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Note generali	Includes index.
Nota di contenuto	Chapter 1. Dynamical Processes in Arctic atmosphere ( Marius O. Jonassen, Dmitry Chechin, Alexey Karpechko, Christof Lüpkes, Thomas Spengler, Annick Tepstra, Timo Vihma, and Xiangdong Zhang) -- Chapter 2. Thermodynamics of Arctic atmosphere (Claudio Tomasi, Boyan H. Petkov, Oxana Drofa, and Mauro Mazzola) -- Chapter 3. Trace gases in Arctic atmosphere (Kimberly Strong, William R. Simpson, Kristof Bognar, Rodica Lindenmaier, and Sébastien Roche) -- Chapter 4. Arctic aerosol (Roberto Udisti, Rita Traversi, Silvia Becagli, Claudio Tomasi, Mauro Mazzola, Angelo Lupi, and Patricia K. Quinn) -- Chapter 5. Arctic clouds (Abhay Devasthale, Joseph Sedlar, Michael Tjernström and Alexander Kokhanovsky) -- Chapter 6. Arctic fog (Ismail Gultepe, Andrew J. Heymsfield, Martin Gallagher) -- Chapter 7. Polar stratospheric clouds (Francesco Cairo, and Tiziana Colavitto) -- Chapter 8. Noctilucent clouds (Christian von Savigny, Gerd Baumgarten, and Franz-Josef Lubken) -- Chapter 9. Remote sensing of Arctic

atmosphere (Alexander Kokhanovsky, Claudio Tomasi, Alexander Smirnov, Andreas Herber, Roland Neuber, André Ehrlich, Angelo Lupi, Boyan H. Petkov, Mauro Mazzola, Christoph Ritter, Carlos Toledano, Thomas Carlund, Vito Vitale, Brent Holben, Tymon Zielinski, Simon Bélanger, Pierre Larouche, Stefan Kinne, Vladimir Radionov, Manfred Wendish, Jason L. Tackett and Dave M. Winker) -- Chapter 10. Radiation in Arctic atmosphere and atmosphere-cryosphere feedbacks (Claudio Tomasi, Boyan H. Petkov, Angelo Lupi, and Mauro Mazzola and Christian Lanconelli, and I. Gultepe) -- Chapter 11. Climate change in Arctic (T. Koenigk, J. Key, and T. Vihma).

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Sommario/riassunto

This book presents current knowledge on chemistry and physics of Arctic atmosphere. Special attention is given to studies of the Arctic haze phenomenon, Arctic tropospheric clouds, Arctic fog, polar stratospheric and mesospheric clouds, atmospheric dynamics, thermodynamics and radiative transfer as related to the polar environment. The atmosphere-cryosphere feedbacks and atmospheric remote sensing techniques are presented in detail. The problems of climate change in the Arctic are also addressed.

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