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A unique engineering/science resource—this is the first-ever handbook on this important topic.

Will be indispensable to mechanical engineers, chemical engineers, facilities protection specialists, combustion researchers, hazmat specialists, fire investigators, and others involved in safety or combustion issues.

Ignition Handbook

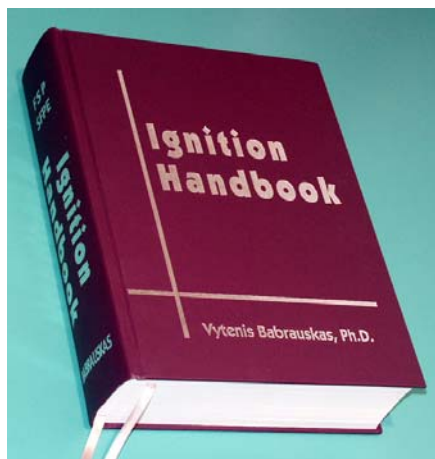
By Vytenis Babrauskas, Ph.D.

Published by Fire Science Publishers, Issaquah WA, USA. Co-published by the Society of Fire Protection Engineers. ISBN: 0-9728111-3-3.

List price \$198.00

Book contains 1116 pages, tightly set in a 2-column, 8.5" x 11" format. Sewn and bound in real cloth.

Includes 627 black-and-white figures, 447 tables, and 140 color plates.



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This is what reviewers have said about the Handbook:

"The most comprehensive work on a single subject in the area of fire science. It is a tremendously impressive accomplishment, which has no peer in the area of fire science or fire protection engineering." Morgan Hurley, Technical Director, **SFPE**

"Ignition of materials is a complicated subject whether ignition is deliberate (i.e., internal combustion engine) or not (i.e., unwanted fires). The author succeeds in combining both types of ignition circumstances into a well-documented and useful compilation for the novice as well as the expert. Even though the major focus of the handbook is on the prevention of unwanted fires, a significant amount of valuable information is available for the student or research scientist who has an interest in ignition characteristics. The overall organization and layout of the handbook represents a well-thought-out strategy for facilitating a better understanding of the topic.

Contains a plethora of interesting and informative color photographs illustrating common unwanted encounters with ignition, heat, and combustion. I highly recommend that those studying any aspect of ignition, especially in the area of fire prevention, should include this ignition handbook in their personal technical library." Prof. Grant Risha,

AIAA JOURNAL

“Thoroughly presents the relevant underlying science, then uses this science to explore the strengths and weaknesses of regulatory requirements and test methods ...great value to everyone in combustion and related fields.” Prof. Irv Glassman, **COMBUSTION SCIENCE AND TECHNOLOGY**

“This is certainly the definitive ‘magnum opus’ on the science of ignition of fires and explosives. It is the first major book on this topic and is outstanding in depth, comprehensiveness, clarity, and scholarly detail. An interesting feature of the book are color photos from actual fires, also various types of explosions. Very helpful in diagnosing fire and explosion events. Throughout the book there are also a large number of well-printed black-and-white diagrams and graphs. A substantial chapter covers pyrophoric materials and chemicals prone to runaway exothermic reactions. A long chapter, practically a book in itself (269 pages), consists of an alphabetized set of topics, A to Z, dealing with the ignition characteristics of many specific substances, manufactured articles and devices. Some topics discussed in unusually thorough detail include ignition by many kinds of electrical malfunctions, microwaves, eddy currents, lightning, friction, burning brands, and many others.” Prof. Ed Weil, **POLYMER NEWS**

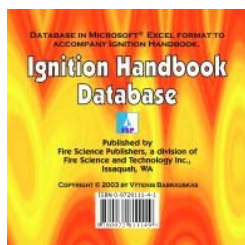
“This is a must-buy book for anyone who takes fire science seriously. The material is critically evaluated, synthesized, and distilled into a coherent view of ignition phenomena. It is a remarkable book and a major contribution.” Dr. Craig Beyler, **FIRE TECHNOLOGY**

“A comprehensive treatment of theories allows a clear understanding of the limitations and advantages of each theoretical approach. Discussions on limitations of different techniques and standard test methods are done with great thoroughness. The author should be commended for being able to compile such a fantastic amount of information into a single text.” Dr. Jose Torero, **FIRE PROTECTION ENGINEERING**

“I do not recall having seen in recent years a book of such magnitude. The author presents fundamental science relating to combustion, which is presented in a manner suitable for beginners with only a rudimentary understanding of chemistry, then expands upon this treatment at a level that would be suitable for the most advanced experts in areas relating to ignition of fires and explosions.” Dr. Gary Bennett, **JOURNAL OF HAZARDOUS MATERIALS**

“What an incredible reference text, especially to have been assembled by a single author. While no more than about 10% of the book explicitly relates to pyrotechnics and explosives, probably another 20% is of relevance to pyrotechnics and explosives. Considering the price of the book, even if one never uses any of the non-pyrotechnic information, this still must make this text one of the most cost effective sources of pyrotechnic data and information available anywhere.” Ken Kosanke, **JOURNAL OF PYROTECHNICS**

“This book is a must...since, in a very comprehensive way, it covers all aspects of ignition. After describing the fundamentals of combustion, it then addresses, chapter by chapter, the ignition of gases and vapours, dust clouds, liquids and solids. Significantly, it also has very useful chapters on self-heating, one on explosives and pyrotechnics, and one on preventative measures. Chapter 9 on self-heating (75 pages of double-column text) is really a book in its own right...shows a remarkable understanding in the summaries and descriptions for each area.” Prof. Andy McIntosh, **TRANS ICHEME – PROCESS SAFETY AND ENVIRONMENTAL PROTECTION**



From the same publishers...

Ignition Handbook Database (CD-ROM)

By Vytenis Babrauskas, Ph.D. ISBN: 0-9728111-4-1. List price \$60.00

The CD-ROM contains ignition and chemical data on 473 pure substances and over 500 commercial or natural products. The data are made available as databases in Excel spreadsheet format. This allows easy searching, plotting, cross-correlation, etc. The contents of the CD-ROM are the same as Chapter 15 of the Handbook, but made available as a database.

This is the *only affordable* database product available giving fundamental fire-safety and hazmat properties of materials!