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**Title:**

INVESTIGATION OF THE PRODUCTS FROM EXPLOSIONS OF DIBORANE-AIR MIXTURES,

**Fields and Groups :**

070200 - Inorganic Chemistry

210200 - Combustion and Ignition

**Corporate Author:**

JOHNS HOPKINS UNIV SILVER SPRING MD APPLIED PHYSICS LAB

**Personal Author(s):**

Brown, Robert

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**Abstract:**

The reaction products of fuel-rich diborane-air explosions were investigated. In the equivalence ratio range of 3-80 no significant reaction of the nitrogen (to form BN) was observed. Up to E.R. of 20, 95%+ of the hydrogen appears as molecular hydrogen. For richer mixtures a significant portion of the available hydrogen remains in the solid reaction products. The color of the latter changes from black (colloidal boron) to a pale yellow (solid boron hydrides) indicating a profound change in the nature of the solid reaction products. (Author)

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