July 2008

Christian Binek: List of Publications

1. S. Polisetty, J. Scheffler, S. Sahoo, Yi Wang, T. Mukherjee, Xi He, and Ch. Binek,
Rev. Sci. Instrum. **79**, 055107 (2008), *Optimization of magneto-optical Kerr setup: Analyzing experimental assemblies using Jones matrix formalism*

2. R. Skomski, Ch. Binek, T. Mukherjee, S. Sahoo, and D.J. Sellmyer,
J. Appl. Phys. **103**, 07B329 (2008), *Temperature and field-induced entropy changes in nanomagnets*

3. S. Polisetty, S. Sahoo, and Ch. Binek,
Phys. Rev. B **76,** 184423 (2007), *Scaling behavior of the exchange-bias training effect*

4. S. Sahoo, S. Polisetty, C.-G. Duan, Sitaram S. Jaswal, E. Y. Tsymbal, and Ch. Binek,
Phys. Rev. B **76,** 092108 (2007), *Ferroelectric control of magnetism in $BaTiO_3$ /Fe heterostructures via interface strain coupling*

5. S. Sahoo, T. Mukherjee, K. D. Belashchenko, and Ch. Binek
Appl. Phys. Lett. **91**, 172506 (2007), *Isothermal low-field tuning of exchange bias in epitaxial Fe/ Cr_2O_3/Fe*

6. S. Sahoo and Ch. Binek,
Phil. Mag. Lett. **87**, 259 (2007), *Piezomagnetism in epitaxial* Cr_2O_3 *thin films and spintronic applications*

7. S. Sahoo, S. Polisetty, Ch. Binek, and A. Berger,
J. Appl. Phys. **101**, 053902 (2007), *Dynamic enhancement of the exchange bias training effect*

8. Ch. Binek, S. Polisetty, Xi He, T. Mukherjee, R. Rajesh, and J. Redepenning, Phys. Rev. B. **74**, 054432 (2006), *Nonextensivity in magnetic nanoparticle ensembles*

9. Ch. Binek, S. Polisetty, Xi He, and A. Berger, Phys. Rev. Lett. **96**, 067201 (2006), *Exchange bias training effect in coupled all ferromagnetic bilayer structures*

10. A Berger, Ch. Binek, D.T. Marguiles, A. Moster, and E.E. Fullerton, Physica B **372**, (2006) 168-172, *Reversible hysteresis loop tuning*

11. Ch. Binek, Xi He, and S. Polisetty, Phys. Rev. B. **72**, 054408 (2005), *Temperature dependence of the training effect in a Co/CoO exchange-bias layer*

12. P. Borisov, A. Hochstrat, X. Chen, W. Kleemann, and Ch. Binek, Phys. Rev. Lett. **94**, 117203 (2005), *Magnetoelectric switching of the exchange bias*

13. Ch. Binek, A. Hochstrat, X. Chen, P. Borisov, W. Kleeman and B. Doudin, J. Appl. Phys. **97**, 10C514 (2005), *Electrically controlled exchange bias for spintronic applications*

14. Ch. Binek, P. Borisov, X. Chen, A. Hochstrat, S. Sahoo, and W. Kleemann, Eur. Phys. J. B. **45**, 197 (2005), *Perpendicular exchange bias and it's control by magnetic, stress and electric fields*

15. Ch. Binek, and B. Doudin, J. Phys. Condens. Matter **17**, L39 (2005), *Magnetoelectronics with magnetoelectrics*|

16. Ch. Binek
Phys. Rev. B. **70**, 014421 (2004), *Training of the exchange-bias effect: A simple analytic approach*

17. S. Sahoo, Ch. Binek, and W. Kleemann,
Phase Trans **77**, 217 (2004), *Magneto-thermal behavior of a granular $FeCl_2$-Fe heterostructure*

18. S. Sahoo, Ch. Binke, and W. Kleemann,
Phys. Rev. B. **68**, 174431 (2003), *Giant metamagnetic moments in a granular $FeCl_2$-Fe heterostructure*

