

## List of Publications (Christof Niedermayer)

1. A. Weidinger, E. Albert, Ch. Niedermayer, E. Recknagel and P. Moser:  
"Muon Trapping at Substitutional Ti in Fe"  
Phys. Lett. A **122** (1987) 56
2. A. Golnik, Ch. Niedermayer, E. Recknagel, M. Roßmanith, A. Weidinger, J.I. Budnick, B. Chamberland, M. Filipkowsky, Y. Zhang, D.P. Yang, L.L. Lynds, F.A. Otter, Ch. Baines:  
"Study of Magnetic Ordering of the High  $T_c$  Superconductor  $GdBa_2Cu_3O_{7-y}$  by Muon Spin Rotation"  
Phys. Lett. A **125** (1987) 71
3. J.I. Budnick, A. Golnik, Ch. Niedermayer, E. Recknagel, M. Roßmanith, A. Weidinger, B. Chamberland, M. Filipkowsky, Y. Zhang and D.P. Yang:  
"Observation of Magnetic Ordering in  $La_2CuO_4$  by Muon Spin Rotation Spectroscopy"  
Phys. Lett A **124** (1987) 103
4. J.I. Budnick, B. Chamberland, D.P. Yang, Ch. Niedermayer, A. Golnik, E. Recknagel, M. Roßmanith and A. Weidinger:  
"Dependence of the Neel Temperatures of  $La_2CuO_4$  on Sr Doping Studied by Muon Spin Rotation"  
Europhys. Lett. **5** (1988) 651
5. Ch. Niedermayer, A. Golnik, E. Recknagel, M. Roßmanith, A. Weidinger, X.S. Chang, A. Kleinhammes, N. Rosov, J. Saylor, R. Schuhmann, L. Takacs, A. Teh, G. Zhang, C. Hohenemser and J.I. Budnick:  
"Hyperfine Interaction Studies of Antiferromagnetic Order in CuO"  
Phys. Rev. B **38** (1988) 2836
6. A. Golnik, J.I. Budnick, B. Chamberland, L.L. Lynds, Ch. Niedermayer, F.A. Otter, E. Recknagel, M. Roßmanith, A. Weidinger and Z. Tan:  
"Magnetic Ordering in Oxygen Depleted  $YBa_2Cu_3O_x$  and  $GdBa_2Cu_3O_x$ "  
Physica C **153** (1988) 166
7. A. Weidinger, J.I. Budnick, B. Chamberland, A. Golnik, Ch. Niedermayer, E. Recknagel, M. Roßmanith and D.P. Yang:  
"Magnetic Ordering in High  $T_c$  Related Compounds"  
Physica C **153** (1988) 168
8. Ch. Niedermayer, M. Roßmanith, A. Golnik, E. Recknagel, A. Weidinger, J.I. Budnick, B. Chamberland and Ch. Baines:  
" $\mu$ SR Study of Internal Magnetic Fields in Superconducting  $La_{1.9}Sr_{0.1}CuO_4$  in the mK Region"  
Hyp. Int. **50** (1989) 593

9. H. Glückler, A. Weidinger, A. Golnik, Ch. Niedermayer, M. Rauer, R. Simon, E. Recknagel, J.I. Budnick, W. Paulus and R. Schöllhorn:  
"Dependence of the Magnetic Ordering in  $H_xYBa_2Cu_3O_y$  on the Oxygen and Hydrogen Concentration"  
*Physica C* **162-164** (1989) 149
10. Ch. Niedermayer, H. Glückler, R. Simon, A. Golnik, M. Rauer, E. Recknagel, A. Weidinger, J.I. Budnick, W. Paulus and R. Schöllhorn:  
"Magnetic ordering induced by hydrogen doping of  $YBa_2Cu_3O_7$ "  
*Phys. Rev. B* **40** (1989) 11386
11. Ch. Niedermayer, A. Golnik, H. Glückler, M. Rauer, R. Simon, E. Recknagel, A. Weidinger, J.I. Budnick, H. Eickenbusch, W. Paulus and R. Schöllhorn:  
"Magnetic correlations in superconducting  $YBa_2Cu_3O_{6.6}$  ( $T_c=40K$ ) observed by muon spin rotation"  
*Physica C* **162-164** (1989) 159
12. A. Weidinger, Ch. Niedermayer, A. Golnik, R. Simon, E. Recknagel, J.I. Budnick, B. Chamberland and Ch. Baines:  
"Observation of Magnetic Ordering in superconducting  $La_{2-x}Sr_xCuO_4$  by Muon Spin Rotation"  
*Phys. Rev. Lett.* **62** (1989) 102
13. J.I. Budnick, M. Filipkowski, Z. Tan, Ch. Niedermayer, H. Glückler, A. Weidinger, E. Recknagel:  
"Muon spin rotation studies of local magnetism in magnetic and superconducting systems based on the high  $T_c$  copper oxide structures"  
*Hyp. Int.* **61** (1990) 1017
14. H. Glückler, Ch. Niedermayer, G. Nowitzke, A. Golnik, R. Simon, E. Recknagel, A. Weidinger, J. Erxmeyer, J.I. Budnick:  
"A muon spin rotation study of hydrogen in  $YBa_2Cu_3O_7$ "  
*Hyp. Int.* **63** (1990) 155
15. H. Glückler, Ch. Niedermayer, G. Nowitzke, E. Recknagel, A. Weidinger, J.I. Budnick:  
"Effect of hydrogen in  $YBa_2Cu_3O_7$  studied with the muon spin rotation technique"  
*J. Less. Comm. Met.* **164&165** (1990) 1016
16. Ch. Niedermayer, A. Golnik, E. Recknagel, A. Weidinger, A.J. Yaouanc, Ph. L'Heritier, D. Fruchart, J.I. Budnick, K.H.J. Buschow:  
"Positive muon spectroscopy of  $R_2Fe_{14}B$ "  
*Hyp. Int* **64** (1990) 405
17. A. Weidinger, Ch. Niedermayer, H. Glückler, A. Golnik, G. Nowitzke, E. Recknagel, H. Eickenbusch, W. Paulus, R. Schöllhorn, J.I. Budnick:  
"Local magnetism in superconducting  $YBa_2Cu_3O_{6+x}$ "  
*Hyp. Int.* **63** (1990) 147
18. E.J. Ansaldo, Ch. Niedermayer, J.L. Tallon, D.M. Pooke, J.H. Brewer, and G.D. Morris:  
"Magnetic penetration depth in  $Y_2Ba_4Cu_{6+n}O_{14+n-\delta}$ "  
*Phys. Lett. A* **158** (1991) 479

