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Advanced Properties and Applications of Micro-/Nano-Scale Energetic Materials

Guest Editors: Dr. Gazi Hao

Dr. Xiaolong Fu

Dr. Suhang Chen

Dr. Waniun Zhao

submissions:

31 October 2024

Deadline for manuscript

Dr. Xiang Ke

Message from the Guest Editors

Micro/nano energetic materials are ultrafine and usually have an average particle size of up to 20 micrometers (they can be as small as a few nanometers). Micro/nano energetic materials have higher combustion and energy release efficiencies and complete combustion and explosion processes due to their small particle size, large specific surface area, high surface energy, and surface activity. In the formulation of energetic materials, the micro/nanometer particle size gradation is often used to regulate the charge density and energy release of weapons charges to improve their mechanical properties and safety performance. Micro and nano technologies have become the key technology and research hotspot for the revolutionary change in energetic materials. The research areas include but are not limited to the following areas: emerging technologies and methods for the preparation of micro/nano energetic materials. characterization technologies for micro/nano energetic materials. numerical simulation of the performance for micro/nano energetic materials. application performance of micro/nano energetic materials, and energy release mechanism of micro/nano energetic materials.









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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

 Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Materials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials_Mdpi