

Comprehensive Biomaterials, 6-Volume Set

COMING
IN
AUGUST
2011

EDITOR-IN-CHIEF

PAUL DUCHEYNE, University of Pennsylvania, Philadelphia, PA, USA

CO-EDITORS

KEVIN E. HEALY, University of California, Berkeley, Berkeley, CA, USA

DAVID W. GRAINGER, University of Utah, Salt Lake City, UT, USA

C. JAMES KIRKPATRICK, Johannes Gutenberg University Medical Center, Mainz, Germany

Message from Publishing Group

Dear Readers,

Comprehensive Biomaterials provides an expansive and essential background for impactful and effective current research in this complex and information-dense environment. Significantly it is written by a panorama of the world's experts in hundreds of related biomaterials areas. The result is a continuum of rich information appropriate for many audiences from these experts. The treatise addresses the current status of nearly all biomaterials in the field, their strengths and weaknesses, their future prospectus, appropriate analytical methods and testing, device applications and performance, emerging candidate materials as competitors and disruptive technologies, and strategic insights for those entering and operational in diverse biomaterials applications, research and development, regulatory management, and commercial aspects.

It is an authoritative, comprehensive, global work for researchers and students either working in or conducting research in the biomaterials field in its many dimensions - and to an extent materials science and biomedical engineering and medicine generally. It provides integrated coverage of all aspects of biomaterials, whether the properties and classes of those materials, their testing, biocompatibility and multidisciplinary applications of research in clinical settings, from bed all the way to bedside.

Each of the 200 articles provides review-level, trusted summaries from field leaders, dealing principally with the major areas of current activity and interest in the field. The work stresses contemporary research above all; historical activity is generally eschewed except as context to understand the current conventions in full. Accordingly the emphasis throughout is on deeply grounded, essential, interdisciplinary knowledge with extensive cross-referencing and literature guides, rather than textbook-style active pedagogy or monographic exploration of niche areas.

While biomaterials as a whole is a complex domain requiring interlocking competencies and considerable scientific and engineering foundational knowledge, the content of *Comprehensive Biomaterials* is written at a level intended to be comprehensible to senior undergraduates with research interest in particular areas of the field. In general however, the continuum from graduate students through postdoctoral researchers and faculty moving into new areas within biomaterials - across the diverse fields of medicine; cell biology; tissue engineering; tissue physiology; imaging; microfabrication; biomedical devices and applications - are the principal audience of interest.

I strongly urge you to consider this work.

On behalf of Paul Ducheyne, James Kirkpatrick, Dietmar Hutmacher, David Grainger and Kevin Healy

