

Titel	Referenz	Betreuer
Physiological-Temperature Distance Measurement in Nucleic Acid using Triarylmethyl-Based Spin Labels and Pulsed Dipolar EPR Spectroscopy	<b>J.Am.Chem.Soc., (2014)</b> 136, 9874–9877, Shevelev, G.Yu, Krumkacheva, O.A., Lomzov, A. A., Kuzhelev, A.A., Rogozhnikova, O. Yu., Trukhin, D.V., Troitskaya, T. I., Tormyshev, V. M., Fedin, M. V., Pyshnyi, D. V., Bagryanskaya, E. G.	Thomas F. Prisner
W-Band pulse EPR distance measurements in peptides using Gd <sup>3+</sup> -dipicolinic acid derivatives as spin labels	<b>Phys. Chem. Chem. Phys., (2011)</b> 13, 10771-10780, G.-Grossman, M., Kaminker, I., Gofman, Y., Shai, Y., Goldfarb, D.	Thomas F. Prisner
Characterisation of the paramagnetic [2Fe–2S] <sup>+</sup> centre in palustrisredoxin-B (PuxB) from Rhodospseudomonas palustris CGA009: g-matrix determination and spin coupling analysis	<b>Phys.Chem. Chem. Phys., (2012)</b> 14, 6526–6537 Abdalla , J.A.B., Bowen, A. M., Bell, S.G., Wong, L.L., Timmel , C. R., Harmer, J.	Thomas F. Prisner
Quantum measurement and orientation tracking of fluorescent nanodiamonds inside living cells	<b>Nature Nanotechnology, (2011)</b> 6, 358–363 McGuinness, L. P., Yan, Y., Stacey, A., Simpson, D. A., Hall, L. T., Maclaurin, D., Praver, S., Mulvaney, P., Wrachtrup, J., Caruso, F., Scholten, R. E., Hollenberg, L.C.L.	Thomas F. Prisner
Low-Field Optically etected EPR Spectroscopy of Transient Photoinduced Radical Pairs	<b>J. Phys. Chem. A (2005)</b> , 109, 5035-5041, Rodgers, C.T., Henbest, K. B., Kukura, P., Timmel, C. R., Hore, P. J.	Thomas F. Prisner
Atomic-resolution dynamics on the surface of amyloid-β protofibrils probed by solution NMR	<b>Nature (2011)</b> 480, 268-72 Fawzi NL, Ying J, Ghirlando R, Torchia DA, Clore GM	Harald Schwalbe Boris Fürtig
Resolving the motional modes that code for RNA adaption	<b>Science (2006)</b> 311, 653-6 Zhang Q, Sun X, Watt ED, Al-Hashimi HM.	Harald Schwalbe Boris Fürtig
Direct measurement of distances and angles in biomolecules by NMR in a dilute liquid crystalline medium.	<b>Science (1997)</b> 278, 1111- 4 Tjandra N, Bax A.	Harald Schwalbe Boris Fürtig
Bijvoet in solution reveals unexpected stereoselectivity in a Michael addition	<b>Chemistry (2011)</b> 17, 1811-7, Sun H, dAuvergne EJ, Reinscheid UM, Dias LC, Andrade CK, Rocha RO, Griesinger C.	Harald Schwalbe Boris Fürtig
Group epitope mapping by saturation transfer difference NMR to identify segments of a ligand in direct contact with a protein receptor.	<b>J.Am.Chem.Soc. (2001)</b> 123, 6108-17 Mayer M, Meyer B.	Harald Schwalbe Boris Fürtig
The nature of hydrogen bonds in cytidine <sup>+</sup> –cytidine DNA base pairs.	<b>Angew.Chem.Int.Ed. Engl. (2012)</b> 51, 4067-70 Lieblein AL, Krämer M, Dreuw A, Fürtig B, Schwalbe H.	Harald Schwalbe Boris Fürtig

Three-state mechanism couples ligand and temperature sensing in riboswitches	<b>Nature (2013)</b> 499, 355-59 Reining A, Nozinovic S, Schlepckow K, Buhr, F, Fürtig, B, H. Schwalbe	Harald Schwalbe
Direct Observation of Hydrogen Bonds in Nucleic Acid Base Pairs by Internucleotide 2JNN Couplings	<b>J. Am. Chem. Soc. (1998)</b> 120, 8293-97 Dingley, AJ and Grzesiek, S	Boris Fürtig
