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Nota di contenuto	Introduction -- Instrumentation -- Field observation of NO ₃ and N ₂ O ₅ -- Budget of NO ₃ and N ₂ O ₅ -- Atmospheric impacts of NO ₃ and N ₂ O ₅ chemistry -- Conclusions and outlook.
Sommario/riassunto	This book systematically describes the instrument setup for the measurement of nitrate radical (NO ₃) and dinitrogen pentoxide (N ₂ O ₅), as well as the mixing ratio, chemical behaviors, and atmospheric impacts of NO ₃ and N ₂ O ₅ in Beijing, China. It also discusses the instrument design and data analysis method in detail. Based on several field measurements of NO ₃ and N ₂ O ₅ in Beijing, it shows the variation in concentration and the budget of NO ₃ and N ₂ O ₅ . The N ₂ O ₅ heterogeneous uptake coefficient was determined using various methods, and the relationship between the N ₂ O ₅ uptake coefficient and the particle properties was demonstrated, as well as the impact of NO ₃ –N ₂ O ₅ chemistry to the atmospheric oxidation and the formation of particulate nitrate. These results increase our understanding of nighttime chemistry and provide insights into the role of NO ₃ –N ₂ O ₅ chemistry in other polluted regions.