

ARBEITSGRUPPEN DEPARTEMENT FÜR CHEMIE UND BIOCHEMIE

Ordner 1

PROF. U. BAUMANN

1. Tallant C, García-Castellanos R, Baumann U, Gomis-Rüth FX* (2010). On the relevance of the Met-turn methionine in metzincins. *J Biol Chem* 285, 13951 -7.
2. Zurbriggen A*, Schneider P, Bähler P, Erni B, Baumann U (2010). Expression, purification, crystallization and preliminary X-ray analysis of the EIICGlc domain of the *Escherichia coli* glucose transporter. *Acta Crystallogr Section F* 66, 664-8.
3. Mermod M, Mourlane F, Walstersperger S, Oberholzer AE, Baumann U, Solioz M* (2010). Structure and Function of CinD (YtjD) of *Lactococcus lactis*, a Copper-Induced Nitroreductase Involved in Defense Against Oxidative Stress. *J Bacteriol* 192, 4172-80.
4. Waltersperger S, Widmer C, Wang M, Baumann U* (2010). Crystal structure of archaemetzincin amza from *Methanopyrus kandleri* at 1.5 Å resolution. *Proteins* 78, 2720-3.

PROF. P. BIGLER

5. Vermathen M, Marzorati M, Vermathen P., Bigler P.
pH-Dependent Distribution of Chlorin e6 Derivatives across Phospholipid Bilayers Probed by NMR Spectroscopy. DOI: [10.1021/la100679y](https://doi.org/10.1021/la100679y)
Langmuir, 2010, 26 (13), 11085-11094

PD DR. P. BROEKMANN

6. C. Schlaup, A. Spaenig, P. Broekmann, and K. Wandelt
"Sulfide anion interaction with Cu(100) and Cu modified Au(100): An electrochemical STM study"
Phys. Stat. Sol. A 207(2) (2010) 254-260 DOI: [10.1002/pssa.200982489](https://doi.org/10.1002/pssa.200982489)
7. S.-L. Tsay, J.-S. Tsay, T.Y.-Fu, P. Broekmann, T. Sagara, and K. Wandelt
"Molecular structures of dicarboxylated viologens on a Cu(100) during an ongoing charge transfer reaction"
Phys. Chem. Chem. Phys. 12 (2010) 14950-14959 DOI: [10.1039/C0CP00865F](https://doi.org/10.1039/C0CP00865F)

8. H. Keller, M. Saracino, N.M.T. Hai and P. Broekmann
"Templating the near-surface electrolyte: In-situ SXRD study on anion/cation interactions at electrified interfaces"
Phys. Rev. B 82 (2010) 245425 DOI: [10.1103/PhysRevB.82.245425](https://doi.org/10.1103/PhysRevB.82.245425)

PROF. G. CALZAFERRI

9. Gion Calzaferri
Artificial Photosynthesis
Topics in Catalysis, 53, 2010, 130 – 140; DOI [10.1007/s11244-009-9424-9](https://doi.org/10.1007/s11244-009-9424-9)
10. Yu Wang, Huanrong Li, Yu Feng, Hongjie Zhang, Gion Calzaferri, Tiezhen Ren
Orienting zeolite L microcrystals with a functional linker
Angew. Chem. Int. Ed., 49, 2010, 1434 – 1438; DOI: [10.1002/anie.200905354](https://doi.org/10.1002/anie.200905354)
11. Varun Vohra, Alberto Bolognesi, Gion Calzaferri, Chiara Botta
Self-Assembled nanofibers of fluorescent zeolite L crystals and conjugated polymer
Langmuir, 26, 2010, 1590 – 1593; DOI: [10.1021/la904450e](https://doi.org/10.1021/la904450e)
12. Giorgio Macchi, Chiara Botta, Gion Calzaferri, Michele Catti, Jérôme Cornil, Johannes Gierschner, Francesco Meinardi, Riccardo Tubino
Weak forces at work in dye-loaded zeolite materials: spectroscopic investigation on cation-sulfur interactions
PhysChemChemPhys, 12, 2010, 2599 – 2605; DOI: [10.1039/b919880f](https://doi.org/10.1039/b919880f)
13. Varun Vohra, Gion Calzaferri, Silvia Destri, Mariacecilia Pasini, William Porzio, Chiara Botta
Toward white light emission through efficient two step energy transfer in hybrid nanofibers
ACSNano, 4, 2010, 1409 – 1416; DOI: [10.1021/nn9017922](https://doi.org/10.1021/nn9017922)
14. Interactions, behavior, and stability of Fluorenone inside Zeolite Nanochannels
Ettore Fois, Gloria Tabacchi, Gion Calzaferri
J. Phys. Chem. C, 2010, 114, 10572 – 10579; DOI: [10.1021/jp101635p](https://doi.org/10.1021/jp101635p)
15. Ettore Fois, Gloria Tabacchi, Gion Calzaferri
Interactions, behavior, and stability of Fluorenone inside Zeolite Nanochannels
Cover page J. Phys. Chem. C, 2010, Vol. 114, Iss. 23, June 17;
DOI: [10.1021/jp101635p](https://doi.org/10.1021/jp101635p)
16. Gion Calzaferri, Dominik Brühwiler, Tao Meng, Le-Quyenh Dieu, Vladimir L. Malinovskii, Robert Häner
Surprising Properties of a Furo-Furanone
Chemistry a European Journal, 2010, 16, 11289 – 11299;
DOI: [10.1002/chem.201000728](https://doi.org/10.1002/chem.201000728)
17. Gion Calzaferri, André Devaux, Michael Tausch
Komposite mit Nanokanälen als künstliche Lichtantennen
Praxis der Naturwissenschaften, Chemie in der Schule (PdN-ChiS), 2/59, 2010, 29 – 31 and 51; ISSN 1617-5638

Buchbeiträge

18. Gion Calzaferri, Andre Devaux
Nanochannel Materials for Artificial Photosynthesis
On Catalysis, Edition Ostwald, Volume 2, VWB Berlin, Eds. W. Reschetilowski, W. Hönle, 2010, 103 – 126; ISBN 978-3-86135-232-7

PROF. M. CASCELLA

19. J. Garrec, M. Cascella, U. Rothlisberger and P. Fleurat-Lessard
Low inhibiting power of N...CO based peptidomimetic compounds against HIV-1 protease: insights from a QM/MM study
J. Chem. Theory Comput., 6:1369-1379 (2010).
20. D. Alemani, F. Collu, M. Cascella and M. Dal Peraro
A non-radial coarse-grained potential for proteins produces naturally stable secondary structure elements
J. Chem. Theory Comput., 6:315-324 (2010).

PD DR. T. DARBRE

21. E. M.V. Johansson, J. Dubois, T. Darbre, J.-L. Reymond,
Glycopeptide dendrimer colchicine conjugates targeting cancer cells.
Bioorg. Med. Chem. 2010, 18, 6589-6597.
22. A. Uhlich, A. Natalello, R. U. Kadam, S. M. Doglia, J.-L. Reymond, T. Darbre,
Structure and Binding of Peptide-Dendrimer Ligands to Vitamin B12. N.
Chembiochem 2010, 11, 358-65.

PROF. S. DECURTINS

23. T. D. Keene, I. Zimmermann, A. Neels, O. Sereda, J. Hauser, M. Bonin, M. B. Hursthouse, D. J. Price, S. Decurtins,
Dalton Trans., 2010, 39, 4937-4950. (DOI: [10.1039/b927522c](https://doi.org/10.1039/b927522c))
Heterocyclic amine directed synthesis of metal(II)-oxalates: investigating the magnetic properties of two complete series of chains with $S = 5/2$ to $S = 1/2$.
24. Kahnt A. , L. Heiniger, S.-X. Liu, X. Tu, Z. Zheng, A. Hauser, S. Decurtins, D. M. Guldi,
ChemPhysChem, 2010, 11, 651-658. (DOI: [10.1002/cphc.200900728](https://doi.org/10.1002/cphc.200900728))
An Electrochemical and Photophysical Study of a Covalently Linked Inorganic – Organic Dyad.

