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Nota di contenuto	Preparation of Compounds Labeled with Tritium and Carbon-14; Contents; Preface; Glossary; Author Biographies; 1 Introduction; 1.1 Physical Properties of Tritium and Carbon-14; 1.2 Purification; 1.3 Analysis; 1.3.1 Chemical Identity; 1.3.2 Chemical (and Enantiomeric) Purity; 1.3.3 Radiochemical (and Radionuclidic) Purity; 1.3.4 Specific Activity; 1.3.5 Position of Label; 1.4 Stability and Storage of Compounds Labeled with Tritium or Carbon-14; 1.5 Specialist Techniques and Equipment; References; 2 Strategies for Target Preparation; 2.1 Formulating Target Specifications 2.2 Planning Radiotracer Preparations2.2.1 The Construction Strategy; 2.2.2 Reconstitution Strategies; 2.2.3 The Derivatization Strategy; 2.2.4 Selection of an Appropriate Strategy; 2.2.5 Case Studies of Strategy

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Sommario/riassunto

Compounds labeled with carbon-14 and tritium are indispensable tools for research in biomedical sciences, discovery and development of pharmaceuticals and agrochemicals. Preparation of Compounds Labeled with Tritium and Carbon-14 is a comprehensive, authoritative and up-to-date discussion of the strategies, synthetic approaches, reactions techniques, and resources for the preparation of compounds labeled with either of these isotopes. A large number of examples are presented for the use of isotopic sources and building blocks in the preparation of labeled target compounds, illustratin

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Nota di contenuto	Cover -- Title Page -- Copyright -- Contents -- List of Contributors -- Preface -- Chapter 1 Science of Cloud and Climate Science: An Analysis of the Literature Over the Past 50 Years -- 1.1 Research on Clouds and Climate -- 1.1.1 Science of Science for Clouds and Climate -- 1.1.2 Publication Data and Methods -- 1.2 Publications on Clouds and Climate -- 1.2.1 Citation and Readability -- 1.3 The Role of Clouds in Radiation, Circulation, and Precipitation -- 1.4 Methodology in Clouds and Climate -- 1.4.1 Techniques -- 1.4.2 Authorship -- 1.5 Summary and Outlook -- Acknowledgments -- Availability Statement -- References -- Part I Clouds and Radiation -- Chapter 2 An Overview of Aerosol-Cloud Interactions -- 2.1 Introduction and Motivation -- 2.1.1 The Importance of AerosolCloud Interactions for Climate -- 2.1.2 Outline and Aims of this Review -- 2.2 How aerosols affect different cloud types -- 2.3 Aerosol Activation -- 2.4 Warm Cloud Albedo -- 2.5 Approaches to Determining Susceptibility -- 2.6 New Methodological Approaches -- 2.6.1 GaussianProcess Emulation to Address State Dependence -- 2.6.2 Tendency Emulation to Address Time Dependence of Adjustments -- 2.6.3 Causality of LWP Adjustments -- 2.6.4 Causality Inference from Transient Events -- 2.6.5 Ensemble Approaches to Uncertainty Quantification and Reduction in GCMs -- 2.6.6 Regime Classification -- 2.7 Aerosol Effects on Ice and Mixed

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