



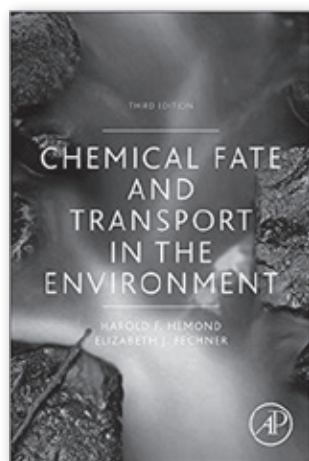
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## Book Review

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<b>Book name:</b>	Chemical Fate and Transport in the Environment (Third Edition)
<b>Authors:</b>	Harold F. Hemond and Elizabeth J. Fechner
<b>Published:</b>	Elsevier, Academic Press, USA, 2015
<b>Paperback:</b>	486 pages
<b>Language:</b>	English
<b>ISBN:</b>	978-0-12-398256-8

When one wants to treat environmental pollutions, choosing treatment techniques is an important key to the successful remediation. Therefore, it is critical to determine how a pollutant behaves once it goes into the environment, as mostly known as the fate and transport of a contaminant. This book, written by Harold F. Hemond & Elizabeth J. Fechner, describes well on how one chemical changes, transforms, and transports into various environmental phases. While this book is divided into separated topics according to the environmental phases: soil, water, and air, it shows the interconnected concepts linking each chapter together so that the reader will be able to relate the information together when proceeding through the book.

The first chapter provides basic concepts starting from the units of concentrations to the equilibrium partitioning until the more advanced concept such as Fugacity model, all of which will be useful for the reader in the later chapters. A reader with solid

background in chemistry might want to skip this chapter; still, I suggest going through the whole chapter as it is short and to the point. The second chapter concerning surface waters offers the understanding of chemical transport and transformation within different types of surface water resources. Not only the water movement but the particle transport and distribution are also covered. Since a chemical cannot only be transported in environment but also transformed to intermediates and products, the second chapter provides details on both abiotic and biotic transformations. The only problem I found using this book is that the time to spend for this second chapter of surface water is quite long, which is due to the fact that there are so many topics condensed into one chapter. After that, the third chapter contains subsurface environment involving water and soil (and even the air compartment within soil). The famous Darcy's law was also described well. Similar to the previous chapter, not only movement but also the

degradation of a chemical in environment is provided. The last chapter covers the atmosphere where the reader will learn about atmospheric movement, air circulation, and both outdoor and indoor pollutions. Lastly, in the Appendix, the description of units for environmental quantities is given. I suggest the reader to have a look at this chapter as it is very useful when dealing with calculations in this book.

In conclusion, I would recommend acquiring this book if you are teaching or studying in the fields related to environmental science and engineering. This book is friendly and easy enough for the readers who have already passed undergraduate scientific courses; however, to fully understand the concept, extra study might be needed in some topics. As it was intended by the authors, and I concurred, this book covers nicely on every basic principle you need to grasp a deep understanding about the fate and transport of a contaminant in environment.

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