Bibliography

- Perry's Chemical Engineers' Handbook. McGraw-Hill, New York. The most complete collection of information on industrial chemical properties and chemical engineering theory and practice.
- 2. Dechema Chemistry Data Series. Frankfurt.
 a. Volume I. Vapor-Liquid Equilibrium Data Collection. Nineteen parts by 1996. A very large collection of binary and ternary vapour-liquid data and activity coefficients for organic materials commonly used in industry. The majority of the VLE of binary mixtures are shown in graphic form. All solvents listed have their Antoine constants included and the values of their Van der Waals surface area and volume.
 - **b.** Volume V. *Liquid–Liquid Equilibrium Data Collection*. Four parts by 1996. The liquid ternary mixtures are shown in graphic form which allow the possibility of extraction of a solute from one solvent to another to be estimated.
 - **c.** Volume IX. Activity Coefficients at Infinite Dilution. Four parts by 1996. A very large collection of activity coefficients of liquid solutes in commonly used solvents and stationary phases.

In all the above 27 books the references cover the original research paper. Each book contains about 550 pages.

- Riddick, J. A. and Burger, W. B. (1986)
 Organic Solvents, 4th edn. Volume 2 of
 Techniques of Chemistry Series. John
 Wiley, New York. A good source of physical
 data and laboratory purification methods for
 solvents. Hazards and stabilizers/inhibitors
 for laboratory work are included.
- 4. Horsley, L. H. (1973) Azeotropic data 111. Advances in Chemistry Series No. 116. American Chemical Society, Washington DC. A most comprehensive collection of azeotropes with the original research papers for all azeotropes listed.

- 5. Weast, R. C. (1975) CRC Handbook of Chemistry and Physics (The Rubber Handbook). CRC Press, Boca Raton, FL. Although many later editions have been printed those numbered 55 and less contain information on solvent azeotropes which are not included in later editions. However, the later editions contain a large amount of useful information on solvents.
- Dreisbach, R. R. (1952) Pressure-Volume-Temperature Relationships of Organic Compounds, 3rd edn. Handbook Publishers. Contains Cox chart constants and tables of pressure-temperature data for individual compounds.
- Horvath, A. L. (1982) Halogenated Hydrocarbons Solubility and Miscibility with Water. Marcel Dekker, New York. A comprehensive coverage of water-chlorinated hydrocarbons and the mechanism of their miscibility.
- 8. Flick, F. W. (1993) *Industrial Solvents Handbook*, 4th edn. Noyes Data Corporation, Park Ridge, NJ. A collection of information of the physical properties of commercial solvents, but nothing on their fire and health hazards.
- De Renzo, D. J. (1986) Solvents Safety Handbook. Noyes Data Corporation, Park Ridge, NJ. For every commonly used solvent this book lists the essential physical properties, health data and transport safety information.
- Sax, N. I. (1984) Dangerous Properties of Industrial Materials, 6th edn. Van Nostrand Reinhold, New York. The definitive book on the toxicity of solvents and other organic chemicals.
- Lide, D. R. (1995) Handbook of Organic Solvents. CRC Press, Boca Raton, FL. A compilation of many commonly used solvents with particular stress on analysis and thermodynamic properties.

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- 12. Gallant, R. W. (1993) Physical Properties of Hydrocarbons. Gulf Publishing Co. Three volumes. All the properties of the simpler solvents and hydrocarbons up to C₁₀ that are required for engineering design purposes plotted over normal working temperature ranges.
- 13. Solubility Data Series (1979 and continuing). Pergamon, Oxford. Over 30 volumes. Very detailed survey of the solubility of materials in water including paraffins, aromatic hydrocarbons, esters and alcohols and of the solubility of water in them.
- 14. Reichardt, C. (1988) Solvents and Solvent Effects in Organic Chemistry, 2nd edn. VCH Verlagsgeseilschaft, Weihheim. Useful for comparing the effects of various solvents and their method of action.

- 15. Reid, R. C., Prausssnitz, J. M. and Poling, B. E. (1987) *Properties of Gases and Liquids*, 4th edn. McGraw-Hill, New York. Very useful basis for methods of estimating properties that are not available from experiment.
- 16. Verschueren. Handbook of Environmental Data on Organic Chemicals. Van Nostrand Reinhold, New York. A comprehensive collection on the fate of materials in the environment.
- 17. Hansch, C. and Leo, A. (1979) Substituent Constants for Correlation Analysis in Chemistry and Biology. John Wiley, New York. Pomona College log₁₀ P listings.