1. Record Nr. UNINA9910818578103321 Autore Seco J. M (Jose Manuel) Titolo The assignment of the absolute configuration by NMR using chiral derivatizing agents: a practical guide // J.M. Seco, Emilio Quinoa, and R. Riguera New York, New York: ,: Oxford University Press, , 2015 Pubbl/distr/stampa ©2015 **ISBN** 0-19-046388-0 0-19-756337-6 Descrizione fisica 1 online resource (265 p.) Collana Oxford scholarship online 543/.66 Disciplina Soggetti Nuclear magnetic resonance spectroscopy Spectrum analysis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Previously issued in print: 2015. Nota di bibliografia Includes bibliographical references and index. ""Cover""; ""The Assignment of the Absolute Configuration by NMR Nota di contenuto Using Chiral Derivatizing Agents"; ""Copyright""; ""Contents"; ""Preface""; ""Introduction""; ""1 The Theoretical Basis for Assignment by NMR""; ""1.1. Distinguishing Enantiomers by NMR: The Use of CDAs""; ""1.2. Structural Characteristics of the Auxiliaries and the Substrates""; ""1.3. Importance of the Conformation""; ""1.4. Importance of the Aromatic Shielding Effect""; ""1.5. Use of 13C NMR for Assignment""; ""1.6. Simplified Approaches to Assignment by NMR"" ""2.1. Instrumentation, Concentration, Solvent, and Temperature of the NMR Experiment"""2.2. Source and Preparation of the CDAs""; ""2.3. Preparation of the CDA Esters, Thioesters, and Amides""; ""2.3.1. Derivatization of Alcohols, Thiols, and Cyanohydrins Using the CDA Acid""; ""2.3.2. Derivatization of Amines Using the CDA Acid""; ""2.3.3. Preparation of the CDA Acid Chlorides""; ""2.3.4. Derivatization of Alcohols, Thiols, and Cyanohydrins Using the CDA Acid Chloride""; ""2.4. Resin-Bound CDA Derivatives (Mix-and-Shake Method)""; ""2.4.1. Preparation of Resin-Bound CDA Derivatives"" ""2.4.2. Preparation of Acid Chloride Resins"""2.4.3. Preparation of CDA-Resins""; ""2.4.4. Determination of the Loading of the CDA-

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Sommario/riassunto

This guide offers a concise explanation of the theoretical aspects necessary for understanding the methodology underpinning cutting-edge research in the field of nuclear magnetic resonance (NMR) spectroscopy.