Indirect Detection of Labile Solute Proton Spectra via the Water Signal Using Frequency-Labeled Exchange (FLEX) Transfer	<b>J. Am. Chem. Soc. (2010)</b> 132, 1813-15 Friedman, JI, McMahon, MT, Stivers, JT and Van Zijl, PCM	Boris Fürtig
Conformational Flexibility of DNA	<b>J. Am. Chem. Soc. (2011)</b> 133, 13375-13379 Marko A, Denysenkov VD, Margraf D, Cekan P, Schiemann O, Sigurdsson ST, Prisner TF	Thomas F. Prisner
Dead-Time Free Measurement of Dipole-Dipole Interactions between Electron Spins	<b>J. Magn. Res., (2000)</b> 142, 331-340 Pannier M, Veit S, Godt A, Jeschke G, Spiess HW	Thomas F. Prisner Björn Corzilius
Double electron-electron resonance spin-echo modulation: Spectroscopic measurement of electron spin pair separations in orientationally disordered solids	<b>J. Chem. Phys. (1993)</b> 98, 5134-5146 Larsen R.G, Singel DJ	Thomas F. Prisner Björn Corzilius
One- and two-dimensional pulse electron paramagnetic resonance spectroscopy: concepts and applications	<b>Naturwissenschaften (2000)</b> 87, 245-55 Van Doorslaer S, Schweiger A.	Thomas F. Prisner Björn Corzilius
Relaxation Filtered Hyperfine (REFINE) Spectroscopy: A Novel Tool for Studying Overlapping Biological Electron Paramagnetic Resonance Signals Applied to Mitochondrial Complex I	<b>Biochemistry (2004)</b> 43, 3969-3978 Maly T, MacMillan F, Zwicker K, Kashani-Poor N, Brandt U, Prisner TF	Thomas F. Prisner Björn Corzilius
Functional and shunt states of bacteriorhodopsin resolved by 250 GHz dynamic nuclear polarization-enhanced solid-state NMR	Proceedings of the National Academy of Sciences of the United States of America <b>(2009)</b> 106, 9244-9249 Bajaj V.S., Mak-Jurkauskas M.L., Belenky M., Herzfeld J., Griffin R.G.	Björn Corzilius Clemens Glaubitz
DNP enhanced frequency-selective TEDOR experiments in bacteriorhodopsin	<b>J. Magn. Res., (2010)</b> 202, 9-13 Bajaj VS, Mak-Jurkauskas ML, Belenky M, Herzfeld J, Griffin RG	Björn Corzilius Clemens Glaubitz
Protein-induced bonding perturbation of the rhodopsin chromophore detected by double-quantum solid-state NMR	<b>J. Am. Chem. Soc. (2004)</b> 126, 3948-3953 Carravetta M, Zhao X, Johannessen OG, Lai WC, Verhoever MA, Bovee-Geurts PHM, Verdegem PJE, Kiihne S, Luthman H, deGroot HJM, deGrip WJ, Lutgenburg J, Levitt MH	Clemens Glaubitz

Mechanisms of Proton Conduction and Gating in Influenza M2 Proton Channels from Solid-State NMR	<b>Science (2010)</b> 330, 505-508 Hu F, Luo W, Hong M	Björn Corzilius Clemens Glaubitz
Higher Sensitivity through Selective C-133 Excitation in Solid-State NMR Spectroscopy	<b>J. Am. Chem. Soc. (2009)</b> 131, 15970-15971 Lopez JJ, Kaiser C, Asami S, Glaubitz C.	Björn Corzilius Clemens Glaubitz
Atomic-Resolution Three-Dimensional Structure of HET-s(218-289) Amyloid Fibrils by Solid-State NMR Spectroscopy	<b>J. Am. Chem. Soc. (2010)</b> 132, 13765-13775 Van Melckebeke H, Wasmer C, Lange A, Eiso AB, Loquet A, Bockmann A., Meier BH	Clemens Glaubitz
Use of a Copper-Chelated Lipid Speeds Up NMR Measurements from Membrane Proteins	<b>J. Am. Chem. Soc. (2010)</b> 132, 6929-6931 Yamamoto K, Xu J, Kawulka KE Vederas JC, Ramamoorthy A	Björn Corzilius
Molecular Dynamics of Proteorhodopsin in Lipid Bilayers by Solid-State-NMR	<b>J. Am. Chem. Soc. (2011)</b> 133, 4874-4881 Yang J., Aslimovska L., Glaubitz C.	
