultrafast vibrational relaxation processes induced by intramolecular ex-
cited state hydrogen transfer**
M. Rini, J. Dreyer, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **374**, 13 (2003)
229. **Ultrafast intersubband dynamics in quantum wells and quantum cascade
structures**
T. Elsaesser, F. Eickemeyer, R.A. Kaindl, K. Reimann, and M. Woerner
Proc. Int. School Phys. Enrico Fermi, Course CL, B. Deveaud, A. Quattropani, P.
Schwendimann (Eds.), IOS Press, Amsterdam 2003, p. 249
228. **Ultrafast coherent and incoherent dynamics of intersubband excitations
in semiconductor quantum wells**
T. Elsaesser, R.A. Kaindl, F. Eickemeyer, K. Reimann, M. Woerner, R. Hey, C.
Miesner, K. Brunner, and G. Abstreiter
SPIE Proc. **4992**, 154 (2003)
227. **Coherent nonlinear optical response of single quantum dots studied by
ultrafast near-field spectroscopy: reply to comment**
T. Guenther, C. Lienau, T. Elsaesser, M. Glanemann, T. Kuhn
Phys. Rev. Lett. **90**, 139702 (2003)
226. **Ultrafast coherent nuclear motions of hydrogen bonded carboxylic acid
dimers**
K. Heyne, N. Huse, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **369**, 591 (2003)
225. **Femtosecond mid-infrared photon-echo study of an intramolecular hy-
drogen bond**
J. Stenger, D. Madsen, J. Dreyer, P. Hamm, E.T.J. Nibbering, and T. Elsaesser
Chem. Phys. Lett. **354**, 256 (2002)

224. **A photon echo peak shift study of liquid water**
J. Stenger, D. Madsen, P. Hamm, E.T.J. Nibbering, and T. Elsaesser
J. Phys. Chem. A **106**, 2341 (2002)
223. **Ultrafast optical nonlinearity of low-temperature grown GaInAs/AlInAs quantum wells at wavelengths around 1.55 μm**
K. Biermann, D. Nickel, K. Reimann, M. Woerner, T. Elsaesser, and H. Künzel
Appl. Phys. Lett. **80**, 1936 (2002)
222. **Minority-carrier kinetics in heavily doped GaAs:C analyzed by transient photoluminescence spectroscopy**
A. Maaßdorf, S. Gramlich, E. Richter, F. Brunner, M. Weyers, G. Tränkle, J.W. Tomm, Y.I. Mazur, D. Nickel, V. Malyarchuk, T. Günther, C. Lienau, A. Bärowff, and T. Elsaesser
J. Appl. Phys. **91**, 5072 (2002)
221. **Group-velocity matched interactions in hollow waveguides**
A. Nazarkin, M. Wittmann, G. Korn, and T. Elsaesser
Phys. Rev. A **65**, 041802(R) (2002)
220. **Ultrafast coherent electron transport in GaAs/AlGaAs quantum cascade structures**
F. Eickemeyer, K. Reimann, M. Woerner, T. Elsaesser, S.C. Lee, A. Wacker, S. Barbieri, C. Sirtori, and J. Nagle
Physica B **314**, 314 (2002) (invited paper)
219. **Femtosecond intersubband scattering of holes in $\text{Si}_{1-x}\text{Ge}_x/\text{Si}$ quantum wells**
R.A. Kaindl, M. Woerner, M. Wurm, K. Reimann, T. Elsaesser, C. Miesner, K. Brunner, and G. Abstreiter
Physica B **314**, 255 (2002)
218. **Coherent nonlinear dynamics of intersubband excitations in a two-dimensional electron gas**
M. Woerner, R.A. Kaindl, F. Eickemeyer, K. Reimann, T. Elsaesser, A.M. Weiner, R. Hey, and K.H. Ploog
Physica B **314**, 244 (2002)
217. **All-linear control of attosecond pulse generation**
A. Nazarkin, G. Korn, and T. Elsaesser
Opt. Commun. **203**, 403 (2002)
216. **Ultrafast dynamics hydrogen bonds in the liquid phase: Vibrational Quantum Beats and Dephasing**
J. Stenger, D. Madsen, J. Dreyer, E.T.J. Nibbering, P. Hamm, and T. Elsaesser
in: Femtochemistry and Femtobiology: Ultrafast Dynamics in Molecular Science, A. Douhal, J. Santamaria (Eds.), World Scientific, Singapore 2002, p. 169
215. **A 1 kHz femtosecond laser plasma hard x-ray source**
G. Korn, A. Thoss, M. Faubel, H. Stiel, U. Voigt, M. Richardson, and T. Elsaesser
Opt. Lett. **27**, 866 (2002)

214. **Near-field optical imaging and spectroscopy of single GaAs quantum wires**
V. Emiliani, F. Intonti, C. Lienau, T. Elsaesser, R. Nötzel, and K.H. Ploog
phys. stat. sol. (a) **190**, 749 (2002)
213. **Level repulsion of localized excitons in disordered quantum wells**
V. Savona, E. Runge, R. Zimmermann, F. Intonti, V. Emiliani, C. Lienau, and T. Elsaesser
phys. stat. sol. (a) **190**, 625 (2002)
212. **Ultrafast intramolecular electron transfer studied by picosecond and stationary Raman spectroscopy**
W. Werncke, S. Wachsmann-Hogiu, J. Dreyer, A. Vodtchits, and T. Elsaesser
Bull. Jap. Chem. Soc. **75**, 1049 (2002)
211. **Femtosecond mid-infrared pump-probe study of wave packet motion in a medium-strong intramolecular hydrogen bond**
D. Madsen, J. Stenger, J. Dreyer, E.T.J. Nibbering, and T. Elsaesser
Bull. Jap. Chem. Soc. **75**, 909 (2002) (headline paper)
210. **Ultrafast Intersubband scattering of holes in p-type modulation-doped $\text{Si}_{1-x}\text{Ge}_x/\text{Si}$ multiple quantum wells**
M. Woerner, R.A. Kaindl, M. Wurm, K. Reimann, T. Elsaesser, C. Miesner, K. Brunner, and G. Abstreiter
Physica E **13**, 485 (2002)
209. **Ultrafast coherent nonlinear dynamics of intersubband excitations in a quasi-two-dimensional electron gas**
M. Woerner, R.A. Kaindl, F. Eickemeyer, K. Reimann, T. Elsaesser, R. Hey, and K. Ploog
Physica E **13**, 477 (2002)
208. **Quantum mechanical repulsion of exciton levels in a disordered quantum well evidenced by near-field spectroscopy**
F. Intonti, V. Emiliani, C. Lienau, T. Elsaesser, V. Savona, E. Runge, R. Zimmermann, R. Nötzel, and K.H. Ploog
Physica E **13**, 178 (2002)
207. **Vibrational excitation and energy redistribution after ultrafast internal conversion in 4-nitroaniline**
V. Kozich, W. Werncke, J. Dreyer, M. Rini, A. Kummrow, and T. Elsaesser
J. Chem. Phys. **117**, 719 (2002)
206. **Coherent nonlinear optical response of single quantum dots studied by ultrafast near-field spectroscopy**
T. Guenther, C. Lienau, T. Elsaesser, M. Glanemann, T. Kuhn, S. Eshlaghi, and A. Wieck
Phys. Rev. Lett. **89**, 057401; Erratum: Phys. Rev. Lett. **89**, 179901 (2002)
205. **Ultrafast coherent electron transport in semiconductor quantum cascade structures**
F. Eickemeyer, K. Reimann, M. Woerner, T. Elsaesser, S. Barbieri, C. Sirtori, G. Strasser, T. Müller, R. Bratschitsch, and K. Unterrainer
Phys. Rev. Lett. **89**, 047402 (2002)

