

Fatigue & Fracture

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EDITORS

Steven R. Daniewicz,
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and Karl-Heinz Schwalbe



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Fatigue and Fracture Mechanics, 34th Volume

Steven R. Daniewicz, James C. Newman, and Karl-Heinz Schwalbe, Editors

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Foreword

The Second International ASTM/ESIS Symposium on Fatigue and Fracture Mechanics (34th National Symposium on Fatigue and Fracture Mechanics) was held in Tampa, Florida on 19–21 November 2003. ASTM International Committee E08 on Fatigue and Fracture and the European Structural Integrity Society (ESIS) served as sponsors. Symposium chairmen and co-editors of this publication were Steven R. Daniewicz, Mississippi State University, Mississippi State, MS; James C. Newman, Mississippi State University, Mississippi State, MS; and Karl-Heinz Schwalbe, GKSS Forschungszentrum, Geesthacht, Germany.

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Overview

ASTM International Committee E08 on Fatigue and Fracture and the European Structural Integrity Society (ESIS) jointly sponsored the second International ASTM/ESIS Symposium on Fatigue and Fracture Mechanics (34th ASTM National Symposium on Fatigue and Fracture Mechanics), which was held November 19–21, 2003 in Tampa, Florida. This book represents the proceedings of that important event.

The symposium was co-chaired by S. R. Daniewicz and J. C. Newman, Jr. of Mississippi State University, USA and K.-H. Schwalbe of GKSS Research Center, Geesthacht, Germany. The 37 papers which comprise the symposium proceedings are roughly focused on two significant topics within damage tolerance: *Structural Assessment* and *Fatigue Behavior in the Threshold Regime*. Approximately 50 % of these papers were presented by researchers from outside the United States, making the symposium truly an international event.

It is noteworthy that this ASTM Special Technical Publication (STP) is the last proceedings to be published by ASTM as STP 1461, with papers from future ASTM/ESIS Symposia on Fatigue and Fracture Mechanics to be archived within the *Journal of ASTM International*. This marks the end of a tradition, in which the proceedings of each ASTM National Symposium on Fatigue and Fracture Mechanics were published as an STP. This long and proud tradition began with the publication of STP 381 in 1965, which featured papers by numerous pioneering researchers such as W. F. Brown, G. R. Irwin, F. A. McClintock, P. C. Paris, R. Pelloux, J. E. Srawley, G. Sih, and R. P. Wei. Some 40 years later, the contents of STP 1461 reveal that ASTM and ESIS symposium participants continue to perform research of superior quality and sustaining technical importance.

S. R. Daniewicz
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