19. E. J. Ansaldo, Ch. Niedermayer, C. E. Stronach:  
"Muonium in Fullerene"  
Nature **353** (1991) 121
20. E.J. Ansaldo, J. Boyle, Ch. Niedermayer, H. Glückler, J.L. Tallon, and A. Mewsdley:  
"Dependence of  $T_c$  on carrier concentration for  $(\text{Bi}_{1.8}\text{Pb}_{0.9})(\text{Sr}_{2-x}\text{La}_x)\text{Ca}_{0.9}\text{Cu}_2\text{O}_{8+\delta}$ "  
Physica C **185-189** (1991) 747
21. E.J. Ansaldo, Ch. Niedermayer, H. Glückler, C.E. Stronach, T.M. Riseman, R.S. Cary, D.R. Noakes, X. Obradores, A. Fuertes, J.M. Navarro, P. Gomes, N. Casan, D. Martinez, F. Perez, J. Rodriguez-Carvajal, and K. Chow:  
"Superconductivity and magnetic order in superoxygenated  $\text{La}_2\text{MCu}_2\text{O}_{6+\delta}$  (M=Sr,Ca)"  
Physica C **185-189** (1991) 1213
22. E.J. Ansaldo, Ch. Niedermayer, J.L. Tallon, D.M. Pooke, J.H. Brewer, G.D. Morris, S.R. Kreitzmann:  
"Systematics of magnetic penetration depths in  $\text{YBa}_2\text{Cu}_4\text{O}_8$  and  $\text{Y}_2\text{Ba}_4\text{Cu}_7\text{O}_{15-\delta}$ "  
Physica C **185-189** (1991) 1763
23. H. Glückler, Ch. Niedermayer, G. Nowitzke, A. Golnik, E. Recknagel, A. Weidinger, J.I. Budnick:  
"μSR study of hydrogenated polycrystalline  $\text{YBa}_2\text{Cu}_3\text{O}_7$ "  
J. Stanek and A. Pedziwiatr (eds.) in *Proceedings XXVI Zakopane School on Physics*, (World Scientific Publishing, 1991) p. 366
24. J.H. Brewer, S.R. Kreitzmann, G.M. Luke, G.D. Morris, Ch. Niedermayer, T.M. Riseman, W.N. Hardy, E.P. Krasnoperov, E.E. Meilokhov, and V.P. Smilga:  
"Muon relaxation in hydrogen isotopes HD and D<sub>2</sub>"  
JETP Lett. **53** (1991) 577 and Pis'ma Zh. Eksp. Teor. Fiz. **53** (1991) 577
25. H. Glückler, Ch. Niedermayer, G. Nowitzke, E. Recknagel, J. Erxmeyer, A. Weidinger, J.I. Budnick:  
" μSR and Hall-Effect Studies of the Charge Carrier Concentration in Hydrogenated  $\text{YBa}_2\text{Cu}_3\text{O}_7$ "  
Europhys. Lett **15** (1991) 355
26. E.J. Ansaldo, Ch. Niedermayer, H. Glückler, C.E. Stronach, T.M. Riseman, D.R. Noakes, X. Obradores, A. Fuertes, J.M. Navarro, P. Gomes, N. Casan, D. Martinez, F. Perez, J. Rodriguez-Carvajal, R.S. Cary, R.S. Cary, and K. Chow:  
"Observation of magnetic order in the double-layer system  $\text{La}_2\text{MCu}_2\text{O}_{6+\delta}$  (M=Ca,Sr)"  
Phys. Rev. B **46** (1992) 3084
27. E.J. Ansaldo, J.J. Boyle, Ch. Niedermayer, G.D. Morris, J.H. Brewer, C.E. Stronach, R.S. Cary:  
"Formation of muonium and a muonic radical in fullerene"  
Z. Phys. B - Cond. Matter **86** (1992) 317
28. R.F. Kiefl, T.L. Duty, J.W. Schneider, A. MacFarlane, K. Chow, J.W. Elzey, P. Mendels, G.D. Morris, J.H. Brewer, E.J. Ansaldo, Ch. Niedermayer, D.R. Noakes, C.E. Stronach, B. Hitti and J.E. Fischer:  
"Evidence for enhohedral muonium in  $\text{K}_x\text{C}_{60}$  and consequences for electronic structure"  
Phys. Rev. Lett. **69** (1992) 2005

29. B. Martinez, X. Obradors, E. J. Ansaldo, C. Niedermayer, D. R. Noakes, M. J. Sayagues, M. Vallet, J. Gonzalez-Calvet:  
 “ $\mu$ SR study of magnetic order in  $\text{La}_2\text{NiO}_{4+\delta}$ ”  
 J. Magn. Magn. Mater. **104-107** (1992) 941
30. D.R. Noakes, E. Fawcett, E.J. Ansaldo, Ch. Niedermayer, and C.E. Stronach:  
 "Impurity species dependence of zero-field muon spin rotation in chromium alloys"  
 J. Magn. Magn. Mat **114** (1992) 176
31. E.J. Ansaldo, J.J. Boyle, Ch. Niedermayer, G.D. Morris, J.H. Brewer, and C.E. Stronach:  
 "Formation of muonium and muonic radical in fullerene"  
 P. Jena et al. (eds.) in *Physics and Chemistry of Finite Systems*, Vol II (Kluwer Academic Publisher, Netherlands, 1992) p. 1305
32. J.W. Schneider, R.F. Kiefl, E.J. Ansaldo, J.H. Brewer, K. Chow, S.J.F. Cox, S.A. Dodds, R.C. Duvarney, T.L. Estle, E.E. Haller, R. Kadono, S.R. Kreitzman, R.L. Lichti, Ch. Niedermayer, T. Pfiz, T.M. Riseman, and C. Schwab:  
 "Quantum motion of muonium in GaAs and CuCl"  
 Mat. Science Forum **83-87** (1992) 569
33. J. Sugiyama, J.H. Brewer, D.S. Morris, Ch. Niedermayer, T.M. Riseman, I. Shinkoda, H. Zhou, E.J. Ansaldo, H. Glückler, H. Yamauchi, and S. Tanaka:  
 "Effect of transition metal doping on magnetism and superconductivity in  $\text{Nd}_{1.85}\text{Ce}_{0.15}\text{Cu}_{0.99}\text{Mn}_{0.01}\text{O}_4$  (M=Co,Ni,Zn)"  
 Physica C **193** (1992) 449
34. J.B. Torrance, P. Lacorre, A.I. Nazzal, E.J. Ansaldo, and Ch. Niedermayer:  
 "Systematic study of insulator-metal transitions in perovskites  $\text{RNiO}_3$  (R=Pr, Nd, Sm, Eu) due to closing of charge-transfer gap"  
 Phys. Rev. B **45** (1992) 8209
35. H. Glückler, U. Binninger, Ch. Niedermayer, E. Recknagel, A. Weidinger:  
 " $\mu$ SR studies of hydrogen induced magnetic ordering in high- $T_c$ -superconductor materials"  
 Z. Phys. Chem. **179** (1993) 389
36. Ch. Niedermayer, H. Glückler, A. Golnik, U. Binninger, M. Rauer, E. Recknagel, J. I. Budnick, A. Weidinger:  
 "Simultaneous magnetic ordering of the Gd and Cu subsystems in oxygen-deficient  $\text{GdBa}_2\text{Cu}_3\text{O}_{6+x}$ "  
 Phys. Rev. B **47** (1993) 3427
37. Ch. Niedermayer, I.D. Reid, E. Roduner, E.J. Ansaldo, C. Bernhard, U. Binninger, J.I. Budnick, H. Glückler, E. Recknagel, A. Weidinger:  
 "Simultaneous observation of muonium and multiple free radicals in muon-implanted  $\text{C}_{70}$ "  
 Phys. Rev. B **47** (1993) 1923
38. Ch. Niedermayer, C. Bernhard, U. Binninger, H. Glückler, J.L. Tallon, E.J. Ansaldo, J.I. Budnick:  
 "Muon Spin Rotation Study of the Correlation between  $T_c$  and  $n_s/m^*$  in overdoped  $\text{Tl}_2\text{Ba}_2\text{CuO}_{6+\delta}$ "  
 Phys. Rev. Lett. **71** (1993) 1764

