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## Book Review

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**Molecules that changed the World**

**Wiley-VCH, 2008**

366 pp; price 34.90 Euro

ISBN-13: 978-3-527-30983-2 (Hardcover)

This Reviewer is in no doubt that this is both a beautiful and important book. It is lavishly illustrated and is in a sense the ultimate coffee table volume (although it deserves a better fate than most books of this type!). As E J Corey says in his Foreword "This book is an enthusiastic celebration of many organic molecules" . . . (and it is) "also a unique tribute to the many scientists . . . involved in their . . . chemical synthesis." In words formulae and pictures it describes the story of the use and synthesis of over 40 important molecules that in various ways are important to humanity (e.g. aspirin, penicillin, vitamin B12 and some modern antibiotic or anticancer molecules). Each chapter is beautifully illustrated and contains ball and stick structural diagrams and charts detailing the synthetic strategies and pathways involved in their synthesis. In each case historical details abound and there are many photographs of the chemists whose work led to the identities or syntheses of the molecules becoming known. Many of the molecules derive in some way from natural substances and have strong disease or biological relevance.

Who will want to read this book? This Reviewer imagines first that synthetic chemists will gain (or regain) a deserved pride in their art and see their subject in a wider light. In a serious way they might want to cite the examples given in refutation of the negative views that many non scientists now have about the word 'synthetic'. As the later chapters are very up to date then this aspect is even more relevant.

The book can easily be read by any high school or university chemist and should encourage new entrants to the profession, but it occurs to this reviewer that perhaps the most important readership of the work might be those non chemists who hold 'new age' opinions about 'chemicals', 'natural medications' and so on. Having read all or part of the book, it seems to this Reviewer that it would be illogical still to maintain a view that 'alternative' therapies (often using undefined materials) are the best way forward, or that they are in some way superior to carefully thought out rational and tested biomedical work. At any rate this Reviewer will make sure he shows this book to those of his friends who hold such views!

But could they read it? There are many chemical formulae and equations, mostly (but not all) in separate boxes and these will not be understandable to the lay person. The text is sometimes difficult but should be accessible to a genuinely interested person. It is certainly no harder to get through than some literary novels this Reviewer has struggled with! Persistence here could give this book of genuine worth and importance.

Certainly I don't think the price is a problem; at £27.50 it is a good buy. The bottom line for this Reviewer is that he thinks that all scientists would gain from buying it and they would thereby share in the pride of contributing to a great human creative enterprise. They could also show it to as many of their non scientific friends as they can. Indeed they might encourage the latter also to buy it! It is unclear how much this really would reverse the many odd beliefs some people now have about chemistry and the material world, but it's worth a try and this book is a good place to start.

**P J Craig**

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