

Announcing the Encyclopedic Dictionary of Pyrotechnics (and related subjects)
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A promotional announcement by:
Robert Winokur

Content and format : This dictionary covers most topics that are involved with pyrotechnics and fireworks and includes nearly all aspects of these topics. It includes mechanics, physics, chemistry, details of manufacture, history, as well as numerous synonyms. Contained in the 1200 pages are 4600 entries, excluding the 3300 cross references. There are 2000 photographs (most of them in color) and another 1000 illustrations in the form of line drawings. The dictionary includes 600 tabularized pyrotechnic formulations and 500 data tables.

History of effort on the dictionary: One might consider the beginning point for this dictionary was the dictionary published in 1996. Ken and Bonnie then began to do what they then envisioned as a revised edition and what was originally conceived as a revision of the original 160 page dictionary to a 400 page revision. However, it ended up rather different than originally planned and became a large format, 1200 page document involving diverse levels of involvement of more than 100 people.

Division of labor and editing: Ken was the editor and chief and critically read all the entries. Bonnie was an author, the copy editor and also achieved numerous and often difficult tasks. For example, she documented the accuracy of the numerous formulations provided and any quotes presented. Barry Sturman was the primary author of the chemical entries and Robert Winokur provided many written accounts on actual fireworks devices and effects. All of the primary authors did substantial editing and contributed to dictionary policy and the various methods to be used in completing this project. About 100 secondary contributors provided a wealth of knowledge and perspective resulting in the dictionary being truly authoritative.

Diversity of topics with examples. This work is truly synoptic. It covers to various degrees, virtually all aspects of pyrotechnics. It emphasizes physics, chemistry, composition and structure of fireworks, special effects, industrial uses and other commercial uses of pyrotechnics. It includes pyrotechnic performance, history, safety and hazard analysis. For example, one can find detailed explanations about how roman candles function, their failure modes, and how they can be utilized in displays. An extensive list of the names of the various kinds of aerial shells is given detailed coverage, as are pyrotechnic chemicals and chemical properties. If you came across the term “hygroscopic”, the dictionary would explain the meaning of this term in detail. If a reader wanted to know how pyrotechnics are used as “incendiary devices” this too could be easily found. What exactly is a “Cherry bomb”, an “Ice fountain”, a “Christmas cracker”, a “chlorine donor”, how aluminum powder is used in pyrotechnics, and when it first come into common use , what is meant by “aerial shell drift”?, what is the difference between paper tubes

described as “convolute” and “spiral” and how are the two kinds commonly used?, what can “rocket chokes” be made from?, of what are “electric matches” composed and how are they constructed?, what do fireworks people mean when they refer to something as a “collectable”?, what is the common diameter of the burst of various sized oriental hard breaking spherical shells?, how long do aerial shell stars commonly burn?, how is elemental boron used in pyrotechnics?

Most entries are between a quarter of a page to one page, but some go on for over a dozen pages. For example if one looks up “match” one will find a remarkable and prolifically illustrated series of entries describing all kinds of matches. About 14 pages are devoted to the term “match” and these contain about 50 entries and about 37 colored photos and illustrations. These include numerous kinds of matches used for fire starting, but also a great diversity of other functions such as matches used for signaling, to generate smoke, and matches used for pure entertainment. One is unlikely to find any other single source of information on kinds of matches that is in such detail and so fully illustrated.

Special usefulness.

This reference book will be found extraordinarily useful to fire departments (no fireworks show inspector should be without one), bomb squads, law enforcement in general and various regulatory agencies such as the BATF, the DOT and many other agencies. The dictionary will greatly help prevent making errors of fact and of definition that have occasionally plagued these agencies. News agencies and their editors will find a wonderful source of clarification, especially whenever they are asked to cover fireworks of any kind, explosions, or a host of related topics. No longer will there be any excuse for the frequent misuse of the terms rocket and aerial shell, explosion and detonation, fire cracker and “explosive device”.

Attorneys, judges, educators, and a wide variety of other professionals will find the dictionary makes the difference between ambiguous or flawed arguments and solid ones. Government agencies that purchase pyrotechnics, from the purchasing of red fuses by police and fire departments, to the purchasing of city or state sponsored July 4th displays, will all benefit from having ready access to this informative volume.

Pyrotechnicians and pyrotechnists (do you know the difference?) will find that they have many reasons to use the dictionary consistently and repeatedly. Editors, writers, reviewers, - anyone who finds themselves putting down on paper thoughts about pyrotechnics, will find the dictionary extremely important.

This work is currently being distributed as a CD that can be printed in full or in-part for your private use. It will be continuously up-dated, and any errors discovered corrected in future revisions. Readers are invited to contact the primary authors if errors are discovered. The cost of the CD is \$30.00 in the US and \$34 international, including First Class postage. It can be ordered from the link no www.jpvyro.com or you can email bonnie@jpvyro.com with any questions.