

622: 550.83

• • , • • , • • , • • , • • , • • ,
(• • , • • , • • , • • , • • , • • , • •)
(« »)

• • : • • , • • , • • ,
• • : • • , • • , • • ,
• •

The degree of observance of law of similarity is analyzed between the seismic effect of explosions with different mass of explosive at the use of methodical developments of some countries. Key words: similarity rule, seismoblast wave, speed of displacement, reduced distance.

• • , • • ,
• • ,

(). ()

• • , • • -
• • -
• • ,
• • ,

$$\alpha = E^{-1/3}, \tag{1}$$

$$\alpha = Q^{-1/3} K_i \quad (1)$$

$$\alpha = Q^{-1/3} K_i \quad (2)$$

$$(r)$$

$$\bar{Q} = \frac{Q^{1/3}}{r}, \quad \bar{r} = \frac{r}{Q^{1/3}} \quad (3)$$

$$U = K \left(\frac{r}{Q^{1/3}} \right)^{-n} \quad (4)$$

K n -

(4)

(4)

[1-4]

« 150 1800 »

450 4500
[5]

$$A = \frac{c^{2/3}}{100} (0,07 \cdot e^{-0,00143d} + 0,001), \quad (5)$$

; d -

(5)

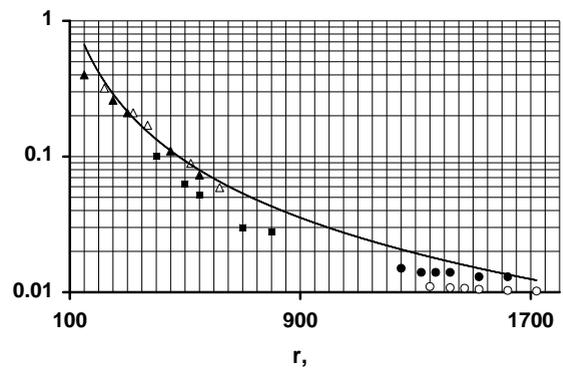
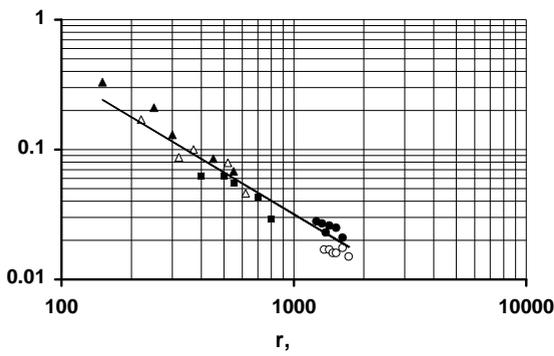
(3).

(5)

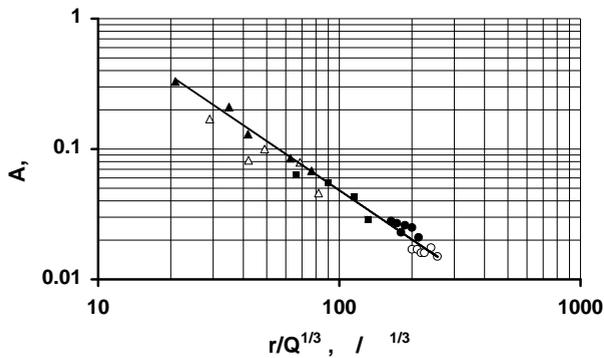
4, 5, 8-10 2010 . ()
 440, 228, 426, 372 . 309,
 10 , - 150 , 1720 . 5-

(,) (r,), . 1,

$$A = 97r^{-1,17}; \quad \beta = -0,976. \quad (6)$$



a



. 1.

: -

; -
 ; -

. .

,

,

$$K = \frac{\sigma_n x 100}{K}, \% , \quad (7)$$

$n =$; $K =$
 K (4) (5).
 K
(6) 18,6 %,

.
 . 1, .
 (5) .
 (5)
 K (5) 1,95 .
 (. 1,) (. 1,)
 , , 500 ,
 1,25
 1,6–1,8 , (5) 800–1500
 .
 . 1,
 ($K = 14,4$ %),
 (4),
 $= 10(r/Q^{1/3})^{-1,17}$, $\beta = -0,985$. (8)
 , . 1, , -
 (. 1,),
 (5) K .
 $-(/Q^{2/3}, r)$
 ,
 [6]

$$U = K \left(\frac{r}{Q^{1/3}} \right)^{-n} \tag{9}$$

$U -$, / ; $r -$, ; $Q -$, ; $K n -$;
 $\frac{r}{Q^{1/3}} -$, / $^{1/2}$.

(9),

[7]

$$U = K \left(\frac{Q}{r^{3/2}} \right)^{1/3}, \quad (10)$$

$Q/r^{3/2}$

(4), (9), (10)

[8]

. 1.

1.

122 (1)*	-	43	50	65	105	125	145	174	190	250	275	380	525	758	913
	/	6,3	8,0	6,2	3,0	3,13	3,0	3,15	2,22	2,0	1,25	0,81	0,4	0,23	0,11
336 (2)	-	45	55	65	105	145	175	185	330	508	683	923	-	-	-
	/	11,6	11,5	11,5	5,5	4,17	5,57	3,39	1,41	0,68	0,38	0,2	-	-	-
963 (3)	-	55	60	80	90	130	145	215	250	400	550	760	900	-	-
	/	11,23	11,23	7,7	7,1	5,26	4,69	4,05	3,45	1,66	0,67	0,47	0,36	-	-

. (1)* -

. 2.

