

Microelectronics Processing: Inorganic Materials Characterization

Edited by Lawrence Casper
(American Chemical Society, 1986)

This book, Volume 295 of the American Chemical Society Symposium Series, is a collection of 25 short papers describing the characterization techniques most commonly used in the microelectronics industry. Reviews of specific analytical techniques are given as well as results of studies using these techniques. The book was designed for rapid publication of recent information by using author-prepared manuscripts.

The articles generally give good basic introductions to most semiconductor characterization techniques, including electrical

techniques (SRP, FTIR), surface chemical techniques (AES, SIMS, XPS), bulk chemical techniques (NAA, SSMS, ICPMS), and optical techniques. In most cases, examples demonstrate the application of techniques to analytical problems—for example, the use of AES to solve a device failure. The review articles give similar depth of coverage, and there are numerous comparisons among related techniques. Most articles draw on literature published prior to 1983, so some information may now be outdated. This book can be recommended as a source of readily available information that will enable choosing the analytical technique best suited for a particular problem.

Several articles give recent results of studies on semiconductor related materials, including surface contamination, anal-

ysis of particles, bulk impurity determinations, and growth issues. Materials studied include silicon, gallium arsenide, device metallization materials, and passivation coatings. In general, these articles should be viewed as demonstrations of the respective analytical techniques rather than in-depth reviews of the materials issues they represent.

This book's major value is that it provides an introduction to a specific topic's literature which may interest a reader working in a related topic.

Reviewers: Charles A. Evans Jr. is co-founder and president of Charles Evans & Associates, an analytical laboratory specializing in state-of-the-art surface and thin-film microanalysis primarily for the semiconductor industry. Steven W. Novak is a staff analyst/SIMS at Charles Evans & Associates.

UNSearch™

Software for searching metals & alloys data

Search by

- Chemical Composition • Metal • Alloy • UNS Number • Society Designation
- Federal Specification Number • Military Specification Number

Minimum System Requirements

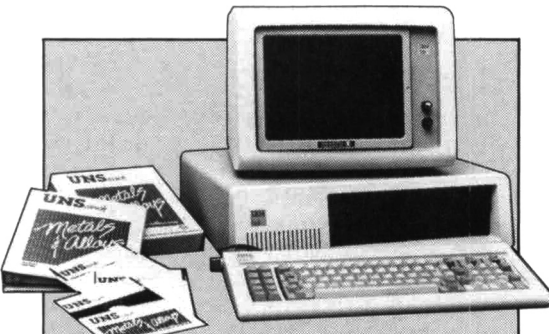
UNSearch™ will operate on IBM PC, XT, AT or IBM compatible computers with a hard disk drive, at least 512KB RAM and a DOS 2.0 or later operating system.

UNSearch™

Now you can find the metals and alloys information you need faster than ever before with UNSearch™, the new Unified Numbering System Software package. With online accuracy and efficiency, this valuable engineering tool enables you to search by chemical composition for the first time. This is something that the printed edition of Metals and Alloys in the Unified Numbering System (UNS) cannot provide. UNSearch™ also enables you to search by UNS number, by society or federal specification number, by military specification, metal or alloy.

Simplify Your Research Time

You can cut hours from your research time, the time you previously spent leafing through page after page of material, by using UNSearch™. UNSearch™ can simplify the time-consuming process of locating metals & alloys data by



Complete Package Includes:

- 1 Systems Diskette
- 8 Data Diskettes
- Users Manual

\$495.00 Member and List
Order No. UNSearch™
Jointly developed by SAE and ASTM.

To order: Call SAE Customer Service at (412) 776-4970 or write SAE, 400 Commonwealth Dr., Warrendale, PA 15096-0001 USA.

providing you with hard-to-locate information within a matter of minutes.

This user-friendly software guides you through a search with a series of menus, prompts, and appropriate messages. UNSearch™ allows you to establish your selection criteria from a series of menus and then gleans the database for the data that meet your selection criteria. Once you have found the information you need, simply print out the data. If needed, online help is available throughout the program and a complete user's manual is included.

Easy Access to Metals & Alloys Data

Based on the technical data contained in the printed edition of Metals & Alloys in the Unified Numbering System (UNS) — Fourth Edition, UNSearch™ includes over 3500 metals and alloys designated by individual societies, trade associations, governmental organizations, and metals and alloys producers and users.

Order Today and save valuable time!

