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# Microscale Inorganic Chemistry: A Comprehensive Laboratory Experience





## Synopsis

This text is intended to provide students with instruction and valuable laboratory experience in the often neglected area of inorganic chemistry. Divided into four main parts, the book covers chemistry of the main group elements, chemistry of the transition metals, organometallic chemistry, and bioinorganic chemistry. Recognizing the high cost of materials, difficulties in waste disposal, and dangers of toxicity, the authors have adopted a ``microscale'' approach to experiments in the book, thereby also reducing the time students spend in preparation. With over 45 experiments, Microscale Inorganic Chemistry incorporates the use of a broad sampling of elements and also covers such topics as laboratory safety, equipment, report writing, and literature searching.

### **Book Information**

Paperback: 384 pages Publisher: Wiley; 1 edition (January 24, 1991) Language: English ISBN-10: 0471619965 ISBN-13: 978-0471619963 Product Dimensions: 8.7 x 0.9 x 11.3 inches Shipping Weight: 1.9 pounds (View shipping rates and policies) Average Customer Review: 4.3 out of 5 stars Â See all reviews (3 customer reviews) Best Sellers Rank: #166,870 in Books (See Top 100 in Books) #2 in Books > Science & Math > Chemistry > Crystallography #15 in Books > Science & Math > Chemistry > Clinical #30 in Books > Science & Math > Chemistry > Inorganic

#### **Customer Reviews**

This is a wonderful combination of some simple chemistry experiments that allow students (such as myself) to gain insight into the experimental world of inorganic chemistry. The laboratory experiments are real, interesting, and also allow the student to think about what is happening, and to apply their knowledge to taking the experiments to a further level. This is an excellent book, and probably the best source available for inorganic experiments for undergrads.

This is a good introductory inorganic test. It does a great job explaining procedure and theory in the first few chapters. Some of the end of chapter questions are esoteric, especially the literature search ones. The biggest problem is that some of the lab procedures give poor yields when applied. The procedure should be cross-referenced to make sure that it gives the best yield.

I've used this lab manual for a microscale inorganic laboratory course for about a dozen years. There is a nice selection of experiments which cover most of the basics appropriate for a senior-level course. But the reviewer who comments on the reaction yields is right. Some of the yields are so poor that I maintain commercial samples of the products so that students will have something to characterize. I have even written the authors with questions about improving yields in some of the experiments, but received few suggestions for improvements. Also, very few of the experiments take the students through reasonable purification steps for the products (I suppose because the yields are so low). But there are few competing inorganic lab manuals, and none that I am aware of for working at microscale.

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