204. **Simultaneous quantification of strain and defects in high-power diode laser devices**
J.W. Tomm, A. Gerhardt, T. Elsaesser, D. Lorenzen, and P. Hennig
Appl. Phys. Lett. **81**, 3269 (2002)
203. **Femtosecond mid-infrared spectroscopy of condensed-phase hydrogen-bonded systems as a probe of structural dynamics**
M. Rini, A. Kummrow, J. Dreyer, E.T.J. Nibbering, and T. Elsaesser
Faraday Discussions **122**, 27 (2002)
202. **Near-field spectroscopy of disordered nanostructures**
C. Lienau, F. Intonti, T. Guenther, V. Emiliani, and T. Elsaesser
phys. stat. sol. (b) **234**, 453 (2002) (invited paper)
201. **kHz femtosecond laser plasma X-ray and ion source**
A. Thoss, G. Korn, M. C. Richardson, M. Faubel, H. Stiel, U. Vogt, C. W. Siders, and T. Elsaesser
in: Superstrong fields in plasmas: Second international conference on superstrong fields in plasmas, M. Lontano, G. Mourou, O. Svelto, T. Tajima (Eds.), AIP Proc. **611**, New York 2002, p. 353
200. **Ultrafast dynamics of hydrogen bonding and proton transfer in the condensed phase**
T. Elsaesser, and H.J. Bakker
in: Ultrafast hydrogen bonding dynamics and proton transfer processes in the condensed phase, T. Elsaesser, H.J. Bakker (Eds.), Kluwer, Dordrecht 2002, pp. 1-4.
199. **Ultrafast excited state hydrogen transfer in the condensed phase**
T. Elsaesser
in: Ultrafast hydrogen bonding dynamics and proton transfer processes in the condensed phase, T. Elsaesser, H.J. Bakker (Eds.), Kluwer, Dordrecht 2002, pp. 119-153.
198. **Femtosekundenspektroskopie**
T. Elsaesser
in: Brockhaus Naturwissenschaften und Technik, Mannheim 2002 (2 pages)
197. **Ultrafast nonequilibrium dynamics of intersubband excitations in quasi-two-dimensional semiconductors**
M. Woerner, and T. Elsaesser
in: Ultrafast Processes in Semiconductors, K.T. Tsen (Ed.), Springer, New York 2001, p. 93-160
196. **Quantum mechanical repulsion of exciton levels in a disordered quantum well**
F. Intonti, V. Emiliani, C. Lienau, T. Elsaesser, V. Savona, E. Runge, R. Zimmermann, R. Nötzel, and K.H. Ploog
Phys. Rev. Lett. **87**, 076801 (2001)
195. **Near-field optical imaging and spectroscopy of a novel coupled quantum wire – dot structure**
V. Emiliani, F. Intonti, C. Lienau, T. Elsaesser, R. Nötzel, and K.H. Ploog
Phys. Rev. B **64**, 155316 (2001, 9 pages)

194. **Coherent response of hydrogen bonds in liquids probed by ultrafast vibrational spectroscopy**
J. Stenger, D. Madsen, J. Dreyer, E.T.J. Nibbering, P. Hamm, and T. Elsaesser
J. Phys. Chem. A **105**, 2929 (2001)
193. **Homogeneous broadening of intersubband transitions by ultrafast Coulomb scattering in a quasi-two-dimensional electron gas**
R.A. Kaindl, K. Reimann, M. Woerner, T. Elsaesser, R. Hey, and K.H. Ploog
Phys. Rev. B **63**, 161308(R) (2001)
192. **Low-temperature near-field luminescence studies of localized and delocalized excitons in quantum wires**
F. Intonti, V. Emiliani, C. Lienau, T. Elsaesser, R. Nötzel, and K.h. Ploog
J. Microsc. **202**, 193 (2001)
191. **Coherent vibrational ground state dynamics of an intramolecular hydrogen bond**
D. Madsen, J. Stenger, J. Dreyer, E.T.J. Nibbering, P. Hamm, and T. Elsaesser
Chem. Phys. Lett. **341**, 56 (2001)
190. **Ultrafast vibrational dephasing of liquid water**
J. Stenger, D. Madsen, P. Hamm, E.T.J. Nibbering, and T. Elsaesser
Phys. Rev. Lett. **87**, 027401 (4 pages, 2001)
189. **Coherent nonlinear propagation of ultrashort electric field transients through intersubband resonances**
F. Eickemeyer, M. Woerner, A.M. Weiner, T. Elsaesser, R. Hey, and K.H. Ploog
Appl. Phys. Lett. **79**, 165 (2001)
188. **Ultrafast dynamics of intersubband excitations in a quasi-two-dimensional hole gas**
R.A. Kaindl, M. Wurm, K. Reimann, M. Woerner, T. Elsaesser, C. Miesner, K. Brunner, and G. Abstreiter
Phys. Rev. Lett. **86**, 1122 (2001)
187. **Ultrafast intramolecular electron transfer studied by stationary vibrational and time-resolved resonance Raman spectroscopy combined with ab-initio calculations**
S. Wachsmann-Hogiu, W. Werncke, J. Dreyer, A.I. Vodchits, K.W. Brzezinka, and T. Elsaesser
Recent Res. Devel. Chem. Physics **2**, 61 (2001)
186. **Near-field optical spectroscopy of localized and delocalized excitons in a single GaAs quantum wire**
F. Intonti, V. Emiliani, C. Lienau, T. Elsaesser, R. Nötzel, and K. Ploog
Phys. Rev. B **63**, 075313 (5 pages, 2001)
185. **Low-temperature MBE growth and characteristics of InP-based AlInAs/GaInAs MQW structures**
H. Kuenzel, K. Biermann, D. Nickel, and T. Elsaesser
J. Cryst. Growth **227**, 284 (2001)

184. **Spatially resolved small-angle non-collinear interferometric autocorrelation of ultrashort pulses with micro-axicon arrays**
R. Grunwald, U. Griebner, E.T.J. Nibbering, A. Kummrow, T. Elsaesser, V. Kebbel, H.J. Hartmann, and W. Jüptner
J. Opt. Soc. Am. B **18**, 2923 (2001)
183. **Laser spectroscopy**
T. Elsaesser
in: European White Book on Fundamental Research in Materials Science, M. Rühle, H. Dosch, E.J. Mittemeijer, M.H. Van de Voorde (Eds.), Max-Planck-Institut für Metallforschung, Stuttgart 2001, p. 259-262
182. **Ultrafast coherent and incoherent dynamics of intersubband excitations in GaAs/AlGaAs and SiGe/Si quantum wells**
T. Elsaesser, R.A. Kaindl, K. Reimann, M. Woerner, C. Miesner, K. Brunner, G. Abstreiter, R. Hey, and K.H. Ploog
Narrow Gap Semiconductors and Related Small Energy Phenomena, IPAP Conf. Ser. **2**, 111 (2001)
181. **Ultrafast mid-infrared response of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$**
R.A. Kaindl, M. Woerner, T. Elsaesser, D.C. Smith, J.F. Ryan, G.A. Farnan, M.P. McCurry, and D.G. Walmsley
Science **287**, 470 (2000)
180. **Introduction of a 60 fs deactivation channel in the photosynthetic antenna LH1 by Ni-bacteriopheophytin a**
L. Fiedor, H. Scheer, N.C. Hunter, F. Tschirschwitz, B. Voigt, J. Ehlert, E.T.J. Nibbering, D. Leupold, and T. Elsaesser
Chem. Phys. Lett. **319**, 145 (2000)
179. **Trendbericht Physikalische Chemie 1999 - Ultrakurzzeitspektroskopie**
T. Elsaesser
Nachrichten aus der Chemie **48**, 317 (2000)
178. **Near field optical spectroscopy of confined excitons**
C. Lienau, V. Emiliani, T. Guenther, F. Intonti, T. Elsaesser, R. Nötzel, and K. Ploog
phys. stat. sol. (a) **178**, 471 (2000)
177. **Facet degradation of high-power diode laser arrays**
J.W. Tomm, E. Thamm, A. Baerwolff, T. Elsaesser, J. Luft, M. Baeumler, K.S. Mueller, W. Jantz, I. Rechenberg, and G. Erbert
Appl. Phys. A **70**, 377 (2000)
176. **Femtochemistry of hydrogen bonded complexes after electronic excitation in the liquid phase: the case of coumarin 102**
E.T.J. Nibbering, F. Tschirschwitz, and T. Elsaesser
J. Phys. Chem. A **104**, 4236 (2000)
175. **Time-resolved near-field optical spectroscopy of single semiconductor quantum wires**
T. Elsaesser, V. Emiliani, T. Guenther, F. Intonti, C. Lienau, R. Nötzel, and K.H. Ploog
SPIE Proc. **3940**, 206 (2000)