25. Liu B., Y.-F. Ran, Z. Li, S.-X. Liu, C. Jia, S. Decurtins, T. Wandlowski, *Chem. Eur. J.*, 2010, 16, 5008-5012. (DOI: [10.1002/chem.201000017](https://doi.org/10.1002/chem.201000017))
A Scanning Probe Microscopy Study of Annulated Redox-Active Molecules at a Liquid/Solid Interface: The Overruling of the Alkyl Chain Paradigm.
26. J. Liao, J. S. Agustsson, S. Wu, C. Schönenberger, M. Calame, Y. Leroux, M. Mayor, O. Jeannin, Y.-F. Ran, S.-X. Liu, S. Decurtins, *Nano Lett.*, 2010, 10, 759-764. (DOI: [10.1021/nl902000e](https://doi.org/10.1021/nl902000e))
Cyclic conductance switching in networks of redox-active molecular junctions.
27. C. Yi, C. Blum, M. Lehmann, S. Keller, S.-X. Liu, G. Frei, A. Neels, J. Hauser, S. Schürch, S. Decurtins, *J. Org. Chem.*, 2010, 75, 3350-3357. (DOI: [10.1021/jo100323s](https://doi.org/10.1021/jo100323s))
Versatile Strategy To Access Fully Functionalized Benzodifurans: Redox-Active Chromophores for the Construction of Extended π -Conjugated Materials.
28. T. D. Keene, I. Zimmermann, A. Neels, O. Sereda, J. Hauser, S.-X. Liu, S. Decurtins, *Cryst. Growth Des.*, 2010, 10, 1854-1859. (DOI: [10.1021/cg9015349](https://doi.org/10.1021/cg9015349))
Crystal Engineering of a Series of Arylammonium Copper(II) Malonates.
29. E. C. Constable, S. Decurtins, C. E. Housecroft, T. D. Keene, C. G. Palivan, J. R. Price, J. A. Zampese, *Dalton Trans.*, 2010, 39, 2337-2343. (DOI: [10.1039/b923729a](https://doi.org/10.1039/b923729a))
Half a grid is better than no grid: competition between 2,2':6',2''-terpyridine and 3,6-di(pyrid-2-yl)pyridazine for copper(II).
30. M. Jaggi, C. Blum, B. S. Marti, S.-X. Liu, S. Leutwyler, S. Decurtins, *Org. Lett.*, 2010, 12, 1344-1347. (DOI: [10.1021/ol1002708](https://doi.org/10.1021/ol1002708))
Annulation of Tetrathiafulvalene to the Bay Region of Perylenediimide.
31. H. Li, P. Jiang, C. Yi, C. Li, S.-X. Liu, S. Tan, B. Zhao, J. Braun, W. Meier, T. Wandlowski, S. Decurtins, *Macromolecules*, 2010, 43, 8058-8062. (DOI: [10.1021/ma101693d](https://doi.org/10.1021/ma101693d))
Benzodifuran-Based π -Conjugated Copolymers for Bulk Heterojunction Solar Cells.

PROF. E. ERNI

32. Zurbriggen Andreas, Schneider Philipp, Bähler Priska, Baumann Ulrich, Erni Bernhard. (2010) Expression, purification, crystallization and preliminary X-ray analysis of the EIICGlc domain of the Escherichia coli glucose transporter. *Acta Crystallogr Sect F Struct Biol Cryst Commun.* 66:684-8.
[doi:10.1107/S1744309110013102](https://doi.org/10.1107/S1744309110013102)
33. Bizzini Alain, Entenza José M, Michielin Olivier, Arnold Ingrid, Erni Bernhard, Moreillon Philippe. (2010) A single mutation in enzyme I of the sugar phosphotransferase system confers penicillin tolerance to *Streptococcus gordonii*. *Antimicrob Agents Chemother.* 54:259-66. [doi:10.1128/AAC.00699-09](https://doi.org/10.1128/AAC.00699-09)

PROF. R. FASEL

34. M. Bieri M.-T. Nguyen, O. Gröning, J. Cai, M. Treier, K. Aït-Mansour, P. Ruffieux, C. A. Pignedoli, D. Passerone, M. Kastler, K. Müllen, and R. Fasel, Two-Dimensional Polymer Formation on Surfaces: Insight into the Roles of Precursor Mobility and Reactivity, *J. AM. CHEM. SOC.* 132, 16669–16676 (2010).
DOI: [10.1021/ja107947z](https://doi.org/10.1021/ja107947z)
35. S. Blankenburg, M. Bieri, R. Fasel, K. Müllen, C. A. Pignedoli, D. Passerone, Porous Graphene as an Atmospheric Nanofilter, *SMALL* 6 (20), 2266–2271 (2010).
DOI: [10.1002/sml.201001126](https://doi.org/10.1002/sml.201001126)
36. R. Gaspari, C. A. Pignedoli, R. Fasel, M. Treier, and D. Passerone, Atomistic insight into the adsorption site selectivity of stepped Au(111) surfaces, *PHYS. REV. B* 82, 041408(R) (2010).
DOI: [10.1103/PhysRevB.82.041408](https://doi.org/10.1103/PhysRevB.82.041408)
37. J. Cai, P. Ruffieux, R. Jaafar, M. Bieri, T. Braun, S. Blankenburg, M. Muoth, A. P. Seitsonen, M. Saleh, X. Feng, K. Müllen, and R. Fasel, Atomically precise bottom-up fabrication of graphene nanoribbons, *NATURE* 466, 470–473 (2010).
DOI: [10.1038/nature09211](https://doi.org/10.1038/nature09211)
38. C. A. Pignedoli, T. Laino, M. Treier, R. Fasel, D. Passerone, A simple approach for describing metal-supported cyclohexaphenylene dehydrogenation: Hybrid classical/DFT metadynamics simulations, *EUR. PHYS. J. B* 75, 65-70 (2010).
DOI: [10.1140/epjb/e2010-00038-1](https://doi.org/10.1140/epjb/e2010-00038-1)
39. W. Xiao, Y. Jiang, K. Aït-Mansour, P. Ruffieux, H. Gao, and R. Fasel, Chiral biphenyldicarboxylic acid networks stabilized by hydrogen bonding, *J. PHYS. CHEM. C* 114 (14), 6646–6649 (2010).
DOI: [10.1021/jp100701y](https://doi.org/10.1021/jp100701y)
40. M. T. Nguyen, C. A. Pignedoli, M. Treier, R. Fasel, and D. Passerone, The role of van der Waals interactions in surface-supported supramolecular networks, *PHYS. CHEM. CHEM. PHYS.* 12, 992 – 999 (2010),
DOI: [10.1039/B919102J](https://doi.org/10.1039/B919102J)

PROF. H.U. GÜDEL

41. Michael L. Baker, Marzio Rancan, Floriana Tuna, Grigore A. Timco, David Collison, Hannu Mutka, Hans-Ulrich Güdel, Robin J. Pritchard, Richard E. P. Winpenny and Eric J. L. McInnes
Synthesis and Structural, Magnetic and EPR Characterization of Discrete Finite Antiferromagnetic Chains
Appl. Magn. Reson. 37, 685-692 (2010) (DOI: [10.1007/s00723-009-0063-x](https://doi.org/10.1007/s00723-009-0063-x))

42. J. Dreiser, O. Waldmann, C. Dobe, G. Carver, S. T. Ochsenbein, A. Sieber, H. U. Güdel, J. van Duijn, J. Taylor and A. Podlesnyak
Quantized antiferromagnetic spin waves in the molecular Heisenberg ring CsFe₈
Phys. Rev. B 81, 024408/1-8 (2010) ([DOI: 10.1103/PhysRevB.81.024408](https://doi.org/10.1103/PhysRevB.81.024408))
43. J. J. Eilers, D. Biner, J. T. van Wijngaarden, K. Krämer, H.-U. Güdel and A. Meijerink
Efficient visible to infrared quantum cutting through downconversion with the Er³⁺–Yb³⁺ couple in Cs₃Y₂Br₉
Appl. Phys. Lett. 96, 151106/1-3 (2010) ([DOI: 10.1063/1.3377909](https://doi.org/10.1063/1.3377909))
44. Furrer A., K. W. Krämer, Th. Strässle, D. Biner, J. Hauser and H. U. Güdel
Magnetic and neutron spectroscopic properties of the tetrameric nickel compound
[Mo₁₂O₂₈(μ₂-OH)₉(μ₃-OH)₃{Ni(H₂O)₃}₄].13H₂O
Phys. Rev. B 81, 214437/1-10 (2010) ([DOI: 10.1103/PhysRevB.81.214437](https://doi.org/10.1103/PhysRevB.81.214437))
45. Jan Dreiser, Oliver Waldmann, Graham Carver, Christopher Dobe, Hans-Ulrich Güdel, Høgni Weihe and Anne-Laure Barra
High-Frequency Electron-Spin-Resonance Study of the Octanuclear Ferric Wheel CsFe₈
Inorg. Chem. 49, 8729-8735 (2010) ([DOI: 10.1021/ic100664g](https://doi.org/10.1021/ic100664g))

