

DNA

This is a quite unusual and highly entertaining book, which makes DNA molecular biology accessible for a broad readership: for those not familiar with the topic at all it is an easy first step, for the scientist it is simply fun to read. Israel Rosenfield and Edward Ziff, both renowned researchers in several fields of molecular biology and neuroscience, have worked together with the illustrator Borin van Loon to create a comic book that covers a plethora of aspects around “the molecule that shook the world”, touching on a wide variety of philosophical, political, and social matters. The book leads the reader through the most important discoveries and inventions surrounding DNA (and RNA): structure and replication, transcription, translation, epigenetics, post-transcriptional modifications, microRNAs, and many more. It also covers the most important technologies that provided, or still provide, key drivers for the scientific revolutions around DNA. These include not only classical techniques such as PCR, Sanger sequencing, and molecular cloning but also recent topics such as high-throughput sequencing, genome engineering, and stem cell differentiation.

It is impressive how the authors cover such a wide range of topics in a media format that does not allow for a lot of written information, by always presenting the essence of the relevant scientific contributions in a tightly condensed form. However, as in every well-made comic book, *DNA* never puts the message across in a dry prosaic way. Instead, the stories are narrated in rich detail from the experimenter's point of view, also highlighting the pertinent questions, hypotheses, and experimental designs by using the major scientific players in the field as protagonists. In this way, exciting aspects around the purely scientific content add zest to the book—such as the competition among scientists, ethical considerations, and some philosophical topics such as the origin of life.

However, the work is made truly unique by the astonishingly versatile illustrations by van Loon, which are a wild (but not clashing) mixture of different styles. These include portraits (and caricatures) of famous scientists, collages, photographs, diagrams, and a lot of surrealism, frequently citing works by various artists from Warhol to Rodin. This not only adds to the enjoyment of reading but is often quite valuable from a didactic point of view. For example, many molecular processes are illustrated by graphics of a mechanical kind featuring machines and engineering

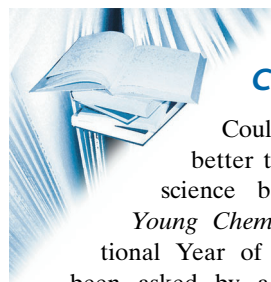
components, which makes the topics easy to grasp for everyone.

To summarize, *DNA* is fun—have a look, you will not be disappointed.

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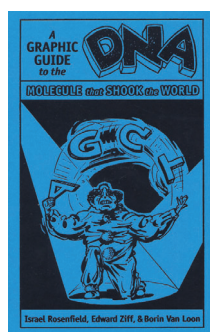


Letters to a Young Chemist

Could there have been any better time to publish a popular science book like *Letters to a Young Chemist* than in the International Year of Chemistry? I have just been asked by a student what I would recommend him to do in the future.

Although he is already at an advanced stage of his studies, I suggested reading the book *Letters to a Young Chemist*, which I thought could serve as an inspiration to him and certainly for many students. However, this book is not only relevant for students but is intended for a broader readership, and has the potential to overcome some of the prejudices against chemistry that are omnipresent. Various topics that are, per se, complex are wrapped within 17 letters to the fictitious undergraduate chemistry student Angela. The letters are written by scientists at different stages of their careers who share their visions in this form. Chemical terms are explained using metaphors, to make the descriptions accessible to non-chemists and non-scientists. I particularly liked the comparison of DNA to a bookshelf where the individual books can be taken out to read the information (Cynthia Burrows). Such explanations make the contents more transparent, so that the book is easy reading for people with different levels of knowledge.

Throughout the book, the reader is impressed by the contributors' enthusiasm to work on challenging problems, to make thrilling discoveries, and to find innovative solutions. A common feature of all the contributions is that the reader can appreciate the authors' passion for science, and I found the book difficult to put down. The authors deal with some of the major challenges that mankind is currently facing: energy, health, sustainability, materials, etc. The main chapters deal with the progression from fundamental research to applications, the contributions of chemistry to the understanding and exploitation of biological processes,



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