1. Record Nr. UNINA9910254056403321 Autore Albini Angelo Titolo Paradigms in Green Chemistry and Technology / / by Angelo Albini, Stefano Protti Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-25895-8 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (112 p.) Collana SpringerBriefs in Green Chemistry for Sustainability, , 2212-9898 540 Disciplina Soggetti Organic chemistry Catalysis Chemical engineering Sustainable development Organic Chemistry Industrial Chemistry/Chemical Engineering Sustainable Development Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto History and Key Concepts -- Key Strategies: what is green and how to measure how green it is (green metrics) -- A green start (green sources of raw materials) -- Choosing the green reaction (rethinking the approach, multicomponent reactions) -- Choice of green conditions (catalysis, non-thermal activation, biphasic...) -- Industrial applications (flow chemistry, large scale, safety, monitoring, case histories). Sommario/riassunto This brief discusses the formation of modern "green chemistry" as a contribution to sustainability and the historic paths that lead to the key concepts of this discipline. Within this intellectual framework, the book tackles the 12 principles of green chemistry and the 12 principles of green chemical engineering as well as related financial and management issues; these facts are explored and reformulated in a focused set of paradigms. The best choice of a model for quantitative assessment (sufficiently specific to account for the many parameters

involved but not excessively detailed to inhibit practical use) is

discussed and examples of practical applications are presented.