

1. Record Nr.	UNINA9910141380003321
Titolo	Ionic liquids uncoiled [[electronic resource]] : critical expert overviews / / edited by Natalia V. Plechkova, Kenneth R. Seddon
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2013
ISBN	1-118-43500-1 1-118-43498-6 1-283-73557-1 1-118-43762-4
Descrizione fisica	1 online resource (435 p.)
Classificazione	SCI013050
Altri autori (Persone)	PlechkovaNatalia V SeddonKenneth R. <1950->
Disciplina	541/.3723
Soggetti	Ionic solutions Ionic structure
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 and index.
Nota di contenuto	Title page; Copyright page; Contents; Coil Conferences; Preface; Acknowledgements; Contributors; Abbreviations; 1: Electrodeposition from Ionic Liquids: Interface Processes, Ion Effects, and Macroporous Structures; 1.1 Introduction; 1.2 Results and Discussion; 1.2.1 Purity Issues; 1.2.2 Interfacial Layers and Scanning Probe Microscopy Studies; 1.2.3 HOPG/[C4mpyr][NTf2]; 1.2.4 Au(111)/[C6mim][FAP]; 1.2.5 Au (111)/[C4mpyr][FAP]; 1.2.6 Influence of the Cation on Aluminium Deposition; 1.2.7 Challenges in the Making of Macroporous Materials; 1.3 Conclusion; References 2: Interfaces of Ionic Liquids (1)2.1 Introduction; 2.2 Liquid/Vacuum and Liquid/Gas Interfaces; 2.3 Liquid/Liquid Interfaces; 2.4 Solid/Liquid and Electrified Solid/Ionic Fluid Interfaces; 2.5 Wetting and Electrowetting Characteristics; 2.6 Summary and Conclusions; Acknowledgements; References; 3: Interfaces of Ionic Liquids (2); 3.1 Introduction; 3.2 The Solid-Ionic Liquid Interface; 3.2.1 Pure Interfaces; 3.2.2 Mica-Ionic Liquid Interfaces; 3.2.3 Sapphire-Ionic Liquid Interfaces; 3.2.4 Silica-Ionic Liquid Interfaces; 3.2.5 Graphite-Ionic Liquid Interfaces

3.2.6 Gold-Ionic Liquid Interfaces 3.2.7 Adsorption at the Solid-Ionic Liquid Interface; 3.3 The Air-Ionic Liquid Interface; 3.3.1 Pure Interfaces; 3.3.2 Interfacial Layer; 3.3.3 Transition Zone Structure; 3.3.4 Relationship between Microscopic Structure of Air-Ionic Liquid Interfaces and Macroscopic Properties; 3.3.5 Surfactant Adsorption at Air-Ionic Liquid Interfaces; 3.4 Liquid-Ionic Liquid Interfaces; 3.4.1 Pure Interfaces; 3.4.2 Adsorption at Liquid-Ionic Liquid Interfaces and Microemulsions; 3.5 Future Directions; Acknowledgements; References; 4: Ionic Liquids in Separation Science 4.1 Brief History of the Development of Ionic Liquids and Polymeric Ionic Liquids in Separation Science 4.2 Ionic Liquids in Chromatographic and Electrophoretic Separations; 4.3 High Performance Liquid Chromatography; 4.4 Counter-Current Chromatography; 4.5 Ionic Liquids in Gas Chromatography; 4.6 Ionic Liquids in Super critical Fluid Chromatography; 4.7 Capillary Electrophoresis and Capillary Electrochromatography; 4.8 Planar Chromatography; 4.9 Summary and Future Directions; References; 5: Separation Processes with Ionic Liquids; 5.1 Introduction; 5.2 Liquid Separations 5.2.1 Liquid-Liquid Extraction 5.2.2 Metal Extraction; 5.2.3 Extraction of Aromatic Hydrocarbons; 5.2.4 Desulfurisation of Fuels; 5.2.5 Proteins; 5.3 Extractive Distillation; 5.3.1 Conventional Process; 5.3.2 Ionic Liquids in Extractive Distillation; 5.4 Combination of Separations in the Liquid Phase with Membranes; 5.5 Gas Separations; 5.5.1 Conventional Processes; 5.5.2 CO₂ Separation with Standard Ionic Liquids; 5.5.3 CO₂ Separation with Functionalised Ionic Liquids; 5.5.4 CO₂ Separations with Ionic Liquid (Supported) Membranes; 5.5.5 Olefin/Paraffin Separations with Ionic Liquids 5.5.6 Conclusions

Sommario/riassunto

"The book presents articles on topics at the forefront of ionic liquids research range from applied to theoretical, from synthetic to analytical, from biotechnology to electrochemistry, from process engineering to nanotechnology"--
