

THERMAL APPLICATIONS NOTE

THERMAL ANALYSIS REFERENCE BOOKS

General/Polymers

- Anderson, H.C. et al., Thermal Analysis, Marcel Dekker, NY 1966.
- Brown, M.E., Introduction to Thermal Analysis: Techniques and Applications, Chapman & Hall, NY, 1988.
- Charsley, E.L. & Warrington, S.B. ed., Thermal Analysis: Techniques and Application, Royal Society of Chemistry, UK, 1992.
- Daniels, T.C., Thermal Analysis, John Wiley & Sons, NY, 1973.
- Ferry, J.D., Viscoelastic Properties of Polymers, John Wiley & Sons, NY, 1980.
- Garn, P.D., Thermoanalytical Methods of Investigation, Academic Press, NY, 1965.
- Haines, P.J. et al., Thermal Methods of Analysis: Principles, Applications and Problems, Blackie Academic and Professional, England, 1995.
- Hatakeyama, T. & Quinn, F.X., Thermal Analysis: Fundamentals and Applications to Polymer Science, John Wiley & Sons Ltd., England, 1994.
- Mackenzie, R.C. ed., Differential Thermal Analysis, Academic Press, NY, 1970-72.
- Mathot, V.B.F., ed., Calorimetry and Thermal Analysis of Polymers, Hanser Publishers, NY, 1994.
- McCullough, J.P., Scott, D.W., eds., Experimental Thermodynamics, Vol. I (Calorimetry of Non-Reacting Systems), UIPAC/Plenum, NU, 1968.
- Milhail, R.S. & Robens, E., Microstructure and Thermal Analysis of Solid Surfaces, John Wiley & Sons, NY, 1983.
- Nielsen, L.E., Mechanical Properties of Polymers, Rheinhold, NY, 1962.
- Nielsen, L.E., Mechanical Properties of Polymers and Composites, Vol. I, Dekker, NY, 1974.
- Provdor, T., Urban, M.W. & Barth, H.G., ed., Hyphenated Techniques in Polymer Characterization: Thermal-Spectroscopic and Other Methods, ACS, Washington D.C., 1994.
- Rossini, F.D., ed., Experimental Thermochemistry I, Wiley-Interscience, NY, 1956.
- Sestak, J. & Stepanek, B., ed., "Special Issue Journal of Thermal Analysis: 'Thermodynamic Applications in Materials Science'", J. Thermal Analysis, 43:I-VI, 1995, pgs 371-544.
- Seyler, R.J. ed., Assignment of the Glass Transition, ASTM STP 1249, PA 1991.
- Skinner, ed., Experimental Thermochemistry II, Wiley-Interscience, NY, 1962.
- Slade Jr., P.E. & Jenkins, L.T. ed., Thermal Characterization Techniques, Marcel Dekker, NY, 1970.
- Smothers, W.J. & Chiang, Y., Handbook of Differential Thermal, Chemical Pub., NY, 1966.
- Smothers, W.J. & Chiang, Y., Differential Thermal Analysis: Theory and Practice, Chemical Pub. Co., NY, 1974.
- Sperling, L.H., Introduction to Physical Polymer Science, John Wiley & Sons, NY, 1986.
- Speyer, R.F., Thermal Analysis of Materials, Marcel Dekker, NY, 1994.
- Turi, E.A., ed., "Special Issue Journal of Thermal Analysis: 'In Honor of Professor Bernhard Wunderlich's 65th Birthday' ", J. Thermal Analysis, March 1995 (in print).
- Turi, E.A., ed., Thermal Characterization of Polymeric Materials, Academic Press, CA, 1981.
- * Turi, E.A., ed., Thermal Characterization of Polymeric Materials, 2nd ed., Academic Press, CA, 1996 (in print).
- Wendlandt, W.W., Thermoanalytical Techniques, Marcel Dekker, NY, 1974.
- Wendlandt, W.W., Thermal Methods of Analysis, 2nd ed., John Wiley & Sons, NY, 1974.
- Wendlandt, W.W., Thermal Analysis, 3rd ed., John Wiley & Sons, NY, 1986.
- Wilson and Wilson's Comprehensive Analytical Chemistry, Vol XII, "Thermal Analysis" Part A, 1981; Part B, 1982; Part C, 1984; Part D, 1984, Elsevier, Amsterdam.
- Wunderlich, B., Thermal Analysis, Academic Press, MA, 1990.

