

**EVOLUTION  
OF THE  
INTERNATIONAL  
PRACTICAL  
TEMPERATURE  
SCALE  
OF 1968**

**AMERICAN SOCIETY FOR TESTING AND MATERIALS**



# EVOLUTION OF THE INTERNATIONAL PRACTICAL TEMPERATURE SCALE OF 1968

Sponsored by Subcommittee E20.07 on  
Fundamentals in Thermometry of ASTM  
Committee E-20 on Temperature Measurement

ASTM SPECIAL TECHNICAL PUBLICATION 565

List price \$7.00

04-565000-40



AMERICAN SOCIETY FOR TESTING AND MATERIALS  
1916 Race Street, Philadelphia, Pa. 19103

© BY AMERICAN SOCIETY FOR TESTING AND MATERIALS 1974  
Library of Congress Catalog Card Number: 74-20090

NOTE

The Society is not responsible, as a body,  
for the statements and opinions  
advanced in this publication.

Printed in Baltimore, Md.  
November 1974

## Foreword

This publication is a collection of papers gathered by ASTM Subcommittee E20.07 on Fundamentals in Thermometry. The papers recount the origin and history of the International Practical Temperature Scales, leading up to the most recent, IPTS-68.

## **Related ASTM Publications**

**Supplement to the Bibliography and Abstracts on  
Thermostat Metals, STP 288C (1974), \$4.25,  
04-288030-40**

**Manual on the Use of Thermocouples in Temperature  
Measurement, STP 470A (1974), \$17.50,  
04-470010-40**

**The Theory and Properties of Thermocouple Elements,  
STP 492 (1971), \$7.25, 04-492000-40**

# Contents

<b>Introduction</b>	<b>1</b>
<b>The Origin and Present Status of the IPTS-68—H. PRESTON-THOMAS</b>	<b>3</b>
<b>A Compilation and Historical Review of Temperature Scale Differences—J. G. HUST</b>	<b>20</b>
<b>International Practical Temperature Scale of 1968—R. P. BENEDICT</b>	<b>50</b>
<b>The International Practical Temperature Scale of 1968—COMITÉ INTERNATIONAL DES POIDS ET MESURES</b>	<b>73</b>