174. **Selective excitation and photoinduced bleaching of defects in InAlGaAs/GaAs high-power diode lasers**
J.W. Tomm, A. Bärwolff, T. Elsaesser, and J. Luft
Appl. Phys. Lett. **77**, 747 (2000)
173. **Generation of femtosecond Bessel beams with micro-axicon arrays**
R. Grunwald, U. Griebner, F. Tschirschwitz, E.T.J. Nibbering, T. Elsaesser, V. Kebbel, H.J. Hartmann, and W. Jüptner
Opt. Lett. **25**, 981 (2000)
172. **Mode specific vibrational excitations and energy relaxation after ultrafast intramolecular electron transfer**
S. Hogiu, W. Werncke, J. Dreyer, M. Pfeiffer, and T. Elsaesser
J. Chem. Phys. **113**, 1587 (2000)
171. **Large electrically induced transmission changes of GaAs/AlGaAs quantum cascade structures**
F. Eickemeyer, R.A. Kaindl, M. Woerner, T. Elsaesser, S. Barbieri, P. Kruck, C. Sirtori, and J. Nagle
Appl. Phys. Lett. **76**, 3254 (2000)
170. **Strained InGaAs/GaPAsSb heterostructures grown on GaAs (001) for optoelectronic applications in the 1100 to 1550 nm range**
W. Braun, P. Dowd, C.Z. Guo, S.L. Chen, C.M. Ryu, U. Koelle, S.R. Johnson, Y.H. Zhang, J.W. Tomm, T. Elsaesser, and D.J. Smith
J. Appl. Phys. **88**, 3004 (2000)
169. **Ultrafast structural response of hydrogen bonded complexes after electronic excitation**
E.T.J. Nibbering, and T. Elsaesser
Appl. Phys. B **71**, 439 (2000)
168. **Controlled shaping of ultrafast electric field-transients in the mid-infrared spectral range**
F. Eickemeyer, R.A. Kaindl, M. Woerner, T. Elsaesser, and A.M. Weiner
Opt. Lett. **25**, 1472 (2000)
167. **Ultrafast charge transfer studied by femtosecond infrared spectroscopy and ab-initio calculations**
A. Kummrow, J. Dreyer, C. Chudoba, J. Stenger, E.T.J. Nibbering, and T. Elsaesser
J. Chin. Chem. Soc. **47**, 721 (2000)
166. **Spatially and temporally resolved near-field scanning optical microscopy studies of semiconductor quantum wires**
C. Lienau, and T. Elsaesser
in: Ultrafast Physical Processes in Semiconductors, K.T. Tsen (Ed.), Academic Press, San Diego 2000, pp. 39-108
165. **Ultrafast Phenomena XII**
T. Elsaesser, S. Mukamel, M.M. Murnane, N.F. Scherer (Eds.)
Springer Verlag, Berlin 2000

164. **Ultrafast near-field pump-probe spectroscopy of quasi-one-dimensional transport in a single quantum wire**
V. Emiliani, T. Guenther, C. Lienau, T. Elsaesser, R. Nötzel, and K. Ploog
in: *Ultrafast Phenomena XII*, T. Elsaesser, S. Mukamel, M.M. Murnane, N.F. Scherer (Eds.) Springer Verlag 2000, p. 256
163. **Femtosecond intersubband dynamics of holes in p-type SiGe/Si multiple quantum wells**
R.A. Kaindl, M. Wurm, K. Reimann, M. Woerner, T. Elsaesser, C. Miesner, K. Brunner, and G. Abstreiter
in: *Ultrafast Phenomena XII*, Springer Verlag 2000, p. 369
162. **Femtosecond mid-infrared study of the high- T_c superconductor $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$**
M. Woerner, R.A. Kaindl, T. Elsaesser, D.C. Smith, J.F. Ryan, G.A. Farnan, M.P. McCurry, and D.G. Walmsley
in: *Ultrafast Phenomena XII*, Springer Verlag 2000, p. 428
161. **Ultrafast coherent response of hydrogen bonds**
J. Stenger, D. Madsen, J. Dreyer, E.T.J. Nibbering, P. Hamm, and T. Elsaesser
in: *Ultrafast Phenomena XII*, Springer Verlag 2000, p. 542
160. **Femtosecond mid-infrared study of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$**
R.A. Kaindl, M. Woerner, T. Elsaesser, D.C. Smith, J.F. Ryan, G.A. Farnan, M.P. McCurry, and D.G. Walmsley
Physica C **341-348**, 2213 (2000)
159. **Near-field scanning optical spectroscopy of quasi-one-dimensional semiconductor nanostructures**
C. Lienau, V. Emiliani, T. Guenther, F. Intonti, T. Elsaesser, R. Nötzel, and K.H. Ploog
in: *Frontiers of nano-optoelectronic systems: Molecular scale engineering and processes*, L. Pavesi, E. Buzaneva (eds.), NATO ASI Series 2000, Kluwer, p. 377
158. **Coherent motion of low-frequency vibrations in ultrafast excited state proton transfer**
M. Pfeiffer, C. Chudoba, A. Lau, K. Lenz, and T. Elsaesser
Laser Chemistry **19**, 101 (1999)
157. **Direct spectroscopic measurement of packaging-induced strains in high-power laser diode arrays**
J.W. Tomm, R. Müller, A. Bärwolff, M. Neuner, T. Elsaesser, D. Lorenzen, F.X. Daiminger, A. Gerhardt, and J. Donecker
Proc. SPIE **3626**, 138 (1999)
156. **Ultrafast structural response of hydrogen bonded complexes after electronic excitation in the condensed phase**
C. Chudoba, E.T.J. Nibbering, and T. Elsaesser
J. Phys. Chem. A **103**, 5625 (1999)
155. **Spectroscopic measurement of packaging-induced strains in quantum well laser diodes**
J.W. Tomm, R. Müller, A. Bärwolff, T. Elsaesser, A. Gerhardt, J. Donecker, D. Lorenzen, F.X. Daiminger, S. Weiss, M. Hutter, E. Kaulfersch, and H. Reichl
J. Appl. Phys. **86**, 1196 (1999)

154. **Time-resolved near-field optics: Exciton transport in semiconductor nanostructures**
A. Richter, M. Süptitz, D. Heinrich, C. Lienau, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K.H. Ploog
J. Microscopy **194**, 393 (1999)
153. **Spatially and temporally resolved near-field spectroscopy of single GaAs quantum wires**
V. Emiliani, T. Günther, F. Intonti, A. Richter, C. Lienau, and T. Elsaesser
J. Phys. Condens. Matter **11**, 5889 (1999)
152. **Femtosecond near-field spectroscopy of a single GaAs quantum wire**
T. Guenther, V. Emiliani, F. Intonti, C. Lienau, T. Elsaesser, R. Noetzel, and K. Ploog
Appl. Phys. Lett. **75**, 3500 (1999)
151. **Mode specific vibrational kinetics after intramolecular electron transfer studied by picosecond anti-Stokes Raman spectroscopy**
S. Hogiu, W. Werncke, M. Pfeiffer, and T. Elsaesser
Chem. Phys. Lett. **312**, 407 (1999)
150. **Generation of multiple phase-locked Stokes and anti-Stokes components in an impulsively excited Raman medium**
A. Nazarkin, G. Korn, M. Wittmann, and T. Elsaesser
Phys. Rev. Lett. **83**, 2560 (1999)
149. **Femtosecond infrared spectroscopy of semiconductors and semiconductor nanostructures**
T. Elsaesser, and M. Woerner
Phys. Reports **321**, 253 (1999)
148. **Broadband phasematched difference frequency mixing of femtosecond pulses in GaSe: experiment and theory**
R.A. Kaindl, F. Eickemeyer, M. Woerner, and T. Elsaesser
Appl. Phys. Lett. **75**, 1060 (1999)
147. **Excited state structure of 4-(dimethylamino)benzonitrile studied by femtosecond mid-infrared spectroscopy and ab-initio calculations**
C. Chudoba, A. Kummrow, J. Dreyer, J. Stenger, E.T.J. Nibbering, T. Elsaesser, and K.A. Zachariasse
Chem. Phys. Lett. **309**, 357 (1999)
146. **Picosecond and femtosecond near-field optical spectroscopy of carrier dynamics in semiconductor nanostructures**
C. Lienau, V. Emiliani, T. Günther, F. Intonti, and T. Elsaesser
Physica B **272**, 96 (1999)
145. **Hydrogen bond dynamics and solvation of electronically excited states as determined by femtosecond vibrational spectroscopy**
E.T.J. Nibbering, C. Chudoba, and T. Elsaesser
Israel J. Chem. **39**, 333 (1999)

