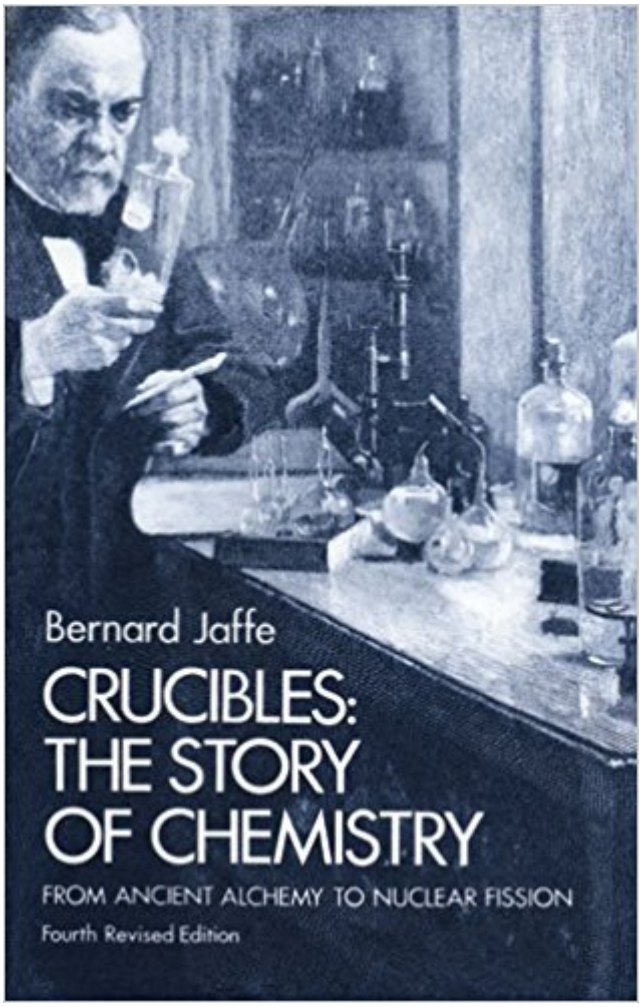
Crucibles: The Story Of Chemistry From Ancient Alchemy To Nuclear Fission



Synopsis

This book is a classic in the field of popular science. Standard reading since the 1930s, it is one of the few historeis of chemistry to concentrate on the lives of the great chemists. Through these dramatic and human stories, it gives an authoritative and entertaining account of the great discoveries and advances in this scientific field. After many printings in three previous editions, this book has been newly revised by the author for this fourth edition.Beginning with Trevisan and his lifelong search for the "philosopher's stone," the author narrates the lives and discoveries of such towering figures as Paracelsus and his chemical treatment of disease; Priestley looking for phlogiston and finding oxygen and carbon dioxide, Lavoisier creating a new language of chemistry; Dalton and his Atomic Theory; Avogadro and the idea of molecules, Mendeleeff arranging the table of elements under his Periodic Law; the Curies isolating radium; Thomson discovering the electron; Moseley and his Law of Atomic Numbers; Lawrence and the construction of the cyclotron; and more. Probably the most dramatic chapter in the book, the account of the development of nuclear fission, ends the story of chemistry at its most monumental achievement. A final chapter discusses some of the consequences of nuclear fission, the discovery of nuclear fusion, and the recent work with subatomic particles.Bernard Jaffe is the author of many other science books and several science textbooks. Upon the original publication of this book, Mr. Jaffe received the Francis Bacon Award for the Humanizing of Knowledge. The American Chemical Society's History of Chemistry Division honored him in 1973 with its Dexter Award for "distinguished achievement in the history of chemistry."

Book Information

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Customer Reviews

There’s interesting material in this book, and the focus on personalities makes it a bit easier to remember who’s who. Unfortunately, the writing style is affected (I generally have a high tolerance for old-fashioned writing, but it bothers me here) and it’s hard to tell how much is historical fact and how much is embroidery. Also, the person-centric organization works much better for the early material, and becomes fairly unwieldy by the middle. It has the semi-inevitable focus on element discovery/synthesis of many histories of chemistry (transmutation of base metals to gold-no, elements are immutable-no, nuclear fission and fusion!) and relatively little discussion of other 20th century advances. Especially in the middle and end, it’s light on the chemical/experimental details.

Good book, some times too passionate, but very informative.

I have read and reread this book several times and use it in teaching honors and AP Chemistry on the high school level, and have required my students to read it to bolster their knowledge of the history of chemistry. It is an excellent book, but the writing style is somewhat difficult for high school students, even the higher performing ones. Because of this, I have added some more recent books written in a more engaging style for my students to choose from. I would still recommend this book to those interested in the history of chemistry, but I would also recommend others as well, including PROMETHEANS IN THE LAB by McGrayne and UNCLE TUNGSTEN by Sacks.

Not everyone likes to jump into a field with a basic textbook. Crucibles tells the story of modern chemistry and atomic theory in the form of a series of biographical vignettes with an emphasis on chemistry. It starts with the ancients and covers a lot of ground. I found it rather fascinating as a kid, but I still think it’s pretty good as an introduction.

I recently gave this book as a gift. I have known it since its first publication, and have always felt it to be one of the best books I have ever read.

as described. Thanks.

This book is full of biographical sketches of several people who made significant contributions to the development of chemistry. It has some good moments and it helped me appreciate the development of big chemical ideas, especially the rapid developments in the 1900’s as newer

experimental techniques were developed. The book can be a little wordy is spots, but if you aren't afraid to skim those parts it is still a good read.The book, originally written in 1930, was updated by the author in 1976 for this Dover edition. The last two chapters discuss nuclear chemistry/physics. The last chapter seems a little out of place in the book since it focuses more on issues and less on people and the development of the discipline. Because the nucleus chapter was written before the Standard Model of Fundamental Interactions was firmly established, the discussion could be updated a bit. An interested reader can find more information online at [...]. But I can't fault the book on this because the story of science is (hopefully) never over.

I'm a junior in high school interested in chemistry, and I found this a compelling read that combines the discoveries of the great nobel laureates and experimenters with their surprisingly human stories.

Medicine Nuclear Reactor Design (An Advanced Course in Nuclear Engineering) Keeping the Lights on at America’s Nuclear Power Plants (Shultz-Stephenson Task Force on Energy Policy Reinventing Nuclear Power Essay) My Nuclear Nightmare: Leading Japan through the Fukushima Disaster to a Nuclear-Free Future