

### Much Ado About (Practically) Nothing

This book is a highly entertaining story about incidents, accidents, and other amusing and enlightening happenings in the history of discovering the noble gases and recognizing their peculiar properties. The book is scientific writing at its best. It is written in a rather colloquial style, which vividly emphasizes that the lives of scientists and the processes of scientific discoveries have much in common with the everyday life of a carpenter, a salesman, a seaman, or a priest. Along with amusing stories, the reader learns about topics such as the age of the earth and the evolution of the universe, which are, strangely enough, connected with noble gases. One reads about the originally dissenting suggestion that the continents are floating on the surface of the earth, and about the sometimes painful destiny of scientists who dared to suggest a theory that was opposed to popular belief. It is a glimpse into the fate of Alfred Wegener, who shared an experience similar to that of heretical pioneers such as Sigmund Freud and Charles Darwin. The author does not cover up his own bitter-sweet experience with academic life in the USA, and his amusing encounter with religious fundamentalists. All of this is somehow connected with the noble gases.

David Fisher succeeds in turning the subject of the least reactive species in the universe into a collection of very lively stories, which are witty, entertaining, educating, and bewildering in a very refreshing way. The author knows how to entertain the reader, as for example when he makes a connection between the revolt of the native Maori in New Zealand against the English immigrants and the discovery of alpha and beta radiation by Ernest Rutherford. The book is an example of how an apparently boring aspect of nature can be skillfully presented to the general public. It should attract the attention of many non-scientists who are interested in reading good literature. I wish that more books about science were written like this one. The 21 chapters can be read independently, which makes the book digestible, even for a general readership that is conditioned to the world of facebook, twitter, and other atrocities.

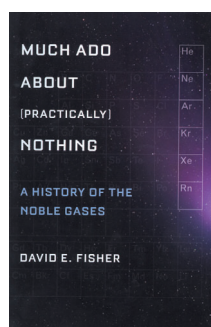
And yet (page 43): “nobody’s perfect”. Although the book is, on the one hand, wonderful

reading, on the other hand it is (for a chemist) a great disappointment. This is because the author does not say anything about the equally entertaining history of the chemistry of the noble gases, which is as full of human tragedies, triumphs, and absurdities as is that of the physics of the elements. The only mention of the chemistry of the noble gases is found in the first sentence of Chapter 19 on page 209, where the author wrongly writes: “... *the noble gases, which don’t do anything, which don’t react either chemically or biologically* ...”. It is the only obvious error that I noticed in the book. There is a rich chemistry of the noble gases, which has been developed since 1962, when three groups independently succeeded in engaging noble gases to react chemically. Neil Bartlett accomplished it with a single experiment, which he published a few weeks earlier than two other groups who had tried this for a long time. This and other stories, which are full of hopes, failures, theories, visions, and human glory and tragedy, are unfortunately completely missing from the book. Therefore, the subtitle—*A History of the Noble Gases*—is not fully justified from a chemical point of view. A very lively account of the chemical research on noble gas compounds before and after 1962 can be found in the review article by Laszlo and Schrobilgen (*Angew. Chem. Int. Ed.* **1988**, 27, 479).

The author will forgive this reviewer, who is himself a chemist, in painfully bemoaning the missing aspect of this otherwise wonderfully written book about the history of the noble gases. He should change the statement about the “absent” chemical reactivity of the noble gas compounds in the introduction of Chapter 19. Perhaps he can find a matching co-author who will add one more chapter about the exciting history of the many failed experiments and the final breakthrough in the attempt to have the noble gases engage in chemical reactions, along with the human stories that are associated with it. I strongly recommend this book as enjoyable reading for every scientist or discriminating reader. It would make a perfect present for anyone whose mind still has the wonderful gift that every child possesses, and is too often lost at school: curiosity and excitement about the world!

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