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Separation Processes of Complex Organic Mixtures; 1. Introduction; 2. Solubility Studies on Ionic Liquid-Organic Mixtures and Application to Liquid-Liquid Extraction; 3. The Determination of Activity Coefficients at Infinite Dilution for the Selection of Entrainers in Extractive Distillation
4. Assessment of the Potential of Ionic Liquids as Solvents in Separation Processes 5. Conclusion; Appendix I: List of Abbreviations for Ionic Liquid Nomenclature; Chapter 6. Environmental and Solubility Issues Related to Novel Corrosion Control; 1. Introduction; 2. Corrosion of Industrially Important Metals; 3. The Layers Protecting the Base Metals; 4. Super primers on Metals; 5. Summary/Conclusions; Chapter 7. The Behavior of Iron and Aluminum in Acid Mine Drainage: Specialization, Mineralogy, and Environmental Significance; 1. Introduction
2. Geochemistry and Mineralogy of Iron and Aluminum in AMD 3. Environmental Significance; 4. Conclusions; Part III: Radioactive Wastes; Chapter 8. An Evaluation of Solubility Limits on Maximum Uranium Concentrations in Groundwater; 1. Introduction; 2. Geologic Setting of the Tono Uranium Deposit; 3. Geochemical Constraints on Uranium Solubility; 4. Evaluation of Uranium Solubility; 5. Conclusions; Chapter 9. Leaching from Cementitious Materials Used in Radioactive Waste Disposal Sites; 1. Introduction; 2. Radioactive Waste Disposal Site and Concrete; 3. Leaching from Cementitious Materials
4. Method for Predicting Durability of Concrete

Sommario/riassunto

Environmental problems are becoming an important aspect of our lives as industries grow apace with populations throughout the world. Thermodynamics, Solubility and Environmental Issues highlights some of the problems and shows how chemistry can help to reduce these them. The unifying theme is Solubility - the most basic and important of thermodynamic properties. This informative book looks at the importance and applications of solubility and thermodynamics, in understanding and in reducing chemical pollution in the environment. Written by experts in their respective fields and rep
