Record Nr. UNINA9910254044203321 Ionic Liquids for Better Separation Processes / / edited by Héctor **Titolo** Rodríguez Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2016 **ISBN** 3-662-48520-6 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (235 p.) Collana Green Chemistry and Sustainable Technology, , 2196-6982 Disciplina 540 Soggetti Chemical engineering Renewable energy resources Sustainable development Analytical chemistry Industrial Chemistry/Chemical Engineering Renewable and Green Energy Sustainable Development **Analytical Chemistry** 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. Nota di contenuto lonic liquids in the context of separation processes.-Extractive distillation with ionic liquids: Pilot plant experiments and conceptual process design -- Ionic liquids for extraction processes in refineryrelated applications -- Ionic liquids for metal ions separation --Aqueous biphasic systems based on ionic liquids for extraction, concentration and purification approaches -- Extraction of Sandalwood Oil Using Ionic Liquids: Towards a "Greener" More Efficient Process --Leaching of active ingredients from plants with ionic liquids -- Chiral ionic liquids in separation sciences -- Analytical applications of ionic liquids in chromatographic and electrophoretic separation techniques.

> This book discusses capital separation processes of industrial interest and explores the potential for substantial improvement offered by a promising class of substances: ionic liquids. These low melting point salts, with their unique characteristics, have been gaining relevance in the field of separation through a variety of approaches. The chapters

Sommario/riassunto

are structured from an application perspective, and cover the utilisation of ionic liquids in different unit operation contexts (distillation, liquid-liquid extraction, and solid-liquid extraction), giving an idea of their remarkable versatility. The final chapters focus on the use of ionic liquids in analytical applications based on separation procedures. This volume combines the review of the main advances to date with the analysis of the potential future use of ionic liquids in separation processes across a variety of fields, ranging from enhancement of state-of-the-art technologies to a revolution in the technological bases currently in use. It provides a valuable resource for engineers and scientists working in the field of separation, as well as for all readers generally interested in ionic liquids, in particular from an application standpoint. Héctor Rodríguez is a faculty member of the Department of Chemical Engineering at the University of Santiago de Compostela, Spain.