

Peer-Reviewed Publication List (total 68)**Chapters in books**

1. Griesinger, C., Meiler, J. & **Peti, W.** (2003). Protein NMR for the Millennium. In *Biological Magnetic Resonance* (Krishna, N. R. & Berliner, L. J., eds.), Vol. 20, pp. 163-229. Kluwer Academic / Plenum Press, New York.
2. Griesinger, C., **Peti, W.**, Meiler, J. & Brüschweiler, R. (2004). Projection angle restraints for studying structure and dynamics of biomolecules. *Methods Mol Biol* 278, 107-122.
3. Hopson, R. & **Peti, W.** (2008) Micro-Coil NMR Spectroscopy – a novel tool for biological high-throughput NMR spectroscopy. *Methods Mol Biol* 429, 447-458.

Refereed journal articles

1. **Peti, W.**, Pieper, T., Sommer, M., Keppler, B. K. & Giester, G. (1999). Synthesis of Tumor-Inhibiting Complex Salts Containing the Anion trans-Tetrachlorobis(indazole)ruthenate(III) and Crystal Structure of the Tetraphenylphosphonium Salt. *Eur. J. Inorg. Chem.* 1999, 1551-1555.
2. Carlomagno, T., **Peti, W.** & Griesinger, C. (2000). A new method for the simultaneous measurement of magnitude and sign of $^1D_{CH}$ and $^1D_{HH}$ dipolar couplings in methylene groups. *J Biomol NMR* 17, 99-109.
3. Meiler, J., **Peti, W.** & Griesinger, C. (2000). DipoCoup: A versatile program for 3D-structure homology comparison based on residual dipolar couplings and pseudocontact shifts. *J Biomol NMR* 17, 283-94.
4. **Peti, W.** & Griesinger, C. (2000). Measurement of Magnitude and Sign of H,H-Dipolar Couplings in Proteins. *J. Am. Chem. Soc.* 122, 3975-3976.
5. **Peti, W.**, Hennig, M., Smith, L. J. & Schwalbe, H. (2000). NMR Spectroscopic Investigation of γ Torsion Angle Distribution in Unfolded Ubiquitin from Analysis of $^3J(C_{\alpha},C_{\alpha})$ Coupling Constants and Cross-Correlated $G_{H^N,C_{\alpha}H_{\alpha}}$ Relaxation Rates. *J. Am. Chem. Soc.* 122, 12017-12018.
6. **Peti, W.**, Griesinger, C. & Bermel, W. (2000). Adiabatic TOCSY for C,C and H,H J-transfer. *J Biomol NMR* 18, 199-205.
7. Pieper, T., **Peti, W.** & Keppler, B. K. (2000). Solvolysis of the Tumor-Inhibiting Ru(III)-Complex trans-Tetrachlorobis(indazole)ruthenate(III). *Metal Based Drugs* 7, 225-232.
8. Kramer, F., **Peti, W.**, Griesinger, C. & Glaser, S. J. (2001). Optimized Homonuclear Carr-Purcell-Type Dipolar Mixing Sequences. *J. Magn. Reson.* 149, 58-66.
9. Meiler, J., Prompers, J. J., **Peti, W.**, Griesinger, C. & Brüschweiler, R. (2001). Model-free approach to the dynamic interpretation of residual dipolar couplings in globular proteins. *J Am Chem Soc* 123, 6098-107.
10. Neubauer, H., Meiler, J., **Peti, W.** & Griesinger, C. (2001). NMR Structure Determination of Saccharose and Raffinose by Means of Homo- and Heteronuclear Dipolar Couplings. *Helv. Chim. Acta* 84, 243-258.

