

Preface

Nowadays the industrial development level of the advanced countries is characterized not only by the whole volume of industrial production and its extensive variety but also by the quality indexes of the manufacturing. The problem of the total quality improvement is realized by means of improvement of the quality of used materials and their processing, as well as increasing of the manufacturing efficiency.

An important role in the solution of this problem of the production quality improvement is assigned to the methods and techniques of non-destructive testing of industrial materials, products and structures. Their development is attributed to a number of the most important directions of the Fourth Industrial Revolution and globalization process.

Being aware of all these needs and challenges and consisting of a solid experience in the Materials Science, Production Technologies and Non-Destructive Testing fields, School of Non-Destructive Testing of Tomsk Polytechnic University presents the second edition of the Book titled: **Modern Problems in Materials Processing, Manufacturing, Testing and Quality Assurance II**. Similar to previous edition the Book contains the results of research work covering the different aspects of the matter. The Book is structured in research papers and offers the state-of the art information on materials processing, manufacturing, non-destructive testing methods and quality assurance.

Hope that the matter of this Book could be of interest for many researches on the fields of Materials Science, Production Technologies and Non-Destructive Testing.

The Editor would like to express the great appreciate to all the authors who gave their contribution and Trans Tech Publications team for their support in the Book publishing.

With best regards,

Editor

Prof. Dr. Anatoliy Surzhikov