PROF. R. HÄNER

46. G. Calzaferri, D. Brühwiler, T. Meng, L.-Q. Dieu, V.L. Malinovskii, R. Häner
Surprising Properties of a Furo-Furanone
Chem. Eur. J. 2010, 16, 11289-11299. [DOI: 10.1002/chem.201000728](https://doi.org/10.1002/chem.201000728)
47. R. Häner, F. Garo, D. Wenger, V.L. Malinovskii
Oligopyrenotides – Abiotic, Polyanionic Oligomers with Nucleic Acid-Like Structural Properties
J. Am. Chem. Soc. 2010, 132 (21), 7466–7471. [DOI: 10.1021/ja102042p](https://doi.org/10.1021/ja102042p)
48. C.-H. Huang, A. Parish, F. Samain, F. Garo, R. Häner, J. R. Morrow
Binding of Europium(III) to a Non-nucleosidic Phenanthroline Linker in DNA
Bioconjug. Chem. 2010, 21, 476-482. [DOI: 10.1021/bc900386w](https://doi.org/10.1021/bc900386w)
49. R. Häner
Nucleic Acids – Genes, Drugs, Molecular Lego and More
Chimia 2010, 64, 14-16. [DOI: 10.2533/chimia.2010.14](https://doi.org/10.2533/chimia.2010.14)
50. R. Häner, S.M. Biner, S.M. Langenegger, T. Meng, V.L. Malinovskii
A highly sensitive, excimer-controlled molecular beacon
Angew. Chem. Int. Ed. 2010, 49, 1227-1230. [DOI: 10.1002/anie.200905829](https://doi.org/10.1002/anie.200905829)
51. V.L. Malinovskii, D. Wenger, R. Häner
Nucleic acid-guided assembly of aromatic chromophores
Chem. Soc. Rev. 2010, 39, 410-422. [DOI: 10.1039/B910030J](https://doi.org/10.1039/B910030J)

PROF. J. HULLIGER

52. Norwid-Rasmus Behrnd, Gaël Labat, Paloth Venugopalan, Jürg Hulliger, Hans-Beat Bürgi
Orientational Disorder of (trans)-4-Chloro-4'-nitrostilbene: A Detailed Analysis by Single Crystal X-ray Diffraction
Cryst. Growth Design, 10, 52-59, 2010
53. Gaël Labat, Norwid-Rasmus Behrnd, Gaëtan Couderc, Michel Bonin, Julius Tsuwi, Athanasios Batagiannis, Ricarda Berger, Mariana Bertoni, Anna Prodi-Schwab, Jürg Hulliger
Polymorphism, polar morphology and absolute structure determination of 4-iodo-4'-nitrobiphenyl (INBP)
CrystEngComm, 12, 1252-1262, 2010
54. Lucas Viani, Yoann Olivier, Stavros Athanasopoulos, Demetrio A. da Silva Filho, Jürg Hulliger, Jean-Luc Brédas, Johannes Gierschner and Jérôme Cornil
Theoretical Characterization of Charge Transport in One-Dimensional Collinear Arrays of Organic Conjugated Molecules
ChemPhysChem, 11, 1062-1068, 2010
55. G. Couderc and J. Hulliger
Channel forming organic crystals: guest alignment and properties
Chem.Soc.Rev., 39, 1545-1554, 2010
56. Norwid-Rasmus Behrnd; Gaël Labat, Paloth Venugopalan, Jürg Hulliger and Hans-Beat Bürgi
Influence of the solvent of crystallization on the orientational disorder of (trans)-4-chloro-4'-nitrostilbene
CrystEngComm, 12, 4101-4108, 2010
57. Julius Tsuwi, Ricarda Berger, Gaël Labat, Gaëtan Couderc, Norwid-Rasmus Behrnd, Philippe Ottiger, Fabio Cucinotta, Klaus Schürmann, Mariana Bertoni, Lucas Viani, Michael Wübbenhorst and Jürg Hulliger
Alignment and Relaxation Dynamics of Dye Molecules in Host – Guest Inclusion Compounds As Probed by Dielectric Spectroscopy
J. Phys. Chem. A, 114, 6956-6963, 2010
58. Daniel Perez and Jürg Hulliger
Identification of superconducting phases in ceramic particles by magnetic field induced forces using a magnetized wire
Rev. Sci. Instr., 81, 065108, 2010
59. Athanasios Batagiannis, Michael Wübbenhorst and Jürg Hulliger
Piezo- and pyroelectric microscopy
Curr. Op. Solid State Mater, 14, 107-115, 2010

60. M. Wübbenhorst, S. Capponi, S. Napolitano, S. Rozanski, G. Couderc, N.-R. Behrnd and J. Hulliger
Dynamics in ultrathin liquid films studied by simultaneous dielectric spectroscopy (DRS) and organic molecular beam deposition (OMBD)
Eur. Phys. J. Special Topics 189, 181-186, 2010
61. S. Capponi, S. Napolitano, N. R. Behrnd, G. Couderc, J. Hulliger and M. Wübbenhorst
Structural Relaxation in Nanometer Thin Layers of Glycerol
J. Phys. Chem C 114, 16696-16699, 2010

PROF. R. KEESE

62. Eberle, M. K., Keese, R., Stereoselective Synthesis of [5-[4,4,4,4',4',4'-Hexafluoro-N(2-hydroxyethoxy)-d-valine]]-and [5-[4,4,4,4',4',4'-Hexafluoro-N(2-hydroxyethoxy)-l-valine]cyclosporin A¹), Helvetica Chimica Acta, 93, (2010) 1583-1601.
63. Abrantes¹, L. M., Correia¹, J. P., Tenreiro¹, A. M., Keese², R.*
Immobilisation of the Vitamin B₁₂ derivative B₁₂-Tyramide on Electrode Surfaces
HETEROCYCLES, 82, No. 1, 2010, 699-711.
64. Weyermann^a), P., Stoeckli-Evans^b), H., Keese^a), R
The Crystal Structure of cis,trans,cis,cis-4,10-Dimethyl-7-tert.-butyldimethylsilyloxytetracyclo[5.4.1.0^{4,12}.0^{10,12}]dodeca-2-one
Acta Cryst. (2010), E66, o340.

PROF. C. KEMPF

65. Claudia Bönsch, Christoph Zuercher, Patricia Lieby, Christoph Kempf, and Carlos Ros. The Globoside Receptor Triggers Structural Changes in the B19 Virus Capsid That Facilitate Virus Internalization. Journal of Virology, November 2010, p. 11737-11746, Vol. 84, No. 22. [doi:10.1128/JVI.01143-10](https://doi.org/10.1128/JVI.01143-10)
66. Claudia Bönsch, Christoph Kempf, Ivo Mueller, Laurens Manning, Moses Laman, Timothy M. E. Davis and Carlos Ros. Chloroquine and Its Derivatives Exacerbate B19V-Associated Anemia by Promoting Viral Replication. PLoS Negl Trop Dis. 2010 April; 4(4): e669. [doi: 10.1371/journal.pntd.0000669](https://doi.org/10.1371/journal.pntd.0000669).

DR. K. KRÄMER

67. J.J. Eilers, D. Biner, J.T. van Wijngaarden, K.W. Krämer, H.U. Güdel and A. Meijerink, Efficient visible to infrared quantum cutting through downconversion with the Er³⁺-Yb³⁺ couple in Cs₃Y₂Br₉, Applied Physics Letters 96 (2010) 151106, 1 - 3. (DOI: 10.1063/1.3377909)

68. D.N. Sergeev, V.B. Motalov, M.F. Butman, L.S. Kudin, K.W. Krämer, L. Rycerz and M. Gaune-Escard, Thermodynamic parameters of vaporization of EuBr_2 , Russian Journal of Physical Chemistry A 84 (2010) 554 - 560. (DOI: 10.1134/S0036024410040060)
69. S. Legl, C. Pfeleiderer and K.W. Krämer, Vibrating coil magnetometer for milli-Kelvin temperatures, Review of Scientific Instruments 81 (2010) 043911, 1 - 3. (DOI: 10.1063/1.3374557)
70. A. Furrer, K.W. Krämer, Th. Strässle, D. Biner, J. Hauser and H.U. Güdel, Magnetic and neutron spectroscopic properties of the tetrameric nickel compound $[\text{Mo}_{12}\text{O}_{28}(\mu_2\text{-OH})_9(\mu_3\text{-OH})_3\{\text{Ni}(\text{H}_2\text{O})_3\}_4] \cdot 13 \text{H}_2\text{O}$, Physical Review B: Condensed Matter and Materials Physics 81 (2010) 214437, 1 - 10. (DOI: 10.1103/PhysRevB.81.214437)
71. P. Putaj, J.T.M. de Haas, K.W. Krämer and P. Dorenbos, Optical and scintillation properties of the thermal neutron scintillator $\text{Li}_3\text{YCl}_6:\text{Ce}$, IEEE Transactions on Nuclear Science 57 (2010) 1675 - 1681. (DOI: 10.1109/TNS.2010.2048041)
72. E. Cizmar, M. Ozerov, J. Wosnitza, B. Thielemann, K.W. Krämer, Ch. Rüegg, O. Piovesana, M. Klanjsek, M. Horvatic, C. Berthier and S.A. Zvyagin, Anisotropy of magnetic interactions in the spin-ladder compound $(\text{C}_5\text{H}_{12}\text{N})_2\text{CuBr}_4$, Physical Review B: Condensed Matter and Materials Physics 82 (2010) 054431, 1 - 5. (DOI:10.1103/PhysRevB.82.054431)
73. S. Fischer, J.C. Goldschmidt, P. Löper, G.H. Bauer, R. Brüggemann, K. Krämer, D. Biner, M. Hermle and S.W. Glunz, Enhancement of silicon solar cell efficiency by upconversion: Optical and electrical characterization, Journal of Applied Physics 108 (2010) 044912, 1 - 11. (DOI: 10.1063/1.3478742)

Patente

74. Pieter Dorenbos, Muhammad D. Birowosuto, Karl W. Krämer, Hans-Ulrich Güdel, Scintillator based on cerium-doped lanthanum bromide iodide and scintillator detector, U.S. Pat. Appl. Publ. (2010). US 20100224798 A1 20100909.