. 2

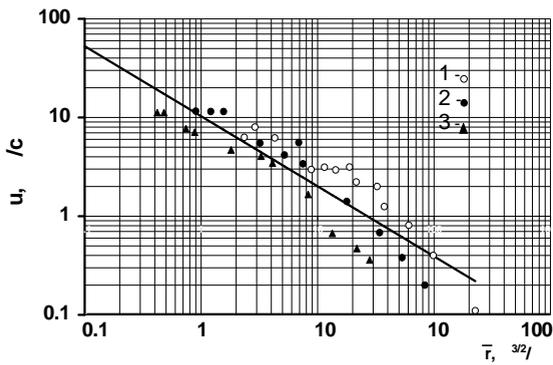
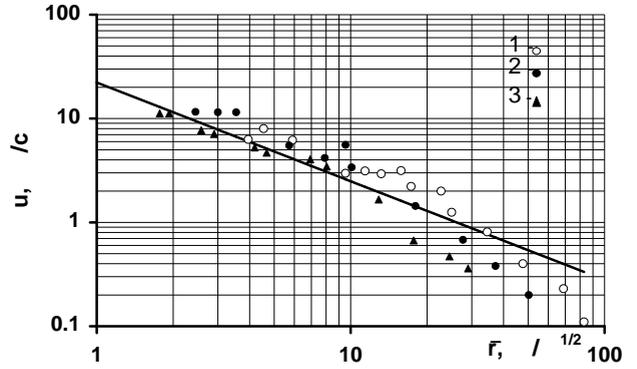
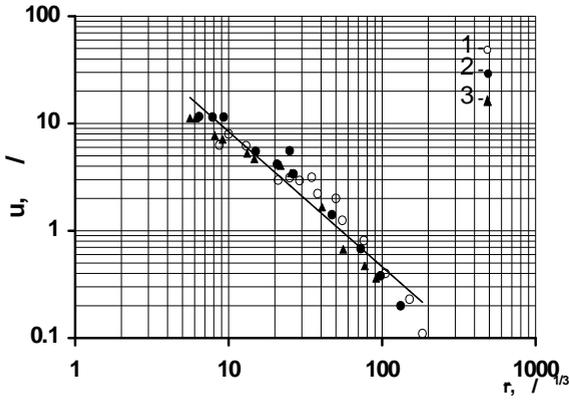
, . 1, (),
 (), ().
 K 34 %, 41 %, 49 %
 . 2, , 2, , 2, , ().

$$U = f(r) \quad (1)$$

K
33 %, 32,6 %, 26,3 %

122, 336 963

K



2.

1.

;

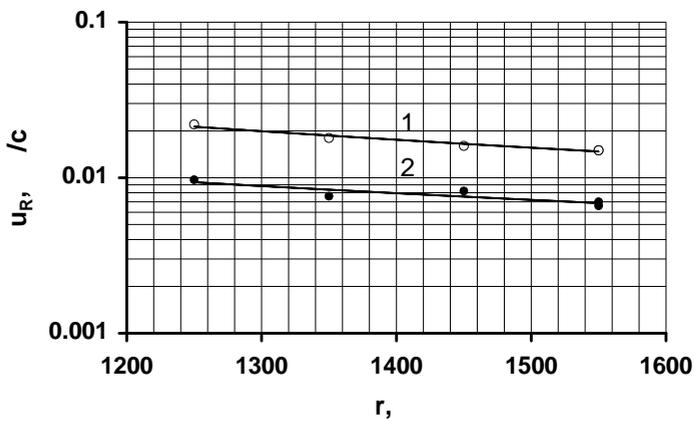
3

2010

118 (2), 4 -

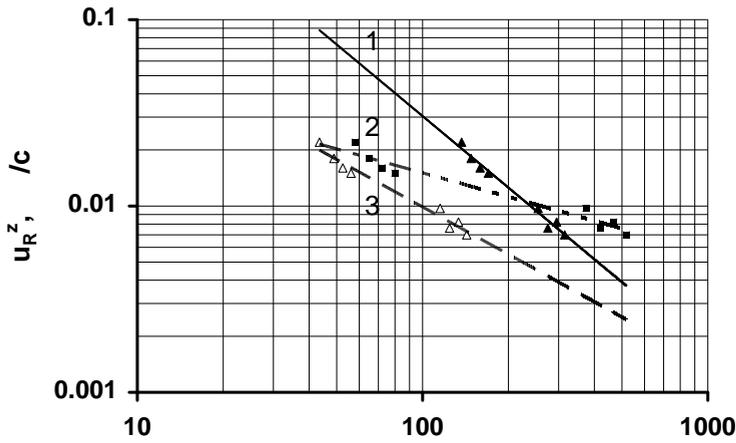
762 (1)

$r_r^{1/3}$ (1), $r_r^{1/2}$ (2), $r_r^{3/2}$ (3),



3.

762 (1) 118 (2)



. 4.

$U = f(r)$ (1), $U = f(r/Q^{1/2})$ (2), $U = f(r^3/Q)$ (3)
 . 3

. (= 5,6 %;
 = 8,0 % 9,3 %).

. 2

400

(. . . 1)

$$U = f(r),$$

(. . . 1).

. 2

1-16 %,

- 12-57 %,

- 16-84 %.

2.

(/),

	$U=f(r)$	$U=f(r/Q^{1/3})$	$U=f(r/Q^{1/2})$	$U=f(r^3/Q)$
122	0,65	0,60	0,73	0,53
336	0,93	0,94	1,18	1,08
963	1,24	1,44	1,95	2,29

1.

(4),

2.

