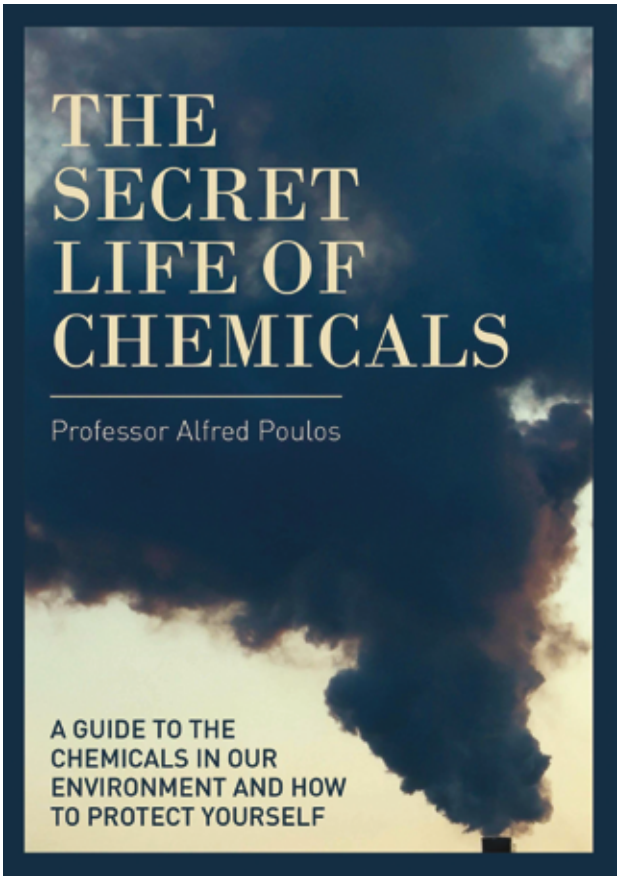
THE SECRET LIFE OF CHEMICALS: A GUIDE TO THE CHEMICALS IN OUR ENVIRONMENT AND HOW TO PROTECT YOURSELF

Professor Alfred Poulos, 270 pp. $30 (inc. postage Aust.) from alfredpoulos@gmail.com

Reviewed by Emeritus Professor Peter J Fensham



For almost 45 years, chemistry teachers in Australia have been greatly assisted by Ben Selinger's book, *Chemistry in the Market Place* (now Selinger & Barrow). In its many editions, it has provided teachers with information about an expanding list of the chemicals that each of us encounter in our daily lives at home, work and play.

Now Alfred Poulos has produced a similarly informative book about a number of classes of chemicals that now pervade modern industrial society.

In the first half of the book, the chapters deal with particular groups of chemicals — 'The Plastic Revolution', 'Toxic Metals', 'The Indestructibles', 'Air Pollutants', 'Chemicals from Paper Manufacture and Use', 'Chemical Exposure in the Workplace', 'Fluorocarbons', and 'Radiation Pollutants'. For each of these types of chemicals, there is a description of the chemical nature, their preparation, and the role they play in modern society. Then their possible impact on human beings is outlined and what, if any, safeguards regulating their use exist. Each chapter has references to recent international published research studies or reports, and the book is well indexed.

The second half of the book begins with a chapter titled 'How do our Bodies deal with Chemicals?'. It goes on in the next four chapters to consider, 'Genetic Variability and the Risk of Disease', 'Environmental Chemicals and Our Genes', 'Environmental Chemicals and Mitochondria', and 'Environmental Chemicals and the Immune System'. Each of these chapters has a helpful 'What Does All This Means?' summary.

On a world scale, what is surprising is the enormous quantity of these various chemicals. Even so, for each individual person the ingestion or exposure to these various chemicals may be quite small. The author takes up this issue in a later chapter titled 'Just Because the Amounts are Small, Does It Mean They Are Safe?'.

'How to protect yourself' is part of the book's subtitle, but with most of the classes of chemicals described, there seems to be little individuals can do beyond being well informed and pressing for political action to have tighter regulatory procedures in place and ensure they are enforced.

But being well informed is, after all, the author's purpose for this book. This is an excellent resource for teachers to be able to incorporate up-to-date information into topics across the Australian science curriculum.

When I first picked up this book, it was boring, and I thought it would be a challenge to read. However, on reflection, I can say I was wrong, as this book did not disappoint. I would recommend it as a good read to digest and enjoy.