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Status and Recent Advances in Hydrophobic Deep Eutectic Solvents for Drug Extraction and Separation -- Chapter 12. Advances in Material Engineering Using Deep Eutectic Solvents.

Sommario/riassunto

This contributed volume offers a detailed review of the history, classification, synthesis, and physicochemical properties of deep eutectic solvents, highlighting their role as sustainable alternatives to traditional solvents. The book examines their thermodynamic behaviors, micellization properties, toxicological profiles, and environmental benefits. Additionally, it covers their applications in organic and inorganic synthesis, extraction techniques, and materials engineering while emphasizing their alignment with green chemistry principles. By presenting cutting-edge research and practical insights, this volume provides a solid foundation for understanding the potential of DES in advancing sustainable industrial and scientific practices.