

Foreword

Today, composite materials are used in many applications, including civil and military aircraft, spacecraft, small boats and sporting goods. There is increasing use of composites in the automotive industry. Research is also being conducted for additional applications such as ship structures and offshore platforms. The size of these structures and the three-dimensional nature of the loading on these structures dictate the use of thick composites, and the use of three-dimensional models for the analysis of the response of these structures.

The subject of Thick Composites is an active area of research, and this special issue of *Composites Journal (Part B: Engineering)* contains fourteen papers by leading researchers summarizing recent accomplishments. The papers fall into the following broad categories: failure mechanisms, compression failure, buckling, time-dependent effects, environmental effects, dynamic effects (wave propagation, vibrations, impact) and composite structures. This special issue will provide an assessment of the state of the art in thick composites research which is essential to the modeling and design of modern reliable and affordable composite structures. Most of the papers in this issue are based on research supported by the Office of Naval Research.

The scientific results reported in this special issue should benefit scientists and engineers involved in the design, use, operation and maintenance of thick composite structures in the civilian and military industrial sectors. We would like to thank the reviewers for their constructive comments and the authors for their excellent contributions to this special issue.

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