



PLASMA TUBE EXPERIMENTS



HIGH EXPLOSIVES GENERATED PLASMA WAVES

These pictures, taken from a modern fast framing camera, briefly illustrate the plasma tube effect. In this particular case a one inch pellet of high explosive was placed on top of a piece of Lexan rod that had a 20° cone milled out of the center. The high explosive was detonated with a standard detonator in the downward direction.

The bright wave, in this case traveling down the tube at a surprisingly fast speed of $\sim 22 \text{ km/s}$, exhibits uniquely useful characteristics, and exposes some excellent physics questions for future study.

Research into underlying properties of such waves are currently being investigated, as are several potential application spaces.

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