144. **Carrier trapping into single GaAs quantum wires studied by near-field spectroscopy in a broad temperature range**
A. Richter, M. Süptitz, Ch. Lienau, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K. Ploog
Ultramicroscopy **71**, 205 (1998)
143. **Mapping of the local confinement potential in semiconductor nanostructures by near-field optical spectroscopy**
C. Lienau, A. Richter, G. Behme, M. Süptitz, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K.H. Ploog
phys. stat. sol (b) **206**, 153 (1998)
142. **Coherent inter-valence band polarizations in bulk GaAs studied on a sub-100 fs time scale**
M. Joschko, M. Woerner, T. Elsaesser, E. Binder, T. Kuhn, R. Hey, H. Kostial, and K. Ploog
phys. stat. sol. (b) **206**, 299 (1998)
141. **Nanoscale mapping of confinement potentials in single semiconductor quantum wires by near-field optical spectroscopy**
Ch. Lienau, A. Richter, G. Behme, M. Süptitz, D. Heinrich, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K.H. Ploog
Phys. Rev. B **58**, 2045 (1998)
140. **Optical probes as tools for investigation of aging properties of high-power diode arrays**
J.W. Tomm, A. Baerwolff, R. Puchert, A. Jaeger, and T. Elsaesser
SPIE Proc. **3244**, 576 (1998)
139. **Ultrafast coherent and incoherent dynamics of intersubband excitations in quasi-two-dimensional semiconductors**
T. Elsaesser, R. Kaindl, S. Lutgen, M. Woerner, A. Hase, and H. Kuenzel
SPIE Proc. **3277**, 2 (1998) (invited paper)
138. **Ultrafast coherent dynamics of impulsively excited inter-valence band polarizations in bulk GaAs**
M. Joschko, M. Woerner, T. Elsaesser, E. Binder, T. Kuhn, R. Hey, H. Kostial, and K. Ploog
OSA Trends in Optics and Photonics Series **18**, 80 (1998)
137. **Ultrafast dephasing of coherent intersubband polarizations in a quasi-two-dimensional electron plasma**
R.A. Kaindl, S. Lutgen, M. Woerner, T. Elsaesser, B. Nottelmann, V.M. Axt, T. Kuhn, bA. Hase, and H. Künzel
Phys. Rev. Lett. **80**, 3575 (1998)
136. **Femtosecond infrared pulses tunable from 9 to 18 μm at 88 MHz repetition rate**
R.A. Kaindl, D.C. Smith, M. Joschko, M.P. Hasselbeck, M. Woerner, and T. Elsaesser
Opt. Lett. **23**, 861 (1998)

135. **Deep level spectroscopy of high power laser diode arrays**
J.W. Tomm, A. Bärwolff, A. Jaeger, T. Elsaesser, J. Bollmann, W.T. Masselink, A. Gerhardt, and J. Donecker
J. Appl. Phys. **84**, 1325 (1998)
134. **Excitonic and free carrier quantum beats created by femtosecond excitation at the band edge of GaAs**
M. Joschko, M. Hasselbeck, M. Woerner, T. Elsaesser, R. Hey, H. Kostial, and K. Ploog
Phys. Rev. B **58**, 10470 (1998)
133. **Exciton transport into a single GaAs quantum wire studied by picosecond near-field optical spectroscopy**
A. Richter, M. Süptitz, D. Heinrich, C. Lienau, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K. Ploog
Appl. Phys. Lett. **73**, 2176 (1998)
132. **Site-specific excited state solute-solvent interactions probed by femtosecond vibrational spectroscopy**
C. Chudoba, E.T.J. Nibbering, and T. Elsaesser
Phys. Rev. Lett. **81**, 3010-3013 (1998)
131. **Direct spectroscopic measurement of thermally induced strain in high-power optoelectronic devices**
J.W. Tomm, R. Müller, A. Bärwolff, T. Elsaesser, D. Lorenzen, F.X. Daiminger, A. Gerhardt, and J. Donecker
Appl. Phys. Lett. **73**, 3908 (1998)
130. **Ultrafast Phenomena XI**
T. Elsaesser, J.G. Fujimoto, D.A. Wiersma, and W. Zinth (Eds.)
Springer Verlag, Berlin 1998
129. **Dynamics of site-specific excited state solute-solvent interactions as probed by femtosecond vibrational spectroscopy**
C. Chudoba, E.T.J. Nibbering, and T. Elsaesser
in: Ultrafast Phenomena XI, T. Elsaesser, J.G. Fujimoto, D. Wiersma, and W. Zinth (Eds.), Springer, Berlin 1998, p. 535
128. **Time-resolved near-field spectroscopy of the carrier dynamics in single GaAs nanostructures**
C. Lienau, A. Richter, D. Heinrich, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K.H. Ploog
in: Ultrafast Phenomena XI, T. Elsaesser, J.G. Fujimoto, D. Wiersma, and W. Zinth (Eds.), Springer, Berlin 1998, p. 168
127. **Ultrafast pump-probe signals at the band edge of bulk GaAs: excitonic versus free carrier contributions**
M. Joschko, M.P. Hasselbeck, M. Woerner, T. Elsaesser, R. Hey, H. Kostial, and K.H. Ploog
in: Ultrafast Phenomena XI, T. Elsaesser, J.G. Fujimoto, D. Wiersma, and W. Zinth (Eds.), Springer, Berlin 1998, p. 257

126. **Generation of high repetition rate femtosecond infrared pulses tunable from 9 to 18 μm**
R.A. Kaindl, D.C. Smith, M.P. Hasselbeck, M. Woerner, and T. Elsaesser
in: Ultrafast Phenomena XI, T. Elsaesser, J.G. Fujimoto, D. Wiersma, and W. Zinth (Eds.), Springer, Berlin 1998, p. 66
125. **Femtosecond mid-infrared spectroscopy of carrier dynamics in high- T_c superconductors**
R.A. Kaindl, D.C. Smith, M. Woerner, C. Stevens, J.F. Ryan and T. Elsaesser
in: Ultrafast Phenomena XI, T. Elsaesser, J.G. Fujimoto, D. Wiersma, and W. Zinth (Eds.), Springer, Berlin 1998, p. 368
124. **Frequency doubling and autocorrelation studies of 20 fs pulses using polycrystalline zinc oxide thin films**
U. Griebner, R.A. Kaindl, T. Elsaesser, and W. Seeber
Appl. Phys. B **67**, 757 (1998)
123. **Laser in neuen Anwendungen: Entwicklungsgeschichte, Potentiale, Perspektiven**
T. Elsaesser, I.V. Hertel, and W. Sandner
Spektrum der Wissenschaften, Dossier 2/1998, p. 6
122. **Real-space transfer and trapping of carriers into a single GaAs quantum wire studied by near-field optical spectroscopy**
A. Richter, M. Süptitz, Ch. Lienau, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K.H. Ploog
Phys. Rev. Lett. **79**, 2145 (1997)
121. **Analysis of the vibrational spectra of heterocyclic aromatic molecules showing internal proton and deuterium transfer**
M. Pfeiffer, K. Lenz, A. Lau, T. Elsaesser, and T. Steinke
J. Raman Spectrosc. **28**, 61 (1997)
120. **Monitoring of aging properties of AlGaAs high-power laser arrays**
J.W. Tomm, A. Bärwolff, U. Menzel, M. Voss, R. Puchert, T. Elsaesser, F.X. Daiminger, S. Heinemann, and J. Luft
J. Appl. Phys. **81**, 2059 (1997)
119. **Near-field optical spectroscopy of single GaAs quantum wires**
A. Richter, C. Lienau, T. Elsaesser, M. Ramsteiner, R. Nötzel, and K. Ploog
Surface and Interface Analysis **25**, 583 (1997)
118. **Laser based facet inspection system**
J.W. Tomm, A. Bärwolff, Ch. Lier, T. Elsaesser, F.X. Daiminger, S. Heinemann
SPIE Proc. **3000**, 90 (1997)
117. **Aging behavior of high-power laser arrays monitored by photocurrent spectroscopy**
J.W. Tomm, A. Bärwolff, U. Menzel, C. Lier, T. Elsaesser, F.X. Daiminger, and S. Heinemann
SPIE Proc. **3004**, 134 (1997)

