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BOOK REVIEW

Eli Grushka and Nelu Grinberg (Eds): Advances in Chromatography, Volume 53

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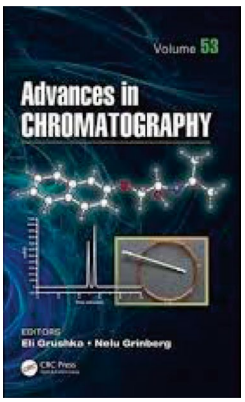

Bibliography
Advances in Chromatography, Volume 53
Eli Grushka, Nelu Grinberg (Eds)
CRC Press, Boca Raton, FL, "USA; 2016," pp 361
ISBN 13: 978-1-4987-2678-0
GBP 152.00, USD 239.95

I was keen to read what I have missed in the way of advances in chromatography but I was disappointed to discover that, apart from two chapters out of the eight, I can say this book does not report what I would consider to be "advances". The two chapters that describe real advances are by Gert Desmet and Veronika Meyer.

Desmet describes the characterisation of the kinetic performance of silica monolithic columns for reversed phase. It both describes the advances made in the second generation of silica monoliths but also goes through the maths involved to evaluate all forms of monoliths. The maths and principles described in this chapter are not the state of the art in modem mathematics, but they are a major jump for the average chromatographer. Although Desmet has been writing about kinetic plots for a good number of years now, unfortunately not many chromatographers use or maybe understand them. In this chapter, he describes very well their application to both classical packed columns and monoliths. Using the kinetic plots, the real differences between the first and second generation of silica monoliths can be clearly seen. The results could well provide guidance to the next generation of monoliths.

The other chapter that I believe to be an advance is by Veronika Meyer entitled "Uncertainty Evaluation in Chromatography". This can be interpreted as a standard deviation, but this chapter describes how it can also be described as a standard uncertainty. Meyer explains how there are two ways of calculating the standard uncertainty of an analysis—the bottom-up method, which looks at every influence on the method and the top-down approach which starts from the reproducibility of the method. Again a good understanding of maths is required to both understand and gain benefit from this chapter but it is well worth the effort. Using the methods outlined will lead to more certainty about the quality of any analytical result.

Reading the other chapters, the one on comprehensive two-dimensional hydrophilic interaction chromatography by reversed-phase chromatography is of interest, but papers on this have been published since 2007, so I class this as a good review chapter with an excellent reference section. I would also class most of the rest under the umbrella of reviews; is "Sample Preparation for Thin Layer Chromatography" really an advance? The last chapter on modelling an HPLC method is purely an advertisement for a commercial software package and I do not think it should have been included in this book in this form.

This book provides me with a real problem—two chapters on advances five good reviews and one an advertisement. So where is the target audience for this book; I am not sure it has one? It is not suitable for a new chromatographer and an advanced chromatographer would have read the review-like articles in good journals. So, for two chapters it is rather expensive at £152.

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