39. R. Kadono, J. H. Brewer, K. Chow, S. R. Kreitzman, C. Niedermayer, T. M. Riseman, J. W. Schneider, T. Yamazaki:  
 "Critical behavior of the electric-field gradient in MnSi studied by muon level-crossing resonance"  
 Phys. Rev. B. **48** (1993) 16803
40. V. Storchak, J.H. Brewer, W.N. Hardy, G.D. Morris, T.M. Riseman and Ch. Niedermayer  
 "Observation of muonium atom in solid nitrogen"  
 Phys. Lett. A **182** (1993) 449
41. P. Mendels, J.H. Brewer, H. Alloul, E.J. Ansaldo, D.R. Noakes, Ch. Niedermayer, G. Collin, J.F. Marucco, C.E. Stronach, G.D. Morris, T.L. Duty, S. Johnston:  
 " $\mu^+$ SR study of the effect of Zn substitution on magnetism in  $\text{YBa}_2\text{Cu}_3\text{O}_x$ "  
 Phys. Rev. B **49** (1994) 10035
42. Ch. Niedermayer:  
 "Applications of  $\mu$ SR to the study of Fullerenes"  
 Hyp. Int. **86** (1994) 797
43. Ch. Niedermayer, C. Bernhard, U. Binniger, H. Glückler, J. Tallon, E.J. Ansaldo and J.I. Budnick:  
 "Magnetic penetration depth of  $\text{Tl}_2\text{Ba}_2\text{CuO}_{6+\delta}$ :  $T_c \sim \sigma_0$  in the overdoped region"  
 Hyp. Int. **86** (1994) 585
44. A. Weidinger, J. Erxmeier, H. Glückler, Ch. Niedermayer, O. Laforsch, J. Groß, M. Mehring:  
 "Magnetism in hydrogenated  $\text{YBa}_2\text{Cu}_3\text{O}_7$  - a comparison of  $\mu$ SR and NMR results"  
 Hyp. Int. **86** (1994) 609
45. R. Kadono, J.H. Brewer, K. Chow, S. R. Kreitzman, Ch. Niedermayer, T.M. Riseman, J.W. Schneider, T. Yamazaki:  
 "Critical behavior of electric field gradient in MnSi studied by muon level-crossing resonance"  
 Hyp. Int. **85** (1994) 259
46. M. Weber, L. Asch, A. Kratzer, G.M. Kalvius, K.H. Muench, R. Ballou, J. Deportes, R. Waeppling, F.J. Litterst, H.H. Klauss, C. Niedermayer, J. Chappert:  
 " $\mu$ SR magnetic response in frustrated antiferromagnets of type  $\text{RMn}_2$  (R = rare earth)"  
 Hyp. Int. **85** (1994) 265
47. T.M. Riseman, J.H. Brewer, K.H. Chow, W.N. Hardy, R.F. Kiefl, S.R. Kreitzman, R. Liang, A. MacFarlane, P. Mendels, G.D. Morris, J. Rammer, J.W. Schneider, C. Niedermayer, S.L Lee:  
 "Determination of lambda and kappa in a mosaic of single crystal  $\text{YBa}_2\text{Cu}_3\text{O}_{6.95}$ "  
 Hyp. Int. **86** (1994) 481
48. P. Mendels, J.H. Brewer, H. Alloul, E.J. Ansaldo, D.R. Noakes, C. Niedermayer, G. Collin, J. F. Marucco, C. E. Stronach, G. D. Morris, T. L. Duty, S. Johnston:  
 " $\mu$ SR study of Zn-substituted  $\text{YBa}_2\text{Cu}_3\text{O}_x$ "  
 Hyp. Int. **86** (1994) 577

49. E.J. Ansaldo, J.J. Boyle, C. Niedermayer, H. Glueckler, J.L. Tallon, A. Mawdsley, D. Pooke, C.E. Stronach, D.R. Noakes, R.S. Cary, M.R. Davis, G.D. Morris:  
 "Magnetic penetration depths of (BiPb)-2212 and (TlPb)-1212 - universal correlations revisited"  
 Hyp. Int. **86** (1994) 505
50. U. Binniger, E. Roduner, I.D. Reid, C. Bernhard, A. Hofer, E. Recknagel, J. Erxmeyer and Ch. Niedermayer:  
 "Application of  $\mu$ SR to the Study of The Dynamics of  $C_{70}$ "  
 in *Progress of Fullerene Research*, edited by H. Kuzmany, J. Fink, M. Mehring and S. Roth (World Scientific, Singapore, 1994), p. 207
51. Ch. Niedermayer, C. Bernhard, U. Binniger, H. Glückler, J.L. Tallon, E.J. Ansaldo, J.I. Budnick:  
 "Magnetic penetration depth of  $Tl_2Ba_2CuO_{6+\delta}$ :  $T_c \sim \sigma_0$  in the overdoped region"  
 Journal of Superconductivity **7** (1994) 165
52. C. Bernhard, Ch. Niedermayer, U. Binniger, A. Hofer, J.L. Tallon, G.V.M. Williams, E.J. Ansaldo, J.I. Budnick:  
 "Doping dependence of the magnetic penetration depth in  $(Yb_{1-x}Ca_x)(Ba_{1.6}Sr_{0.4})Cu_3O_{7-\delta}$  studied by muon spin rotation"  
 Physica C **226** (1994) 250
53. R.M. Macrae, K. Prassides, I. M. Thomas, E. Roduner, Ch. Niedermayer, U. Binniger, C. Bernhard, A. Hofer, I. D. Reid:  
 "Reorientational Dynamics of Solid  $C_{70}$  Probed by Positive Muons"  
 J. Phys. Chem. **98** (1994) 12133
54. J.L. Tallon, C. Bernhard, U. Binniger, A. Hofer, G.V.M. Williams, E.J. Ansaldo and Ch. Niedermayer:  
 "In-Plane Anisotropy of the Penetration Depth Due to Superconductivity on the Cu-O Chains in  $YBa_2Cu_3O_{7-\delta}$ ,  $YBa_2Cu_4O_{15-\delta}$ , and  $YBa_2Cu_4O_8$ "  
 Phys. Rev. Lett. **74** (1995) 1008
55. E. Roduner, K. Prassides, R. M. Macrae, I.M. Thomas, Ch. Niedermayer, U. Binniger, C. Bernhard, A. Hofer, I. D. Reid:  
 "Reorientational Dynamics of  $C_{60}$  in the Solid State. An Avoided-Level-Crossing Muon Spin Rotation Study"  
 Chem. Phys. **192** (1995) 231
56. H. Glückler, Ch. Niedermayer, C. Bernhard, U. Binniger, E. Recknagel, J.L. Tallon, J.I. Budnick:  
 "Muon Spin Rotation Study Of Antiferromagnetic Order In Hydrogenated  $YBa_2Cu_4O_8$  - Evidence For A Local Structural Change In The Vicinity Of  $T_c$ "  
 Physica C **242** (1995) 39
57. Ch. Niedermayer, C. Bernhard, J. I. Budnick:  
 "Muon Spin Rotation Studies of Doping in High- $T_c$ -Superconductors"  
 J. Mag. Mag. Mat. **140-144** (1995) 1287

58. U. Binniger, C. Bernhard, A. Hofer, Ch. Niedermayer, E. Recknagel, J. Erxmeyer, A. Weidinger:  
 “Rotational dynamics of solid  $C_{70}$  investigated by the muon-spin-rotation technique”  
 Phys. Rev. B **51** (1995) 14867
59. Bernhard, Ch. Niedermayer, U. Binniger, A. Hofer, C. Wenger, J.L. Tallon, G.V.M. Williams, E.J. Ansaldo, J.I. Budnick, C.E. Stronach, D.R. Noakes, M.A. Blankson-Mills:  
 “Magnetic penetration depth and condensate density in cuprate high- $T_c$  superconductors determined by muon spin rotation experiments”  
 Phys. Rev. B **52** (1995) 10488
60. C. Bernhard, C. Wenger, Ch. Niedermayer, D. M. Pooke, J.L. Tallon, Y. Kotaka, K. Kishio, D.R. Noakes, C. E. Stronach, T. Sembiring, E. J. Ansaldo:  
 “Anisotropy and Dimensional Cross-over of the Vortex State in  $Bi_2Sr_2CaCu_2O_{8+\delta}$  Crystals”  
 Phys. Rev. B **52** (1995) R7050
61. T.M. Riseman, J.H. Brewer, K. H. Chow, W.N. Hardy, R.F. Kiefl, S.R. Kreitzman, R. Liang, W.A. MacFarlane, P. Mendels, G.D. Morris, J. Rammer, J.W. Schneider, Ch. Niedermayer, S.L. Lee:  
 “Ginzburg-Landau parameter in  $YBa_2Cu_3O_{6.95}$  below the irreversibility temperature as measured by  $\mu^+$ SR in high magnetic fields”  
 Phys. Rev. B **52** (1995) 10569
62. Ch. Niedermayer:  
 “Fullerenes with  $\mu$ SR”  
 Hyp. Int. **97-98** (1996) 287
63. E. Morenzoni, M. Birke, A. Hofer, F. Kottmann, J. Litterst, B. Matthias, M. Meyberg, Ch. Niedermayer, Th. Prokscha, G. Schatz, Th. Wutzke:  
 “Development of a beam of very slow polarized muons”  
 Hyp. Int. **97-98** (1996) 395
64. Bernhard, J.L. Tallon, C. Bucci, R. DeRenzi, G. Guidi, G.V.M. Williams, Ch. Niedermayer:  
 “Suppression of the superconducting condensate in the high- $T_c$ -cuprates by Zn substitution and overdoping: Evidence for an unconventional pairing state”  
 Phys. Rev. Lett. **77** (1996) 2304
65. H. Lütgemeier, S. Schmenn, P. Meuffels, O. Storz, R. Schöllhorn, Ch. Niedermayer, I. Heinmaa, Y. Bakov:  
 “A different type of oxygen order in  $REBa_2Cu_3O_{(6+x)}$  HT $_c$  superconductors with different RE ionic radii”  
 Physica C **267** (1996) 191
66. Morenzoni, Th. Prokscha, A. Hofer, B. Matthias, M. Meyberg, Th. Wutzke, H. Glückler, M. Birke, J. Litterst, Ch. Niedermayer, G. Schatz:  
 “Characteristics of condensed gas moderators for the generation of very slow polarized muons”  
 J. Appl. Phys. **81** (1997) 3340
67. E. Morenzoni, M. Birke, H. Glückler, A. Hofer, J. Litterst, M. Meyberg, C. Niedermayer, Th. Prokscha, G. Schatz, Th. Wutzke:  
 “Generation of very slow polarized muons by moderation”  
 Hyp. Int. **106** (1997) 229