Specialty Topics

Food

Harwalkar, V.R. & Ma, C.Y., ed., Thermal Analysis of Foods, Elsevier Applied Science, NY, 1990.

Pharmaceuticals

Ford, J.L. & Timmins, P., Pharmaceutical Thermal Analysis: Techniques and Applications, Ellis Horwood Ltd., England, 1989.

Ford, J.L., ed., "Special Issue: Pharmaceuticals and Thermal Analysis", Thermochemica Acta, Vol. 248, 1995, pgs. 1-360.

Blaine, R.L. & Schoff, C.K. ed., Purity Determinations by Thermal Methods, ASTM STP 838, PA, 1984.

Inorganics

Ramachandran, V.S., Applications of Differential Thermal Analysis in Cement Chemistry, Chemical Publications Co., NY, 1969.

Smykatz-Kloss, W., Differential Thermal Analysis: Application and Results in Mineralogy, Springer-Verlag, NY, 1974.

Smkatz-Kloss, W. & St. J. Warne, S., Thermal Analysis in the Geosciences, Springer-Verlag, NY, 1991.

Todor, D.N., Thermal Analysis of Minerals, Abacus Press, Tunbridge Wells, England, 1976.

Biologicals

Kemp, R.B. & Schaarschmidt, B., ed., "Special Issue: Calorimetric and Thermodynamic Studies in Biology", Thermochemica Acta, Vol. 251, pgs. xii-401, 1995.

Differential Scanning Calorimetry (DSC)

Hemminger, W. and Hohne, G., Calorimetry - Fundamentals and Practice, Verlag-Chemie, Basel, 1984.

Thermogravimetric Analysis (TGA)

Duval, C., Inorganic Thermogravimetric Analysis, Elsevier, NY, 1963.

Earnest, C.M., ed., Compositional Analysis by Thermogravimetry, ASTM STP 997, PA 1988.

Keatch, C.J. & Dollimore, D., An Introduction to Thermogravimetry, 2nd. ed., Heyden & Son Ltd., England, 1975.

Thermomechanical Analysis (TMA)

Riga, A.T. & Neag, C.M., ed., Materials Characterization by Thermomechanical Analysis, ASTM STP 997, PA, 1991.

Dielectric Analysis (DEA)

Hedvig, P., Dielectric Spectroscopy of Polymers, John Wiley & Sons, N.Y., 1977.

McCrum, N.G., Read, B.E., Williams, G., Anelastic and Dielectric Effects in Polymeric Solids, John Wiley & Sons, N.Y., 1967.

Dynamic Mechanical Analysis (DMA)

Shaw, M.T., "Time Temperature Superposition Algorithms & Expected Errors", SPE Tech. Papers, 34, 1988.

*Available from TA Instruments. Order as P/N 299900.001. All others must be ordered directly from the publisher.

For more information or to place an order, contact:

TA Instruments, Inc., 109 Lukens Drive, New Castle, DE 19720, Telephone: (302)427-4000, Fax: (302)427-4001

TA Instruments S.A.R.L., Paris, France, Telephone: 33-01-30489460, Fax: 33-01-30489451

TA Instruments N.V./S.A., Gent, Belgium, Telephone: 32-9-220-79-89, Fax: 32-9-220-83-21

TA Instruments GmbH, Alzenau, Germany, Telephone: 49-6023-30044, Fax: 49-6023-30823

TA Instruments, Ltd., Leatherhead, England, Telephone: 44-1-372-360363, Fax: 44-1-372-360135

TA Instruments Japan K.K., Tokyo, Japan, Telephone: 813-3450-0981, Fax: 813-3450-1322

Internet: <http://www.tainst.com>