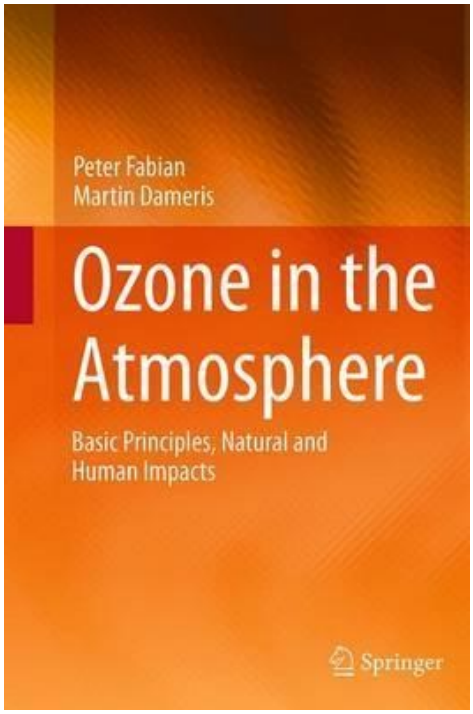

Ozone in the Atmosphere : Basic Principles, Natural and Human Impacts

Peter Fabian,Martin Dameris

Peter Fabian and Martin Dameris provide a concise yet comprehensive overview of established scientific knowledge about ozone in the atmosphere. They present both ozone changes and trends in the stratosphere, as well as the effects of overabundance in the troposphere including the phenomenon of photosmog.Aspects such as photochemistry, atmospheric dynamics and global ozone distribution as well as various techniques for ozone measurement are treated. The authors outline the various causes for ozone depletion, the effects of ozone pollution and the relation to climate change.The book provides a handy reference guide for researchers active in atmospheric ozone research and a useful introduction for advanced students specializing in this field. Non-specialists interested in this field will also profit from reading the book.Peter Fabian can look back on a life-long active career in ozone research, having first gained international recognition for his measurements of the global distribution of halogenated hydrocarbons. He also pioneered photosmog investigations in the metropolitan areas of Munich, Berlin, Athens and Santiago de Chile, and his KROFEX facility provided controlled ozone fumigation of adult tree canopies for biologists to investigate the effects of ozone increases on forests. Besides having published a broad range of scientific articles, he has also been the author or editor of numerous books. From 2002 to 2005 he served the European Geosciences Union (EGU) as their first and Founding President.Martin Dameris is a prominent atmospheric modeler whose interests include the impacts of all kinds of natural and man-made disturbances on the atmospheric system. His scientific work focuses on the connections between ozone and climate changes. For many years he has been an active contributor to the WMO scientific ozone depletion assessments, which have been used to monitor the depletion and recovery of the ozone layer in accordance with the Montreal Protocol.