

pnr@kbsu.ru

A METHOD FOR SYNTHESIS OF MICROCRYSTALS OF SILVER HALIDES OF VARIOUS CUTTINGS

Kardanova Z.I., Azizov I.K., Savintsev A.P., Dyshekov A.A.

Kabardino-Balkarian State University

Abstract. The study tested various methods for producing silver halide microcrystals of varying cuts. The resulting flat microcrystals were analyzed.

Keywords: flat microcrystals, microcrystal synthesis, two-jet crystallization, silver halides

(AgBr, AgCl, AgI),

[1].

(AgHal),

AgHal.

)

[2].

AgHal.

[3];
 (100)
 ±0,005 Å.

AgBr
 (pBr = 1,4–1,6 –
 [3].

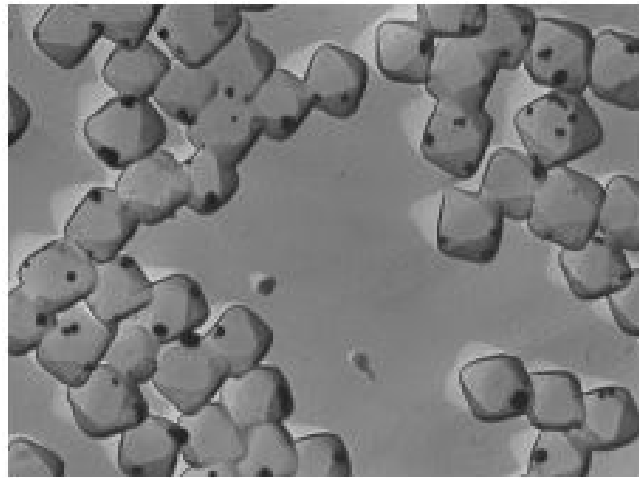
[4]
 pBr = 2,8–3,0
 (111)

$\tilde{d} = 0,35$

AgBr

$a = 5,7745 \pm 0,005 \text{ \AA}$

(1, 2).

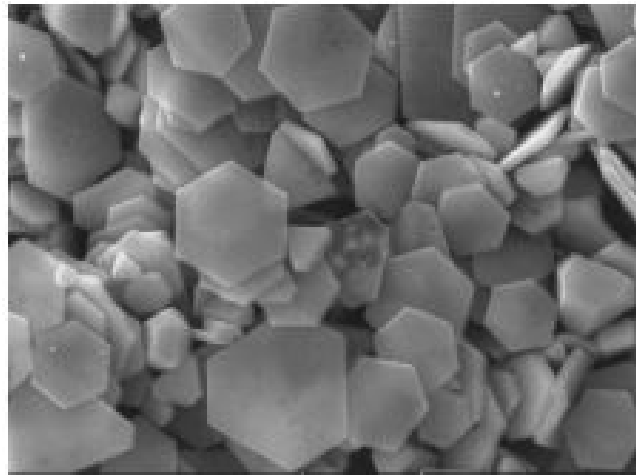


1 –

AgBr

{100} (

20 000)



2 –

AgBr

{111} (

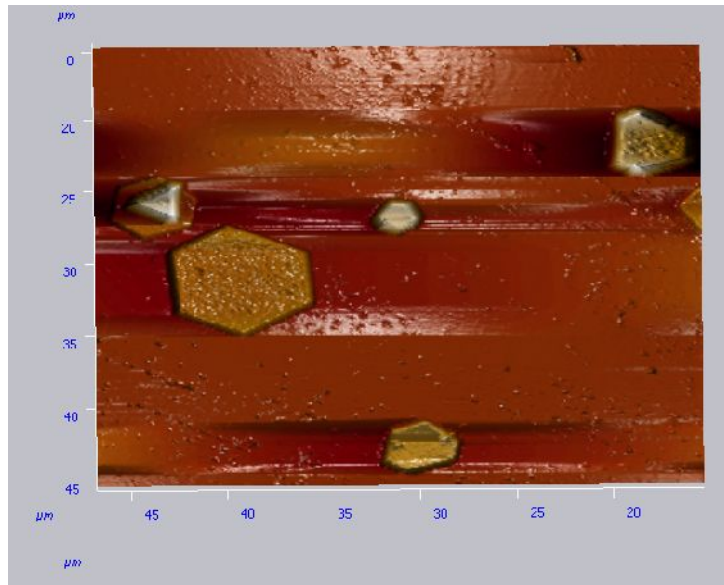
20 000)

AgBr

(3, 4),

$\langle 111 \rangle$

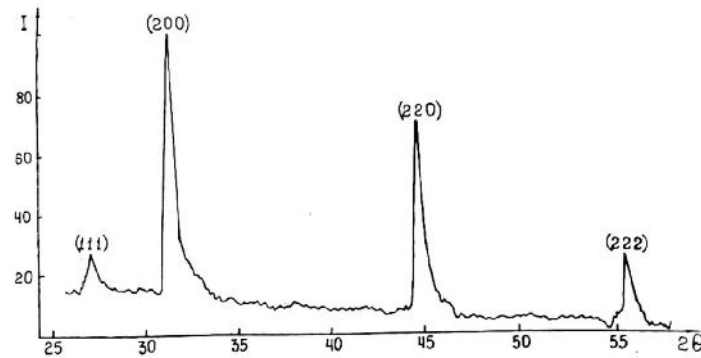
AgBr



3-

370 (

20 000)



4-

AgBr

111 [5].

$\{111\}$

AgBr.

[4, 6]:

$$\frac{B^2 \cos^2 \theta}{\lambda^2} = \frac{1}{L^2(hkl)} + \frac{\Delta d_{hkl}}{d_{hkl}} \cdot \frac{n^2}{d^2} \quad (1)$$

$\frac{\Delta d_{hkl}}{d_{hkl}}$
n-

$$B = (\Delta^2(20) - \Delta_{\text{расч.}}^2(20))^{1/2} \quad (1)$$

$$E_{\langle 111 \rangle} = \frac{\alpha}{3\lambda} \sqrt{B_{222}^2 \cos^2 \theta_2 - B_{111}^2 \cos^2 \theta_1} \quad (2)$$

$$L_{\langle 111 \rangle} = \left(\frac{B_{\text{HH}}^2}{\lambda^2} \cos^2 \theta_1 - \frac{\varepsilon^2}{d^2} \right)^{-\frac{1}{2}} \quad (3)$$

$\langle 111 \rangle L(A^0)$,

ε () D).

l -

$\langle 111 \rangle$

	$\varepsilon \cdot 10^{-3}$	$L(A^0)$
1	3,834	391
2	1,299	589

15-20 %.

L

(h),

$$h = \frac{\lambda}{4n}$$

$$\lambda = 550 \text{ nm}$$

$$n = 2.28,$$

h 603 A⁰,

AgHal

$\langle 111 \rangle$

AgHal,

AgHal

1. . . 150 //

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3. . . .

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4. . . .

5. . . .

AgBr

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6. . . .

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