



**FUNCTIONAL AND SPECIAL MATERIALS:
POLYMERS, COMPOSITES
AND STRUCTURAL MATERIALS**

**EDITED BY
PROF. AKIHIKO FUJIWARA
PROF. DR. YURII OTROSH
DR. MOHAMAD MIDANI**

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Functional and Special Materials: Polymers, Composites and Structural Materials

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Prof. Akihiko Fujiwara
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Dr. Mohamad Midani

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Special topic volume with invited peer-reviewed papers only

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and Dr. Mohamad Midani**

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Preface

This special edition offers readers a detailed investigation of materials science focusing on the development, properties analysis, and applications of advanced materials in modern engineering and industry.

The first chapter is dedicated to polymers and composites. This chapter provides information about the fabrication techniques and performance characteristics that make these materials indispensable in contemporary design and manufacturing.

The next chapter focuses on the properties and processing of structural steel, emphasizing its critical importance in construction and machinery.

The latest third chapter is dedicated to considering the unique properties of some functional and special materials and methods of their applications in cutting-edge technologies.

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CHAPTER 1:

Polymers and Composites