33－44 NUMERICAL SIMULATION FOR THE ULTRA HIGH PRESSUREDEVICE USING TWO EXPROSIVES

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The high pressures generated from the detonations of explosives are being applied to the material science for the manufacture of materials with some excellent properties. Some new materials are anticipated to be formed under even a few or much higher-pressure conditions. However, in the common use of the explosives, the detonation of explosive almost keeps a stable propagating front and the pressure is always of a specific magnitude. To a specific explosive, the special measure should be taken for the improvement of the pressure from its detonation. One measure to achieve this objective is to make an appropriate combination of two different detonation-velocity explosives in which the Mach reflection is able to appear in the lower detonation velocity explosive. This study gives the analysis on this phenomenon by numerical technique. The results demonstrate that the high pressure field can be obtained.