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by

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<https://doi.org/10.1142/11442>

532pp | July 2019 | 978-9-81120-768-6 (pbk) US\$45 / £40 |
978-9-81120-628-3 US\$88 / £75

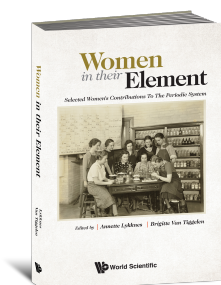
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WOMEN IN THEIR ELEMENT

SELECTED WOMEN'S CONTRIBUTIONS TO THE PERIODIC SYSTEM

by **Annette Lykknes** (Norwegian University of Science and Technology, Norway)
Brigitte Van Tiggelen (Science History Institute, USA)

"Everyone knows about Marie Curie and the discovery of radium, and some will know about Marguerite Perey and the discovery of francium, but many more women have been significantly involved in investigations related to the chemical elements. Who have heard of the chemist or alchemist Dorothea Wallich, who examined cobalt compounds in the early eighteenth century? Not very many, I guess. The volume edited by historians of chemistry Annette Lykknes and Brigitte Van Tiggelen on the occasion of the 150-year anniversary of the periodic system presents a comprehensive history of female scientists' work on the elements through a period of more than 300 years. Organized within its solid introduction and followed by 38 biographical chapters, this thoroughly documented book for the first time offers a broad account of the chemical elements from the perspective of gender history. The scholarly yet eminently readable volume uncovers the works of women scientists who for the most part are absent in standard histories of the chemical elements. While some of them were active researchers, others worked more modestly as assistants, instrument operators, chemical authors or popularisers.

Women in Their Element is a valuable contribution to the history of chemistry as well as to gender history of science. It will be of great interest to both chemists and historians of science – whether male or female"

Helge Kragh
Niels Bohr Institute, University of Copenhagen

"The 38 stories of women's engagement with elements gathered by Annette Lykknes and Brigitte Van Tiggelen do not replace heroes with heroines. They rather emphasize the human aspects of scientific endeavours and the obscure figures, males and females, who collectively contribute to the advancement of science. As a result, the periodic system usually known as 'Mendeleev's table' appears as a communal enterprise."

Bernadette Bensaude-Vincent
Université de Paris 1 Panthéon-Sorbonne

"Women in their Element is an exciting and important book that superbly fills a gap that was experienced for some time. Although the history of the construction of the Periodic Table, as well as its subsequent development, have been the subject of several books and articles, the important role played by creative women scientists has largely been neglected and has never been assembled in a single volume.

The editors of the book have succeeded in engaging a large group of first-rank authors, all experts in their specific fields. The book stands out by presenting a very broad, truly international overview of the role of women in the development of chemistry, and in particular on their roles in the discovery and mastery of chemical elements. There are more books on the roles of women in chemistry, but these are often of a rather encyclopaedic nature, lacking the insight in the historical development that makes the present volume unique. The Introduction to the book is more than excellent. It presents in a nutshell major steps in the development of chemistry as a framework in which the contributions by the several dozens of female scientists discussed in the book can be understood.

This book is both an important publication both for professional historians of science and an attractive read for a much larger historically interested audience. It is a convincing tribute to the important roles played by the numerous women discussed in the book, which shows that future histories of chemistry must be considered incomplete if a discussion of those roles is left out."

Ernst Homburg
Maastricht University

This book offers an original viewpoint on the history of the Periodic Table: a collective volume with short illustrated papers on women and their contribution to the building and the understanding of the Periodic Table and of the elements themselves. Few existing texts deal with women's contributions to the Periodic Table. A book on women's work will help make historical women chemists more visible, as well as shed light on the multifaceted character of the work on the chemical elements and their periodic relationships. Stories of female input, the editors believe, will contribute to the understanding of the nature of science, of collaboration as opposed to the traditional depiction of the lone genius.

While the discovery of elements will be a natural part of this collective work, the editors aim to go beyond discovery histories. Stories of women contributors to the chemistry of the elements will also include understanding the concept of element, identifying properties, developing analytical methods, mapping the radioactive series, finding applications of elements, and the participation of women as audiences when new elements were presented at lectures.

As for the selection of women, the chapters include pre-periodic table contributions as well as recent discoveries, unknown stories as well as more famous ones. The main emphasis will be on work conducted in the late 19th century and early 20th century. Furthermore, the book includes elements from different groups in the periodic table, so as to represent a variety of chemical contexts.