

# FATIGUE AT ELEVATED TEMPERATURES



**STP 520**

**Carden | McEvily | Wells**



**AMERICAN SOCIETY FOR TESTING AND MATERIALS**

# FATIGUE AT ELEVATED TEMPERATURES

A symposium  
presented at  
The University of Connecticut  
Storrs, Conn. 18-23 June 1972

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A. E. Carden, A. J. McEvily, and C. H. Wells, editors

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## Foreword

The symposium on Fatigue at Elevated Temperatures held at the University of Connecticut, Storrs, Connecticut, 18-23 June 1972 was organized because of the growing importance of this topic. Committee E-9 on Fatigue of the American Society for Testing and Materials sponsored the symposium in cooperation with the American Society of Mechanical Engineers (Materials Division) and the American Society for Metals (Materials Systems and Design Division). The Steering Committee for this symposium consisted of L. F. Coffin, Jr., E. G. Ellison, M. Gell, J. C. Grosskreutz, H. F. Hardrath, G. Jacoby, S. S. Manson, A. J. McEvily, E. M. Smith, S. Taira, and C. H. Wells.

The purpose of the symposium was to provide a broad coverage of the topic in its various aspects, as well as to provide an opportunity for the presentation of the latest research findings. The symposium was organized on this basis, and this resultant publication is, therefore, of a tutorial as well as a research nature.

The contributions of the session chairmen for their capable performance gratefully acknowledged. These session chairmen were, J. C. Grosskreutz, D. Hoepfner, R. Pelloux, C. Laird, H. F. Hardrath, R. Wetzel, R. W. Stentz, W. H. Sharp, E. Steigerwald, J. W. Pridgeon, F. VerSnyder, R. P. Wei, R. Goldhoff, E. Krempl, A. E. Carden, W. H. Tuppeny, Jr., W. L. Greenstreet, A. O. Schaefer, and B. Wei.

The contributions of the authors and discussors are also gratefully acknowledged. The contribution of S. R. Crosby, graduate assistant, Metallurgy Department, University of Connecticut, who prepared the index, is likewise gratefully acknowledged.

## Related ASTM Publications

**Probabilistic Aspects of Fatigue, STP 511 (1972),  
\$19.95 (04-511000-30)**

**Metal Fatigue Damage—Mechanism, Detection,  
Avoidance, and Repair, STP 495 (1971),  
\$21.00 (04-495000-30)**

**Effect of Notches on Low-Cycle Fatigue, STP 490  
(1972), \$3.00 (04-490000-30)**

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