

综述评论

激波管氢氧爆轰驱动技术的发展进程

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摘要 回顾了爆轰驱动的出现与认识过程及对其性能的观察结果. 采用卸爆管消除爆轰波反射高压和利用变截面缓解Taylor波有害影响, 使得反向和前向爆轰驱动模式能用来产生高焓高压试验气源. 双爆轰驱动段彻底消除了爆轰波后的Taylor稀疏波, 不仅提高了前向爆轰的驱动品质, 而且为进一步提高驱动能力开辟了新途径.

关键词 [激波管](#) [激波风洞](#) [爆轰](#) [超高速流](#)

分类号

THE DEVELOPMENT OF GASEOUS DETONATION DRIVING TECHNIQUES FOR A SHOCK TUBE

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Abstract

The development of gaseous detonation driving techniques and its behavior are reviewed. It is proposed to use a dumping section to eliminate the reflected high pressure of the detonation wave and to use variable cross-section to mitigate the detrimental effect of Taylor wave. Accordingly, the driving modes of backward detonation and forward detonation can generate testing gases with high enthalpy and high pressure. The double detonation driver not only can eliminate the Taylor wave following the detonation wave completely and improve the driving quality of the forward detonation, but also constitutes a new way to further improve the driving capability.

Key words [shock tube](#) [shock tunnel](#) [detonation](#) [hypervelocity flow](#)

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