Reference books and journals:

AIAA Journal and AIAA Journal of Propulsion and Power.

Most up-to-date articles on mixing, subsonic and supersonic combustion, shear and separating flows, flow and combustion instability, and aerothermochemistry. Focuses on aerospace applications.

AICHE Journal.

Mixing and combustion in chemical engineering applications.

Proceeding of the Combustion Institute, or the Symposium (International) on Combustion (29 volumes so far).

Proceeding appear every two years, captures the state of the art. *Combustion and Flame* (Journal of the Combustion Institute).

Combustion Science and Technology (Journal)

Progress in Energy and Combustion Science Good extensive Review articles in combustion. Journal of Fluid Mechanics.

Physics of Fluids.

<u>Annular Reviews of Fluid Mechanics</u> Solid review articles on the fluid dynamics of mixing and combustion.

- J.M. Beer and N.A.Chigier, <u>Combustion Aerodynamics</u>. Flame stabilization in practical systems, useful formula for practical calculations and an introduction to combustion modeling.
- W. Bartok and A. Sarofim, ed., Fossil Fuel Combustion, John Wiley & Sons.
- Benson, S.W., The Foundation of Chemical Kinetics.
- Bird, R.B., Stewart, W.E., and Lightfoot, E.N., <u>Transport Phenomena</u>. Comprehensive, intermediate, classic textbook on transport processes in fluids.
- Chapman, S., and Cowling, T.G., The Mathematical Theory of Non Uniform Gases, 3rd ed., Cambridge University Press.

Glassman, I., <u>Combustion</u>, 3rd ed. A nice book focuses on the chemistry of combustion.

Hirschfelder, J.O., Curtiss, C.F. and Bird, R.B., <u>The Molecular Theory of Gases and Liquids</u>. The famous Green Monster.

Kuo, K., Principles of Combustion, John Wiley & Sons.

Landau, L.D. and Lifshitz, E.M., <u>Fluid Mechanics</u>. A classic book in fluid mechanics. Covers some background on shock waves, detonation and flames.

- Lefebvre, A.W. <u>, Gas Turbine Combustion</u>. Applied gas turbine combustor analysis.
- Lewis, B, and Von Elbe, G., <u>Combustion, Flames and Explosions of Gases</u>, 4th ed. One of the first comprehensive books in the field and remains as a good reference books. Phenomenological exposition of many combustion problems with a large array of experimental data and descriptive models.
- Libby, P.A., and Williams, F.A., <u>Turbulent Reacting Flow</u>, eds., 2nd edition. A summary of some methods used to models the age-old problem of the interaction between turbulence and combustion.
- Markstien, G.H., <u>Nonsteady Flame propagation</u>. A unique monograph on the subject.
- Oran, E., and Boris, J., eds, *Numerical Approaches in Combustion*. An up-to-date book in the field.
- Oran, E. and Boris, J., <u>Numerical Simulation of Reactive Flow</u>. A good introduction to a class of methods which has been used in reacting flow and combustion computation.
- Park, C., <u>Nonequilibrium Hypersonic Nonequilibrium Hypersonic</u> <u>Aerothermochemistry.</u> The physics of high and very high temperature gas dynamics with a computational aerodynamics twist.
- Peters and Rogg, <u>Reduced Kinetic Mechanisms for Applications in Combustion Systems</u>, Springer-Verlag, 1993.
- Rosner, D.E., <u>Transport Processes in Chemically Reacting Flow Systems</u>. Intermediate transport phenomena textbook with a combustion twist. Includes many good solved examples.
- Shapiro, A.H., <u>The Dynamics and Thermodynamics of Compressible Fluid Flow.</u> A classic textbook in gas dynamics.

Sherman, F.S., Viscous Flow.

An up-to-date review of fluid mechanics, with extensive review on flow instability and mixing.

Society of Automotive Engineering, Transactions

Strehlow, R.A., Combustion Fundamentals, 2nd ed.

A good book describing, using a balanced combination of mathematical and phenomenological model, many combustion problems. More gas dynamics than chemistry.

- Turns, S.R., <u>An Introduction to Combustion</u>, McGraw Hill, 1996.
- Vincinti, W.G., and C.H. Kruger, <u>Physical Gas Dynamics</u>. Contains a thorough review of the fundamentals required for the analysis of reacting flows. Focuses on high-temperature gas dynamics
- Weinberg, F.J., ed., <u>Advanced Combustion Methods</u>.
  A good reference on unconventional combustion systems such as fluidized beds, pulsating, catalytic and plasma-jet combustion.
- Williams, F.A., , <u>Combustion Theory</u>, 2nd ed. Covers the theoretical foundations of combustion, including recent results using asymptotic analysis, rigorous mathematics and emphasis on fluid mechanics.
- Zeldovich, Ya.B., Barenblatt, G.I., Librovich, V.B., Makhviladze, G.M., <u>The</u> <u>Mathematical Theory of Combustion and Explosion</u> A comprehensive book with a heavy dose of analyses of combustion phenomena (pre asymptotics).
- Zeldovich, Ya.B., and Raizer, Yu.P., <u>Physics of Shock waves and High-Temperature</u> <u>Hydrodynamics Phenomena</u>. An authoritative, difficult-to-read but comprehensive book on the subject
- Good chapters on combustion in internal combustion engines can be found in respective books by Taylor, Ferguson, Heywood, .
- Good chapters on the role of combustion in air pollution can be found in respective books by Seinfeld, Flagan and Seinfeld, <u>Fundamentals of Air Pollution Engineering</u>, Prentice Hall.