PROF. C. LEUMANN

75. A.I. Haziri, P. Silhar, D. Renneberg, C. J. Leumann, Synthesis of the sugar building block of bicyclo-RNA, Synthesis, 2010, 823-827.
76. D. Ittig, S. Luisier, J. Weiler, D. Schümperli, C. J. Leumann, Improving gene silencing of siRNAs via tricyclo-DNA modification, Artificial DNA, PNA & XNA, 2010, 1, 9-16
77. S. Luisier, C. J. Leumann, Screening the structural space of bicyclo-DNA: Synthesis and properties of bicyclo-DNA functionalized at C(6'), Heterocycles, 2010, 82, 775-790.
78. P. Silhar, C. J. Leumann, Parallel synthesis and nucleic acid binding properties of C(6')- α -functionalized bicyclo-DNA, Bioorg. Med. Chem. 2010, 18, 7786-7793.

PROF. S. LEUTWYLER

79. D. S. Kummli, H.-M. Frey, and S. Leutwyler:
Accurate determination of the structure of 1,3,5-trifluorobenzene by femtosecond rotational Raman coherence spectroscopy and ab initio calculations.
Chemical Physics, 367, 36-43 (2010).([doi:10.1016/j.chemphys.2009.10.017](https://doi.org/10.1016/j.chemphys.2009.10.017))
80. M. Jaggi, C. Blum, B. S. Marti, S.-X. Liu, S. Leutwyler, and S. Decurtins:
Annulation of Tetrathiafulvalene to the Bay Region of Perylenediimide.
Organic Letters, 12, 1344-1347 (2010).([doi:10.1021/ol1002708](https://doi.org/10.1021/ol1002708))
81. C. Pfaffen, H.-M. Frey, P. Ottiger, S. Leutwyler, R. A. Bachorz, and W. Klopper.
Large-amplitude vibrations of an N–H··· π hydrogen bonded cis-amide–benzene complex.
Physical Chemistry Chemical Physics, 12, 8208-8218 (2010) ([DOI: 10.1039/c002056g](https://doi.org/10.1039/c002056g))
82. S. Lobsiger, H.-M. Frey, and S. Leutwyler:
Supersonic jet UV spectrum and nonradiative processes of the thymine analogue 5-methyl-2-hydroxypyrimidine.
Physical Chemistry Chemical Physics, 12, 5032-5040 (2010).([doi:10.1039/b924395j](https://doi.org/10.1039/b924395j))

PROF. M. LOCHNER

83. G. X. J. Quek, D. Lin, J. I. Halliday, N. Absalom, J. I. Ambrus, A. J. Thompson, M. Lochner, S. C. R. Lummis, M. D. McLeod, M. Chebib, Identifying the Binding Site of Novel Methyllycaconitine (MLA) Analogs at $\alpha 4\beta 2$ Nicotinic Acetylcholine Receptors, *ACS Chem. Neurosci.* 2010, 1, 716-809 ([doi: 10.1021/cn100073x](https://doi.org/10.1021/cn100073x)). ISSN: 1948-7193.
84. M. Lochner, S. C. R. Lummis, Agonists and Antagonists Bind to an A–A Interface in the Heteromeric 5-HT₃AB receptor, *Biophys. J.* 2010, 98, 1494-1502 ([doi: 10.1016/j.bpj.2009.12.4313](https://doi.org/10.1016/j.bpj.2009.12.4313)). ISSN: 0006-3495; eISSN: 1542-0086
85. S. K. Vernekar, H. Y. Hallaq, G. Clarkson, A. J. Thompson, L. Silvestri, S. C. R. Lummis, M. Lochner, Toward Biophysical Probes for the Serotonin 5-HT₃ Receptor: Structure–Activity Relationship Study of Granisetron Derivatives, *J. Med. Chem.* 2010, 53, 2324-2328 ([doi: 10.1021/jm901827x](https://doi.org/10.1021/jm901827x)). ISSN: 0022-2623; eISSN: 1520-4804.
86. M. Lochner, Expanding the Small Molecular Toolbox to Study Big Biomolecular Machines, *Chimia* 2010, 64, 241-246 ([doi: 10.2533/chimia.2010.241](https://doi.org/10.2533/chimia.2010.241)). ISSN: 0009-4293.

ARBEITSGRUPPEN DEPARTEMENT FÜR CHEMIE UND BIOCHEMIE

Ordner 2

PD DR. P. MACCHI

87. Peli, G.; Daghetta, M.; Macchi, P.; Sironi, A.; Garlaschelli, L. *Dalton Trans.*, 2010, 39,1188–1190.
Four tetrairidium carbonyl clusters linked by six diphosphino ligands: synthesis and X-ray structure of $[\{\text{Ir}_4(\text{CO})_9\}_4(\text{dppmb})_6]$ (dppmb = 1,4-bis(diphenylphosphinomethyl) benzene)
88. Tiana, D.; Francisco, E.; Blanco, M.; Macchi, P.; Sironi, A.; Martín Pendás, A. J. *Chem. Theory Comput.*, 2010, 6,1064-1074
Bonding in classical and non-classical transition metal carbonyls: the interacting quantum atoms perspective
89. Hagar, M.; Ragaini, F.; Monticelli, E.; Caselli, A.; Macchi, P.; Casati, N. *Chem. Comm.* 2010, 46, 6153-6155
Chiral Cyclopropylamines in the Synthesis of New Ligands; First Asymmetric Alkyl-BIAN Compounds
90. Nunzi, F.; Fantacci, S.; Cariati, E.; Tordin, E.; Casati, N., Macchi, P. *J. Mater. Chem.* 2010, 20, 7652–7660
Stabilization through p-dimethylaminobenzaldehyde of a new NLO-active phase of [E-4-(4-dimethylaminostyryl)-1-methylpyridinium]iodide: Synthesis, structural characterization and theoretical investigation of its electronic properties"
91. Macchi, P.; Casati, N.; Marshall, W. G.; Sironi, A. *CrystEngComm.* 2010, 12, 2596–2603
 α and β forms of oxalic acid di-hydrate at high pressure: a theoretical simulation and a neutron diffraction study
92. Cariati, E.; Ugo, R.; Santoro, G.; Tordin, E.; Sorace, L.; Caneschi, A., Sironi, A.; Macchi, P.; Casati, N. *Inorg. Chem.*, 2010, 49, 10894–10901
Slow Relaxation of the Magnetization in Non-Linear Optical Active Layered Mixed Metal Oxalate Chains
93. Keene, T. D.; Zimmermann, I.; Neels, A.; Sereda, O.; Hauser, J.; Liu, S-X; Decurtins, S. *Crystal Growth & Design*, 2010, 10, 1854-1859
Crystal Engineering of a Series of Arylammonium Copper(II) Malonates
94. Yi, C.; Blum, C; Lehmann, M.; Keller, S.; Liu, S.-X.; Frei, G.; Neels, A.; Hauser, J.; Schuerch, S.; Decurtins, S. *J. Org. Chem.*, 2010, 75, 3350-3357
Versatile Strategy To Access Fully Functionalized Benzodifurans: Redox-Active Chromophores for the Construction of Extended pi-Conjugated Materials

95. Keene, T. D.; Zimmermann, I.; Neels, A.; Sereda, O.; Hauser, J.; Bonin, M.; Hursthouse, M. B.; Price, D. J.; Decurtins, S. *Dalton Trans*, 2010,39, 4937-4950
Heterocyclic amine directed synthesis of metal(II)-oxalates: investigating the magnetic properties of two complete series of chains with $S=5/2$ to $S=1/2$
96. Furrer, A.; Kramer, K. W.; Strassle, T.; Biner, D.; Hauser, J.; Gudel, H. U.; *Phys. Rev. B.*, 2010, 81, 214437
Magnetic and neutron spectroscopic properties of the tetrameric nickel compound $[\text{Mo}_{12}\text{O}_{28}(\mu_2\text{-OH})_9(\mu_3\text{-OH})_3\{\text{Ni}(\text{H}_2\text{O})_3\}_4]\cdot 13\text{H}_2\text{O}$
97. Chen, X.Y.; Rickard, M.A; Hull, J.W.; Zheng, C.; Leugers, A.; Simoncic, P.; *Inorg. Chem.*, 2010, 49, 8684-8689.
Raman Spectroscopic Investigation of Tetraethylammonium Polybromides