68. D.M. Pooke, C. Bernhard, Y. Kotaka, J. Tallon, J. Shimoyana, K. Kishio and Ch. Niedermayer:  
 “Dimensionality transition of the vortex state in  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ ”  
 Advances in Superconductivity VIII (Springer-Verlag, Tokyo, 1996)
69. J.L. Tallon, C. Bernhard and Ch. Niedermayer:  
 “Muon spin relaxation studies of superconducting cuprates”  
 Supercond. Sci. Technol. **10** (1997) 1
70. J.L. Tallon, C. Bernhard, Ch. Niedermayer, J. Shimoyama, S. Hahakura, K. Yamaura, Z. Hiroi, M. Takano, K. Kishio:  
 “A new approach to the design of high- $T_c$  superconductors: metallised interlayers”  
 J. Low Temp. Phys. **105** (1997) 1379
71. A. Golnik, C. Bernhard, J. I. Budnick, M. Kutrowski, C. Niedermayer, T. Szumiata:  
 “Coexistence of superconductivity and magnetism in HTSC materials?  $\mu\text{SR}$  and magneto-optical studies”  
 in Recent developments in High Temperature Superconductivity, edited by J. Klamut (Springer-Verlag, Berlin, 1997) p. 337
72. A. Golnik, A. Weidinger, Ch. Niedermayer, C. Bernhard, E. Recknagel:  
 “Minima of the muon depolarization rate in  $\text{Cd}_{1-x}\text{M}_x\text{Te}$ ”  
 Phys. Rev. B **55** (1997) 13002
73. Ch. Niedermayer, C. Bernhard, J.L. Tallon, G.V.M. Williams, J. I. Budnick, E.J. Ansaldo, C.E. Stronach, D. R. Noakes, C. Bucci, R. DeRenzi, G. Guidi:  
 “A muon-spin-rotation study of the superconducting condensate density in high temperature superconductors”  
 Hyp. Int **105** (1997) 139
74. Ch. Niedermayer, C. Bernhard, T. Blasius, A. Decker, A. Golnik:  
 “Study of the magnetic phase diagram of  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_6$ ”  
 Hyp. Int. **105** (1997) 131
75. C. Bucci, R. DeRenzi, G. Guidi, C. Bernhard, Ch. Niedermayer, F. Licci, J. L. Tallon:  
 “ $\mu\text{SR}$  measurement of the superconducting condensate reduction induced by Zn in underdoped, optimally doped and overdoped YBCO”  
 Hyp. Int. **105** (1997) 89
76. E. Morenzoni und Ch. Niedermayer:  
 “Epithermische spinpolarisierte Myonen als Sonden für Dünnschichtsysteme”  
 Physikalische Blätter. **12** (1997) 1210
77. J. I. Budnick and Ch. Niedermayer:  
 “Muon spin rotation studies of doping in high- $T_c$ -superconductors”  
 in Physics and Chemistry of Modern Materials, edited by K. Perzyska and L. Dobrzynski, (Proceedings of the Twelfth International School of Condensed Matter Physics, Suprasl June 22 – July 2, 1998)



78. C. Bernhard, J.L. Tallon, C. Bucci, R. DeRenzi, G. Guidi, G.V.M. Williams and Ch. Niedermayer:  
 Comment on “Muon spin relaxation studies of Zn-substitution effects in high- $T_c$  cuprate superconductors”  
 Phys. Rev. Lett. **80** (1998) 205
79. Ch. Niedermayer, C. Bernhard, T. Blasius, A. Golnik, A. Moodenbaugh, J. I. Budnick:  
 “A common phase diagram for antiferromagnetism in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  and  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_6$  as seen by muon spin rotation”  
 Phys. Rev. Lett. **80** (1998) 3843
80. C. Bernhard, Ch. Niedermayer, T. Blasius, G.V.M. Williams, R. DeRenzi, C. Bucci, J.L. Tallon:  
 “A muon spin rotation study of Zn-induced magnetic moments in cuprate high- $T_c$  superconductors”  
 Phys. Rev. B **58** (1998) R8937
81. J.M. Gil, P.J. Mendes, L.P. Ferreira, H.V. Alberto, R.C. Vilao, N. Ayres de Campos, Y. Tomm, A. Weidinger, C. Niedermayer, M.V. Yakushev, R.D. Tomlinson, S.P. Cotrell, S.F.J. Cox:  
 “Modelling hydrogen in  $\text{CuInSe}_2$  and  $\text{CuInS}_2$  solar cell materials using implanted muons”  
 Phys. Rev. B **59** (1999) 1912
82. C.E. Stronach, D.R. Noakes, X. Wan, C. Niedermayer, C. Bernhard, E.J. Ansaldo:  
 “Zero-field muon-spin-rotation study of hole antiferromagnetism in low-carrier-density  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_6$ ”  
 Physica C **311** (1999) 19
83. T. Blasius, Ch. Niedermayer, J.L. Tallon, D.M. Pooke, A. Golnik, C. Bernhard:  
 “Evidence for a two-stage melting transition in the vortex matter of  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  single crystals obtained by muon spin rotation”  
 Phys. Rev. Lett. **82** (1999) 4926
84. C. Bernhard, J.L. Tallon, Ch. Niedermayer, T. Blasius, A. Golnik, E. Brücher, R.K. Kremer, D.R. Noakes, C.E. Stronach, E. J. Ansaldo:  
 “Coexistence of ferromagnetism and superconductivity in the hybrid ruthenate-cuprate compound  $\text{RuSr}_2\text{GdCu}_2\text{O}_8$  studied by muon spin rotation ( $\mu\text{SR}$ ) and DC-magnetization”  
 Phys. Rev. B **59** (1999) 14099
85. Ch. Niedermayer, C. Bernhard, T. Blasius, A. Golnik, A. Moodenbaugh, J. I. Budnick:  
 “Doping dependence of the antiferromagnetic correlations in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  and  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_6$ ”  
 Advances in Solid State Physics **39** (1999) 413
86. Ch. Niedermayer, E.M. Forgan, H. Glückler, A. Hofer, E. Morenzoni, M. Pleines, T. Prokscha, T.M. Riseman, M. Birke, T. Jackson, J. Litterst, M.W. Long, H. Luetkens, A. Schatz, G. Schatz:  
 “Direct observation of a flux line lattice field distribution across an  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  surface by low energy muons”  
 Phys. Rev. Lett. **83** (1999) 3932

