

Curriculum Vitae

Matthias Hoffmann

2006

Personal Details

Name Matthias Hoffmann
Address Hachbergweg 2, 79341 Kenzingen, Germany
Nationality German

Education

- 2006** Dr. rer. nat. in physics (magna cum laude)
University of Freiburg.
PhD thesis: Novel techniques in THz TDS
- 2001** Diploma in Physics, University of Freiburg, (1.4)
Diploma Thesis: Development of fast readout electronics for COMPASS
(High energy physics experiment at CERN)
- 2000** Staatsexamen in Chemistry and Physics (2.0),
University of Freiburg
Subjects: organic and inorganic chemistry,
Quantum mechanics and Field Theory
- 1993** Abitur, Gymnasium Kenzingen, (1.2)

Work Experience

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| 2006- | Postdoctoral Research Associate Massachusetts Institute of Technology, Cambridge, MA |
| 2002-2006 | Research Assistant University of Freiburg: Research in THz spectroscopy: Fiber coupling and dispersion compensation of femtosecond lasers, optimization of materials for fast photoswitches, Lab Automation with LabView, Data analysis and modelling Teaching physics to students |
| March- September 2005 | Research assistant at COM center, Danish Technical University, Copenhagen |
| 1999-2005 | Support of financial software (accounting) and webmaster at Institut für Religionspädagogik, Freiburg |
| 1993-1994 | Civil Service Kreiskrankenhaus Emmendingen |

Publications

- *Terahertz time-domain spectroscopy and imaging of artificial RNA*, M. Fischer, M. Hoffmann, H. Helm, R. Wilk, F. Rutz, T. Kleine-Ostmann, M. Koch, P. U. Jepsen, *Optics Express* **13**,5205 (2005)
- *Terahertz-Time-Domain-Spektroskopie mit einem leistungsoptimierten elektrooptischen Detektionsverfahren*, S. Gorenflo, I. Hinkov, A. Lambrecht, B. M. Fischer, M. Hoffmann, H. Helm, P. U. Jepsen, *Technisches Messen* **72**, 7-8 (2005)
- *Chemical recognition in terahertz time-domain spectroscopy*, B. Fischer, M. Hoffmann, H. Helm, G. Modjesch, and P. Uhd Jepsen, in *Special Issue on Terahertz Technology, Semiconductor Science and Technology* **20**, S246-S253 (2005)
- *Micro Array Biochips - Thousands of Reactions on a Small Chip, Section: Terahertz Spectroscopy* B. M. Fischer, M. Hoffmann, H. Helm, P. Uhd Jepsen T. Kleine-Ostmann, F. Rutz, M. Koch, *Biophotonics: Visions for Better Health Care.*, Springer 2006

Conference Presentations

- *Systematischer Vergleich zwischen THz-TD und FTIR-Spektroskopie*, Matthias Hoffmann, Martin Rumold und Hanspeter Helm, DPG Tagung Frankfurt, 2006
- *Schnelle Detektorchips für die THz-TD-Spektroskopie*, Matthias Hoffmann, Peter Uhd Jepsen, Hanspeter Helm, FMF Kolloquium Titisee, 2005

- *RNA spot imaging*, M. Hoffmann, B. Fischer, P.U.Jepsen, H. Helm, OTST Orlando, 2005
- *Fasergekoppeltes THz Spektrometer*, M. Hoffmann, B. Fischer, P.U.Jepsen, DPG Tagung Berlin, 2005
- *Fasergekoppeltes THz-Spektrometer*, M. Hoffmann, B. Fischer, P.U.Jepsen, FMF -Kolloquium, 2004
- *Spectroscopic Measurements of Biomolecules and Pharmaceuticals in the far infrared*, B. Fischer, M. Walther, M. Hoffmann, P. Jepsen, H. Helm, FHG Terahertz Workshop, 2004

Thesis Work

- *Novel techniques in THz time domain spectroscopy*, PhD Thesis, Freiburg, 2006
- *Integration eines RISC-Mikroprozessors zur Überwachung des CATCH*, Diploma Thesis, Freiburg, 2001
- *Aufbau einer Signalquelle zum Test von schnellen Datenaufnahmesystemen*, Zulassungsarbeit, Freiburg, 2000

Computer Skills

LabView, Matlab, Mathematica, SolidWorks, Delphi, HTML, PHP
the usual MS products

Miscellany

Languages German, English, some French and Danish

Hobbies Music, guitar playing, sports

References

- Keith A. Nelson
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