# A New Method of Preparing Sodium Nitrotetrazolate

A cleaner, high-yield route produces stable NaNT for explosives without harmful solvents.

Researchers at Purdue University have developed a new method for preparing sodium nitrotetrazolate (NaNT) for energetic materials applications. Current synthetic methods produce impurities and use of environmentally harmful solvents. Purdue researchers have developed a synthetic procedure to produce sodium nitrotetrazolate with higher stability and high purity in up to 80% yield in a more sustainable route. Purity has been verified with high-performance liquid chromatography.

### **Advantages**

- -High-Purity
- -Chemical Stability
- -High-Efficiency NaNT Synthesis

**Potential Applications** 

- -Military and Defense
- -Commercial Construction

**Recent Publication:** 

Preparation of High Purity Sodium 5-Nitrotetrazolate (NaNT): An Essential

Precursor to the Environmentally Acceptable Primary Explosive, DBX-1

Journal of Inorganic and General Chemistry

Zeitschrift fur anorganische und allgemeine Chemie

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**TRL:** 3

#### **Technology ID**

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#### Category

Chemicals & Advanced
Materials/Green & Bio-Based
Chemistry
Aerospace & Defense/Defense
Electronics & Surveillance
Technologies

#### **Further information**

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## **Intellectual Property:**

Provisional-Gov. Funding, 2020-06-16, United States

Utility-Gov. Funding, 2021-04-05, United States

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