19. A. Hochstrat, Ch. Binek, Xi Chen, and W. Kleemann,
J. Magn. Magn. Mater. **272-276**, 325 (2004), *Extrinsic control of the exchange bias*

20. O. Petracic, Xi Chen, O. Sichelschmidt, Ch. Binek, W. Kleeman, A. Glatz, T. Nattermann, S. Cardoso, and P.P. Freitas,
J. Magn. Magn. Mater. **272-276**, E1201 (2004), *Superferromagnetic domain state dynamics in discontinuous CoFe/Al_2O_3*

21. O. Petracic, S. Sahoo, Ch. Binek, W. Kleeman, J.B. Sousa, S. Cardoso, and P.P. Freitas,
Phase Trans. **76**, 367 (2003), *Cole-cole analysis of the superspin-glass system $Co_{80}F_{20}/Al_2O_3$*

22. A. Hochstrat, Ch. Binek, and W. Kleeman,
Phys. Rev. B **66**, 092409 (2002), *Training of the exchange bias effect in NiO-Fe heterostructures*

23. Xi Chen, O. Sichelschmidt, W. Kleemann, O. Petracic, Ch. Binek, J.B. Sousa, S. Cardoso, and P.P. Freitas,
Phys. Rev. Lett. **89**, 137203 (2002), *Domain wall relaxation, creep and switching in superferromagnetic discontinuous* $[Co_{80}F_{20}/Al_2O_3]_{10}$

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J. Phys. Condens. Matter **14**, 6729 (2002), *Magnetic relaxation phenomena in the superspin-glass system* $[Co_{80}F_{20}/Al_2O_3]_{10}$

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29. S. Sahoo, O. Sichelschmidt, O. Petracic, Ch. Binek, W. Kleemann, G.N. Kakazei, Yu.G. Pogorelov, J.B. Sousa, S. Cardoso, and P.P. Freitas,
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J. Magn. Magn. Mater **240**, 257 (2002), *Exchange bias in $Fe_{0.6}Zn_{0.4}F_2$ heterostructures*

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J. Magn. Magn. Mater. **234**, 353 (2001), *Exchange bias in a generalized Meiklejohn-Bean approach*

32. Ch. Binek. W. Kleemann, and H. Aruga Katori,
J. Phys. Condens. Matter **13**, L811 (2001), *Yang-Lee edge singularities from experimental high field magnetization data*

33. J.B. Sousa, G.N. Kakazei, Yu.G. Pogorelov, J.A.M. Santos, W. Kleemann, O. Petracic, Ch. Binek, S. Cardoso, P.P. Freitas, M.M. Pereira de Azevedo, N.A. Lesnik, M. Rokhlin, and P.E. Wigen,
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Phase Trans. **75**, 73 (2002), *Superspin glass behavior of interacting ferromagnetic nanoparticles in discontinuous magnetic multilayers*

35. T. Kato, Ch. Binek, O. Petracic, W. Kleemann, D. Bertrand, P. Burlet, and F. Bourdarot,
J. Magn. Magn. Mater. **226-230**, 618 (2001), *Transverse magnetism of the diluted antiferromagnet $Fe_{1-x}Mg_xBr_2$ (x=0.15)*

36. Ch. Binek, B. Kagerer, S. Kainz, and W. Kleemann,
J. Magn. Magn. Mater. **226-230**, 1814 (2001), *Exchange bias in FeF_2Co-Pt heterosystems with perpendicular anisotropy*

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J. Magn. Magn. Mater. **226-230**, 1825 (2001), *Ac susceptibility studies of discontinuous $Co_{80}Fe_{20}Al_2O_3$*

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Phys. Rev. B. **63**, 134423 (2001), *Interacting ferromagnetic nanoparticles in discontinuous $Co_{80}Fe_{20}Al_2O_3$ multilayers: from superspin glass to reentrant superferromagnetism*

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42. Ch. Binek, T. Kato, W. Kleemann, O. Petracic, F. Bourdarot, P. Burlet, H. Aruga Katori, K. Katsumata, K. Prokes, and S. Welzel,

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