BOOK REVIEW

Handbook of Composite Reinforcements

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This handbook is a collection of 52 key articles selected from the six-volume International Encyclopedia of Composites. The Editor states that this book covers every aspect of reinforcement science from “hands-on” subjects, such as manual layup processing and various types of molding, to theoretical discussions concerning rheology and modeling. The intended audience for this book is mainly engineers, material scientists, and technologists. Researchers also will benefit from this handbook, as it provides them with reasonable backgrounds and references for each discussed topic.

The book collects over 700 pages in a sturdy hardcover volume. The editor uses short, direct, and clear sentences supported by expressive visual aids. The organization of the book is neat and well-developed. The editor cites references at the end of each article for readers interested in more details. One of the strongest points of this book is that the editor guides the reader throughout the majority of the presented articles to the importance to the industrial and commercial communities of the subject matter (related to composite reinforcements) discussed in each article. He also cites the current (and, in many cases, future) applications of these subject matters.

Interested readers in this field will find this handbook an in-depth treatment of reinforcements. The presented articles in this book cover many subjects, such as fiber reinforcements (organic and inorganic), reinforcement processes (such as braiding, filament winding, rapid solidification, weaving, molding, etc.), types of composite reinforcements (such as polymer matrix, metal matrix, ceramic matrix, carbon-carbon, and concrete composites), and other related topics to reinforcement technology (such as property relationships, applications, manufacturing, analyses and testing, rheology and dielectric properties, modeling, and others).

The editor presents the articles in alphabetical order. However, it would be better if they were page-numbered in the main entries page that the editor provides to facilitate the reader in finding the desired article quickly. Also, grouping these articles into sections with respect to the discussed topics would be helpful; that is, it would be better to have one section about fibers, another about composite reinforcement processes, and another about types of composites reinforcements, etc.

I personally believe that this handbook with a few modifications to its present format and contents would be one of the better ones available in the field of composite reinforcements for engineers, materials scientists, and technologists as well as researchers. I recommend readers interested in this field to use this book as one of their quick references.