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3.9 SCALES OF HARDNESS OR SOFTNESS 3.10 ACIDS AND BASES IN REACTIVE APROTIC SOLVENTS; 3.11 EXTREMES OF ACIDITY AND BASICITY; 3.12 OXIDATION AND REDUCTION; 3.13 ACIDITY/REDOX DIAGRAMS; 3.14 UNIFICATION OF ACID-BASE AND REDOX CONCEPTS; PROBLEMS; 4 CHEMOMETRICS: SOLVENT EFFECTS AND STATISTICS; 4.1 LINEAR FREE ENERGY RELATIONSHIPS; 4.2 CORRELATIONS BETWEEN EMPIRICAL PARAMETERS AND OTHER MEASURABLE SOLVENT PROPERTIES; 4.3 REPRESENTATION OF CORRELATION DATA ON THE HEMISPHERE; 4.4 SOME PARTICULAR CASES; 4.5 ACIDITY AND BASICITY PARAMETERS; 4.6 BASE SOFTNESS PARAMETERS; 4.7 CONCLUSION
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Sommario/riassunto

This book introduces the concepts, theory and experimental knowledge concerning solvent effects on the rate and equilibrium of chemical reactions of all kinds. It begins with basic thermodynamics and kinetics, building on this foundation to demonstrate how a more detailed understanding of these effects may be used to aid in determination of reaction mechanisms, and to aid in planning syntheses. Consideration is given to theoretical calculations (quantum chemistry, molecular dynamics, etc.), to statistical methods (chemometrics), and to modern day concerns such as ""green"" chemistry, where ut