BOOK REVIEW

Nelu Grinberg and Peter Carr (Eds): Advances in Chromatography, Volume 55

Peter Myers[1]
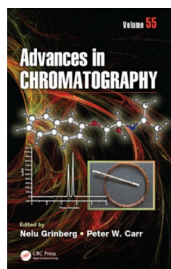
Bibliography
Advances in Chromatography, Volume 55
Nelu Grinberg, Peter Carr (Eds)
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This is volume 55 in the series of Advances in Chromatography, but I am left wondering if it is just a volume too far. After reading all the chapters, I cannot work out who is the target audience for this book. In reading some of the chapters, the words of an eminent chromatographer went through my head "It's all been done before you know" as some of the work is not advances but just old re-reported work.

However, this book is dedicated to the memory of Professor Elimelech (Eli) Grushka, and the tributes to him are very moving and give an insight into his scientific skills and engaging personality. As pointed out by his daughter Yarl, Eli had great passion for life; this was shown in how he loved to learn everything that he could, but, maybe most of all, he was fascinated by separation science. This is brought out in the introduction to the chapter by Joe Davis and Mark Schure where they point out that his papers were unique and ahead of their time; in fact, it could be said that Grushka's papers were real advances in chromatography.

It was with this though in my mind I read the book and I constantly asked the question "Do I need this book? There are nine chapters, but, unfortunately, I would not call any of them advances in chromatograph!" With the advances in search engines and access to online open source journals and data, the chapters are not advances but reviews. If, today, I want to look up advances in chromatography, I can find the latest papers in minutes. At the same time, I can find review papers that are far more up-to-date than the chapters in this book. I can understand how in the 1960s when this series was started, in an age without today's communications, such a series would provide the most up-to-date material for separation scientists. However, all that has now changed.

However, back to the chapters in the book, if I forget the title "Advances in Chromatography", then the first chapter by Peter Carr and Dwight Stoll is both a great dedication to Eli and also a chapter really suitable for any separation scientist/chromatographer wanting to gain a theoretical understand of peak capacity and gradient LC. Although this chapter has a wide range of equations, something, I find, in general, chromatographers do not like the authors to explain their meaning and function. I can see this chapter being accessed online by many university students studying separation science. Chapter 5 written by Joe Davis and Mark Shure asks the question "Is the number of peaks in a chromatogram always less than the peak capacity" This should be read after the first chapter. The two chapters together provide very interesting thoughts and, as the authors say, give an insight into Eli's fascination with this subject, especially how he could express these problems mathematically.

The work in Chapter 3 was first reported in 2009. I would welcome the development of this chapter into the new possibility of developing materials that could lead to some real advances. Chapter 6 at 85 pages long on organic polymer-based monolithic columns is the most extensive in the book. However, it is a review chapter describing work carried out over the past; in some cases, 10 years. It can, and I hope will, be made into an advance chapter or paper by developing the thoughts, as outlined by the authors on the incorporation of nanoparticles and nanostructured materials into monoliths to provide different and unique selectivity. That is of course as long as the reproducibility of monoliths can be controlled.

A nice book as a dedication to Eli Grushka but not a book on advances in chromatography.

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