116. **Heavy-light hole quantum beats in the band-to-band continuum of GaAs observed in 20 femtosecond pump-probe experiments**
M. Joschko, M. Woerner, T. Elsaesser, R. Hey, H. Kostial, and K. Ploog
Phys. Rev. Lett. **78**, 737 (1997)
115. **Near-field optical beam induced current spectroscopy as tool for analyzing aging processes in diode lasers**
J.W. Tomm, A. Richter, Ch. Lienau, T. Elsaesser, and J. Luft
SPIE Proc. **3001**, 29 (1997)
114. **Anharmonicity effects in the resonance Raman spectra of heterocyclic aromatic molecules showing photoinduced intramolecular proton transfer**
M. Pfeiffer, A. Lau, K. Lenz, and T. Elsaesser
Chem. Phys. Lett. **268**, 258 (1997)
113. **Aging properties of high power laser diode arrays analyzed by Fourier transform photo-current measurements**
J.W. Tomm, A. Jaeger, A. Bärwolff, T. Elsaesser, A. Gerhardt, and J. Donecker
Appl. Phys. Lett. **71**, 2233 (1997)
112. **Near-field optical spectroscopy of carrier exchange between quantum wells and single GaAs quantum wires**
A. Richter, G. Behme, M. Sptitz, Ch. Lienau, T. Elsaesser, R. Nötzel, M. Ramsteiner, and K. Ploog
phys. stat. sol. (b) **204**, 247 (1997)
111. **Ultrafast dynamics of nonlinear intersubband absorption in n-type modulation-doped GaInAs/AlInAs quantum wells**
R.A. Kaindl, S. Lutgen, M. Woerner, T. Elsaesser, A. Hase, and H. Künzel
phys. stat. sol. (b) **204**, 212 (1997)
110. **Coherent intersubband polarizations in a quasi-two-dimensional electron plasma studied by femtosecond four-wave-mixing in the mid-infrared**
R.A. Kaindl, S. Lutgen, M. Woerner, T. Elsaesser, A. Hase, and H. Künzel
phys. stat. sol. (b) **204**, 27 (1997)
109. **Ultrafast dynamics of coherent inter-valence band polarizations in bulk GaAs studied with 20 fs pulses**
M. Joschko, M. Woerner, T. Elsaesser, E. Binder, T. Kuhn, R. Hey, H. Kostial, and K. Ploog
phys. stat. sol. (b) **204**, 23 (1997)
108. **Time resolved emission studies of GaAs/AlGaAs laser diode arrays on different heat sinks**
M. Voss, C. Lier, U. Menzel, A. Bärwolff, and T. Elsaesser
J. Appl. Phys. **79**, 1170 (1996)
107. **Coherent optical generation of non-equilibrium electrons studied via band-to-acceptor luminescence in GaAs**
A. Leitenstorfer, T. Elsaesser, F. Rossi, T. Kuhn, W. Klein, G. Boehm, G. Traenkle, and G. Weimann
Phys. Rev. B **53**, 9876 (1996)

106. **Second-order nonlinearities of polycrystalline molecular films studied on a 20 fs time scale**
T. Jentsch, H.J. Jüpner, S.H. Ashworth, and T. Elsaesser
Opt. Lett. **21**, 492 (1996)
105. **Tunable two-color spectrometer with sub-20 fs pump and probe pulses**
E. Riedle, S.H. Ashworth, M. Joschko, M. Woerner, and T. Elsaesser
in : Femtochemistry : Ultrafast Chemical and Physical Processes in Molecular Systems, M. Chergui (Ed.), World Scientific, Singapore 1996, p.680
104. **Two-color spectroscopy of the vibrational and vibronic dynamics of large molecules in solution with 20 fs optical pulses**
E. Riedle, S.H. Ashworth, T. Hasche, M. Woerner, and T. Elsaesser
in : Femtochemistry : Ultrafast Chemical and Physical Processes in Molecular Systems, M. Chergui (Ed.), World Scientific, Singapore 1996, p.521
103. **Trendbericht Physikalische Chemie 1995 - Ultrakurzzeitspektroskopie**
T. Elsaesser
Nachr. Chem. Tech. Lab. **44**, 198 (1996)
102. **Vibronic excitations of large molecules studied by two-color pump-probe experiments on the 20 fs time scale**
S.H. Ashworth, T. Hasche, M. Woerner, E. Riedle, and T. Elsaesser
J. Chem. Phys. **104**, 5761 (1996)
101. **Light-induced expansion of fiber tips in nearfield scanning optical microscopy**
Ch. Lienau, A. Richter, and T. Elsaesser
Appl. Phys. Lett. **69**, 325 (1996)
100. **The role of coherence in the photogeneration process of hot carriers**
T. Kuhn, F. Rossi, A. Leitenstorfer, T. Elsaesser, W. Klein, G. Boehm, G. Traenkle, and G. Weimann
in : Hot Carriers in Semiconductors, Eds. K. Hess, J.P. Leburton, U. Ravailoli, Plenum, New York 1996, p. 199
99. **Time resolved dynamics of holes in p-type germanium photoexcited by femtosecond infrared pulses**
M.T. Portella-Oberli, W. Frey, C. Ludwig, M. Woerner, T. Elsaesser, and W. Kaiser
Brazilian J. Phys. **26**, 520 (1996)
98. **Ultrafast dynamics of electronic excitations in semiconductors**
T. Elsaesser, A. Leitenstorfer, T. Kuhn, and F. Rossi
Progr. Crystal Growth and Characterization **33**, 41 (1996)
97. **Nonequilibrium dynamics in a quasi-two-dimensional electron plasma after ultrafast intersubband excitation**
S. Lutgen, R. Kaindl, M. Woerner, T. Elsaesser, A. Hase, H. Künzel, M. Gulia, D. Meglio, and P. Lugli
Phys. Rev. Lett. **77**, 3657 (1996)

