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Damage Assessment of Thermo-baric Warhead and Charge with Oxygen Consumption Effect

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Abstract: In order to evaluate damage power of thermo-baric warhead, the oxygen consumption of one thermo-baric warhead was studied by static experiment. The real-time variety graph of oxygen concentration-time was obtained. The energy releasing efficiency and damage power were evaluated by duration of oxygen consumption and quantity. Results show that the energy releasing efficiency and damage power of thermo-baric warhead are 1.13 and 1.55 times higher than that of plastic bonded explosive warhead, respectively. The assessment results are consistent with those evaluated using parameters of by shock wave and temperature.

Key words: thermo-baric warhead; oxygen consumption effect; damage assessment

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《含能材料》固体推进剂专栏征稿

高能量、低特征信号、低易损、低成本、低污染、灵活能量管理和高可靠性成为当前固体推进剂面临的紧迫课题,为促进其研究,本刊将于2015年开设推进剂研究专栏,以专题报道固体推进剂研究的最新研究进展。欢迎广大学者投稿,来稿时请选择对应的专栏。

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