

research focused on “one-atom-at-a-time” studies of short-lived rutherfordium, dubnium, seaborgium, and bohrium. In 1984 Hoffman moved to a tenured professorship at the University of California, Lawrence Berkeley Laboratory, as Glenn Seaborg was retiring. She became the first director of the Glenn T. Seaborg Institute for Transuranium Science. In 2017, her team created livermorium (Lv, 116) and oganesson (Og, 118). Among many honors are three major awards from the ACS Nuclear Chemistry (1983), Garvin-Olin Medal (1990) and the Priestley Medal (2000), the Society’s highest award. In 1997 President Clinton honored Hoffman with the 1997 National Medal of Science. Clearly, Professor Emerita Hoffman has enjoyed an amazing career as scientist,

administrator and, as the author specifically highlights, family member.

There are many threads woven throughout this book. These include the barriers faced by women scientists, enormous strength in adversity, the vital importance of good mentoring and a conducive environment, the number of brilliant women who worked without pay at various points in their careers, and the impact of World War II. The women presented herein include those who this reviewer feels were deserving of Nobel prizes and those who were “merely” extraordinary and deserving of more exposure to scientists and non-scientists alike.

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African American Women Chemists in the Modern Era, Jeannette E. Brown, Oxford University Press, New York, 2018, viii + 290 pp, ISBN 978-0-19-061517-8, \$35.

This book can be considered to be a sequel of sorts to a previous Jeannette Brown volume. Her first book, *African American Women Chemists*, was enthusiastically reviewed seven years ago in the *Bulletin* by Sibrina N. Collins (Vol. 37, No. 2, pp 106-107 (2012)). That particular book dealt with women chemists from civil war times to the civil rights era. Brown, an ACS Fellow, has been very active in programming symposia at ACS meetings with an emphasis on matters of diversity. Her graduate degree comes from the University of Minnesota, where she was a student of C. Frederick Koelsch, of Koelsch’s radical fame. Brown has had a successful career in the pharmaceutical industry.

This new book tells the stories of twenty African American women chemists with accomplishments in industry, academia, and government service. In general, these biographical sketches come from Brown’s oral history interviews carried out through the Chemical Heritage Foundation, now known as the Science History Institute. Almost all of these oral histories have been turned into

third person narratives. However, two of the histories, those from Sondra Barber Akins and Sibrina N. Collins, are in the first person.

The book consists of an introduction, chapters about the principals described, a concluding section focused on the future, a listing of selected publications from the twenty chemists, and a bibliography of useful sources on women scientists. After the introductory Chapter 1, Chapter 2 deals with “Chemists Who Work in Industry,” with subjects Dorothy Jean Wingfield Phillips, Charlynlavaughn Bradley, Sharon Janel Barnes, and Sherrie Pietranico-Cole. Chapter 3 treats “Chemists Who Work in Academia,” with chemists Etta C. Gravely, Sondra Barber Akins, Saundra Yancy McGuire, Sharon L. Neal, and Mande Holford. “Chemists Who Are Leaders in Academia or Organizations” is the heading for Chapter 4, with examples Amanda Bryant-Friedrich, Gilda A. Barabino, Leyte Winfield, and La Trease E. Garrison. The classification for Chapter 5 is “Chemists Who Work for the National Labs or Other Federal Agencies,” who are Patricia Carter Ives Sluby, Dianne Gates Anderson, Allison Ann Aldridge, LaTonya Mitchell-Holmes, and Novella Bridges. Chapter 6 is the first person narrative of just Sibrina N. Collins and is titled “Life After Tenure

Denial in Academia.” The final chapter is called “Next Steps.”

The chapters based on the oral histories of the 20 chemists were all excellent. Because of Brown’s interviewing skill, the personalities of these women come through with clarity. One common thread is that almost all of these women had parents who were strongly focused on their children’s education. A college degree was not an afterthought for them, but a goal right from the beginning. The women had to fight through three kinds of barriers: poverty for many, sexism, and prejudice against African Americans. Some of the subjects were born during the Jim Crow era, and those born at a later time still had to deal with residual racism. For example, Sandra McGuire knew that she couldn’t drink from certain fountains or go to certain stores. Her parents explained to her that this came from the ignorance of the people instituting those policies, and had nothing to do with anyone being inferior. As a result, Sandra grew up with healthy self-esteem, “never thinking she was better than anybody else, always knowing that she was just as good.”

A number of these ladies received their undergraduate training at historically black colleges and universities (current abbreviation HBCUs). Although nowadays previously forbidden colleges are open to them, many felt that the faculty at an HBCU were much more nurturing of their students than the faculty at previously all white institutions. From her experience in a formerly all white graduate program, Novella Bridges feels that African American students have become something of a commodity. The professors wanted minority students in their group, because it would help their programs get grant proposal money.

The chapter titles quoted previously demonstrate the broad coverage of this book, as careers in industry, academia, and government are covered. What, then, are we to make of the title of Chapter 6, “Life After Tenure

Denial in Academia”? Dr. Sibrina Collins mentions this fact briefly in the first paragraph of her first person narrative and refers to it just once more in a short paragraph later in this six and a quarter page chapter. Collins went to high school in Detroit, graduated with a chemistry degree from Wayne State University, and earned her Ph.D. from Ohio State under mentor Bruce Bursten, a former ACS president. She did a post doc at LSU, worked for AAAS, and taught at Claflin University, an HBCU in South Carolina. She later joined the faculty at the College of Wooster, where she ultimately was denied tenure. She then worked at Detroit’s Wright Museum of African American History. Presently she is at Lawrence Technological University in Michigan, where she is the first executive director of the university’s Marburger STEM Center. My point is that Dr. Collins is so much more than a person who was denied tenure. She is an accomplished chemist of wide accomplishments. The chapter title is misleading and, I feel, unfortunate.

Clearly this is a minor complaint about what I believe is an excellent book. Any student wondering about careers in chemistry would find useful information in these diverse chapters, while chemists farther along their career paths will enjoy learning how these strong women navigated their way to success. A few years ago I noticed Brown’s first book on display in the non-fiction section of my local branch of the Dallas Public Library. That was an unusual event, as my local library branch seems to shun science-based books. Yesterday I made an inquiry at the library about Brown’s new book. I was delighted to learn that the library had just ordered two copies. I recommend that you readers consider buying this reasonably-priced book. *African American Women Chemists in the Modern Era* gives the reader much to learn and much to admire.

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