96. **Nearfield optical microscopy of polarization bistable semiconductor lasers**
Ch. Lienau, A. Richter, A. Klehr, and T. Elsaesser
Appl. Phys. Lett. **69**, 2471 (1996)
95. **Intersubband scattering and thermalization of electrons in quantum wells studied with mid-infrared femtosecond pulses**
M. Woerner, S. Lutgen, R.A. Kaindl, T. Elsaesser, A. Hase, and H. Künzel
Ultrafast Phenomena X, P.F. Barbara, J.G. Fujimoto, W.H. Knox, W. Zinth (Eds.), Springer, Berlin 1996, p. 395 (invited paper)
94. **Heavy-light hole quantum beats in the band-to-band continuum of bulk GaAs studied in 20 fs pump-probe experiments**
M. Joschko, M. Woerner, T. Elsaesser, R. Hey, H. Kostial, and K. Ploog
Ultrafast Phenomena X, Springer, Berlin 1996, p. 385
93. **Coherent and incoherent dynamics of large molecules in solution studied on a 20 fs time scale**
E. Riedle, T. Hasche, S.H. Ashworth, M. Woerner, and T. Elsaesser
Ultrafast Phenomena X, Springer, Berlin 1996, p. 282
92. **Facet heating and thermal behavior of GaAs/AlGaAs high power laser arrays studied in spatially resolved micro-Raman measurements**
R. Puchert, A. Bärwolff, U. Menzel, A. Lau, M. Voss, and T. Elsaesser
J. Appl. Phys. **80**, 5559 (1996)
91. **Nonlinear intersubband absorption of a hot quasi-two dimensional electron plasma studied by femtosecond infrared spectroscopy**
S. Lutgen, R.A. Kaindl, M. Woerner, T. Elsaesser, A. Hase, and H. Künzel
Phys. Rev. B **54**, R17343 (1996)
90. **Vibrational coherence in ultrafast excited state proton transfer**
C. Chudoba, E. Riedle, M. Pfeiffer, and T. Elsaesser
Chem. Phys. Lett. **263**, 622 (1996)
89. **Fast recombination processes in lead chalcogenide semiconductors studied via transient optical nonlinearities**
R. Klann, T. Höfer, R. Buhleier, T. Elsaesser, and J.W. Tomm
J. Appl. Phys. **77**, 277 (1995)
88. **Polarization mode dynamics in strained 1.3 μm InGaAsP/InP lasers under picosecond current modulation**
A. Klehr, R. Müller, P. Enders, M. Voß, and T. Elsaesser
Opt. Commun. **118**, 323 (1995)
87. **Ultrafast thermalization of holes in p-type tetrahedral semiconductors: Theory and Experiment**
M. Woerner, and T. Elsaesser
Phys. Rev. B **51**, 17490 (1995)
86. **Transient states of an intramolecular proton transfer cycle studied by degenerate four-wave-mixing**
T. Höfer, P. Kruck, T. Elsaesser, and W. Kaiser
J. Phys. Chem. **99**, 4380 (1995)

85. **Stimulated emission in multi-valley lead salts with star degeneracy lifted by strain and magnetic fields**
J.W. Tomm, K.H. Herrmann, M. Mocker, T. Kelz, T. Elsaesser, R. Klann, B.V. Novikov, V.G. Talalaev, V.E. Todorovskii, and H. Böttner
Inst. Phys. Conf. Ser. **144**, 135 (1995)
84. **Resonance Raman studies of heterocyclic aromatic compounds showing ultrafast intramolecular proton transfer**
M. Pfeiffer, K. Lenz, A. Lau, and T. Elsaesser
J. Raman Spectrosc. **26**, 607 (1995)
83. **Vibrational and vibronic dynamics of large molecules in solution studied on a 20 femtosecond time scale**
T. Hasche, S.H. Ashworth, E. Riedle, M. Woerner, and T. Elsaesser
Chem. Phys. Lett. **244**, 164 (1995)
82. **Femtosecond studies of vibrationally hot molecules produced by intramolecular proton transfer in the excited state**
C. Chudoba, S. Lutgen, T. Jentzsch, E. Riedle, M. Woerner, and T. Elsaesser
Chem. Phys. Lett. **240**, 35 (1995)
81. **Generation of 16 fs pulses by extra-cavity frequency doubling of a mode-locked Ti:sapphire laser**
S.H. Ashworth, M. Joschko, M. Woerner, E. Riedle, and T. Elsaesser
Opt. Lett. **20**, 2120 (1995)
80. **Threshold of stimulated emission in multi-valley lead salts**
J.W. Tomm, M. Mocker, T. Kelz, T. Elsaesser, R. Klann, B.V. Novikov, V.G. Talalaev, V.E. Tudorovskii, and H. Böttner
J. Appl. Phys. **78**, 7247 (1995)
79. **Femtosecond intramolecular proton transfer in hydrogen-bonded systems**
T. Elsaesser
in: Ultrafast Reaction Dynamics and Solvent Effects, Eds. Y. Gauduel, P. Rossky, American Institute of Physics, New York 1994, p. 240
78. **Relaxation processes of hot holes in Ge and GaAs investigated by ultrafast infrared spectroscopy**
T. Elsaesser, M. Woerner, M.T. Portella, W. Frey, C. Ludwig, and A. Lohner
Semiconductor Science and Technology **9**, 689 (1994)
77. **Coherent excitonic and free carrier polarizations of bulk GaAs studied by femtosecond photon-echo spectroscopy**
A. Lohner, K. Rick, P. Leisching, T. Elsaesser, T. Kuhn, F. Rossi, and W. Stolz
Semiconductor Science and Technology **9**, 425 (1994)
76. **Ultrafast thermalization of nonequilibrium holes in p-type germanium studied by femtosecond infrared spectroscopy**
M. Woerner, W. Frey, M.T. Portella, C. Ludwig, T. Elsaesser, and W. Kaiser
Phys. Rev. B **49**, 17007 (1994)

75. **Coherent excitonic and free carrier dynamics in bulk GaAs and heterostructures**
 T. Kuhn, E. Binder, F. Rossi, A. Lohner, K. Rick, P. Leisching, A. Leitenstorfer, T. Elsaesser, and W. Stolz
 in: Coherent Optical Interactions in Semiconductors, Ed. R.T. Phillips, Plenum Press, New York 1994, p. 33
74. **Femtosecond intramolecular proton transfer in the condensed phase**
 T. Elsaesser
 in : Femtosecond Chemistry, Eds. J. Manz and L. Wöste, Verlag Chemie, Verlag Chemie, Weinheim 1994, p. 563
73. **Excitonic and free carrier polarizations of bulk GaAs studied by femtosecond coherent spectroscopy**
 A. Leitenstorfer, A. Lohner, K. Rick, P. Leisching, T. Elsaesser, T. Kuhn, F. Rossi, W. Stolz, and K. Ploog
 Phys. Rev. B **49**, 16372 (1994)
72. **Ultrafast coherent generation of hot electrons studied via band-to-acceptor luminescence in GaAs**
 A. Leitenstorfer, A. Lohner, T. Elsaesser, S. Haas, F. Rossi, T. Kuhn, W. Klein, G. Boehm, G. Traenkle, and G. Weimann
 Phys. Rev. Lett. **73**, 1687 (1994)
71. **Resonance Raman and femtosecond absorption studies of vibrational relaxation initiated by ultrafast intramolecular proton transfer**
 K. Lenz, M. Pfeiffer, A. Lau, and T. Elsaesser
 Chem. Phys. Lett. **229**, 340 (1994)
70. **Ultrafast thermalization of hot holes studied by femtosecond infrared spectroscopy**
 M. Woerner, T. Elsaesser, C. Ludwig, M.T. Portella, W. Frey, and W. Kaiser
 Lietuvos fizikos zurnalas **34**, 126 (1994)
69. **Nonequilibrium dynamics of holes in p-type germanium studied by femtosecond infrared spectroscopy**
 M. Woerner, T. Elsaesser, C. Ludwig, M.T. Portella, W. Frey, and W. Kaiser
 in : Ultrafast Phenomena IX, Eds. G.A. Mourou et al., Springer, Berlin 1994, p. 383
68. **Femtosecond coherent spectroscopy of excitonic and free-carrier polarizations in bulk GaAs**
 T. Elsaesser, A. Leitenstorfer, A. Lohner, P. Leisching, T. Kuhn, and F. Rossi
 Ultrafast Phenomena IX, p. 366
67. **Femtosecond coherent generation of hot electrons monitored via band-to-acceptor luminescence in GaAs**
 A. Leitenstorfer, T. Elsaesser, T. Kuhn, S. Haas, and F. Rossi
 Ultrafast Phenomena IX, p. 358
66. **Ultrafast recombination processes in lead chalcogenide semiconductors studied via picosecond optical nonlinearities**
 R. Klann, T. Höfer, R. Buhleier, T. Elsaesser, and A. Lambrecht
 Semicond. Sci. Technol. **8**, S305 (1993)

