Preface

Most books on analytical atomic spectroscopy written over the past few years have tended to be a bit like Christmas celebrations, with the bulk of the content not really new, but moments of inspiration or novelty occasionally shining through. They nevertheless provide a useful service if well written, in so far as they provide an up-to-date account for newcomers to a field or novices wishing to know a little more.

Most such books tend to follow the same formula, with a dabble in relevant history, a thick wad of impressively complex-looking theory for those who are easily impressed by such material, an in depth overview of instrumentation, and finally a chunky section on how to analyse particular samples or to determine particular elements.

Many of the environmental scientists who use flame spectroscopy quite extensively have neither the time nor the desire to be able to learn enough to answer Trivial Pursuit type questions on the theory or history of atomic spectroscopy. They wish instead to be able to obtain, rapidly, safely, inexpensively, and with minimal mental effort, analytical results of sufficient accuracy and precision to meet a specific purpose. It is for this group that this book is predominantly written, as a simple practical guide. It is based upon more than 20 years of experience of helping such people, primarily in a University context, take their first faltering steps in atomic spectrometry. Most have emerged with sound data, some useful knowledge, and increased confidence and job skills. Over this period, although I have made a few mistakes, I have also picked up some useful tips and ideas. It is the latter which I hope will be passed on to the attentive reader.

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