METHOD OF DIRECT MEASUREMENTS OF OBSTACLE IMPACT PARAMETERS AT UNDERWATER EXPLOSION OF NONIDEAL ALUMINIZED EXPLOSIVES

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Abstract: A new method of measurements for estimating the efficiency of underwater explosions is discussed. The method is based on the direct measurement of parameters of a movable obstacle located at some distance from the underwater charge. The obstacle has one degree of freedom and can move outwards from the charge under the action of underwater compression waves. The measurements of obstacle motion parameters were carried out using a piezoaccelerometer gauge. Comparative study of the effect of compression waves from ideal and nonideal explosions of 30-gram charges on the movable obstacle is also discussed.

Keywords: underwater explosion; hydroshock wave; nonideal explosion; Al–water reactions; bubble heave energy; shock wave energy; aluminized explosives; movable obstacle; impulse meter

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