: 621.793.1 [1]. [2], «Surface and coating te hnology», «Thin solid films» ([3]. 80%. (CrC,TiC CrN, TiN, Cr,Ti[C,N]),

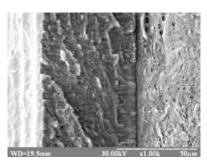
38 3

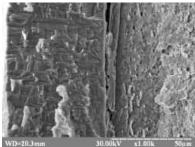
```
50
                                           60
                                               450^{\circ} .
                                        290
                                                         [4].
                  2.10-5
                                   110
              ~50
                                                         38
                                                               3
                                              870°
                                                                      400°
                                                              1
 5
                10
                       Neophot-30.
                        -3
      136°
                                       20
                  9450-76.
                                                   PSW-30
                   9454-78
                                                                           U-
                 -1.
                                                      102-02.
                            -2,0 CuK
                                                                          .1,
 )
                                                 1,13
                                                                        . 2).
                                                                         290
410°
                     241
                                     184
                     450°
                                                        225
                                                                         . 3).
                          ».
241
                                          281
           220
                     1,5
```

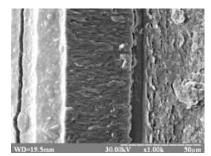
```
0,53 / <sup>2</sup>.
                                     330°
                            0,98
 9,4 / 8,68 / .
                                                            330°
                                                                    370°
                                         0,67 / 2
              8,68 9,45 / .
      450°
0,76 / 2
                                                                   9,29 /
( .4).
       . 1.
                       ,×1000×0,3. - 290°; - 450°
  1.5
                       R^2 = 0.9696
  0.5
   0 -
                            450
   250
         300
                350
                                  500
       . 2.
                                               . 3.
                             2 \Theta = 20...100^{\circ}.
```

(110), (200), (211).

```
(110)
                             (200).
                                                                                               [5].
                                                                                              290°
                                             . 5.
                      <110>.
                                                                                                   330
                                                                                                              370°
                                                          <110>,
                                                                                             450°
                             <200>.
                                                                                    410
                            <200>.
                                                                 1.00
0.90
                                                                 0.80
                                                                 0.70 -
0.60 -
                                                                                                          - (110)
- (200)
- (211)
- JCPDS
                                                              ≥ 0.50 -
0.40 -
                                                                 0.30 -
                                                                 0.10
                                                                                          375
, °
                                                                    275
                                                                               325
                                                                                     350
                                                                          300
                                                                                                 400
                           375
T, °
    275
                325
                                      425
                                                  475
                                                                         . 5.
               4.
38
        3
                                                                                                                  [4].
                                           [6].
290...410°
                  450°
              (~ 0,2%).
                                 \sim 5 \cdot 10^{10}
                                                                                      [7]
```







« - », ,

(.5).

, , 370° (5) ,

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290°.
    450° (
                5 ).
                                  [8],
              (450°).
                                                                         410°
                           (450°)
1
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                                                                              8
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