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## Plasma Sensitivities of Different Kinds of Primary Explosives

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**Abstract:** The plasma sensitivities of different kinds of primary explosives were studied. The voltage-time curves, current-time curves and light-time curves were obtained. The data were analyzed by using D-optimization method. Results show that lead styphnate (LTNR), nickel hydrazine azide (NHA) and B/Pb<sub>3</sub>O<sub>4</sub> are ignited by the SCB heat; lead picrate, lead azide, nickel hydrazine nitrate (NHN) and barium styphnate are ignited by the SCB plasma. The order of plasma sensitivity is: lead picrate > lead azide > barium styphnate > nickel hydrazine nitrate.

**Key words:** military chemistry and pyrotechnic technology; plasma ignition; sensitivity; primary explosive

**CLC number:** TJ5; TJ45

**Document code:** A

**DOI:** 10.3969/j.issn.1006-9941.2010.01.018



## New Models and Hydrocodes for Shock Wave Processes in Condensed Matter 24 – 28 May, 2010 PARIS, France

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The two main topics will be:

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- Shock wave in explosives: equation of states of unreacted explosives and detonation products, analysis of the reaction zone (chemistry and thermodynamic properties) and related experiments.

Because the multi-scale physics is undeniably one of the key of the progress in the shock wave study, the organizers wish that all the physical spatial and temporal scales to be equally represented, emphasizing the bridges between the various scales.

It is encouraged the presentation of forward-looking theoretical, numerical and experimental methods even though they do not still present applications on real systems.

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