11. Parac, T. N., Coligaev, B., Zientz, E., Unden, G., **Peti, W.** & Griesinger, C. (2001). Assignment of ^1H , ^{13}C and ^{15}N resonances to the sensory domain of the membraneous two-component fumarate sensor (histidine protein kinase) DcuS of *Escherichia coli*. *J Biomol NMR* 19, 91-2.
12. **Peti, W.**, Smith, L. J., Redfield, C. & Schwalbe, H. (2001). Chemical shifts in denatured proteins: resonance assignments for denatured ubiquitin and comparisons with other denatured proteins. *J Biomol NMR* 19, 153-65.
13. **Peti, W.**, Meiler, J., Bruschweiler, R. & Griesinger, C. (2002). Model-free analysis of protein backbone motion from residual dipolar couplings. *J Am Chem Soc* 124, 5822-33.
14. Woschek, A., Wuggenig, F., **Peti, W.** & Hammerschmidt, F. (2002). On the transformation of (S)-2-hydroxypropylphosphonic acid into fosfomycin in *Streptomyces fradiae*--a unique method of epoxide ring formation. *Chembiochem* 3, 829-35.
15. Etezady-Esfarjani, T., **Peti, W.** & Wüthrich, K. (2003). Letter to the Editor: NMR assignment of the conserved hypothetical protein TM1290 of *Thermotoga maritima*. *J Biomol NMR* 25, 167-8.
16. Hus, J. C., **Peti, W.**, Griesinger, C. & Bruschweiler, R. (2003). Self-consistency analysis of dipolar couplings in multiple alignments of ubiquitin. *J Am Chem Soc* 125, 5596-7.
17. Meiler, J., **Peti, W.** & Griesinger, C. (2003). Dipolar couplings in multiple alignments suggest alpha helical motion in ubiquitin. *J Am Chem Soc* 125, 8072-8073.
18. Pappalardo, L., Janausch, I. G., Vijayan, V., Zientz, E., Junker, J., **Peti, W.**, Zweckstetter, M., Unden, G. & Griesinger, C. (2003). The NMR Structure of the Sensory Domain of the Membranous Two-component Fumarate Sensor (Histidine Protein Kinase) DcuS of *Escherichia coli*. *J. Biol. Chem.* 278, 39185-39188.
19. Almeida, M. S., **Peti, W.** & Wüthrich, K. (2004). ^1H -, ^{13}C - and ^{15}N -NMR assignment of the conserved hypothetical protein TM0487 from *Thermotoga maritima*. *J Biomol NMR* 29, 453-4.
20. Etezady-Esfarjani, T., Herrmann, T., **Peti, W.**, Klock, H. E., Lesley, S. A. & Wüthrich, K. (2004). NMR structure determination of the hypothetical protein TM1290 from *Thermotoga maritima* using automated NOESY analysis. *J Biomol NMR* 29, 403-6.
21. Kelker, M. S., Foss, T. R., **Peti, W.**, Teyton, L., Kelly, J. W., Wüthrich, K. & Wilson, I. A. (2004). Crystal Structure of Human Triggering Receptor Expressed on Myeloid Cells 1 (TREM-1) at 1.47Å. *J Mol Biol* 342, 1237-48.
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23. **Peti, W.**, Norcross, J., Eldridge, G. & O'Neil-Johnson, M. (2004). Biomolecular NMR using a microcoil NMR probe--new technique for the chemical shift assignment of aromatic side chains in proteins. *J Am Chem Soc* 126, 5873-8.
24. Almeida, M. S., Herrmann, T., **Peti, W.**, Wilson, I. A. & Wüthrich, K. (2005). NMR structure of the conserved hypothetical protein TM0487 from *Thermotoga*

- maritima: Implications for 216 homologous DUF59 proteins. *Protein Sci* 14, 2880-2886.
25. Arndt, J. W., Schwarzenbacher, R., Page, R., Abdubek, P., Ambing, E., Biorac, T., Canaves, J. M., Chiu, H. J., Dai, X., Deacon, A. M., Didonato, M., Elsliger, M. A., Godzik, A., Grittini, C., Grzechnik, S. K., Hale, J., Hampton, E., Han, G. W., Haugen, J., Hornsby, M., Klock, H. E., Koesema, E., Kreuzsch, A., Kuhn, P., Jaroszewski, L., Lesley, S. A., Levin, I., McMullan, D., McPhillips, T. M., Miller, M. D., Morse, A., Moy, K., Nigoghossian, E., Ouyang, J., **Peti, W.**, Quijano, K., Reyes, R., Sims, E., Spraggon, G., Stevens, R. C., van den Bedem, H., Velasquez, J., Vincent, J., von Delft, F., Wang, X., West, B., White, A., Wolf, G., Xu, Q., Zagnitko, O., Hodgson, K. O., Wooley, J. & Wilson, I. A. (2005). Crystal structure of an alpha/beta serine hydrolase (YDR428C) from *Saccharomyces cerevisiae* at 1.85 Å resolution. *Proteins* 58, 755-758.
 26. Columbus, L., **Peti, W.**, Etezady-Esfarjani, T., Herrmann, T. & Wüthrich, K. (2005). NMR structure determination of the conserved hypothetical protein TM1816 from *Thermotoga maritima*. *Proteins* 60, 552-557.
 27. Page, R., **Peti, W.**, Wilson, I. A., Stevens, R. C. & Wüthrich, K. (2005). NMR screening and crystal quality of bacterially expressed prokaryotic and eukaryotic proteins in a structural genomics pipeline. *Proc Natl Acad Sci U S A* 102, 1901-5.
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 29. **Peti, W.**, Johnson, M. A., Herrmann, T., Neuman, B. W., Buchmeier, M. J., Nelson, M., Joseph, J., Page, R., Stevens, R. C., Kuhn, P. & Wüthrich, K. (2005). Structural Genomics of the Severe Acute Respiratory Syndrome Coronavirus: Nuclear Magnetic Resonance Structure of the Protein nsP7. *J Virol* 79, 12905-13.
 30. **Peti, W.**, Page, R., Moy, K., O'Neil-Johnson, M., Wilson, I. A., Stevens, R. C. & Wüthrich, K. (2005). Towards miniaturization of a structural genomics pipeline using micro-expression and microcoil NMR. *J Struct Funct Genomics* 6, 259-67.
 31. Baker, K. A., Hilty, C., **Peti, W.**, Prince, A., Pfaffinger, P. J., Wider, G., Wüthrich, K. & Choe, S. (2006). NMR-Derived Dynamic Aspects of N-Type Inactivation of a Kv Channel Suggest a Transient Interaction with the T1 Domain. *Biochemistry* 45, 1663-1672.
 32. Herzberg, M., Kaye, I. K., **Peti, W.** & Wood, T. K. (2006). YdgG (TqsA) Controls Biofilm Formation in *Escherichia coli* K-12 through Autoinducer 2 Transport. *J Bacteriol* 188, 587-98.
 33. Johnson, M. A., **Peti, W.**, Herrmann, T., Wilson, I. A. & Wüthrich, K. (2006). Solution structure of Asl1650, an acyl carrier protein from *Anabaena* sp. PCC 7120 with a variant phosphopantetheinylation-site sequence. *Protein Sci* 15, 1030-41.
 34. Kelker, M. S. & **Peti, W.** (2006). NMR Assignment of the Spinophilin PDZ Domain (493-602). *J Biomol NMR* 35, 24.
 35. **Peti, W.** & Page, R. (2007). Strategies to Maximize Heterologous Protein Expression in *E. coli* with Minimal Cost. *Prot Exp Purif* 57, 1-10.

