
BOOK REVIEWS

TEQC83: Testing, Evaluation and Quality Control of Composites

Reviewed by N. R. Adsit, Engineering Specialist, Rohr Industries, Inc., Chula Vista, CA 92012-0878.

REFERENCE: *TEQC83: Testing, Evaluation and Quality Control of Composites*, T. Feest, Ed., Butterworth Scientific Ltd., London, 1985.

This book is a collection of papers from a conference held at the University of Surrey in September 1983. Of the three subjects given in the title, testing seems to have received the most attention. The testing most discussed was fracture, almost to the exclusion of other topics. In fact, the inspection methods also seem to deal with measuring flaws or growth as a means of measuring fracture. For the investigator interested in this topic the book is well worth the price.

This reviewer found the paper by A. W. Thompson to be an interesting review of the subject of quality. To quote from Thompson: "Quality is a collective attitude of mind. It is not a department, nor a system." A fact to which one can only add "Amen".

The book includes 31 papers from authors representing 12 countries. This international cross section gives the book a varied, but not always consistent, flavor. There is no adequate introduction, summary, or index, which makes the book somewhat difficult to use.

Nonetheless, in summary, for persons in the field of composite fracture, this book will be a welcome addition to their libraries.

International Advances in Nondestructive Testing - Vol. 11

Reviewed by Harold Berger, President, Industrial Quality, Inc., Gaithersburg, MD 20879-0397. Member of ASTM.

REFERENCE: *International Advances in Nondestructive Testing - Vol. 11*, W. J. McGonagle, Ed., Gordon and Breach, New York, 1985, Illustrations, Index, \$82.00.

This book is part of a continuing series in which investigators are given an opportunity to publish articles on new methods and advances in nondestructive testing (NDT). The series preface indicates that R&D and application papers relating material properties to measurable physical phenomena are welcome. Descriptions of work that have not advanced to the application stage are given special emphasis. The book is clearly aimed at the community of research workers in the fields of nondestructive evaluation and materials characterization. Those concerned with conventional applications of NDT will find the book less useful.

This series provides authors with the opportunity of publishing relatively long articles in which the work in a specialized field can be pulled together. For that reason, research-oriented NDT people will find the book a valuable reference.

The articles are varied in subject and offer an international flavor; there are articles not only from American authors but also from authors representing Canadian and West German laboratories. The articles include the following:

Acoustic Holography - *B. P. Hildebrand*
X-Ray Fluorescence in NDT - *L. A. Schwalbe*
Thermal-Wave Imaging in a Scanning Electron Microscope - *A. Rosencwaig*
Thermoelastic Testing of Stratified Materials - *Paolo Cielo*
A Microchannel Plate Neutron Detector - *R. A. Schrack*
Recent Advances in Moiré Interferometry for Out-of-Plane Measurements - *K. G. Harding*
X-Ray Scatter Imaging in NDT - *G. Harding*
Beta Backscatter Thickness Gauging - *W. A. Dudley and E. D. Harvey*
An Eddy Current Thickness Gauge - *E. D. Harvey, D. L. Bagley, and W. A. Dudley*

The articles generally were prepared by authors who themselves have made significant contributions to the topic. The articles reflect varying treatment by the authors. In some cases the articles provide an overall review of a topic, while in others the authors primarily summarize their own work. Nevertheless, the articles are generally well written and referenced, with good illustrations. Although the book is dated 1985, readers should be aware that the articles were probably written some time earlier. This conclusion is borne out at least partly by the fact that there are relatively few 1984 and later references cited. At the other extreme there can be no complaint, however, because one reference dates back to 1665!

The articles were reproduced directly from the authors' typescripts. This is satisfactory, but the critical reader may find the varying style (margins, contrast, type size, etc.) a bit disturbing, especially for a book in this price range. The publishers should add to future volumes the tables of contents for the previous volumes in the series. This would help an NDT researcher locate prior articles in his area of interest.

Overall, the book will be a useful one for those involved in research in the areas of nondestructive evaluation and materials characterization.

Problems in Service Life Prediction of Building and Construction Materials

Reviewed by Morris Lieff, County College of Morris, Dover, NJ 07801. Member of ASTM.

REFERENCE: *Problems in Service Life Prediction of Building and Construction Materials*, NATO Advanced Science Institutes Series—Series E: Applied Sciences 95, L. W. Masters, Ed., Martinus Nijhoff, Dordrecht, The Netherlands, 1985, ISBN 90-247-3181-X, Cloth, \$49.50, xiii + 289 pp.

This text presents the proceedings of an exceedingly well organized workshop held in Paris on problems encountered in the service life prediction of building and construction materials.

BOOK REVIEWS

This Advanced Research Workshop sponsored by NATO was attended by 32 researchers from 16 countries. The purpose of the workshop was “. . . to explore opportunities for applying, to research and building and construction materials, analytical procedures which have been used in predicting service life of materials, components and systems in advanced technologies.” The six sessions of the workshop included twelve invited lecturers, discussion, and reports by discussion leaders. The areas covered include:

1. State of the art of service life prediction of building and construction materials.
2. Approaches to service life prediction in advanced technologies.

3. Commonalities of problems.
4. Mathematical analysis techniques used in advanced technologies.
5. Mathematical analysis techniques used in building and construction technology.
6. Formulation of recommendations, which included reports on inorganic, organic, and metallic materials.

Editor Larry Masters should be commended for a well-planned workshop and a well-edited report of same.