87. J.M. Gil, H.V. Alberto, R.C. Vilao, P.J. Mendes, L.P. Ferreira, N. Ayres de Campos, A. Weidinger, J. Krauser, Ch. Niedermayer, S.F.J. Cox:  
 “Novel muonium state in CdS”  
 Phys. Rev. Lett. **83** (1999) 5294
88. T. Prokscha, M. Birke, E.M. Forgan, H. Glückler, A. Hofer, T.J. Jackson, K. Küpfer, J. Litterst, E. Morenzoni, Ch. Niedermayer, M. Pleines, T.M. Riseman, A. Schatz, G. Schatz, H.P. Weber and C. Binns:  
 “First  $\mu^+$ SR studies on thin films with a new beam of low energy positive muons at energies below 20 keV”  
 Hyp. Int. **120-121** (1999) 569
89. T. Blasius, Ch. Niedermayer, J. L. Tallon, D. M. Pooke, A. Golnik, D.R. Noakes, C.E. Stronach, E. J. Ansaldo, R.W. Henn, C.T. Lin, C. Bernhard:  
 “Muon spin rotation studies of the vortex matter in the high- $T_c$ -superconductor  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$ ”  
 Acta Physica Polonica A **96** (1999) 245
90. Ch. Niedermayer:  
 “Muon Spin Rotation studies of doping in high- $T_c$ -superconductors”  
 Acta Physica Polonica A **96** (1999) 213
91. Ch. Niedermayer, T. Blasius, C. Bernhard, A. Golnik, A. Moodenbaugh, J. I. Budnick:  
 “Hole doping dependence of the antiferromagnetic correlations in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  and  $\text{Y}_{1-x}\text{Ca}_x\text{Ba}_2\text{Cu}_3\text{O}_6$ ”  
 AIP Conference Proceedings **483** (1999) 292
92. T.J. Jackson, T.M. Riseman, E.M. Forgan, H. Glückler, T. Prokscha, E. Morenzoni, M. Pleines, Ch. Niedermayer, G. Schatz, H. Luetkens, J. Litterst:  
 “Measurement of magnetic fields as a function of depth with a precision of a few nm below the surface of a high- $T_c$ -superconductor”  
 Phys. Rev. Lett. **84** (2000) 4958
93. T.J. Jackson, C. Binns, M. Birke, E.M. Forgan, E. Morenzoni, Ch. Niedermayer, H. Glückler, A. Hofer, T. Prokscha, T.M. Riseman, A. Schatz, J. Litterst, G. Schatz, H. P. Weber:  
 “Superparamagnetic relaxation in iron nanoclusters measured by low energy muon spin rotation”  
 J. Phys. Condensed Matter **12** (2000) 1399
94. J. M. Gil, H.V. Alberto, R.C. Vilao, J. Piroto-Duarte, P.J. Mendes, N. Ayres-de-Campos, A. Weidinger, J. Krauser, C. Niedermayer, S.F.J. Cox:  
 ”Shallow-level muonium centre in CdS”  
 Physica B **289-290** (2000) 563
95. J. M. Gil, H.V. Alberto, R.C. Vilao, J. Piroto-Duarte, P.J. Mendes, N. Ayres-de-Campos, A. Weidinger, C. Niedermayer, M.V. Yakushev, R.D. Pilkington, R.D. Tomlinson, S.F.J. Cox:  
 ”High-temperature trapping of muons in  $\text{CuInSe}_2$  and  $\text{CuInS}_2$ ”  
 Physica B **289-290** (2000) 567

96. M. Pleines, E.M. Forgan, H. Glückler, A. Hofer, E. Morenzoni, Ch. Niedermayer, T. Prokscha, T.M. Riseman, M. Birke, T.J. Jackson, J. Litterst, H. Luetkens, A. Schatz, G.Schatz:  
“Temperature dependence of the magnetic penetration depth in an  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  film”  
*Physica B* **289-290** (2000) 369
97. H. Glückler, E. Morenzoni, T. Prokscha, M. Birke, E.M. Forgan, A. Hofer, T.J. Jackson, J. Litterst, H. Luetkens, C. Niedermayer, M. Pleines, T.M. Riseman, A. Schatz and G. Schatz:  
”Range of Low Energetic muons in Matter”  
*Physica B* **289-290** (2000) 658
98. H. Luetkens, J. Korecki, H. Glückler, E. Morenzoni, T. Prokscha, A.Schatz, M.Birke, E.M. Forgan, B. Handke, A. Hofer, T.J. Jackson, M. Kubik, F.J. Litterst, Ch. Niedermayer, M. Pleines, T.M. Riseman, G. Schatz, T. Slezak, H.P. Weber:  
”Magnetism of thin chromium films studied with low energy muon spin rotation”  
*Physica B* **289-290** (2000) 326
99. E.M. Forgan, T.J. Jackson, T.M. Riseman, H. Glückler, E. Morenzoni, T. Prokscha, H.P. Weber, A. Hofer, Ch. Niedermayer, G.Schatz, M. Birke, H. Luetkens, J. Litterst, A. Schatz, C. Binns:  
“A low energy muon study of thermal activation in single-domain iron particles“  
*Physica B* **289-290** (2000) 137
100. E. Morenzoni, H. Glückler, T. Prokscha, H.P. Weber, E.M. Forgan, T.J. Jackson, H. Luetkens, Ch. Niedermayer, M. Pleines, M. Birke, A. Hofer, J. Litterst, T.M. Riseman, G. Schatz:  
“Low energy  $\mu\text{SR}$  at PSI: present and future”  
*Physica B* **289-290** (2000) 653
101. T.M. Riseman, T.J. Jackson, M.W. Long, E.M. Forgan, E. Morenzoni, H. Glückler, T. Prokscha, H.P. Weber, Ch. Niedermayer, A. Hofer, M. Pleines, G.Schatz, J. Litterst, H. Luetkens, A. Schatz:  
“Measurements of the penetration depth of an  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  thin film with low energy muons”  
*Physica B* **289-290** (2000) 334
102. R. W. Henn, C. Bernhard, R.K. Kremer, Th. Gulden, A. Simon, Th. Blasius, Ch. Niedermayer:  
“Transverse field muon spin relaxation investigations of the magnetic penetration depth in the carbide superconductors  $\text{Y}_2\text{C}_2(\text{Br},\text{I})_2$  and  $\text{YC}_2$ ”  
*Phys. Rev. B* **62** (2000) 14469
103. G. M. Kalvius, E. Schreier, M. Ekstrom, O. Hartmann, S. Henneberger, A. Kratzer, R. Wäppling, E. Martin, F.J. Burghart, R. Ballou, J. Deportes and C. Niedermayer:  
“High pressure  $\mu\text{SR}$  studies: rare earth and related materials”  
*Hyp. Int.* **128** (2000) 275
104. Y. Sidis, C. Ulrich, C. Bernhard, C. Niedermayer, L.P. Regnault, N.H. Andersen, B. Keimer:  
“Antiferromagnetic ordering in superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_{6.5}$ “  
*Phys. Rev. Lett.* **86** (2001) 4100

105. C. Bernhard, J.L. Tallon, Th. Blasius, A. Golnik and Ch. Niedermayer:  
 “Anomalous peak in the superconducting condensate density of cuprate high  $T_c$  superconductors at a unique critical doping state”  
 Phys. Rev. Lett. **86** (2001) 161
106. E. Morenzoni, E.M. Forgan, H. Glückler, T.J. Jackson, H. Luetkens, C. Niedermayer, T. Prokscha, T.M. Riseman, M. Birke, A. Hofer, J. Litterst, M. Pleines, G. Schatz:  
 “Muon spin rotation and relaxation experiments on thin films”  
 Hyp. Int. **133** (2001) 179
107. C. Ulrich, S. Kondo, M. Reehuis, H. He, C. Bernhard, C. Niedermayer, F. Bouree, P. Bourges, M. Ohl, H. M. Rønnow, H. Takagi and B. Keimer:  
 ”Structural and magnetic instabilities of  $\text{La}_{2-x}\text{Sr}_x\text{Cu}_2\text{O}_6$ ”  
 Phys. Rev. B **65** (2002) 220507(R)
108. E. Morenzoni, H. Glückler, T. Prokscha, R. Khasanov, H. Luetkens, M. Birke, E. M. Forgan, Ch. Niedermayer, M. Pleines:  
 ”Implantation studies of keV positive muons in thin metallic films”  
 Nuclear Instruments and Methods **192** (2002) 254-266
109. Ch. Niedermayer, C. Bernhard, T. Holden, R.K. Kremer, K. Ahn:  
 ”Muon-spin-relaxation study of the magnetic penetration depth in  $\text{MgB}_2$ ”  
 Phys. Rev. B **65** (2002) 094512
110. E. Morenzoni, R. Khasanov, H. Luetkens, T. Prokscha, A. Suter, N. Garifianov, H. Glückler, M. Birke, E. Forgan, H. Keller, J. Litterst, Ch. Niedermayer, G. Nieuwenhuys:  
 ”Low energy muons as probes of thin films and near surface regions”  
 Physica B **326** (2003) 196-204
111. H. Luetkens, J. Korecki, E. Morenzoni, T. Prokscha, M. Birke, H. Glückler, R. Khasanov, H.-H. Klauss, T. Slezak, A. Suter, E. M. Forgan, Ch. Niedermayer, and F.J. Litterst:  
 ”Observation of the Conduction Electron Spin Polarization in the Ag Spacer of a Fe/Ag/Fe Trilayer”  
 Phys. Rev. Lett. **91** (2003) 017204
112. T. Prokscha, E. Morenzoni, A. Suter, R. Khasanov, H. Luetkens, D. Eshchenko, N. Garifianov, E.M. Forgan, H. Keller, J. Litterst, C. Niedermayer, G. Nieuwenhuys:  
 “Thin film, near-surface and multi-layer investigations by low-energy  $\mu\text{SR}$ ”  
 Hyp. Int. **159** (2004) 227
113. S. Bayrakci, C. Bernhard, D.P. Chen, B. Keimer, R.K. Kremer, P. Lemmens, C.T. Lin, C. Niedermayer, J. Stempfer:  
 “Homogeneous antiferromagnetism in  $\text{Na}_{0.82}\text{CoO}_2$  single crystals”  
 Phys. Rev. B **69** (2004) 100410(R)
114. P.G. Freeman, A.T. Boothroyd, D. Prabhakaran, M. Enderle and C. Niedermayer:  
 ”Stripe order and magnetic transitions in  $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ ”  
 Phys. Rev. B **70** (2004) 024413
115. V.V. Krishnamurty, J.L. Robertson, G.J. Mankey, N. Cavadini, Ch. Niedermayer, J.F. Mitchell:  
 ”Spin wave excitations in the antiferromagnetic state of  $\text{Pr}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ ”  
 J. Appl. Phys. **95** (2004) 7351