Buchbeiträge

98. Macchi, P. in *High-Pressure Crystallography From Fundamental Phenomena to Technological Applications*, Ed. by E. V. Boldyreva and P. Dera, Springer, 2010, pag 325-340
Ab Initio Quantum Chemistry and Semi-Empirical Description of Solid State Phases Under High Pressure: Chemical Applications

PROF. O. MÜHLEMANN

99. Eric Aeby, Elisabetta Ullu, Hasmik Yepiskoposyan, Bernd Schimanski, Isabel Roditi, Oliver Mühlemann and André Schneider (2010) tRNA^{Sec} is transcribed by RNA polymerase II in *Trypanosoma brucei* but not in humans. *Nucleic Acids Res*, 17:5833-43.
100. Pamela Nicholson and Oliver Mühlemann (2010) Cutting the nonsense: the degradation of PTC containing mRNAs. *Biochem. Soc. Trans.*, 38:1615-20.
101. Oliver Mühlemann & Jens Lykke-Andersen (2010) How and where are nonsense mRNAs degraded in mammalian cells? *RNA Biology*, Jan 9, 7(1). [Epub ahead of print]
102. Pamela Nicholson, Hasmik Yepiskoposyan, Stefanie Metze, Rodolfo Zamudio Orozco, Nicole Kleinschmidt and Oliver Mühlemann (2010) Nonsense-mediated mRNA decay in human cells: mechanistic insights, functions beyond quality control and the double life of NMD factors. *Cell. Mol. Life Sci.*, 67:677–700.

PROF. P. RENAUD

103. M. Lüthy, K. Schenk, P. Renaud
Synthesis of Unusual Oxime Ethers by Reaction of Tetranitromethane with B-Alkylcatecholboranes, *Chem. Eur. J.*, 2010, 16, 10171
DOI: 10.1002/chem.201000680

104. K. Weidner, A. Giroult, P. Panchaud, P. Renaud
Efficient Carboazidation of Alkenes Using a Radical Desulfonylative Azide Transfer
Process, *J. Am. Chem. Soc.*, 2010, 132, 17511
[DOI: 10.1021/ja1068036](https://doi.org/10.1021/ja1068036)
105. G. Povie, G. Villa, L. Ford, D. Pozzi, C.H. Schiesser, P. Renaud
Role of catechol in the radical reduction of B-alkylcatecholboranes in presence of
methanol, *Chem. Comm.*, 2010, 46, 803
[DOI: 10.1039/b917004a](https://doi.org/10.1039/b917004a)

PROF. J.-L. REYMOND

106. A Searchable Map of Pubchem. R. van Deursen, L. C. Blum, J.-L. Reymond, *J. Chem. Inf. Model.* 2010, 50 1924-1934.
107. Comparing dendritic with linear esterase peptides by screening SPOT arrays for catalysis. R. Biswas, N. Maillard, J. Kofoed, J.-L. Reymond, *Chem. Commun.* 2010 , 8746-8748.
108. Identification of Selective Norbornane-Type Aspartate Analogue Inhibitors of the Glutamate Transporter 1 (GLT-1) from the Chemical Universe Generated Database (GDB). E. Luethi, K. T. Nguyen, M. Bürzle, L.C. Blum, Y. Suzuki, M. Hediger, J.-L. Reymond *J. Med. Chem.* 2010, 53, 7236-7250.
109. Glycopeptide dendrimer colchicine conjugates targeting cancer cells. E. M.V. Johansson, J. Dubois, T. Darbre, J.-L. Reymond, *Bioorg. Med. Chem.* 2010, 18, 6589-6597.
110. Exploring $\alpha 7$ -Nicotinic Receptor Ligand Diversity by Scaffold Enumeration from the Chemical Universe Database GDB. N. Garcia-Delgado, S. Bertrand, K. T. Nguyen, R. van Deursen, D. Bertrand, J.-L. Reymond, *ACS Med. Chem. Lett.* 2010, 1, 422-426.
111. Chemical Space as a source for new drugs. J.-L. Reymond, R. van Deursen, L. C. Blum, Lars Ruddigkeit, *Med. Chem. Commun.* 2010, 1, 30-38.
112. Selected papers from the Biotrans 2009 Conference (Editorial). J.-L. Reymond, *J. Mol. Cat. B: Enzymatic* 2010, 65, 1-2.
113. Future turnovers in enzyme catalysis (Editorial). J.-L. Reymond, R. A. Sheldon, *Curr. Opin. Chem. Biol.* 2010, 14, 113-4.
114. Structure and Binding of Peptide-Dendrimer Ligands to Vitamin B12. N. A. Uhlich, A. Natalello, R. U. Kadam, S. M. Doglia, J.-L. Reymond, T. Darbre, *Chembiochem* 2010, 11, 358-65.

PROF. J. SCHALLER

115. Baumann T, Kämpfer U, Schürch S, Schaller J, Largiadèr C, Nentwig W, Kuhn-Nentwig L.
Ctenidins: antimicrobial glycine-rich peptides from the hemocytes of the spider *Cupiennius salei*.
2010 Cell Mol Lif Sci 67:2787-2798. (DOI: [10.1007/s00018-010-0364-0](https://doi.org/10.1007/s00018-010-0364-0))
116. Gerber SS, Lejon S, Locher M, Schaller J.
The human α_2 -plasmin inhibitor: Functional characterization of the unique plasmin(ogen)-binding region.
2010 Cell Mol Life Sci 67:1505-1518. (DOI: [10.1007/s00018-010-0264-3](https://doi.org/10.1007/s00018-010-0264-3))
117. Christen MT, Frank P, Schaller J, Llinás M.
Human plasminogen kringle 3: Solution structure, functional insights, phylogenetic landscape.
2010 Biochemistry 49:7131-7150.
118. Vincent B, Kaeslin M, Roth T, Heller M, Poulain J, Cousserans F, Schaller J, Poirié M, Lanzrein B, Drezen J-M, Moreau SJM.
The venom composition of the parasite wasp *Chelonus inanitus* resolved by combined transcriptome analysis and proteomic approach.
2010 BMC Genomics 11:693-707. (DOI:[10.1186/1471-2164-11-693](https://doi.org/10.1186/1471-2164-11-693))

PROF. A. SCHNEIDER

119. Lithgow and A. Schneider (2010)
Evolution of macromolecular import pathways in mitochondria, hydrogenosomes and mitosomes.
Phil. Trans. R. Soc. B. Sci. 365:799-817.
120. P. Pino, E. Aeby, B. J. Foth, L. Sheiner, T. Soldati, A. Schneider and D. Soldati-Favre (2010)
Mitochondrial translation in absence of local tRNA aminoacylation and methionyl tRNA formylation in Apicomplexa.
Mol. Microbiol. 76(3): 706 – 718
121. E. Aeby, E. Ullu, H. Yepiskoposyan, B. Schimanski, I. Roditi, O. Mühlemann and A. Schneider (2010)
tRNASec is transcribed by RNA polymerase II in *Trypanosoma brucei* but not in humans.
Nucleic Acids Res. 38:5833-5843
122. M. Cristodero, T. Seebeck and A. Schneider (2010)
Mitochondrial translation is essential in bloodstream forms of *Trypanosoma brucei*.
Mol. Microbiol. 78:757-69

PD DR. S. SCHÜRCH

123. Yi, C.; Blum, C.; Lehmann, M.; Keller, S.; Liu, S.X.; Frei, G.; Neels, A.; Hauser, J.; Schürch, S.; Decurtins, S. Versatile Strategy To Access Fully Functionalized Benzodifurans: Redox-Active Chromophores for the Construction of Extended pi-Conjugated Materials. *J. Org. Chem.* 2010, 3350-3357.
DOI: 10.1021/jo100323s
124. Baumann, T.; Kämpfer, U.; Schürch, S.; Schaller, J.; Largiadèr, C.; Nentwig, W.; Kuhn-Nentwig, L. Ctenidins: antimicrobial glycine-rich peptides from the hemocytes of the spider *Cupiennius salei*. *CMLS Cell. Mol. Life Sci.* 2010, 2787-2798.
DOI: 10.1007/s00018-010-0364-0

