

The following review appeared in the September 2012 *American Fireworks News*:

Review of the Encyclopedic Dictionary of Pyrotechnics (and related subjects)

By John Steinberg

In some respects, this is a very difficult review to write, in others, fairly easy. The difficulty this reviewer experienced was primarily that of being distracted from the purpose at hand-writing a review- by the incredibly fascinating entries contained in this dictionary. Reviewing this multi-volume reference text was fascinating. No matter the subject, no matter the detail desired, any information the lay or technically inclined reader could desire is at hand. The name of the work is apt. Indeed, I've not had this much pleasure reading a reference work since my childhood, when I used to lose myself in a casual and utterly undirected reading of the Encyclopedia Britannica.

The easy part of this review is finding the proper words to describe the work. Superlatives come to mind at every juncture: exhaustively detailed, profusely and well-illustrated, comprehensive in its scope.

This work could be viewed as a series of "works within works". If one chooses a sub-topic in energetic materials or virtually any related subject, such as "chemistry", or "rockets", or "regulations", any aspect of that topic can then be explored. As an example, individual chemicals are thoroughly discussed as are their chemical and physical properties. Formulae are explained. The history of various chemicals and chemical processes is provided. Sensitivities are discussed. Components of formulae are presented with explanations of their functions in those formulae. Incompatibilities are noted. Color diagrams provide superbly useful information. The effects of physical parameters, such as pressure, on chemical reactions are well explained.

Within rocketry, there are entries devoted to pyrotechnic rocketry, model rocketry, high-powered rocketry, and to military and signal rocketry applications. Propellants are discussed in detail. Combustion chamber dynamics are reviewed. Nozzles and chokes are explained. The physics of rocketry is examined. Aerodynamic concepts and terms are defined. There is a virtual rocketry textbook contained within this work and encompassed by its individual entries.

Related topics such as blast waves and explosives are amply represented. Special effects devices, formulae, and equipment are discussed. Consumer fireworks and display fireworks are both superbly well represented. Even the history, chemical composition, and details of various toy caps and cap devices are included.

If you have any interest whatsoever in fireworks, rocketry, energetic materials of any type, from the basic science to the practical use and application thereof, or in any conceivably related topic, this is a reference work that belongs in your library. It was a pleasure to browse through and has already been consulted twice, for specific purposes, by this reviewer who felt fortunate to have had this reference work at hand. This work is the result of years of effort and of the collaboration of many expert authors and reviewers. Their efforts have been incredibly successful. The Journal of Pyrotechnics is to be commended for producing one of the finest reference works I have ever had the pleasure of using.