

List of scientific publications

List of scientific publications in reverse chronological order:

1. R. R. Grüter, Z. Khan, R. Paxman, J. Ndieyira, B. Dueck, B. A. Bircher, J. L. Yang, U. Drechsler, M. Despont, R. A. McKendry, and B. W. Hoogenboom, "Disentangling mechanical and mass effects on nanomechanical resonators", *Appl. Phys. Lett.* 96, 023113 (2010) [[online article](#)].
2. N. Jenkins, Y. Fasano, C. Berthod, I. Maggio-Aprile, A. Piriou, E. Giannini, B. W. Hoogenboom, C. Hess, T. Cren, and Ø. Fischer, "Imaging the essential role of spin fluctuations in high-Tc superconductivity", *Phys. Rev. Lett.* 103, 227001 (2009) [[online article](#)].
3. C. Leung, H. Kinns, B. W. Hoogenboom, S. Howorka, and P. Mesquida, "Imaging surface charges of individual biomolecules", *Nano Lett.* 9, 2769 (2009) [[online article](#)].
4. B. W. Hoogenboom, P. L. T. M. Frederix, D. Fotiadis, H. J. Hug, and A. Engel, "Potential of interferometric cantilever detection and its application for SFM/AFM in liquids", *Nanotechnology* 19, 384019 (2008) [[online article](#)].
5. B. W. Hoogenboom, K. Suda, A. Engel, and D. Fotiadis, "Supramolecular assemblies of the voltage-dependent anion channel in the native membrane", *J. Mol. Biol.* 370, 246 (2007). [[online article](#)][[front cover](#)]
6. B. W. Hoogenboom, "Atomic-resolution imaging in liquids", *G.I.T. Imaging & Microscopy* 3, 50-51 (2006). [[on-line article](#)]
7. L. DeBeer-Schmitt, C. D. Dewhurst, B. W. Hoogenboom, C. Petrovic, and M. R. Eskildsen, "Field dependent coherence length in the superclean, high-K superconductor CeCoIn₅", *Phys. Rev. Lett.* 97, 127001 (2006). [[on-line article](#)]
8. B. W. Hoogenboom, H. J. Hug, Y. Pellmont, S. Martin, P. L. T. M. Frederix, D. Fotiadis, and A. Engel, "Quantitative dynamic-mode scanning force microscopy in liquid", *Appl. Phys. Lett.* 88, 193109 (2006). [[online article](#)][[News Feature in Nature on this research](#)]
9. B. W. Hoogenboom, P. L. T. M. Frederix, and H. J. Hug, "Interferometer-based AFM for measuring with small cantilevers", *G.I.T. Imaging & Microscopy* 7, 36-38 (2005). [[on-line article](#)]
10. J. L. Yang, M. Despont, U. Drechsler, B. W. Hoogenboom, P. L. T. M. Frederix, S. Martin, A. Engel, P. Vettiger, and H. J. Hug, "Miniaturized single-crystal silicon cantilevers for scanning force microscopy", *Appl. Phys. Lett.* 86, 134101 (2005). [[on-line article](#)]
11. B. W. Hoogenboom, P. L. T. M. Frederix, J. L. Yang, S. Martin, Y. Pellmont, M. Steinacher, S. Zäch, E. Langenbach, H.-J. Heimbeck, A. Engel, and H. J. Hug, "A Fabry-Perot interferometer for micrometer-sized cantilevers", *Appl. Phys. Lett.* 86, 074101 (2005). [[online article](#)]
12. P. L. T. M. Frederix, B. W. Hoogenboom, D. Fotiadis, D. J. Müller, and A. Engel, "Atomic force microscopy of biological samples", *MRS Bulletin* 29, 449-455 (2004). [[on-line article](#)]
13. J. L. Yang, M. Despont, B. W. Hoogenboom, U. Drechsler, P. L. T. M. Frederix, S. Martin, H. J. Hug, P. Vettiger, and A. Engel, "Proc. 17th IEEE int. conf. on

- microelectromechanical systems (MEMS 2004)" (Institute of Electrical and Electronics Engineers, Piscataway, NJ, 2004), pp. 560-563.
14. B. W. Hoogenboom, K. Kadowaki, B. Revaz, Ch. Renner, and Ø. Fischer, "Homogeneous samples of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$ ", *Physica C* 391, 376-380 (2003). [[on-line article](#)]
 15. B. W. Hoogenboom, C. Berthod, M. Peter, Ø. Fischer, and A. A. Kordyuk, "Modeling scanning tunneling spectra on $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$ ", *Phys. Rev. B* 67, 224502 (2003). [[on-line article](#)]
 16. M. R. Eskildsen, C. D. Dewhurst, B. W. Hoogenboom, C. Petrovic, and P. Canfield, "Hexagonal and square flux line lattices in CeCoIn_5 ", *Phys. Rev. Lett.* 90, 187001 (2003). [[on-line article](#)]
 17. B. W. Hoogenboom, Ch. Renner, I. Maggio-Aprile, and O. Fischer, in "Vortices in unconventional superconductors and superfluids", Vol. 132 of "Series in solid-state science", edited by R. P. Huebener, N. Schophohl, and G. E. Volovik (Springer, Berlin Heidelberg, 2002), pp. 269-282.
 18. B. W. Hoogenboom, K. Kadowaki, B. Revaz, M. Li, Ch. Renner, and Ø. Fischer, "Linear and field-independent relation between vortex core state energy and gap in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$ ", *Phys. Rev. Lett.* 87, 267001 (2001). [[online article](#)]
 19. B. W. Hoogenboom, M. Kugler, B. Revaz, I. Maggio-Aprile, Ø. Fischer, and Ch. Renner, "Shape and motion of vortex cores in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$ ", *Phys. Rev. B* 62, 9179-9185 (2000). [[on-line article](#)]
 20. B. W. Hoogenboom, Ch. Renner, B. Revaz, I. Maggio-Aprile, and Ø. Fischer, "Low-energy structures in vortex core tunneling spectra in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+d}$ ", *Physica C* 332, 440-444 (2000), proceedings of the first euroconference on vortex matter in superconductors at extreme scales and conditions, Crete, September 18-24 (1999). [[on-line article](#)]
 21. C. Neumann, B. W. Hoogenboom, A. Rogalev, and J. B. Goedkoop, "Crystal field effects in the L_{23} XMCD of rare earth insulators", *Solid State Comm.* 110, 375-379 (1999). [[on-line article](#)]
 22. B. W. Hoogenboom, R. Hesper, L. H. Tjeng, and G. A. Sawatzky, "Charge transfer and doping-dependent hybridization of C_{60} on noble metals", *Phys. Rev. B* 57, 11939-11942 (1998). [[on-line article](#)]