

## Book Review

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*Handbook of Biomaterial Properties*, J. Black, & G. Hastings (Eds.). Chapman & Hall, 1998, 590 pp., ca. £85.00, ISBN 0-412-60330-6

The rapid development of biomaterials science and engineering and its accompanying technology is fundamental to the role of surgical implants in evaluating, directing, supplementing or replacing the functions of living tissues. The study of natural materials' properties in living systems has been conducted mainly in the area of tissue mechanics. Processing and structural modifications of synthetic materials have a profound effect on their properties and performance. A considerable body of data has accumulated concerning the materials aspects of both natural tissues/fluids and implantable synthetic materials: this is, however, distributed diversely in many publications with varying degrees of precision and accuracy.

The *Handbook of Biomaterial Properties* draws together for the first time much of the accepted data and information on biomaterial properties. Contributions from over 40 experts consider not only intrinsic and interactive properties, but also the appropriateness of biomaterials' applications. Data from many sources are collated into a uniform format.

Textual content is kept to a minimum, the emphasis being on tabular presentation of data, but more background is given for synthetic materials to reflect the importance of processing and structural variations.

Part I covers natural solid and fluid biomaterials. Part II covers many aspects of synthetic materials including metals, alloys, composites, polymers and elastomers, oxide bioceramics, bioactive glasses and glass ceramics, including their wear and corrosion. Part III includes general aspects of biocompatibility, tissue and immune responses, cancer and blood-material interactions.

The book is highly recommended not only for biomaterials scientists and engineers, students and physicians, but also as an invaluable and comprehensive reference source for scientists and engineers from many other disciplines.

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