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Underwater sympathetic detonation of pellet explosive SHIRO KUBOTA, TEI SABURI, National Institute of Advanced Industrial Science and Technology, KUNIHITO NAGAYAMA, Kyushu University — The underwater sympathetic detonation of pellet explosives was taken by high-speed photography. The diameter and the thickness of the pellet were 20 and 10 mm, respectively. The experimental system consists of the precise electric detonator, two grams of composition C4 booster and three pellets, and these were set in water tank. High-speed video camera, HPV-X made by Shimadzu was used with 10 Mfs. The underwater explosions of the precise electric detonator, the C4 booster and a pellet were also taken by high-speed photography to estimate the propagation processes of the underwater shock waves. Numerical simulation of the underwater sympathetic detonation of the pellet explosives was also carried out and compared with experiment.

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