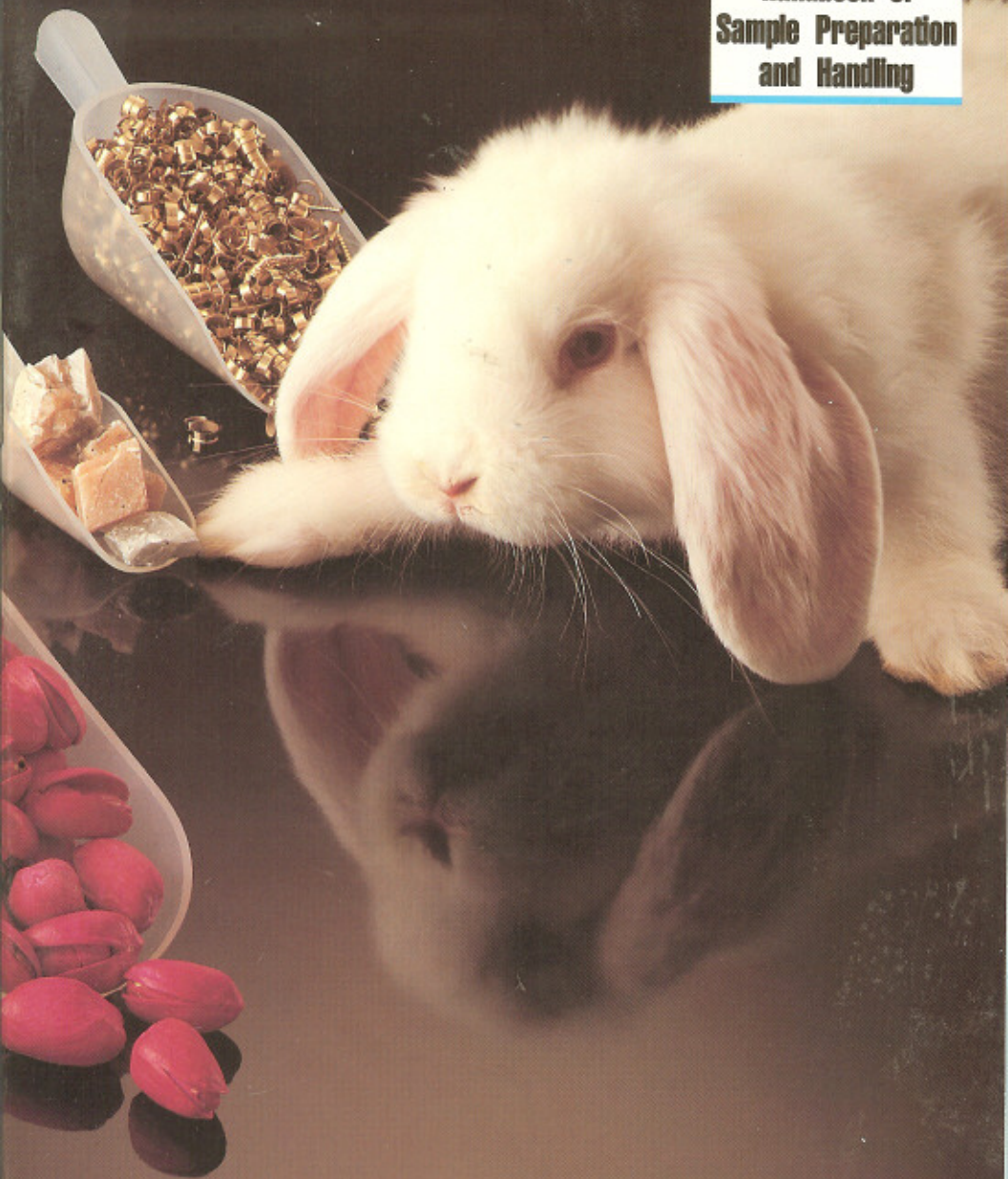


**Handbook of
Sample Preparation
and Handling**



SPEX

SPEX Handbook of Sample Preparation and Handling

Second Edition

Ralph H. Obenauf, Ph.D. Editor

Richard Bostwick, Assoc. Editor

TABLE OF CONTENTS

How to Use this Handbook

| | |
|--|----|
| I. Products and Techniques for Sample Preparation | 1 |
| Pulverizing and Blending | |
| When to Pulverize | 3 |
| How to Select a Laboratory Mill | 3 |
| Characteristics of Grinding Containers | 3 |
| Helpful Hints about Grinding | 10 |
| Further Preparation of the Sample | 12 |
| Products for Pulverizing and Blending | 12 |
| Pressing and Pelletizing | |
| When to Pelletize | 51 |
| How to Prepare Pellet Samples | 52 |
| Selecting the Pellet Die | 53 |
| Reinforcing Pellets with Spex-Caps | 56 |
| Choosing a Laboratory Press | 57 |
| Fusion and Dissolution | |
| When to Employ Flux Fusion | 61 |
| How to Prepare a Fused Sample | 61 |
| How to Select a Fusion Flux | 61 |
| Products for Fusion | 62 |
| Dissolving Samples In Teflon Decomposition Vessels | 63 |
| II. Products and Techniques for X-Ray Fluorescence Spectroscopy (XRF) | 65 |
| Sample Requirements | 67 |
| Preparing Powder Samples for XRF | 68 |
| Particle Size Effects | 69 |
| Reinforcing XRF Pellets with Spec-Caps | 70 |
| X-Cells for XRF Liquid Samples | 72 |
| Selecting Thin Film Windows for XRF | 76 |
| How To Order | 87 |
| Catalog Number Index | 91 |
| Subject Index | 93 |