

Smart Materials



[Smart Materials_下载链接1](#)

著者:Schwartz, Mel M. 编

出版者:

出版时间:2008-11

装帧:

isbn:9781420043723

This title explores state-of-the-art work from the world's foremost scientists, engineers, educators, and practitioners in the field. Why use smart materials? Since most smart materials do not add mass, engineers can endow structures with built-in responses to a myriad of contingencies. In their various forms, these materials can adapt to their environments by changing characteristics and can provide information about structural and environmental changes. This is a single source on numerous aspects of intelligent materials. "Smart Materials" focuses on many types of novel materials, including ceramics, hybrid composites, shape memory alloys, chitosan-based gels, adhesives, oxides, polymers, flip-chip technology, magnetorheological fluids, electrorheological materials, nanotubes, and sensors. It highlights the interdisciplinary nature of these materials by showing how they can be used in scores of areas, such as drug delivery systems, health monitoring, fiber optics, nanoscale engineering, vibration control, and molecular imprinting. Gain insight from leading experts who specialize in smart materials technology. With over fifty years of experience working and teaching in this field, the editor has compiled numerous insightful contributions from an extensive group of leading experts. In this volume, they share their expertise and explore the innovative progress that has occurred in smart material products, components, systems, and structures.

作者介绍:

目录:

[Smart Materials_下载链接1](#)

标签

评论

[Smart Materials_下载链接1](#)

书评

[Smart Materials_下载链接1](#)