116. S.N. Klausen, K. Lefmann, P.-A. Lindgard, L. Theil Kuhn, C.R.H. Bahl, C. Frandsen, S. Morup, B. Roessli, N. Cavadini and C. Niedermayer  
 "Magnetic anisotropy and quantized spin waves in hematite nanoparticles"  
 Phys. Rev. B **70** (2004) 214411
117. S Serventi, G. Allodi, R. DeRenzi, G. Guidi, L. Romano, P. Manfrinetti, A. Palenzona, C. Niedermayer, A. Amato, Ch. Baines:  
 "Effect of two gaps on the flux lattice internal field distribution: evidence of two length scales from  $\mu$ SR in  $Mg_{1-x}Al_xB_2$ "  
 Phys. Rev. Lett. **93** (2004) 217003
118. J. Stahn, J. Chakhalian, C. Niedermayer, J. Hoppler, T. Gutberlet, J. Voigt. F. Treubel, H-U. Habermeier, G. Cristiani, B. Keimer and C. Bernhard:  
 "Magnetic proximity effect in Perovskite Superconductor/Ferromagnet Multilayers"  
 Phys. Rev. B **71** (2005) 40509(R)
119. C. Ruegg, B. Normand, M. Matsumoto, C. Niedermayer, A. Furrer, K.W. Kramer, H.-U. Gudel, P. Bourges, Y. Sidis, H. Mutka:  
 "Quantum statistics of interacting dimer spin systems"  
 Phys. Rev. Lett. **95** (2005) 267201
120. V. O. Garlea, S. E. Nagler, J. L. Zarestky, C. Stassis, D. Vaknin, P. Kogerler, D. F. McMorrow, C. Niedermayer, D. A. Tennant, B. Lake, Y. Qiu, M. Exler, J. Schnack, M. Luban:  
 "Probing spin frustration in high-symmetry magnetic nanomolecules by inelastic neutron scattering"  
 Phys. Rev. B **73** (2006) 024414
121. V. S. Zapf, D. Zocco, B. R. Hansen, M. Jaime, N. Harrison, C. D. Batista, M. Kenzelmann, C. Niedermayer, A. Lacerda, and A. Paduan-Filho:  
 "Bose-Einstein Condensation of  $S = 1$  Nickel Spin Degrees of Freedom in  $NiCl_2 - 4SC(NH_2)_2$ "  
 Phys. Rev. Lett. **96** (2006) 077204
122. C.R.H. Bahl, K. Lefmann , A.B. Abrahamsen, H.M. Rønnow, F. Saxild, T.B.S Jensen, L. Udby, H. S. Jakobsen, T. Larsen, P. S. Hafliger, S. Streule, C. Niedermayer:  
 "Inelastic neutron scattering experiments with the monochromatic imaging mode of the RITA-II spectrometer"  
 Nucl. Instr. Meth. B **246** (2006) 452
123. H. Mohottala, B. Wells, J. I. Budnick, W.A. Hines, Ch. Niedermayer, L. Udby C. Bernhard, A.R. Moodenbaugh, F.C. Chou:  
 "Phase Separation in superoxygenated  $La_{2-x}Sr_xCuO_{4+y}$ "  
 Nature Materials **5** (2006) 377
124. K. Lefmann, Ch. Niedermayer, A.B. Abrahamsen, C.R.H. Bahl, N.B. Christensen, H.S. Jacobsen, T.L. Larsen, P. Hafliger, U. Filges, H.M. Rønnow  
 "Realizing the full potential of a RITA spectrometer"  
 Physica B **385-386**, 1083 (2006)

125. C. Rüegg, D. F. McMorrow, B. Normand, H. M. Rønnow, S. E. Sebastian, I. R. Fisher, C. D. Batista, S. Gvasaliya, Ch. Niedermayer, J. Stahn  
 “Multiple Magnon Modes and Consequences for the Bose-Einstein Condensed Phase in  $\text{BaCuSi}_2\text{O}_6$ ”  
 Phys. Rev. Lett. **98**, 017202 (2007)
126. J. Chang, A.P. Schnyder, R. Gilardi, H.M. Ronnow, S. Pailhes, N.B. Christensen, C. Niedermayer, D.F. McMorrow, A. Hiess, A. Stunault, M. Enderle, B. Lake, O. Sobolev, N. Momono, M. Oda, M. Ido, C. Mudry, J. Mesot  
 “Magnetic-field-induced spin excitations and renormalized spin gap of the underdoped  $\text{La}_{1.895}\text{Sr}_{0.105}\text{CuO}_4$  superconductor”  
 Phys. Rev. Lett. **98** (2007) 077004
127. G.A. Petrakovskii, L.N. Bezmaternykh, O. A. Bayukov, M. A. Popov, J. Schefer, C. Niedermayer, P. Aleshkevich, R. Szymczak:  
 “Magnetic structure and magnetic excitations in the two-dimensional spin system of the  $\text{Cu}_3\text{B}_2\text{O}_6$  compound”  
 Physics of the Solid State **49** (2007) 1315
128. C. Bernhard, Ch. Niedermayer, A. Drew, G. Khaliullin, S. Bayrakci, J. Stremper, R. K. Kremer, D. P. Chen, C. T. Lin, B. Keimer:  
 “Muon-spin rotation study of magnetism in  $\text{Na}_x\text{CoO}_2$  single crystals with  $0.78 < x < 0.97$ ”  
 Europhys. Lett. **80** (2007) 27005
129. T.F. Schulze, P.S. Häfliger, Ch. Niedermayer, K. Mattenberger, S. Bubenhofer, B. Batlogg:  
 “Direct link between low-temperature magnetism and high-temperature sodium order in  $\text{Na}_x\text{CoO}_2$ ”  
 Phys. Rev. Lett. **100** (2008) 026407
130. H.E. Mohottala, B.O. Wells, J.I. Budnick, W.A. Hines, Ch. Niedermayer, F-C. Chou:  
 “Flux pinning in the oxygen rich  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4+y}$  system”  
 Phys. Rev. B **78** (2008) 064504
131. J. Chang, Ch. Niedermayer, R. Gilardi, N.B. Christensen, H.M. Ronnow, D.F. McMorrow, M. Ay, J. Stahn, O. Sobolev, A. Hiess, S. Pailhes, C. Baines, N. Momono, M. Oda, M. Ido, and J. Mesot:  
 “Tuning competing orders in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$  cuprate superconductors by the application of an external magnetic field”  
 Phys. Rev. B **78** (2008) 104525
132. M. Kenzelmann, Th. Strässle, Ch. Niedermayer, M. Sigrist, B. Padmanabhan, M. Zolliker, A.D. Bianchi, R. Movshovich, J.L. Sarrao, J.D. Thompson  
 “Coupled Superconducting and Magnetic Order in  $\text{CeCoIn}_5$ ”  
 Science **231** (2008) 1652
133. T. F. Schulze, M. Brühwiler, P.S. Häfliger, S.M. Kazakov, Ch. Niedermayer, K. Mattenberger, J. Karpinski and B. Batlogg:  
 “Spin fluctuations, magnetic long-range order, and Fermi surface gapping in  $\text{Na}_x\text{CoO}_2$ ”  
 Phys. Rev. B **78**, (2008) 205101

