

Introduction to **XAFS**

X-ray absorption fine structure spectroscopy (XAFS) is a powerful and versatile technique for studying structures of materials in chemistry, physics, biology, and other fields. This textbook is a comprehensive, practical guide to carrying out and interpreting XAFS experiments.

Assuming only undergraduate-level physics and mathematics, the textbook is ideally suited for graduate students in physics and chemistry starting XAFS-based research. It contains concise executable example programs in Mathematica 7.

The textbook addresses experiment, theory, and data analysis, but is not tied to specific data analysis programs or philosophies. This makes it accessible to a broad audience in the sciences, and a useful guide for researchers entering the subject.

Supplementary material available at www.cambridge.org/9780521767750

- Mathematica code from the book
- Related Mathematica programs
- Worked data analysis examples

GRANT BUNKER is Professor of Physics at the Illinois Institute of Technology. He has over 30 years' experience in all aspects of XAFS spectroscopy, from technique development, instrumentation, and computation, to applications in biology, chemistry, and physics.

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