PROF. M. SCHWIKOWSKI

125. Thomas Kellerhals, Leonhard Tobler, Sabina Brütsch, Michael Sigl, Lukas Wacker, Heinz W. Gäggeler, Margit Schwikowski. Thallium as a tracer for pre-industrial volcanic eruptions in an ice core record from Illimani, Bolivia, *Environ. Sci. Technol.* 44, 888–893 (2010) doi.org/10.1021/es902492n .
126. Jacopo Gabrieli, Paul Vallelonga, Guilio Cozzi, Paolo Gabrielli, Andrea Gambaro, Margit Schwikowski, Michael Sigl, Fabio Decet, Heinz Gäggeler, Claude Boutron, Paolo Cescon, Carlo Barbante. Post-17th-Century changes of European PAHs emissions recorded in high-altitude Alpine snow and ice, *Environ. Sci. Technol.* 44, 3260–3266 (2010) doi.org/10.1021/es903365s .
127. Thomas Kellerhals, Sabina Brütsch, Michael Sigl, Stefanie Knüsel, Heinz W. Gäggeler, Margit Schwikowski, Ammonium concentration in ice cores – a new proxy for regional temperature reconstruction? *J. Geophys. Res. Atmospheres* 115, D16123 (2010) [doi:10.1029/2009JD012603](https://doi.org/10.1029/2009JD012603).
128. Mathias Trachsel, Martin Grosjean, Isabelle Larocque-Tobler, Margit Schwikowski, Alex Blass, Michael Sturm, Quantitative summer temperature reconstruction derived from a combined biogenic Si and chironomid record from varved sediments of Lake Silvaplana (south-eastern Swiss Alps) back to AD 1177, *Quat. Sci. Rev.* 29 2719e2730 (2010) doi.org/10.1016/j.quascirev.2010.06.026.
129. Patrick Ginot, Ulrich Schotterer, Willibald Stichler, Maria Angelica Godoi, Bernard Francou, Margit Schwikowski, Influence of the Tungurahua eruption on the ice core records of Chimborazo, Ecuador, *The Cryosphere*, 4, 561–568 [doi:10.5194/tc-4-561-2010](https://doi.org/10.5194/tc-4-561-2010) (2010) [doi:10.5194/tc-4-561-2010](https://doi.org/10.5194/tc-4-561-2010).

Buchbeiträge

130. Margit Schwikowski, Anja Eichler, Alpine glaciers as archives of atmospheric deposition. In *Handbook of Environmental Chemistry Volume 6 Series Water Pollution: „Alpine Waters“ Aspects of Mountain Waters*, illustrated on the example of Alpine Waters, Ed. U. Bundi, Springer-Verlag, Berlin Heidelberg, pp. 141-150 (2010).

PD DR. A. Stocker

131. Insa M.A. Ernst, Anika E. Wagner, Christine Schuemann, Niels Storm, Wolfgang Höppner, Frank Döring, Achim Stocker and Gerald Rimbach. Allyl-, butyl- and phenylethyl-isothiocyanate activate Nrf2 in cultured fibroblasts PHARMACOLOGICAL RESEARCH, NOV 2010. (doi:10.1016/j.phrs.2010.11.005)

PD DR. S. SZIDAT

132. A.C. Aiken, B. de Foy, C. Wiedinmyer, P.F. DeCarlo, I.M. Ulbrich, M.N. Wehrli, S. Szidat, A.S.H. Prevot, J. Noda, L. Wacker, R. Volkamer, E. Fortner, J. Wang, A. Laskin, V. Shutthanandan, J. Zheng, R. Zhang, G. Paredes-Miranda, W.P. Arnott, L.T. Molina, G. Sosa, X. Querol, J.L. Jimenez
Mexico city aerosol analysis during MILAGRO using high resolution aerosol mass spectrometry at the urban supersite (T0) - Part 2: Analysis of the biomass burning contribution and the non-fossil carbon fraction
Atmos. Chem. Phys. 10, 5315-5341 (2010), doi:10.5194/acp-10-5315-2010.
133. S.M. Fahrni, H.W. Gäggeler, I. Hajdas, M. Ruff, S. Szidat, L. Wacker
Direct measurements of small ¹⁴C samples after oxidation in quartz tubes
Nucl. Instr. Meth. Phys. Res. B 268, 787-789 (2010),
doi:10.1016/j.nimb.2009.10.031.
134. S.M. Fahrni, M. Ruff, L. Wacker, N. Perron, H.W. Gäggeler, S. Szidat
A preparative 2D-chromatography method for compound-specific radiocarbon analysis of dicarboxylic acids in aerosol Radiocarbon 52, 752-760 (2010).
135. Hodzic, J.L. Jimenez, A.S.H. Prevot, S. Szidat, J.D. Fast, S. Madronich
Can 3-D models explain the observed fractions of fossil and non-fossil carbon in and near Mexico City?
Atmos. Chem. Phys. 10, 10997-11016 (2010), doi:10.5194/acp-10-10997-2010.
136. M. Nemec, L. Wacker, I. Hajdas, H.W. Gäggeler
Alternative methods for cellulose preparation for AMS measurementnt
Radiocarbon 52, 1358-1370 (2010).
137. M. Nemec, L. Wacker, H.W. Gäggeler
Optimization of the graphitization process at AGE-1
Radiocarbon 52, 1380-1393 (2010).
138. N. Perron, S. Szidat, S.M. Fahrni, M. Ruff, L. Wacker, A.S.H. Prévôt, U. Baltensperger
Towards on-line ¹⁴C analysis of carbonaceous aerosol fractions
Radiocarbon 52, 761-768 (2010).
139. M. Ruff, S. Szidat, H.W. Gäggeler, M. Suter, H.-A. Synal, L. Wacker
Gaseous radiocarbon measurements of small samples
Nucl. Instr. Meth. Phys. Res. B 268, 790-794 (2010),
doi:10.1016/j.nimb.2009.10.032.

140. M. Ruff, S.M. Fahrni, H.W. Gäggeler, I. Hajdas, M. Suter, H.-A. Synal, S. Szidat, L. Wacker
Online radiocarbon measurements of small samples using Elemental Analyzer and MICADAS gas ion source
Radiocarbon 52, 1645-1656 (2010).
141. Y.L. Zhang, D. Liu, C.D., Shen, P. Ding, G., Zhang
Development of a preparation system for the radiocarbon analysis of organic carbon in carbonaceous aerosols in China
Nucl. Instr. Meth. Phys. Res. B 268, 2831-2834 (2010),
doi:10.1016/j.nimb.2010.06.032.

PROF. A. TÜRLER

142. L.-L. Andersson, D. Rudolph, P. Golubev, R.-D. Herzberg, R. Hoischen, E. Merchán, D. Ackermann, Ch.E. Düllmann, K. Eberhardt, J. Even, J. Gerl, F.P. Heßberger, E. Jäger, J. Khuyagbaatar, I. Kojouharov, J.V. Kratz, J. Krier, N.Kurz, W.Prokopowicz, M. Schädel, H. Schaffner, B. Schausten, E. Schimpf, A. Semchenkov, A. Türler, H.-J.Wollersheim, A. Yakushev, P. Thörle-Pospiech, W. Hartmann, A. Hübner, B.Lommel, B. Kindler, J. Steiner
TASISpec – A highly efficient multi-coincidence spectrometer for nuclear structure investigations of the heaviest nuclei
Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment 622 (1): 164-170 (2010)
143. E. Düllmann, M. Schädel, A. Yakushev, A. Türler, K. Eberhardt, J. V. Kratz, D. Ackermann, L. L. Andersson, M. Block, W. Bröchle, J. Dvorak, H. G. Essel, P. A. Ellison, J. Even, J. M. Gates, A. Gorshkov, R. Graeger, K. E. Gregorich, W.Hartmann, R. D. Herzberg, F. P. Heßberger, D. Hild, A. Hübner, E. Jäger, J.Khuyagbaatar, B. Kindler, J. Krier
Production and decay of element 114: High cross sections and the new nucleus Hs-277 Phys. Rev. Lett. 104 (25): 252701 (2010).
144. R. Eichler, N. V. Aksenov, Y. V. Albin, A. V. Belozerov, G. A. Bozhikov, V. I. Chepigin, S. N. Dmitriev, R. Dressler, H. W. Gäggeler, V. A. Gorshkov, G. S. Henderson, A. M. Johnsen, J. M. Kenneally, V. Y. Lebedev, O. N. Malyshev, K. J. Moody, Y. T. Oganessian, O. V. Petrushkin, D. Piguet, A. G. Popeko, P. Rasmussen, A. Serov, D. A. Shaughnessy, S. V. Shishkin, A. V. Shutov, M. A. Stoyer, N. J. Stoyer, A. I. Svirikhin, E. E. Tereshatov, G. K. Vostokin, M. Wegrzecki, P. A. Wilk, D. Wittwer, A. V. Yeremin
Indication for a volatile element 114
Radiochim. Acta 98 (3): 133-139 (2010).