134. T.B.S. Jensen, N.B. Christensen, M. Kenzelmann, H. M. Ronnow, C. Niedermayer, N.H. Andersen, K. Lefmann, J. Schefer, M.v. Zimmermann, J. Li, J.L. Zarestky, and D. Vaknin: "Field-induced magnetic phases and electric polarization in  $\text{LiNiPO}_4$ "  
Phys. Rev. B **79**, 092412 (2009)
135. T.B.S. Jensen, N.B. Christensen, M. Kenzelmann, H.M. Ronnow, C. Niedermayer, N. H. Andersen, K. Lefmann, M. Jimenez-Ruiz, F. Demmel, J. Li, J. L. Zarestky and D. Vaknin: "Soft-magnon as a precursor to the commensurate-incommensurate magnetic phase transition in magneto-electric  $\text{LiNiPO}_4$ "  
Phys. Rev. B **79**, 092413 (2009)
136. D. S. Inosov, A. Leineweber, Xiaoping Yang, J. T. Park, N. B. Christensen, R. Dinnebier, G. L. Sun, Ch. Niedermayer, D. Haug, P. W. Stephens, J. Stahn, O. Khvostikova, C. T. Lin, O. K. Andersen, B. Keimer, and V. Hinkov:  
"Suppression of the structural phase transition and lattice softening in slightly underdoped  $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$  with electronic phase separation"  
Phys. Rev. B **79**, 224503 (2009)
137. J. Hoppler, J. Stahn, Ch. Niedermayer, V.K. Malik, A. Drew, M. Rössle, A. Buzdin, G. Cristiani, H.U. Habermeier, B. Keimer, C. Bernhard:  
"Novel superconducting-ferromagnetic quantum state in a cuprate-manganite superlattice"  
Nature Materials **8**, 315 (2009)
138. A. J. Drew, Ch. Niedermayer, P. J. Baker, F. L. Pratt, S. J. Blundell, T. Lancaster, R. H. Liu, G. Wu, X. H. Chen, I. Watanabe, V. K. Malik, A. Dubroka, M. Rössle, K.W. Kim, C. Baines and C. Bernhard:  
"Coexistence of static magnetism and superconductivity in  $\text{SmFeAsO}_{1-x}\text{F}_x$  as revealed by muon spin rotation"  
Nature Materials **8**, 310 (2009)
139. J.T. Park, D.S. Inosov, Ch. Niedermayer, G.L. Sun, D. Haug, N.B. Christensen, R. Dinnebier, A.V. Boris, A. J. Drew, L. Schulz, T. Shapoval, U. Wolff, V. Neu, Xiaoping Yang, C.T. Lin, B. Keimer and V. Hinkov:  
"Electronic phase separation in the slightly underdoped iron pnictide superconductor  $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$ "  
Phys. Rev. Lett. **102**, 117006 (2009)
140. C. Bernhard, A. Drew, L. Schulz, V.K. Malik, M. Rössle, Ch. Niedermayer, Th. Wolf, G.D. Varma, Gang Mu, Hai-Hu Wen, H. Liu, G. Wu and X.H. Chen:  
"Muons spin rotation study of magnetism and superconductivity in  $\text{BaFe}_{2-x}\text{Co}_x\text{As}_2$  and  $\text{Pr}_{1-x}\text{Sr}_x\text{FeAsO}$ "  
New Journal of Physics **11**, 055050 (2009)
141. D.V. Evtushinsky, D.S. Inosov, V.B. Zabolotnyy, M.S. Viazovska, R. Khasanov, A. Amato, H-H. Klauss, H. Luetkens, C. Niedermayer, G.L. Sun, V. Hinkov, C.T. Lin, A. Varykhalov, A. Koitzsch, M. Knupfer, B. Buchner, A.A. Kordyuk, S.V. Borisenko:  
"Momentum-resolved superconducting gap in the bulk of  $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$  from combined ARPES and  $\mu\text{SR}$  measurements."  
New Journal of Physics **11**, 055069 (2009)

142. J. Stahn, Ch. Niedermayer, J. Hoppler and C. Bernhard:  
 "PNR studies of proximity and coupling effects in  $\text{YBa}_2\text{Cu}_3\text{O}_7 / \text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$  superlattices"  
 Neutron News **20**, 13 (2009)
143. J. Chang, N. B. Christensen, Ch. Niedermayer, K. Lefmann, H. M. Rønnow, D. F. McMorrow, A. Schneidewind, P. Link, A. Hiess, M. Boehm, R. Mottl, S. Pailh'és, N. Momono, M. Oda, M. Ido, and J. Mesot:  
 "Magnetic-Field-Induced Soft-Mode Quantum Phase Transition in the High-Temperature Superconductor  $\text{La}_{1.855}\text{Sr}_{0.145}\text{CuO}_4$ : An Inelastic Neutron-Scattering Study"  
 Phys. Rev. Lett. **102**, 177006 (2009)
144. L. Udby, N. H. Andersen, F. C. Chou, N. B. Christensen, S. B. Emery, K. Lefmann, J. W. Lynn, H. E. Mohottala, Ch. Niedermayer, and B. O. Wells:  
 "Magnetic ordering in electronically phase-separated  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4+y}$ : Neutron diffraction experiments"  
 Phys. Rev. B **80**, 014505 (2009)
145. R. Khasanov, D.V. Evtushinsky, A. Amato, H.-H. Klauss, H. Luetkens, Ch. Niedermayer, B. Büchner, G. L. Sun, C. T. Lin, J. T. Park, D. S. Inosov and V. Hinkov:  
 "Two-Gap Superconductivity in  $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$ : A Complementary Study of the Magnetic Penetration Depth by Muon-Spin Rotation and Angle-Resolved Photoemission"  
 Phys. Rev. Lett. **102**, 187505 (2009)
146. D. Haug, V. Hinkov, A. Suchaneck, D. S. Inosov, N. B. Christensen, Ch. Niedermayer, P. Bourges, Y. Sidis, J. T. Park, A. Ivanov, C. T. Lin, J. Mesot, and B. Keimer:  
 "Magnetic-Field-Enhanced Incommensurate Magnetic Order in the Underdoped High-Temperature Superconductor  $\text{YBa}_2\text{Cu}_3\text{O}_{6.45}$ "  
 Phys. Rev. Lett. **103**, 017001 (2009)
147. P. Marsik, K.W. Kim, A. Dubroka, M. Rossle, V. K. Malik, L. Schulz, C. N.Wang, Ch. Niedermayer, A. J. Drew, M. Willis, T. Wolf, and C. Bernhard:  
 "Coexistence and Competition of Magnetism and Superconductivity on the Nanometer Scale in Underdoped  $\text{BaFe}_{1.89}\text{Co}_{0.11}\text{As}_2$ "  
 Phys. Rev. Lett. **105**, 057001 (2010)
148. E. Blackburn, P. Das, M. R. Eskildsen, E. M. Forgan, M. Laver, C. Niedermayer, C. Petrovic, and J. S. White:  
 "Exploring the Fragile Antiferromagnetic Superconducting Phase in  $\text{CeCoIn}_5$ "  
 Phys. Rev. Lett. **105**, 187001 (2010)
149. L. Udby, P.K. Willendrup; E. Knudsen, C. Niedermayer, U. Filges, N.B. Christensen,; E. Farhi, B.O. Wells, K. Lefmann:  
 "Analysing neutron scattering data using McStas virtual experiments"  
 Nuclear Instruments & Methods A **634**, S138 (2011)
150. P.G. Freeman, D. Prabhakaran; K, A.; M. Enderle, C. Niedermayer, C.D.Frost; K. Yamada ; A.T. Boothroyd:  
 "Low-energy quasi-one-dimensional spin dynamics in charge-ordered  $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ "  
 Phys. Rev. B **83**, 094414 (2011)



