

# **Bertold M. Krässig**

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## **Professional Experience**

- **2001-Present.** Physicist at Argonne National Laboratory.
- **1996-2001.** Assistant Physicist at Argonne National Laboratory.
- **1995-1996.** Postdoctoral Appointee in the Physics Division at Argonne National Laboratory.
- **1994-1995.** Postdoctoral Appointee in the Department of Physics at the University of Freiburg, Germany.
- **1989-1995.** Research Assistant in the Department of Physics at the University of Freiburg, Germany.
- **1988-1989.** Research Assistant in the Department of Physics at Kansas State University.

## **Education**

- Ph.D., University of Freiburg, Germany, 1994.
- Physik Diplom, University of Freiburg, Germany, 1987.

## **Awards**

- Ernst-Eckart-Koch Prize, Berlin, Germany (1994)

## **Career Activities & Highlights**

- Co-editor of the Proceedings of the 18<sup>th</sup> International Conference on X-Ray and Inner-Shell Processes, 2000
- Member of the Local Organizing Committee for the 18<sup>th</sup> International Conference on X-Ray and Inner-Shell Processes, 1999
- Research Interests
  - X-ray interactions with atoms and molecules
  - Laser-x-ray pump-probe experiments
  - Strong-field control of atomic and molecular photoabsorption
  - Nondipolar photoionization

- Professional Organizations
  - The American Physical Society
  - The German Physical Society

## Publications

B. Krässig, R. W. Dunford, E. P. Kanter, E. C. Landahl, S. H. Southworth, and L. Young, "A Simple Cross-Correlation Technique Between Infrared and Hard X-Ray Pulses," *Applied Physics Letters*, 94:171113 (2009).

R. Santra, R. W. Dunford, E. P. Kanter, B. Krässig, S. H. Southworth, and L. Young, "Strong-Field Control of X-Ray Processes," *Advances in Atomic, Molecular, and Optical Physics*, Vol. 56:219-259, Editors: Ennio Arimondo, Paul R. Berman, Chun C. Lin, USA: Academic Press (2008).

E. R. Peterson, C. Buth, D. A. Arms, R. W. Dunford, E. P. Kanter, B. Krässig, E. C. Landahl, S. T. Pratt, R. Santra, S. H. Southworth, and L. Young, "An X-Ray Probe of Laser-Aligned Molecules," *Applied Physics Letters*, 92:094106 (2008).

L. Young, D. A. Arms, E. M. Dufresne, R. W. Dunford, D. L. Ederer, C. Höhr, E. P. Kanter, B. Krässig, E. C. Landahl, E. R. Peterson, J. Rudati, R. Santra, and S. H. Southworth, "X-Ray Microprobe of Orbital Alignment In Strong-Field Ionized Atoms," *Physical Review Letters*, 97:083601 (2006).

B. Krässig, E. P. Kanter, S. H. Southworth, R. Guillemin, O. Hemmers, D. W. Lindle, R. Wehlitz, and N. L. S. Martin, "Photoexcitation of a Dipole-Forbidden Resonance in Helium," *Physical Review Letters*, 88:203002 (2002).

E. P. Kanter, R. W. Dunford, B. Krässig, and S. H. Southworth, "Double K-Vacancy Production in Molybdenum by X-Ray Photoionization," *Physical Review Letters*, 83:508-511 (1999).

B. Krässig, R. W. Dunford, D. S. Gemmell, S. Hasegawa, E. P. Kanter, H. Schmidt-Böcking, W. Schmitt, S. H. Southworth, T. Weber, and L. Young, "Compton Double Ionization of Helium in the Region of the Cross-Section Maximum," *Physical Review Letters*, 83:53-56 (1999).

B. Krässig, M. Jung, D. S. Gemmell, E. P. Kanter, T. LeBrun, S. H. Southworth and L. Young, "Nondipolar Asymmetries of Photoelectron Angular Distributions," *Physical Review Letters*, 75:4736-4739 (1995).

O. Schwarzkopf, B. Krässig, J. Elmiger, and V. Schmidt, "Energy- and Angle-Resolved Double Photoionization Helium," *Physical Review Letters*, 70:3008-3011 (1993).