145. R. Graeger, D. Ackermann, M. Chelnokov, V. Chepigin, C. E. Düllmann, J. Dvorak, J. Even, A. Gorshkov, F. P. Heßberger, D. Hild, A. Hübner, E. Jäger, J. Khuyagbaatar, B. Kindler, J. V. Kratz, J. Krier, A. Kuznetsov, B. Lommel, K. Nishio, H. Nitsche, J. P. Omtvedt, O. Petrushkin, D. Rudolph, J. Runke, F. Samadani, M. Schädel, B. Schausten, A. Türler, A. Yakushev, Q. Zhi
Experimental study of the U-238(S-36,3-5n)Hs-269-271 reaction leading to the observation of Hs-270
Phys. Rev. C 81 (6): 061601 (2010).
146. A. Hermann, J. Furthmüller, H. W. Gäggeler, P. Schwertfeger
Spin-orbit effects in structural and electronic properties for the solid state of the group-14 elements from carbon to superheavy element 114
Phys. Rev. B 82 155116 (2010).
147. K. Nishio, S. Hofmann, F. P. Hessligberger, D. Ackermann, S. Antalic, Y. Aritomo, V. F. Comas, C. E. Düllmann, A. Gorshkov, R. Graeger, K. Hagino, S. Heinz, J. A. Heredia, K. Hirose, H. Ikezoe, J. Khuyagbaatar, B. Kindler, I. Kojouharov, B. Lommel, R. Mann, S. Mitsuoka, Y. Nagame, I. Nishinaka, T. Ohtsuki, A. G. Popeko, S. Saro, M. Schädel, A. Türler, Y. Watanabe, A. Yakushev, A. V. Yeremin
Nuclear orientation in the reaction S-34 + U-238 and synthesis of the new isotope Hs-268
Phys. Rev. C 82 (2): 024611 (2010).
148. A. Türler
Chemical experiments with superheavy elements
CHIMIA 64: 293-298 (2010).
149. D. Wittwer, F. S. Abdullin, N. V. Aksenov, Y. V. Albin, G. A. Bozhikov, S. N. Dmitriev, R. Dressler, R. Eichler, H. W. Gäggeler, R. A. Henderson, S. Hübener, J. M. Kenneally, V. Y. Lebedev, Y. V. Lobanov, K. J. Moody, Y. T. Oganessian, O. V. Petrushkin, A. N. Polyakov, D. Piguet, P. Rasmussen, R. N. Sagaidak, A. Serov, I. V. Shirokovsky, D. A. Shaughnessy, S. V. Shishkin, A. M. Sukhov, M. A. Stoyer, N. J. Stoyer, E. E. Tereshatov, Y. S. Tsyganov, V. K. Utyonkov, G. K. Vostokin, M. Wegrzecki, P. A. Wilk
Gas phase chemical studies of superheavy elements using the Dubna gas-filled recoil separator - stopping range determination
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms 268 (1): 28-35 (2010).
150. M. Kerbrat, T. Huthwelker, T. Bartels-Rausch, H. W. Gäggeler, M. Ammann
Co-adsorption of acetic acid and nitrous acid on ice
Phys. Chem. Chem. Phys. 12 (26): 7194-7202 (2010).
151. M. Kerbrat, T. Huthwelker, H. W. Gäggeler, M. Ammann
Interaction of nitrous acid with polycrystalline ice: Adsorption on the surface and diffusion into the bulk
J. Phys. Chem. C 114 (5): 2208 - 2219 (2010).

152. B. R. Pinzer, M. Kerbrat, T. Huthwelker, H. W. Gäggeler, M. Schneebeli, M. Ammann
Diffusion of NO_x and HONO in snow: A laboratory study
J. Geophys. Res. 115 (D3): D03304 (2010).
153. A. Rouvière, Y. Sosedova, M. Ammann
Uptake of ozone to deliquesced KI and mixed KI/NaCl aerosol particles
J. Phys. Chem. A 114 (26): 7085-7093 (2010).
154. J. Gabrieli, P. Vallelonga, G. Cozzi, P. Gabrielli, A. Gambaro, M. Sigl, F. Decet, M. Schwikowski, H.W. Gäggeler, C. Boutron, P. Cescon, C. Barbante
Post 17th-century changes of european PAH emissions recorded in high-altitude alpine snow and ice
Environ. Sci. Technol. 44 (9): 3260-3266 (2010).
155. P. Ginot, U. Schotterer, W. Stichler, M. A. Godoi, B. Francou, M. Schwikowski
Influence of the Tungurahua eruption on the ice core records of Chimborazo, Ecuador
Cryosphere 4 (4): 561-568 (2010).
156. T. Kellerhals, S. Brütsch, M. Sigl, S. Knüsel, H. W. Gäggeler, M. Schwikowski
Ammonium concentration in ice cores: A new proxy for regional temperature reconstruction?
J. Geophys. Res. 115 (D16): D16123 (2010).
157. T. Kellerhals, L. Tobler, S. Brütsch, M. Sigl, L. Wacker, H. W. Gäggeler, M. Schwikowski
Thallium as a tracer for preindustrial volcanic eruptions in an ice core record from Illimani, Bolivia
Environ. Sci. Technol. 44 (3): 888-893 (2010).
158. M. Trachsel, M. Grosjean, I. Larocque-Tobler, M. Schwikowski, A. Blass, M. Sturm
Quantitative summer temperature reconstruction derived from a combined biogenic Si and Chironomid record from varved sediments of lake Silvaplana (south-eastern swiss alps) back to AD 1177
Quat. Sci. Rev. 29 (19-20): 2719-2730 (2010).

Buchbeiträge

159. M. Schwikowski, A. Eichler
Alpine glaciers as archives of atmospheric deposition.
in Alpine waters 6, Bundi, U. (Editor), Springer-Verlag: Berlin Heidelberg, p. 141-150 (2010).
160. St. Bister, F. Koenn, M. Bunka, J. Birkhan, T. Lüllau, B. Riebe, R. Michel
Uranium in water of the Mulde River
J Radioanal Nucl Chem 286:367–372 (2010).
161. K. Zhernosekov, S. Lehenberger, U. Köster, H. Dorrer, A. Hohn, R. Schibli, A. Türler
The low-energy beta(-) and electron emitter Tb-161 as alternative for Lu-177 for targeted radionuclides therapy
Nuclear Medicine and Biology 37 (6): 718-719 (2010).

Zeitungsartikel

Die Botschaft: 1000-jähriges Eis, das als Geschichtsbuch dient; 26 Juli 2010.

Tages-Anzeiger: Ungewöhnliche Forschungsplätze: Spurensuche im Eis; 3 August 2010.

PROF. T. WANDLOWSKI

162. Artem Mishchenko, David Vonlanthen, Velimir Meded, Marius Buerkle, Chen Li, Ilya V. Pobelov, Alexei Bagrets, Janne K. Viljas, Fabian Pauly, Ferdin Evers, Marcel Mayor and Thomas Wandlowski. Influence of conformation on conductance of biphenyl-dithiol single-molecule contacts NANO LETTERS, JAN 2010. ([DOI: 10.1021/nl903084b](https://doi.org/10.1021/nl903084b)).
163. Bo Liu, Yin-Fen Ran, Zhi-Hai Li, Shi-Xia Liu, Chun-Yan Jia, Silvio Decurtins and Thomas Wandlowski. A scanning probe microscopy study of annulated redox-active molecules at a liquid/solid interface: The overruling of the alkyl chain paradigm CHEMISTRY-A EUROPEAN JOURNAL, MAR 2010. ([DOI: 10.1002/chem.201000017](https://doi.org/10.1002/chem.201000017)).
164. Stijn F. L. Mertens, Gabor Meszaros and Thomas Wandlowski. Dynamics of ionic liquid mediated quantised charging of monolayer-protected clusters PHYSICAL CHEMISTRY CHEMICAL PHYSICS, APR 2010. ([DOI: 10.1039/b921368f](https://doi.org/10.1039/b921368f)).
165. Zhi-Hai Li, Ya-Qing Liu, Stijn F. L. Mertens, Ilya V. Pobelov and Thomas Wandlowski. From redox gating to quantized charging JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, JUN 2010. ([DOI: 10.1021/ja102754n](https://doi.org/10.1021/ja102754n)).
166. Chen Li, Artem Mishchenko, Ilya V. Pobelov and Thomas Wandlowski. Charge transport with single molecules - an electrochemical approach CHIMIA, JUN 2010. ([DOI: 10.2533/chimia.2010.383](https://doi.org/10.2533/chimia.2010.383)).
167. Stijn F. L. Mertens, Angela Bütikofer, Luca Siffert and Thomas Wandlowski. Covalent versus electrostatic strategies for nanoparticle immobilisation ELECTROANALYSIS, SEP 2010. ([DOI: 10.1002/elan.201000311](https://doi.org/10.1002/elan.201000311)).
168. Hui Li, Peng Jiang, Chenyi Yi, Chen Li, Shi-Xia Liu, Songting Tan, Bin Zhao, Joerg Braun, Wolfgang Meier, Thomas Wandlowski and Silvio Decurtins. Benzodifuran-based pi-conjugated copolymers for bulk heterojunction solar cells MACROMOLECULES, OCT 2010. ([DOI: 10.1021/ma101693d](https://doi.org/10.1021/ma101693d)).
169. Alexander V. Rudnev, Ilya V. Pobelov and Thomas Wandlowski. Structural aspects of redox-mediated electron tunneling JOURNAL OF ELECTROANALYTICAL CHEMISTRY, NOV 2010. ([DOI: 10.1016/j.jelechem.2010.11.014](https://doi.org/10.1016/j.jelechem.2010.11.014)).
170. Artem Mishchenko, Linda A. Zotti, David Vonlanthen, Marius Bürkle, Fabian Pauly, Juan Carlos Cuevas, Marcel Mayor and Thomas Wandlowski. Single-molecule junctions based on nitrile-terminated biphenyls: A promising new anchoring group JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, DEC 2010. ([DOI: 10.1021/ja107340t](https://doi.org/10.1021/ja107340t)).