151. F.J. Owens; L. Gladczuk, R. Szymczak, P. Dluzewski, A. Wisniewski, H. Szymczak, A. Golnik, C. Bernhard, C. Niedermayer:  
 "High temperature magnetic order in zinc sulfide doped with copper"  
*Journal of Physics and Chemistry of Solids* **72**, 648 (2011)
152. R. Toft-Petersen, J. Jensen,; T.B.S. Jensen, N.H. Andersen, N.B. Christensen, C. Niedermayer, M. Kenzelmann, M. Skoulatos; M.D. Le; K. Lefmann, S.R. Hansen, J.Y. Li, J.L. Zarestky, D. Vaknin:  
 "High-field magnetic phase transitions and spin excitations in magnetoelectric LiNiPO<sub>4</sub>"  
*Phys. Rev. B* **84**, 054408 (2011)
153. O. Zaharko, N.B. Christensen, A. Cervellino, V. Tsurkan, A. Maljuk, U. Stuhr, C. Niedermayer, F. Yokaichiya, D.N. Argyriou, M. Boehm, A. Loidl:  
 "Spin liquid in a single crystal of the frustrated diamond lattice antiferromagnet CoAl<sub>2</sub>O<sub>4</sub>"  
*Phys Rev. B* **84**, 094403 (2011)
154. Y. Hu, M. Bator, M. Kenzelmann, T. Lippert, C. Niedermayer, C.W. Schneider, A. Wokaun:  
 "Strain and lattice distortion in (1 1 0)-epitaxial orthorhombic TbMnO<sub>3</sub> multiferroic thin films grown by pulsed laser deposition"  
*Applied Surface Science* **258** (2012) 9323
155. J.S. White, T. Honda, K. Kimura, T. Kimura, Ch. Niedermayer, O. Zaharko, A. Poole, B. Roessli, M. Kenzelmann:  
 "Coupling of Magnetic and Ferroelectric Hysteresis by a Multicomponent Magnetic Structure in Mn<sub>2</sub>GeO<sub>4</sub>"  
*Phys. Rev. Lett.* **108**, 077204 (2012)
156. M. Bator, Y. Hu, H. Luetkens, C. Niedermayer, T. Prokscha, A. Suter, Z. Salman, M. Kenzelmann, C.W. Schneider, T. Lippert:  
 "Depth-dependent spin dynamics in TbMnO<sub>3</sub> thin films measured by low energy muon spin relaxation"  
*Physica Procedia* **30**, 137 (2012)
157. Y. Hu, C.N. Borca, E. Kleymenov, M. Nachtegaal, B. Delley, M. Janousch, A. Dönni, M. Tachibana, H. Kitazawa, E. Takayama-Muromachi, M. Kenzelmann, C. Niedermayer, T. Lippert, A. Wokaun, C.W. Schneider:  
 "Experimental and ab initio investigations of the x-ray absorption near edge structure of orthorhombic LuMnO<sub>3</sub>"  
*Applied Physics Letters* **100**, 252901 (2012)
158. M. Reehuis, C. Ulrich, A. Maljuk, C. Niedermayer, B. Ouladdiaf, A. Hoser, T. Hofmann, B. Keimer:  
 "Neutron diffraction study of spin and charge ordering in SrFeO<sub>3-δ</sub>"  
*Phys Rev. B* **85**, 184109 (2012)
159. R. Toft-Petersen, N.H. Andersen, H.F. Li, J.Y. Li, W. Tian, S.L. Bud'ko, T.B.S. Jensen, C. Niedermayer, M. Laver, O. Zaharko, J.W. Lynn, D. Vaknin:  
 "Magnetic phase diagram of magnetoelectric LiMnPO<sub>4</sub>"  
*Phys Rev. B* **85**, 224415 (2012)

160. C.N. Wang, P. Marsik, R. Schuster, A. Dubroka, M. Roessle, C. Niedermayer, G.D. Varma, A.F. Wang, X.H. Chen, T. Wolf, C. Bernhard:  
 “Macroscopic phase segregation in superconducting  $K_{0.73}Fe_{1.67}Se_2$  as seen by muon spin rotation and infrared spectroscopy“  
 Phys Rev. B **85**, 214503 (2012)
161. D. Hüvonen, S. Zhao, M. Månsson, T. Yankova, E. Ressouche, C. Niedermayer, M. Laver, S. N. Gvasaliya, A. Zheludev:  
 “Field-induced criticality in a gapped quantum magnet with bond disorder”  
 Phys Rev. B **85**, 100410(R) (2012)
162. G. Drachuck, M. Shay, G. Bazalitsky, R. Ofer, Z. Salman, A. Amato, C. Niedermayer, D. Wulferding, P. Lemmens, A. Keren:  
 “New Perspectives for Cuprate Research:  $(Ca_xLa_{1-x})(Ba_{1.75-x}La_{0.25+x})Cu_3O_y$  Single Crystals”  
 J Supercond Nov Magn **25**, 2331 (2012)
163. C. Bernhard, C.N. Wang, L. Nuccio, L. Schulz, O. Zaharko, J. Larsen, C. Aristizabal, M. Willis, A.J. Drew, G.D. Varma, T. Wolf, C. Niedermayer:  
 “Muon spin rotation study of magnetism and superconductivity in  $Ba(Fe_{1-x}Co_x)_2As_2$  single crystals”  
 Phys Rev. B **86**, 184509 (2012)
164. A.T. Romer, J. Chang, N.B. Christensen, B.M. Andersen, K. Lefmann, L. Mahler, J. Gavilano, R. Gilardi, C. Niedermayer, H.M. Ronnow, A. Schneidewind, P. Link, M. Oda, M. Ido, N. Momono, J. Mesot:  
 „Glassy low-energy spin fluctuations and anisotropy gap in  $La_{1.88}Sr_{0.12}CuO_4$ ”  
 Phys Rev. B **86**, 144513 (2013)
165. N. Tsyrlin, C.D. Batista, V.S. Zapf, M. Jaime, B.R. Hansen, C. Niedermayer, K.C. Rule, K. Habicht, K. Prokes, K. Kiefer, E. Ressouche, A. Paduan, M. Kenzelmann:  
 „Neutron study of the magnetism in  $NiCl_2 \cdot 4SC(NH_2)_2$ ”  
 Journal of Physics:Condensed Matter **25**, 216008 (2013)
166. J. S. White, M. Bator, Y. Hu, H. Luetkens, J. Stahn, S. Capelli, S. Das, M. Dobeli, Th. Lippert, V.K. Malik, J. Martynczuk, A. Wokaun, M. Kenzelmann, Ch. Niedermayer, C.W. Schneider:  
 „Strain-induced ferromagnetism in antiferromagnetic  $LuMnO_3$  thin films”  
 Phys. Rev. Lett. **111**, 037201 (2013)
167. J. S. White, Ch. Niedermayer, G. Gasparovic, C. Broholm, J.M.S. Park, A.Y. Shapiro, L.A. Demianets, M. Kenzelmann:  
 „Multiferroicity in the generic easy-plane triangular lattice antiferromagnet  $RbFe(MoO_4)_2$ ”  
 Phys. Rev. B **88**, 060409 (2013)
168. L. Udby, J. Larsen, N.B. Christensen, M. Boehm, Ch. Niedermayer, H.E. Mohottala, T.B.S. Jensen, R. Toft-Petersen, F.C. Chou, N.H. Andersen, K. Lefmann, B.O. Wells:  
 „Measurement of Unique Magnetic and Superconducting Phases in Oxygen-Doped High-Temperature Superconductors  $La_{2-x}Sr_xCuO_{4+y}$ ”  
 Phys. Rev. Lett. **111**, 227001 (2013)

169. S. Gerber, M. Bartkowiak, J.L. Gavilano, E. Ressouche, N. Egetenmeyer, Ch. Niedermayer, A.D. Bianchi, R. Movshovich, E.D. Bauer, J.D. Thompson, M. Kenzelmann:  
„Switching of magnetic domains reveals spatially inhomogeneous superconductivity”  
Nature Physics 10, 126 (2014)
170. G. Drachuck, E. Razzoli, G. Bazalitski, A. Kanigel, C. Niedermayer, M. Shi, A. Keren:  
“Comprehensive study of the spin-charge interplay in antiferromagnetic  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ”  
Nature Communication 5, 3390 (2014)