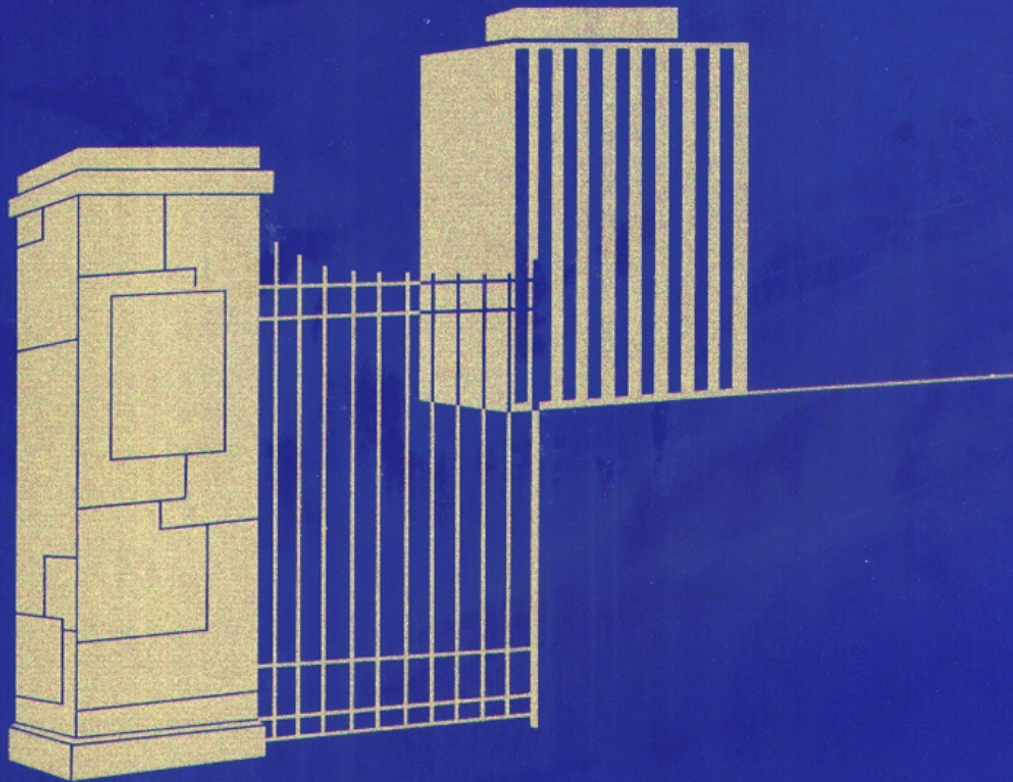


# *A Century of Excellence in Measurements, Standards, and Technology*



A Chronicle of Selected NBS/NIST Publications, 1901-2000  
NIST Special Publication 958

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**National Bureau of  
Standards**

**NIST**

**National Institute of  
Standards and Technology**  
Technology Administration  
U.S. Department of Commerce

# *A Century of Excellence in Measurements, Standards, and Technology*

A Chronicle of Selected NBS/NIST Publications

1901-2000

NIST Special Publication 958

*David R. Lide, Editor*

*January 2001*



**U.S. Department of Commerce**

Donald L. Evans, Secretary

**National Institute of Standards and Technology**

Karen H. Brown, Acting Director



**NIST**

In this volume, according to NIST policy, measurements are expressed in SI units except in some cases where reference is made to the conventional units used at the time of the original publications.

Certain commercial equipment, instruments, or materials are identified in this paper to foster understanding. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology, nor does it imply that the materials or equipment identified are necessarily the best available for the purpose.

## Foreword

As NIST celebrates its 100th birthday and we look back at what has been accomplished, the variety of NIST's contributions to science and technology and to the economy of our nation is truly remarkable. This book, which consists of vignettes describing some of the classic publications from our first century, can only sample that variety. For every publication included, there were numerous others of comparable worth that had to be left out.

Few if any of the world's technical institutions have had such an eclectic, yet essential, evolving mission—from testing concrete and railroad track scales to quasicrystals and Nobel Prize-winning work on laser cooling of atoms; from developing radio beacons for aircraft navigation to building early computers for data processing and developing sophisticated models for the spread of fires. It is difficult to find any area of science and technology in which NIST/NBS has not played some important role.

The talented staff who work for NIST take pride in their work. Communicating results to the public is a critical task for us. While publication of paper documents will undoubtedly be around for some time to come, electronic publication via the World Wide Web is already a key vehicle for NIST to distribute information quickly. No doubt Internet-based dissemination of our information will continue to grow in importance.

Given the skill, enthusiasm, and dedication of our current staff, I feel confident that this splendid institution will produce an even greater contribution to the United States during the next hundred years. I am particularly proud to have had the opportunity to be at the helm of NIST as we transition into the 21st Century. And our recent employee survey shows that the vast majority of NIST people are equally proud to work here.

Enjoy browsing this book. It is a tribute to the men and women who have served NIST with distinction since 1901.

Raymond G. Kammer  
*Director*

*December 2000*

## **Centennial Publication Selection Committee**

The following individuals served on the Committee that developed the criteria for selecting publications to be included in this volume. The Committee solicited nominations, selected the publications to be included from the approximately 450 nominations that were submitted, and coordinated the preparation of short accounts of the chosen publications:

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- Daniel Pierce, Physics Laboratory
- H. Steffen Peiser, Standards Alumni Association
- Dennis Swyt, Manufacturing Engineering Laboratory
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