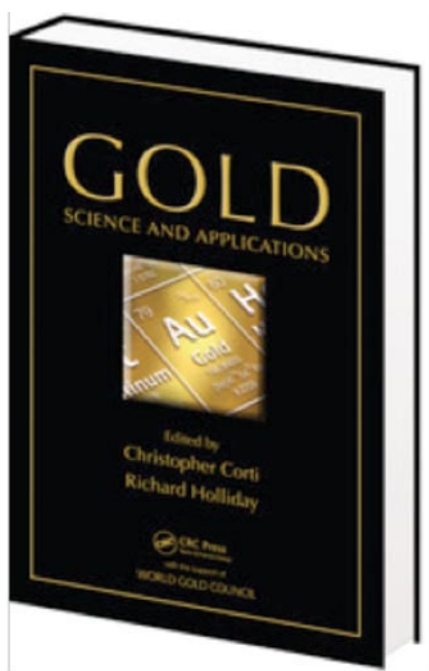


## Book review



# Gold Science and Applications

Edited by Christopher Corti and Richard Holliday

### Dr Brian Harrison

Ask most people about the uses of gold and they will probably be able to list jewellery, investment, dentistry and perhaps electronics. This book is a real education on the very wide range of uses for gold in the twenty first century. Until the publication of this book, the most recent comprehensive review of the applications of gold was written by Bill Rapson and Theo Groenwald in 1978. It is now out of print. In the 30 years since this publication, some of the applications of gold have remained much the same, although enhanced by further scientific developments. However, in some areas, for instance in catalysis and nanotechnology, there have been major advances. It is timely, therefore, that a new volume has been produced to bring the applications of gold up to date. The book is essentially a collection of 17 short review articles over 400 pages, each

written by experts in their fields. At least two of these reviews, Gold Catalysis and Nanotechnological Applications of Gold, would have been extremely short or non-existent 30 years ago.

The volume starts with a number of chapters which cover the basics of gold such as supply and demand, physics, chemistry, metallurgy, electrochemistry and luminescence. These all bring the respective subjects right up to date with numerous references for those who wish to explore the topics further. There is a series of chapters on the more traditional uses of gold such as dentistry, jewellery, electroplating, metal joining and decorative applications. Finally, there are excellent chapters on the newer areas such as catalysis, nanotechnology and biotechnology. If I had a criticism, I would have ordered the chapters slightly differently to put all the properties chapters first, followed by the traditional applications then the newer applications. However, this is a minor point in an otherwise excellent book.

The book works at several levels. Some of the chapters, for example Decorative Gold Materials, give an excellent historical perspective on their subjects and would be interesting to the scientific historian. This is also a very good source book for students wishing to access and understand the basic properties of gold and to learn about the applications. For those commencing research in any of the areas covered by the book, all of the chapters provide a good basic grounding and source material. All of the chapters are stuffed full of up to date references for the interested reader to follow up their subject.

Although the chapters are written by different people, they are all very readable and some quite fascinating to the casual reader. This is a book that should be available in every university science library and should also be essential reading in those industries which work with gold.

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