



Chemistry of Pyrotechnics: Basic Principles and Theory, Second Edition

By John A. Conkling, Chris Mocella

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Chemistry of Pyrotechnics: Basic Principles and Theory, Second Edition By John A. Conkling, Chris Mocella

Primarily driven by advancing technology and concerns for safety, advancement in the world of pyrotechnics and high-energy materials has exploded in the past 25 years. The promulgation of new government regulations places new and more stringent restrictions on the materials that may be used in energetic mixtures. These regulations now mandate numerous training programs, and initiate other actions, such as OSHA's Process Safety Management standard, intended to eliminate accidents and incidents. Unfortunately, the US lacks an organized, broad-range academic program to cover the science and use of energetic materials and educate the next generation of pyrotechnicians.

Designed as a bridge to allow a smooth and confident transition for personnel coming from a chemistry background into the practical world of explosives, **Chemistry of Pyrotechnics: Basic Principles and Theory, Second Edition** emphasizes basic chemical principles alongside practical, hands-on knowledge in the preparation of energetic mixtures. It examines the interactions between and adaptations of pyrotechnics to changing technology in areas such as obscuration science and low-signature flame emission.

Much more than a simple how-to guide, the book discusses chemical and pyrotechnic principles, components of high-energy mixtures, and elements of ignition, propagation, and sensitivity. It offers heat compositions, including ignition mixes, delays, thermites, and propellants and investigates the production of smoke and sound as well as light and color.

Promoting the growth and expansion of pyrotechnics as a science, **Chemistry of Pyrotechnics: Basic Principles and Theory, Second Edition** provides practitioners with the ability to apply chemical principles and logic to energetic materials and thereby make the field as productive, useful, and safe as possible.



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Editorial Review

Review

I think that the time has come to modernize the design and production of pyrotechnics and I actually plan to see whether these local companies are interested in learning the chemical principles behind their successful business. I certainly plan to use *Chemistry of Pyrotechnics: Basic Principles and Theory* for any such class. I would highly recommend this book for anyone who is fascinated by pyrotechnic displays. You will learn a great deal by reading it.

?Peter M. Smith, in *Journal of Chemical Education*, April 2012

This is a fascinating book that should be of interest to all those involved in the application of chemistry to the more artistically rewarding aspects of the subject.

?*Chromaographia*, 2012

About the Author

Chestertown, Maryland, USA

Users Review

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Beverly Dewitt:

The guide untitled Chemistry of Pyrotechnics: Basic Principles and Theory, Second Edition is the guide that recommended to you you just read. You can see the quality of the book content that will be shown to you. The language that writer use to explained their way of doing something is easily to understand. The author was did a lot of investigation when write the book, so the information that they share for you is absolutely accurate. You also might get the e-book of Chemistry of Pyrotechnics: Basic Principles and Theory, Second Edition from the publisher to make you far more enjoy free time.

Floyd Goshorn:

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