

number of environmental issues, a comprehensive list of environmental chemistry experiments that give prominence to analysis—and that require instrumentation beyond that used in the experimental manual—is given in the Appendix.

Among the most important issues in environmental science are the appreciation and knowledge of the different phenomena involved in our environment, and the ongoing need to participate in its care. Hopefully these books will contribute a grain of sand to such an end.

Names of the authors appear below followed by the institutions where they did graduate work, then by their present affiliations:

- Margarita Hernandez-Esparza (Stanford Research Institute), Universidad Iberoamericana, Mexico City
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- Arturo Fregoso-Infante (University of Kansas at Missouri), Universidad Iberoamericana, Mexico City
- Mono Mohan Singh (St. Petersburg University), Merrimack College, Massachusetts, United States.
- Jorge G. Ibanez (University of Houston), Universidad Iberoamericana, Mexico City



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Four Laws That Drive the Universe

Peter Atkins

Oxford University Press, New York, 2007

ISBN 978-0199232369

reviewed by Laurence Lavelle

Four Laws That Drive the Universe is a delight to read. It is so well written that its 124 small and eloquent pages can be read in a day and its contents enjoyed for a lifetime.

The five chapters (describing the zeroth-, first-, second- and third-laws of thermodynamics and free energy) do far more than cover introductory thermodynamics. They convert what is an often abstract topic of mathematical equations into prose that is logical and easy to read. Atkins explains the concepts behind the equations and develops the equations.

Four Laws That Drive the Universe shows that it is possible to construct sentences that are excellent replacements for equations. This aspect of the

book alone will be a great asset to anyone—and in particular any student—who finds it difficult to read equations and comprehend thermodynamics. In addition

to making thermodynamics comprehensible to beginners, for specialists, it sets the standard for converting mathematically dense scientific topics into logical text with little lost in translation.

This gem of a book will be helpful to any student hearing about thermodynamics for the first time. Graduate students, who may have already made several attempts at understanding the fundamentals of thermodynamics, will also find this book helpful. Those who teach thermodynamics will find it a useful resource in assisting students understand thermodynamics. This book rewards at many levels, making it an excellent read for beginning students through to specialists

in thermodynamics.

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