65. **Ultrafast thermalization of photoexcited carriers in polar semiconductors**
L. Rota, P. Lugli, T. Elsaesser, and J. Shah
Phys. Rev. B **47**, 4226 (1993)
64. **Hot carriers in semiconductors studied via picosecond optical nonlinearities in the infrared**
T. Elsaesser, and W. Kaiser
in : Frontiers in Nonlinear Optics, the Sergei Akhmanov Memorial Volume, eds. H. Walther, N. Koroteev, and M.O. Scully, Hilger, Bristol 1993, p. 84
63. **Femtosecond proton transfer in the electronic ground state of vibrationally hot molecules**
T. Elsaesser, W. Frey, and M.T. Portella
Ultrafast Phenomena VIII, Eds. J.-L. Martin, A. Migus, G.A. Mourou, A.H. Zewail, Springer New York 1993, p. 589
62. **Hot hole capture by shallow acceptors in p-type GaAs studied by picosecond infrared spectroscopy**
A. Lohner, M. Woerner, T. Elsaesser, and W. Kaiser
Ultrafast Phenomena VIII, Springer 1993, p. 416
61. **Capture of hot holes by shallow acceptors in p-type GaAs studied by picosecond infrared spectroscopy**
M. Woerner, A. Lohner, T. Elsaesser, and W. Kaiser
Phys. Rev. B **47**, 12498 (1993)
60. **Coherent optical polarization of bulk GaAs studied by femtosecond photon-echo spectroscopy**
A. Lohner, K. Rick, P. Leisching, A. Leitensdorfer, T. Elsaesser, T. Kuhn, F. Rossi, and W. Stolz
Phys. Rev. Lett. **71**, 77 (1993)
59. **Generation of synchronized femtosecond pulses independently tunable in the mid-infrared**
C. Ludwig, W. Frey, M. Woerner, and T. Elsaesser
Opt. Commun. **102**, 447 (1993)
58. **Femtosecond proton transfer in the electronic ground state of vibrationally hot molecules**
W. Frey, and T. Elsaesser
Chem. Phys. Lett. **189**, 565 (1992)
57. **Relaxation processes of hot holes in p-type germanium studied by picosecond infrared spectroscopy**
M. Woerner, T. Elsaesser, and W. Kaiser
Phys. Rev. B **45**, 8378 (1992)
56. **Electron transfer in porphyrin-quinone cyclophanes studied on the picosecond and femtosecond time scale**
W. Frey, R. Klann, F. Laermer, T. Elsaesser, E. Baumann, M. Futscher, and H.A. Staab,
Chem. Phys. Lett. **190**, 567 (1992)

55. **Infrared dye lasers for the wavelength range from 1 to 2 μm**
T. Elsaesser, and W. Kaiser
in : Dye Lasers: 25 Years, Ed. M. Stuke, Topics in Applied Physics Vol. 70,
Springer, Berlin 1992, p. 95
54. **Ultrafast internal thermalization of photoexcited carriers in polar semi-
conductors**
L. Rota, P. Lugli, T. Elsaesser, and J. Shah
SPIE Proc. Vol. 1677 (1992) (invited paper)
53. **Picosecond infrared studies of hot holes in p-type Ge**
M. Woerner, R. Schuster, T. Elsaesser, and W. Kaiser
Semicond. Sci. Technol. **7**, B638 (1992)
52. **Femtosecond luminescence spectroscopy of carrier thermalization in GaAs
and InP**
T. Elsaesser, J. Shah, L. Rota, and P. Lugli
Semicond. Sci. Technol. **7**, B144 (1992)
51. **Picosecond capture of photoexcited holes by shallow acceptors in p-type
GaAs**
A. Lohner, M. Woerner, T. Elsaesser, and W. Kaiser
Phys. Rev. Lett. **68**, 3920 (1992)
50. **Infrared absorption spectra of photoexcited holes in undoped GaAs**
E.J. Mayer, A. Lohner, M. Woerner, and T. Elsaesser
Phys. Rev. B **46**, 1878 (1992)
49. **Relaxation processes of hot holes in germanium and GaAs studied by
picosecond infrared spectroscopy**
T. Elsaesser, A. Lohner, and M. Woerner
Festkörperprobleme/Adv. Solid State Phys. **32**, 131 (1992)
48. **Tunable femtosecond pulses in the ultraviolet by up-conversion of a
traveling-wave dye laser**
M.T. Portella, W. Frey, and T. Elsaesser
J. Opt. Soc. Am. **B 9**, 2028 (1992)
47. **Picosecond recombination processes in lead selenide**
R. Klann, T. Höfer, R. Buhleier, T. Elsaesser, and A. Lambrecht,
Appl. Phys. Lett. **61**, 2866 (1992)
46. **Femtosecond studies of excited state proton and deuterium transfer in
benzothiazole compounds**
W. Frey, F. Laermer, and T. Elsaesser
J. Phys. Chem. **95**, 10391 (1991)
45. **Femtosecond pulses in the mid-infrared generated by down-conversion
of a traveling wave dye laser**
T. Elsaesser, and M.C. Nuss
Opt. Lett. **16**, 411 (1991)

44. **Vibrational and vibronic relaxation of large polyatomic molecules in liquids**
T. Elsaesser, and W. Kaiser
Annual Review of Physical Chemistry **42**, 83 (1991)
43. **Initial thermalization of photoexcited carriers in GaAs studied by femtosecond luminescence spectroscopy**
T. Elsaesser, J. Shah, L. Rota, and P. Lugli
Phys. Rev. Lett. **66**, 1757 (1991)
42. **Picosecond optical nonlinearities in lead chalcogenide semiconductors**
R. Klann, R. Buhleier, T. Elsaesser, and A. Lambrecht
Appl. Phys. Lett. **59**, 885 (1991)
41. **Time-resolved spectroscopy on proton transfer of 2-(2'-hydroxy-5'-methylphenyl)-benzotriazole in liquid and polymer environment**
M. Wiechmann, H. Port, W. Frey, F. Laermer, and T. Elsaesser
J. Phys. Chem. **95**, 1918 (1991)
40. **Picosecond optical gain in the mid-infrared by nonequilibrium split-off holes in p-type germanium**
M. Woerner, T. Elsaesser, and W. Kaiser
Appl. Phys. Lett. **59**, 2004 (1991)
39. **Radiationless processes in antiaromatic molecules : The photophysics of s-indacene studied by ultrashort light pulses**
R. Klann, R.J. Bäuerle, F. Laermer, T. Elsaesser, M. Niemeyer, and W. Lüttke
Chem. Phys. Lett. **169**, 172 (1990)
38. **Inter-valence band scattering and cooling of hot holes in p-type germanium studied by picosecond infrared pulses**
M. Woerner, T. Elsaesser, and W. Kaiser
Phys. Rev. B **41**, 5463 (1990) (Rapid Commun.)
37. **Excited state proton transfer in a benzotriazole photostabilizer investigated by femtosecond spectroscopy**
M. Wiechmann, H. Port, F. Laermer, W. Frey, and T. Elsaesser
Chem. Phys. Lett. **165**, 28 (1990)
36. **Hot electrons in InAs studied by picosecond infrared pulses**
R.J. Bäuerle, T. Elsaesser, and W. Kaiser
Semicond. Sci. and Techn. **5**, 176 (1990)
35. **Femtosecond spectroscopy of stimulated emission from highly excited dye molecules**
F. Laermer, W. Israel, and T. Elsaesser
J. Opt. Soc. Am. B **7**, 1604 (1990)
34. **Picosecond energy transfer of vibrationally hot molecules in solution : Experimental studies and theoretical analysis**
U. Sukowski, A. Seilmeier, T. Elsaesser, and S.F. Fischer
J. Chem. Phys. **93**, 4094 (1990)