PROF. A. WEIDENKAFF

171. Wei, X., Hug, P., Ferri, D., Figi, R., Trottmann, M., Weidenkaff, A., Catalytic application of nano-structured perovskite-type oxides fabricated by ultrasonic spray combustion, *Applied Catalysis B*, 94 (2010) 27-37.
172. Barth, J., Schoop, L. M., Gloskovskii, A., Felser, C., Shkabko, A., Klar, P., Weidenkaff, A., Investigation of the thermoelectric properties of the solid solution $\text{TiCo}_{1-x}\text{Ni}_x\text{Sn}_x\text{Sb}_{1-x}$, *Z. Anorg. Allg. Chem.*, 635 (2010) 132-136.
173. Robert, R., Logvinovich, D. Aguirre, M.H., Ebbinghaus, S.G., Bocher, L. and Weidenkaff, A., Crystal structure, morphology and physical properties of $\text{LaCo}_{1-x}\text{Ti}_x\text{O}_3$ perovskites prepared by a citric acid assisted soft chemistry synthesis, *Acta Mat.*, 58 (2010) 680-691.
174. Kumar, M.S., Eysseler, A., Ferri, D., Hug, A., Weidenkaff, A., Baiker, A., Elucidation of structure - activity relationships of model three way catalysts for the combustion of methane *Applied Catalysis B* 94 (2010) 77-84.
175. Barth, J., Fecher, G. H., Balke, B., Ouardi, S., Graf, T., Shkabko, A., Weidenkaff, A., Felser, C., et al, Itinerant half metallic ferromagnets Co_2TiZ (Z = Si, Ge, Sn): Ab initio calculations and measurement of the electronic structure and transport properties, *Phys. Rev. B* , 81, (2010) 064404-064424.
176. Balke, B., Ouardi, S., Graf, T., Barth, J., Blum, Fecher, G., Shkabko, A., Weidenkaff, A., Felser, C. Seebeck coefficients of half-metallic ferromagnets, *Solid State Communications* 150 (2010) 529-532.
177. Shkabko, A., Aguirre, MH., Hug, P., Weidenkaff, A., Marozau, I. and Lippert, T., The effects of switching time and $\text{SrTiO}_{3-x}\text{N}_y$ nanostructures on the operation of $\text{Al/SrTiO}_{3-x}\text{N}_y/\text{Al}$ memristors, *Materials Science and Engineering* 8 (2010) 012035.
178. Weidenkaff, A., Aguirre, M., Bocher, L., Trottmann, M., Tomes, P., and Robert, R., Development of perovskite-type cobaltates and manganates for thermoelectric oxide modules, *J. Korean Cer. Soc.*, 47 , (2010) 47-53.
179. Suter, C., Tomeš, P., Steinfeld, A. and Weidenkaff, A., Heat Transfer and Geometrical Analysis of Thermoelectric Converters Driven by Concentrated Solar Radiation, *Materials*, 3 (2010) 2735-2752.
180. Eyssler, A. Mandaliev, Peter; Winkler, Alexander; Hug, Paul; Safonova, Olga; Figi, Renato; Weidenkaff, Anke; Ferri, Davide, The Effect of the State of Pd on Methane Combustion in Pd-Doped LaFeO_3 , *J. Phys. Chem. C* 114 (2010) 4584-4594.
181. Tomes, P., Trottmann, M., C. Suter, M. H. Aguirre, A. Steinfeld, P. Haueter, and A. Weidenkaff, Thermoelectric oxide modules (TOMs) for the direct conversion of simulated solar radiation into electrical energy, *Materials*, 3 (2010) 2801-2814.

182. Barth, J., Fecher, G. H., Balke, B., Felser, C., Shkabko, A. and Weidenkaff, A., Co_2TiZ ($Z = \text{Si}, \text{Ge}, \text{Sn}$): a potential material for spin-caloric, *Sol. State. Com.*, 150 (2010) 529-532.
183. Logvinovich, D., Ebbinghaus, S. G., Reller, A., Marozau, I., Ferri, D. and Weidenkaff, A., Synthesis, crystal structure and optical properties of LaNbON_2 , *Z. Anorg. Allg. Chem.*, 636 (2010) 905-912.
184. Barth, J., Fecher, G., Schwind, M., Beleanu, A., Felser, C., Shkabko, A., Weidenkaff, A., Hanss, J. and Reller, A., Investigation of the thermoelectric properties of LiAlSi and LiAlGe , *J. Electron. Mater.*, 39 (2010) 1856-1860.
185. Ferri, D., Kumar Matam, S., Wirz, R., Eyssler, A., Korsak, O., Hug, P., Weidenkaff, A. and Newton, M. First steps in combining modulation excitation spectroscopy with synchronous dispersive EXAFS/DRIFTS/mass spectrometry for in situ time resolved study of heterogeneous catalysts, *Phys. Chem. Chem. Phys.*, 12 (2010) 5634–5646
186. Kumar, S., Aguirre, M.; Weidenkaff, Anke; Ferri, Davide, Revisiting the Problem of Active Sites for Methane Combustion on $\text{Pd}/\text{Al}_2\text{O}_3$ by Operando XANES in a Lab-Scale Fixed Bed Reactor, *J. Phys. Chem. C*, 114 (2010), 9439–9443.
187. Sivula, K., Zboril, R., Le Formal, F., Robert, R., Weidenkaff, A., Tucek, J., Frydrych, J. and Grätzel, M., Photoelectrochemical water-splitting with mesoporous hematite prepared by a solution-based colloidal approach, *J. Am. Chem. Soc.*, 132 (21), (2010) 7436–7444.
188. Aguirre, M.H., Shkabko, A. and Weidenkaff, A., Microwave Plasma Nitridation of SrTiO_3 : A Quantitative EELS, TEM and STEM-HAADF Analysis of the $\text{SrTiO}_{3-x}\text{N}_y$ Growth and the Structural Evolution, *Crystal Growth and Design*, 10 (8), (2010), 3562-3567.
189. Graf, T. Barth, J., Balke, B., Felser, C., Populoh, S., Weidenkaff, A., Tuning the Carrier Concentration for Thermoelectrical Application in the Quaternary Heusler Compound $\text{Co}_2\text{TiAl}_{(1-x)}\text{Si}_x$, *Scripta Mat*, 33(2010) 225-228.
190. Tomes, P., Robert, R. Trottmann, M., Bocher, L., Aguirre, M. H., Hejtmanek, J., and Weidenkaff, A. Perovskite-type thermoelectric oxide modules (TOM) for electric power generation, *J. Electr. Mat.* 39 (2010) 1696-1703.
191. Tomes, P., Knizek K., Weidenkaff, A. and Hejtmanek J., On the physical properties of $\text{Sr}_{1-x}\text{Na}_x\text{RuO}_3$ ($x = 0 - 0.19$), *Journal of Solid State Sciences* 12(2010) 1112-1120.
192. Joshi, R., Engstler, J., Houben, L., Weidenkaff, A., Mandaliev, P., Issanin, A. and Schneider, J., Towards Unraveling Catalyst Composition, Morphology and Reaction Pathway in the Growth of “Super-Long” Carbon Nanotubes, *ChemCatChem*, 2, (2010) 1069-1073.
193. Tomes, Petr, Logvinovich, Dmitry, Hejtmanek, Jiri, Aguirre, Myriam H. and Weidenkaff, Anke, Magnetic influence on thermoelectric properties of $\text{CrO}_{0.1}\text{N}_{0.9}$, *Acta Mat* 59 (2011) 1134-1140.

194. Shafeie, S., Grins, J. S., Istomin, Ya., Karvonen, L., Chen, S.A., Chen, T.H., Chen, J.M., Weidenkaff, A., Karppinen, M., Sirtl, T., Svensson, G., Phase formation, crystal structures and magnetic properties of perovskite-type phases in the system $\text{La}_2\text{Co}_{1+z}(\text{Mg}_x\text{Ti}_{1-x})_{1-z}\text{O}_6$, J. Solid State Chem., 184(2011)177-190.

Buchbeiträge

195. Matthias Trottmann, Anke Weidenkaff, Sascha Populoh, Oliver Brunko, Angelika Veziridis, Christian Bach, Urs Cabalzar, Demonstration of high temperature thermoelectric waste heat re-covery in combustion engines , in "Thermoelectrics goes Automotive", Expert Verlag, Renningen, ISBN 978-3-8169-3064-8, 2010.