Nonmetallic Materials and Composites at Low Temperatures 3

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Springer Science+Business Media, LLC

Library of Congress Cataloging in Publication Data

Main entry under title:

Nonmetallic materials and composites at low temperatures 3.

(Cryogenic materials series)

"Proceedings of the Third ICMC Symposium on Nonmetallic Materials and Composites at Low Temperatures, held August 23–24, 1984 in Heidelberg, Federal Republic of Germany."

Bibliography: p.

Includes index.

1. Nonmetallic materials—Thermal properties—Congresses. 2. Composite materials—Thermal properties—Congresses. 3. Materials at low temperatures—Congresses. I. Hartwig, Günther. II. Evans, David, 1940 Oct. 8–. III. ICMC Symposium on Nonmetallic Materials and Composites at Low Temperatures (3rd: 1984: Heidelberg, Germany) IV. Series.

TA418.95.N663 1985

620.1'1216

85-24337

ISBN 978-1-4899-2012-6

ISBN 978-1-4899-2010-2 (eBook)

DOI 10.1007/978-1-4899-2010-2

Proceedings of the Third ICMC Symposium on Nonmetallic Materials and Composites at Low Temperatures, held August 23–24, 1984, in Heidelberg, Federal Republic of Germany

© Springer Science+Business Media New York 1986

Originally published by Plenum Press, New York in 1986

Softcover reprint of the hardcover 1st edition 1986

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PREFACE

This was the third meeting in the series of special topical conferences on Non-Metallic materials at low temperatures. The first meeting was in Munich in 1978, the second in Geneva (1980) and so Heidelberg 1984 seemed an obvious time to review some of the hopes and objectives of the earlier meetings. It is also appropriate to consider the changing needs of the cryogenic community and how best the theory and practice of Non-metallic materials can be applied to suit this dynamic young science.

The aims and objectives of the International Cryogenic Materials Board in sponsoring this meeting remain the same. Namely, to provide a forum where practicing Engineers can meet with materials suppliers and researchers in an attempt to ensure that a real understanding exists between the two sides of the Cryogenic Materials Community. In this atmosphere, real problems can be addressed together with full discussions of tried and tested practical solutions. It is in this way that knowledge and confidence may grow hand in hand with the logical growth of the industry.

The first volume in this Non-metallic series noted that - "Cryogenics is an emerging technology, filled with promises." The second volume considered the 'delicately balanced relationship between knowledge and experience,' together with the hope that ... "year by year the application of non-metallic materials to the low temperature environment advances to the stage of a science". This, the third volume, reflects the urgent need that was so strongly evident in the panel discussion at the end of the conference. A need for further characterization of standard materials, and for formulators and materials scientists to ensure that well characterized composite materials are available to the cryogenic community.

It is clear that the science of cryogenic materials is still in its infancy but this latest volume, containing as it does a world wide collection of the latest works on the subject, continues the aims and objectives outlined in the previous volumes, progress through full understanding, detailed and frank discussion and careful application.

In many ways 1984 was an important year for the cryogenic industry and this truly international meeting was timely and of equal importance. Non-metallic materials have an important role to play in the rapidly expanding 'industrial' cryogenic world, and the world should know, with confidence, that the many aspects of this role are being researched and documented with care and enthusiasm.

David Evans
Günther Hartwig

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