33. **Femtosecond proton transfer reactions in electronically excited aromatic molecules**
T. Elsaesser, F. Laermer, W. Frey, W. Kaiser, M. Wiechmann, and H. Port
Ultrafast Phenomena VII, Eds. C.B. Harris, E.P. Ippen, G.A. Mourou, A.H. Zewail,
Springer, Berlin 1990, p. 402
32. **Hot phonon spectra of polar semiconductors studied via picosecond free carrier absorption between 5 and 10 μm**
T. Elsaesser, R.J. Bäuerle, R. Klann, and W. Kaiser
Ultrafast Phenomena VII, Springer Berlin 1990, p. 328
31. **Femtosecond pulses in the medium infrared by down-conversion of a traveling-wave dye laser**
T. Elsaesser, and M.C. Nuss
Ultrafast Phenomena VII, Springer Berlin 1990, p. 84
30. **Laserspektroskopie ultraschneller Prozesse in Molekülen und Halbleitern**
T. Elsaesser
Habilitationsschrift Technische Universität München, 1990
29. **Transient absorption spectra of a modulation-doped GaInAs/ AlInAs multiple-quantum-well structure measured by picosecond infrared pulses**
T. Elsaesser, R.J. Bäuerle, W. Kaiser, H. Lobentanzer, W. Stolz, and K. Ploog
Appl. Phys. Lett. **54**, 256 (1989)
28. **Picosecond infrared spectroscopy of molecules and semiconductors**
T. Elsaesser, R.J. Bäuerle, and W. Kaiser
Infrared Physics **29**, 503 (1989)
27. **Hot phonons in InAs observed via picosecond free carrier absorption**
T. Elsaesser, R.J. Bäuerle, and W. Kaiser
Phys. Rev. B **40**, 2976 (1989)
26. **Ultrashort vibronic and thermal relaxation of dye molecules after femtosecond ultraviolet excitation**
F. Laermer, T. Elsaesser, and W. Kaiser
Chem. Phys. Lett. **156**, 381 (1989)
25. **Transient reshaping of intersubband absorption spectra due to hot electrons in a modulation-doped multiple-quantum-well structure**
R.J. Bäuerle, T. Elsaesser, H. Lobentanzer, W. Stolz, and K. Ploog
Phys. Rev. B **40**, 10002 (1989) (Rapid Commun.)
24. **Screening of the n=2 excitonic resonance by hot carriers in an undoped GaInAs/AlInAs multiple-quantum-well structure**
H. Lobentanzer, W. Stolz, K. Ploog, R.J. Bäuerle, and T. Elsaesser
Solid State Electron. **32**, 1875 (1989)
23. **Transient intersubband absorption spectra of hot electrons in a modulation-doped multiple-quantum-well structure**
T. Elsaesser, R.J. Bäuerle, W. Kaiser, H. Lobentanzer, W. Stolz, and K. Ploog
Solid State Electron. **32**, 1707 (1989)

22. **Intraband transitions of hot electrons studied by picosecond infrared pulses - a novel probe of hot phonons in polar semiconductors**
T. Elsaesser, R.J. Bäuerle, and W. Kaiser
Solid State Electron. **32**, 1701 (1989)
21. **Spectroscopy of electronically excited singlet states in biphenylene**
T. Elsaesser, F. Laermer, W. Kaiser, B. Dick, M. Niemeyer, and W. Lüttke
Chem. Phys. **126**, 405 (1988)
20. **Generation of femtosecond ultraviolet pulses by intracavity frequency doubling in a mode-locked dye laser**
F. Laermer, J. Dobler, and T. Elsaesser
Opt. Commun. **67**, 58 (1988)
19. **Picosecond infrared spectroscopy of semiconductors and molecules**
W. Kaiser, R.J. Bäuerle, T. Elsaesser, H.J. Hübner, and A. Seilmeier
in : Ultrafast Phenomena VI, Eds. T. Yajima et al., Springer Berlin 1988, p. 452
18. **Intersubband absorption in a modulation-doped Ga_{0.47}In_{0.53}As/ Al_{0.48}In_{0.52}As multiple-quantum-well structure**
H. Lobentanzer, W. König, W. Stolz, K. Ploog, T. Elsaesser, and R.J. Bäuerle
Appl. Phys. Lett. **53**, 571 (1988)
17. **Femtosecond spectroscopy of excited state proton transfer in 2-(2'-hydroxyphenyl)-benzothiazole**
F. Laermer, T. Elsaesser, and W. Kaiser
Chem. Phys. Lett. **148**, 119 (1988)
16. **Picosecond infrared spectroscopy of hot carriers in a modulation- doped GaInAs/AlInAs multiple-quantum-well structure**
R.J. Bäuerle, T. Elsaesser, W. Kaiser, H. Lobentanzer, W. Stolz, and K. Ploog
Phys. Rev. B **38**, 4307 (1988) (Rapid Commun.)
15. **Excited state proton transfer in 2-(2'-hydroxyphenyl)-benzothiazole : Transient electronic absorption measured on the picosecond time scale**
T. Elsaesser, B. Schmetzer, M. Lipp, and R.J. Bäuerle
Chem. Phys. Lett. **148**, 112 (1988)
14. **Picosecond spectroscopy of intramolecular proton transfer in aromatic molecules**
T. Elsaesser, and W. Kaiser
Sov. J. Quant. Electron. **15**, 1168 (1988)
13. **Excited state proton transfer in 2-(2'-hydroxyphenyl)-benzothiazole : Formation of the anion in polar solvents**
T. Elsaesser, and B. Schmetzer
Chem. Phys. Lett. **140**, 293 (1987)
12. **Theoretical and experimental analysis of infrared dye laser action in a traveling wave pumping geometry**
H. Lobentanzer, and T. Elsaesser
Appl. Phys. B **41**, 139 (1986)

11. **Visible and infrared spectroscopy of intramolecular proton transfer using picosecond laser pulses**
T. Elsaesser, and W. Kaiser
Chem. Phys. Lett. **128**, 231 (1986)
10. **Picosecond spectroscopy of intramolecular hydrogen bonds in 4,4',7,7'-tetramethylindigo**
T. Elsaesser, W. Kaiser, and W. Lüttke
J. Phys. Chem. **90**, 2901 (1986)
9. **Infrarotspektroskopie mit Picosekunden-Laserimpulsen**
T. Elsaesser
Dissertation Technische Universität München, Mai 1986
8. **Self-defocusing and self-phase-modulation in InSb measured with picosecond infrared pulses**
T. Elsaesser, H. Lobentanzer, and W. Kaiser
Appl. Phys. Lett. **47**, 1190 (1985)
7. **Generation of tunable picosecond pulses in the medium infrared by down-conversion in AgGaS₂**
T. Elsaesser, H. Lobentanzer, and A. Seilmeier
Opt. Commun. **53**, 355 (1985)
6. **Generation of infrared picosecond pulses between 1.2 and 1.8 μm using a traveling wave dye laser**
H.J. Polland, T. Elsaesser, A. Seilmeier, and W. Kaiser
in : Ultrafast Phenomena IV, Eds. D.H. Auston, K.B. Eisenthal, Springer Berlin 1984, p. 49
5. **CW synchronously pumped infrared dye lasers. New dyes for laser action up to 1.8 μm**
A. Seilmeier, H.J. Polland, T. Elsaesser, W. Kaiser, M. Kussler, N.J. Marx, B. Sens, and K.H. Drexhage
in: Laser Spectroscopy VI, Ed. W. Lüthy, Springer Berlin 1984, p. 424
4. **Narrow band infrared picosecond pulses tunable between 1.2 and 1.4 μm generated by a traveling wave dye laser**
T. Elsaesser, H.J. Polland, A. Seilmeier, and W. Kaiser
IEEE J. Quant. Electron. **QE-20**, 191 (1984)
3. **Parametric generation of tunable picosecond pulses in the medium infrared using AgGaS₂ crystals**
T. Elsaesser, A. Seilmeier, W. Kaiser, P. Koidl, and G. Brandt
Appl. Phys. Lett. **44**, 383 (1984)
2. **Picosecond dye laser emission in the infrared between 1.4 and 1.8 μm**
H.J. Polland, T. Elsaesser, A. Seilmeier, W. Kaiser, M. Kussler, N.J. Marx, B. Sens, and K.H. Drexhage
Appl. Phys. **B 32**, 53 (1983)
1. **Parametric generation of tunable picosecond pulses in proustite between 1.2 and 8 μm**
T. Elsaesser, A. Seilmeier, and W. Kaiser
Opt. Commun. **44**, 293 (1983)