



## A Chronology of Energetic Materials through a Chemistry Lens and the Expected Role of Synthesis in Their Progression

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### Abstract

*Since the Chinese discovery of black powder in ~220 BC to the genesis of RDX and HMX in the early 20th century, there have only been a few impactful milestones in the development of energetic ingredients, with most not gaining commercialized traction in the United States. Future development of these materials, vital to many dual use applications, will hinge on our ability to leverage advancements in chemical synthesis methods, physics, and predictive techniques. This presentation provides a review of the chronology of an array of energetic materials and applications with attention on some of the triumphs and challenges associated with their synthesis. Modern areas of focus in the search for next-generation molecules and compositions will be discussed. The role of university-based research is expected to be highly impactful not only from the perspective of invention, but of equivalent importance, of assurance that a pool of capable experts possessing the unique skills required of the field of energetic materials are available to the marketplace.*



**All are welcome. Please join us!**

**September 15th @ 2:00 pm - Lopez 106**