

**SPECIAL ISSUE ON MECHANICAL AND THERMAL RELIABILITY
OF MICRO/NANOMATERIALS**

PREFACE



Owing to the rapid progress of recent semiconductor fabrication technologies, precisely shaped mechanical and electrical components in semiconductor devices and micro-electromechanical systems (MEMS) can be produced. To improve their performance and reliability, the mechanical and thermal properties of structural materials at the micro/nanoscale should be measured experimentally, and then the knowledge obtained in experiments should be reflected in the design of these devices.



This special issue focuses on state-of-the-art experimental technologies for measuring the mechanical and thermal properties of silicon and related materials. Also, it features functional materials, especially exothermic reactive foils. Reactive materials have recently attracted considerable attention as a new heat source used in the manufacturing of future semiconductor devices.

In this issue, there are eight papers submitted from top researchers in the field of micro/nanomaterials. All papers were subjected to peer review by reviewers and final examination by the guest editors. We hope that these papers will be of interest to readers and provide useful information for future materials studies.

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