



Advances toward the Development of “Green” Pyrotechnics: Materials Selection and Design

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Message from the Guest Editor

Dear Colleagues,

The development of "green" pyrotechnics, which are environmentally friendly alternatives to traditional pyrotechnic materials, has been a growing focus in the field of pyrotechnics. This advancement involves the careful selection and design of materials that are less harmful to the environment and human health. Researchers are exploring various options such as using non-toxic oxidizers and fuels, as well as reducing the heavy metal content in pyrotechnic formulations. Through incorporating these sustainable materials into pyrotechnic compositions, the goal is to create pyrotechnics that produce less toxic byproducts and emissions while still maintaining the desired visual and auditory effects. Although challenges remain in terms of the performance and cost, ongoing research and development efforts are making significant strides towards the realization of "green" pyrotechnics. Ultimately, the development of environmentally friendly pyrotechnics has the potential to not only reduce the environmental impact of pyrotechnic displays, but also to contribute to a cleaner and safer future for all.





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