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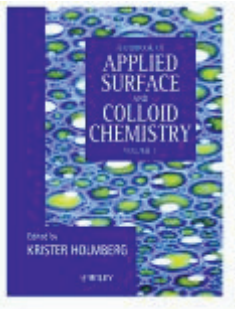
Applications and Fundamentals Comprehensively Linked

*Simon Biggs**



Handbook of Applied Surface and Colloid Chemistry

Ed. K. Holmberg

John Wiley & Sons,
Chichester, U.K.
2002, 1784 pp.
ISBN 0-471-49083-0
Hardcover, 395 GBP.

The Handbook of Applied Surface and Colloid Chemistry is a comprehensive two volume set covering most areas of chemical technology where surface or colloid chemistry plays an important role. It should provide an excellent starting point for anyone wishing to find out more about practical applications of colloidal systems. Examples of chapter titles include 'Surface Chemistry in Pharmacy' and 'Surface Chemistry in Paints', to name but two. The book provides an extensive resource of practically oriented material. However, it does not do this at the expense of the important fundamentals of surface science, which are well covered in the text. As an introduction to colloid and surface science, and in particular, applied technological aspects of this subject area, this book provides an excellent starting point.

The two volumes include forty-five chapters, each of which is authored by a relevant, and well-respected expert in the field. These chapters are arranged into five sections within the two volumes covering the following areas: (i) surface chemistry in important technologies, (ii) surfactants, (iii) colloid systems and layer structures at surfaces, (iv) phenomena in surface chemistry, and (v) analysis and characterisation in surface chemistry. In general, each of the chapters is a separate detailed summary of that authors' field of interest. It is clear from the content that significant freedom has been allowed by the editor with respect to the writing of each chapter. Whilst this does lead to a small amount of repetition in certain areas, it is not a major problem overall. In each of the 45 chapters, the required and relevant fundamental knowledge is typically covered before a description of the applications is given. Whilst the fundamental knowledge is not covered in as structured a form as one might expect in a more classical text, there is still a significant amount of solid background material given. Allied to the extensive coverage of technical material, this makes for an attractive text or reference book for anyone working in the field.

Overall, the book covers an enormous breadth of material. The use of many authors makes this possible and adds to the quality of coverage that is achieved. The only truly notable lack in this book is a dedicated section on emulsions and emulsified products. Although it is worth noting that much material of relevance to emulsions can be found in other chapters within this book.

I would assume that this book would find a broad acceptance both with academic researchers and with those in more industrial research environments. It should also provide an excellent resource for post-graduate students involved in colloid and surface science. It makes the link, possibly for the first time, in a comprehensive manner between applications and fundamentals. For this reason, I believe it will prove to be a very valuable reference text for anyone interested in colloid and surface science.

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