Metal Free Primary Explosives

Safe, thermally stable energetic compounds remove the need for metals in demolition and defense.

Researchers at Purdue University have developed new metal free explosives that may improve safety in military and civil demolition applications as they eliminate need for metal components. These enhanced energetic materials have excellent thermal stability.

Advantages:

-Enhances safety

-Thermal stability

-Improved explosives performance

Potential Applications:

-Construction

-Military and Defense

Publication

"An Improved Synthesis of the Insensitive Energetic Material 3-Amino-5-Nitro-1,2,4-triazole (ANTA)"

Journal of Propellants, Explosives, Pyrotechnics

DOI: 10.1002/prep.202000097

TRL: 2

Intellectual Property:

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Technology ID

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Category

Aerospace & National Security/Defense, Electronics, & Surveillance Technologies

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