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Dynamic Mechanical Analysis of Energetic Materials

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Deadline for manuscript submissions:
closed (20 February 2024)

Message from the Guest Editors

Dear Colleagues,

Recent studies have proved that materials' properties have a significant effect on their deformation mechanism, which directly impacts their application in engineering. In the civilian field and beyond, a variety of materials are widely used as kinetic energy projectiles and shaped charge liners. These materials include conventional metal materials, such as copper and tungsten, as well as non-metallic materials, such as ceramics, PTFE and glass. Moreover, the explosive effect of reactive materials has been proved to significantly improve their damage efficiency. The strength, plasticity and chemical properties of materials used for projectiles and jets affect their penetration performance. In addition, the ductility and cohesiveness of the jet, which also affect its penetration ability, have been proved to be related to the mechanical properties of the shaped charge liner material under impact.

For this Special Issue, we are inviting articles focused on the explosion effect and deformation mechanisms of materials, including experimental and theoretical studies of mechanical properties of materials at high temperatures, pressures and strain rates.

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Message from the Editor-in-Chief

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