that level, I think that comprehension will drop off somewhat, but the book is so well presented that anyone with some background in basic astronomy or physics should enjoy reading it.

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Microphysics of Atmospheric Clouds and Precipitation

H. R. Pruppacher, J. D. Klett
706 pp. D. Reidel, Boston, 1978. $41.50

Microphysics of Clouds and Precipitation, by Hans R. Pruppacher and James D. Klett, is an excellent book exhibiting many instances of very scholarly work. It fills a need for a strong, comprehensive text and reference book on the microphysics of clouds. Pruppacher, the senior author and a professor at the University of California at Los Angeles, has made many valuable contributions to the field of cloud microphysics, especially with his carefully controlled laborlatory experiments. Pruppacher and Klett have included well-written textual material for students and useful reference material for scientists in this and related fields.

The book covers the mechanisms of cloud nucleation, particle diffusion growth, collision-coalescence growth and breakup individually and in cloud populations. Cloud dynamics, electricity, optics, radar meteorology and atmospheric chemistry are briefly considered. The authors justify the absence of material on other aspects of the physics of clouds—cloud kinematics, dynamics and macrophysics—on the basis that the discipline is very complex and extends over many orders of magnitude. They agree that this omission could be serious. A text to cover more of these topics would require difficult decisions on what should be included. Perhaps a text to cover the macrophysics of clouds as a companion to Pruppacher and Klett's book is needed. The missing details or omissions may not be evident to a student without background in cloud physics. I highly recommend the book as a text with which an instructor can pull things together in a large-scale framework.

Much of the work in cloud microphysics and cloud dynamics has been carried out in a sterile environment devoid of inhomogeneity, turbulence and electrical forces, factors that are actually an integral part of most situations in the atmosphere. I point this out not as a criticism of the book, but to emphasize how the dichotomy of the subject has led to an overemphasis on microphysical detail without sufficient regard to the influence of the larger-scale meteorological parameters. Caution must be taken in the application of most microphysical research to the real world.

Chapter by chapter, I find that most of the subjects are treated with understanding and are quite well done. Some specific comments about the treatments in chapters 1, 2, 7, 14 and 17 may largely reflect my own preferences.

It is dangerous, as in chapter 1, to find and print the name of the original originator of a concept—someone almost surely will come up with an earlier one. For example, Benjamin Franklin, not mentioned in chapter 1, knew the normal dipole charge structure of clouds was positive above and negative below, and he proposed that the electrostatic attraction of charged particles of opposite sign contributed to the formation of rain, a hypothesis much in vogue at present.

In the second chapter, the descriptions of the microstructure of clouds and precipitation are based on many widely varied airborne measurements of cloud drops, usually by slide impaction—a method fraught with pitfalls in application and calibration. There is also the question of the representativeness of data derived from sampling small volumes separated by large distances. Although an extensive series of observations by impactor slide techniques is shown, there are no reports of high-resolution fast-response observations made with modern electronic and electro-optical probes. Although the proper operation and interpretation of these observations still depend on the skills of each investigator, they provide much better data over large distances.

Chapter 7 is on homogeneous nucleation, which rarely occurs in the atmosphere; one wonders if the chapter is really necessary. Further discussion is needed in chapters 14 and 17 of the studies of the collision–coalescence of cloud drops through laboratory model simulations. These experiments served an important role in the development of further understanding of drop interactions by exaggerating and visualizing vital aspects of the problem.

I strongly recommend the book for scientific libraries, serious cloud physics students, and other scientists who need to go in depth into this subdiscipline.

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Technology Transfer Practice of International Firms

F. R. Bradbury, ed.
312 pp. Sijthoff, Noordhoff, Alphen aan den Rijn, Holland, 1978.
Dfl. 95.00

Technology transfer takes many forms, but no variation is more politically explosive than transfers between multinational corporations as donors and developing countries as recipients. Such interchange carries with it the heavy political overtone that the "haves" compete with the "have nots" for a redivision of the world's economic pie. The United Nations has acknowledged the divisive nature of this issue and has scheduled a conference in late 1979 offering a world forum for the various participants. *Technology Transfer Practice of International Firms* addresses this theme, and others, in a wide-ranging series of case studies.

In 1974 the Organization for Economic Co-operation and Development recog-