Intermolecular Structure Determination of Amyloid Fibrils with Magic-Angle Spinning and Dynamic Nuclear Polarization NMR	<b>J. Am. Chem. Soc. (2011)</b> 133, 13967-74. Bayro MJ, Debelouchina GT, Eddy MT, Birkett NR, MacPhee CE, Rosay M, Maas WE, Dobson CM, Griffin RG	Björn Corzilius
Solid-state NMR of proteins sedimented by ultracentrifugation	<b>Proc. Natl. Acad. Sci. USA (2011)</b> 108, 10396-99 Bertini I, Luchinat C, Parigi G, Ravera E, Reif B, Turano P	Björn Corzilius
Solid Effect in Magic Angle Spinning Dynamic Nuclear Polarization	<b>J. Chem. Phys. (2012)</b> 137, 054201 Corzilius B, Smith AA, Griffin RG	Björn Corzilius
Dynamics and structure in the Mn <sup>2+</sup> site of concanavalin A as determined by high-field EPR and ENDOR spectroscopy	<b>Magn. Reson. Chem. (2005)</b> 43, S40-50 Goldfarb D., Narasimhulu K.V., Carmieli R.	Thomas F. Prisner Björn Corzilius
Protein fold determined by paramagnetic magic-angle spinning solid-state NMR spectroscopy	<b>Nat. Chem. (2012)</b> 4, 410-17 Sengupta I., Nadaud P.S., Helmus J.J., Schwieters C.D., Jaroniec C.P.	Björn Corzilius
Ultra-Wideline Solid-State NMR Spectroscopy	<b>Acc. Chem. Res. (2013)</b> 46, 1985-95 Schurko, RW	Björn Corzilius
Surface Enhanced NMR Spectroscopy by Dynamic Nuclear Polarization	<b>J. Am. Chem. Soc. (2010)</b> 132, 15459-61 Lesage, A, Lelli, M, Gajan, D, Caporini, M A, Vitzthum, V, Miéville, P, Alauzun, J, Roussey, A, Thieuleux, C, Mehdi, A, Bodenhausen, G, Copéret, C, Emsley, L	Thomas F. Prisner Björn Corzilius
Broadband Inversion PELDOR Spectroscopy with Partially Adiabatic	<b>Angew. Chem. Int. Ed. (2013)</b> 52, 3425-29	Thomas F. Prisner

Shaped Pulses	Spindler, PE, Glaser, SJ, Skinner, TE and Prisner, TF	
Nanometer-Range Distance Measurement in a Protein Using Mn <sup>2+</sup> Tags	<b>Phys. Chem. Lett. (2012)</b> 3, 157–160 Banerjee, D, Yagi, H, Huber, T, Otting, G, Goldfarb, D	Thomas F. Prisner
Paramagnetic doping of a 7TM membrane protein in lipid bilayers by Gd <sup>3+</sup> -complexes for solid-state NMR spectroscopy	<b>J Biomol NMR (2014)</b> 58:27–35 Ullrich, SJ, Ho"lper, S, Glaubitc C	Clemens Glaubitc
Ligand-Induced Conformational Changes of the Multidrug Resistance Transporter EmrE Probed by Oriented Solid-State NMR Spectroscopy	<b>Angew. Chem. Int. Ed. (2013)</b> 52, 10321 –10324 Gayen A, Banigan JR, and Traaseth, NJ	Clemens Glaubitc
Structure of the chemokine receptor CXCR1 in phospholipid bilayers	<b>Nature (2012)</b> 491, 779-783 Park SH, Das, BB, Casagrande, F, Tian, Y, Nothnagel, HJ, Chu, M, Kiefer, H, Maier, K, De Angelis, AA Marassi, FM and Opella SJ	Clemens Glaubitc
Studying "Invisible" Excited Protein States in Slow Exchange with a Major State Conformation	<b>J. Am. Chem. Soc.</b> (2012), 134, 8148–8161 Vallurupalli, P., Bouvignies, G., Kay, L.E.	Boris Fürtig