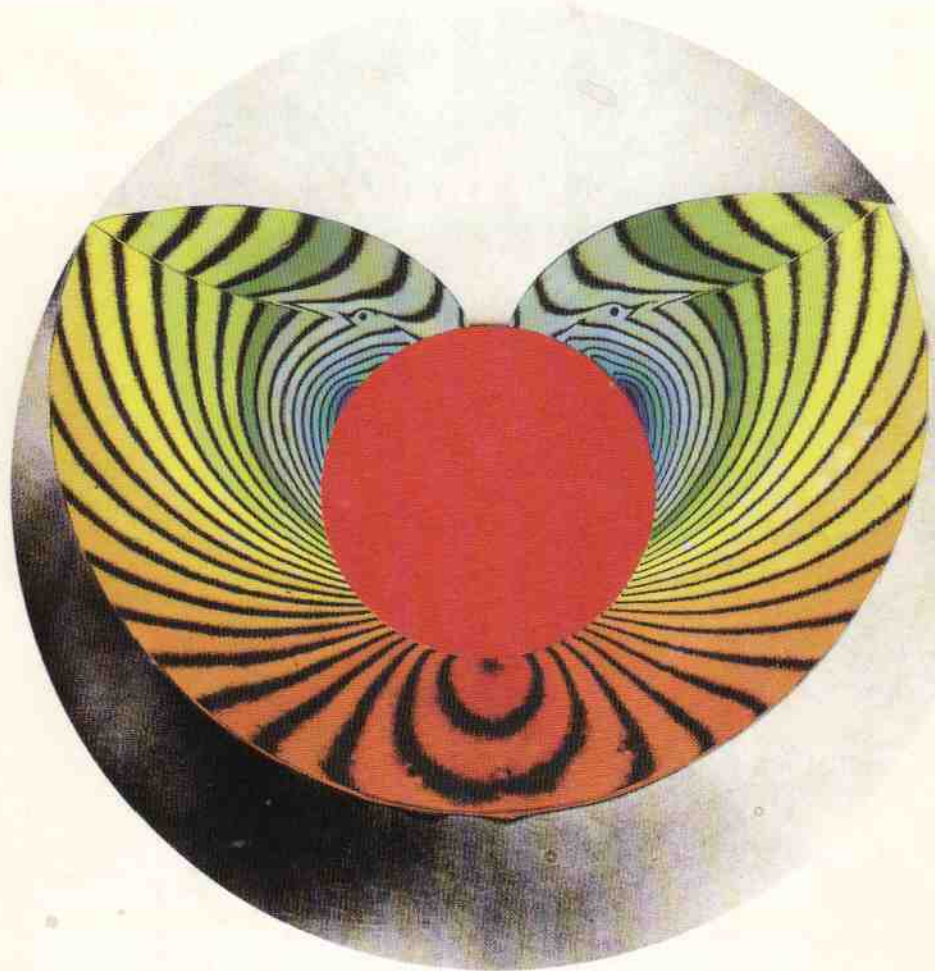


Book of Abstracts

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F22 - Three cases of shock wave focusing in a two-phase combustible medium

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Experimental results are presented indicating the effect of shock wave focusing on ignition delay of fuel sprays in an oxidizing atmosphere. Experiments have been carried out in a conventional shock tube with a cylindrical reflector installed at the far end of a low pressure chamber. Liquid bororganic compounds and air were used as reactants. Ignition delays behind reflected shock waves were measured by the use of luminosity and pressure records.

Possible ways of ignition delay control by the use of non-chemical means are discussed based on the available experimental data.

Two alternative examples are considered showing the effect of reflecting surface geometry on ignition delay. In view of the results obtained one may consider possible modifications in the geometry of combustion chambers. The shock tube technique may be used as an effective measure for comparison of various technical decisions and for elaborating an optimum chamber configurations.

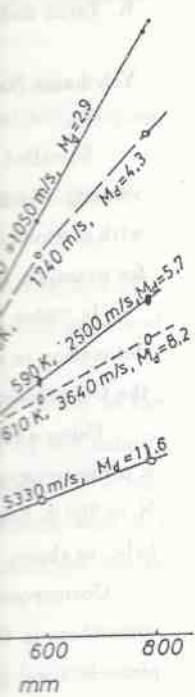


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