36. Wirmer, J., **Peti, W.** & Schwalbe, H. (2006). Motional properties of unfolded ubiquitin: a model for a random coil protein. *J Biomol NMR*, 35 (3), 175-186.
37. Kelker, M. S., Dancheck, B., Ju, T., Kessler, R., Nairn, A. C. & **Peti, W.** (2007). Structural basis for Spinophilin and Neurabin receptor interaction. *Biochemistry*, 46, 2333-2344.
38. Ju, T., Ragusa, M. J., Hudak, J., Nairn, A. C. & **Peti, W.** (2007). Structural characterization of the neurabin SAM domain. *Proteins*, 69(1), 192-198.
39. Placzek W.J., Etezady-Esfarjani T., Herrmann T., Pedrini B., **Peti W.**, Alimenti C., Luporini P. & Wüthrich K. (2007) Cold-adapted signal proteins: NMR structures of pheromones from the antarctic ciliate *Euplotes nobilii*. *IUBMB Life*, 59(8), 578-585.
40. Lee, J, Page, R., García-Contreras, R., Palermino, J.M., Zhang, X.S., Doshi, O., Wood, T.K. & **Peti, W.** (2007) Structure and Function of the E. coli Protein YmgB: a Protein Critical for Biofilm Formation and Acid Resistance, *J Mol Biol*, 373(1), 11-26.
41. Ju, T. & **Peti, W.** (2007) Backbone and side chain ¹H, ¹⁵N and ¹³C assignments of the human G-actin binding protein profilin II, *Biomol. NMR Assign.*, 1, 205-207.
42. Schüler, H. & **Peti, W.** (2008). Structure-Function Analysis of the F-actin Binding Domain of the Neuronal Scaffolding Protein Spinophilin, *FEBS J.*, 275, 59-68.
43. Dancheck, B., Nairn, A.C. & **Peti, W.** (2008) Detailed Structural Characterization of Unbound Protein Phosphatase 1 Inhibitors, *Biochemistry*, 47, 12346–12356.
44. Critton, D.A., Tortajada, A., Stetson, G., **Peti, W.** & Page, R. (2008) Structural basis of substrate recognition by Hematopoietic Tyrosine Phosphatase (HePTP), *Biochemistry*, 47, 13336-13345.
45. Kelker, M.S., Page, R. & **Peti, W.** (2009) Crystal Structures of Protein Phosphatase-1 Bound to Nodularin-R and Tautomycin: A Novel Scaffold for Structure Based Drug Design of Serine/Threonine Phosphatase Inhibitors, *J Mol Biol*, 385, 11-21.
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47. Brown, B.L., Grigoriu, S., Kim, Y., Arruda, J., Davenport, A., Wood, T.K., **Peti, W.** & Page R. (2009) Three Dimensional Structure of the MqsR:MqsA Complex: a Novel TA Pair comprised of a Toxin Homologous to RelE and an Antitoxin with Unique Properties, *PLoS Pathog* 5(12): e1000706.
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49. Bollen, M., **Peti, W.**, Ragusa, M., Beullens, M. (2010) The toolkit of PP1: designed to create specificity, *Trends in Biochemical Sciences*, 35, 450-458.
50. Pinheiro AS, Proell M, Eibl C, Page R, Schwarzenbacher R & **Peti W.** (2010) The 3-dimensional structure of the NLRP7 pyrin domain - insight into pyrin:pyrin

- mediated effector domain signaling in innate immunity. *J Biol Chem*, 285(35), 27402-27410.
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65. Choy, M.S., Page, R. & **Peti, W.** (2012) Regulation of Protein Phosphatase 1 by Intrinsically Disordered Proteins, *Biochem Soc Trans.*, in press.