

CONDUCTING A MICROSCOPIC ANALYSIS OF THE POWDERS OBTAINED BY ELECTROEROSION DISPERSION OF WASTE OF STEEL X13

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INTRODUCTION

Powder technology is a broad area for the production of dispersed bodies, used in various branches of production - powder metallurgy, the ceramic industry, the production of food and medicinal products, fertilizers, fuel, building materials, etc. Due to some external similarity of the technology of powder metallurgy with the technology of ceramic production, products manufactured by powder metallurgy are also widely known as metal-ceramic.



MATERIALS AND METHODS

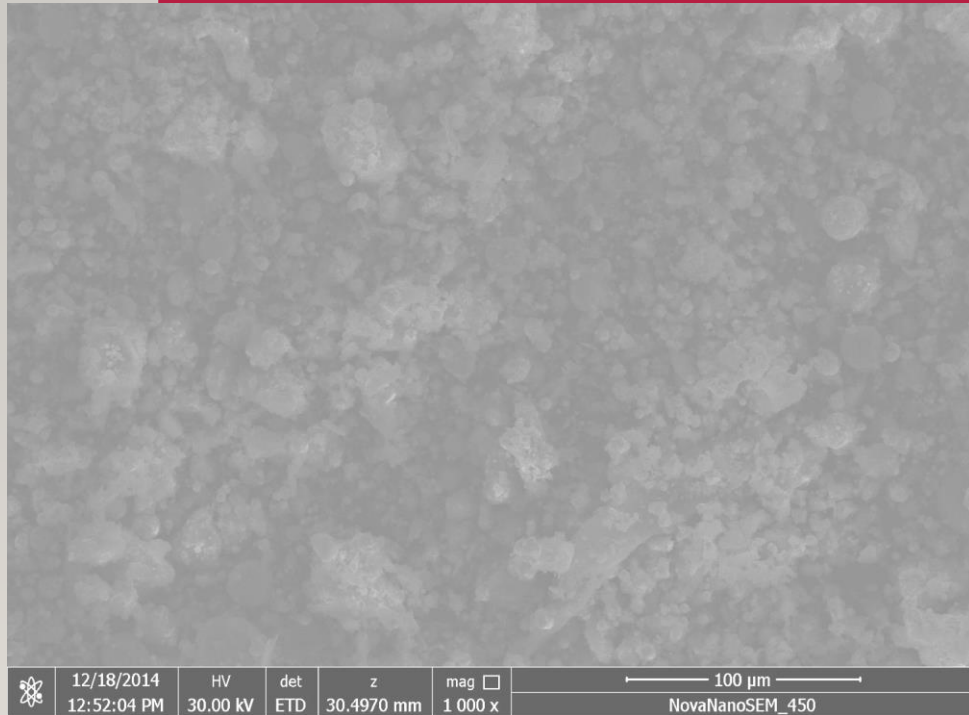


QUANTA 600 FEG

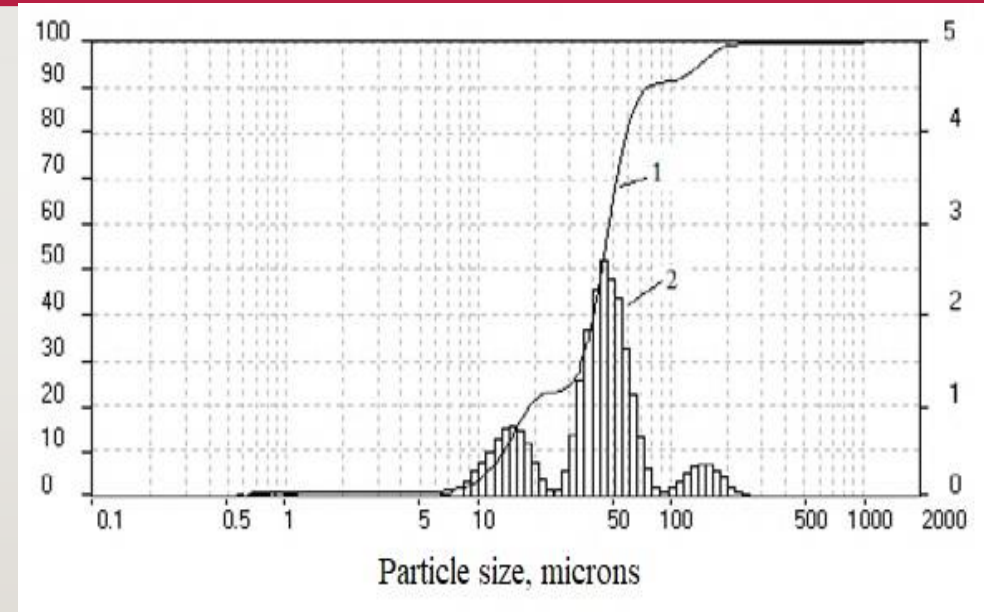


Analysette 22 NanoTec

THE STUDY OF THE MICROSTRUCTURE OF POWDERS



Photograph of powder particles, obtained by EED



The size distribution of powder microparticles:
1 - Integral curve, 2 - Histogram

CONCLUSION

- In the course of the experimental studies, aimed at the study of the particle size of the chromium powder, obtained by electroerosion dispersion of wastes in lighting kerosene with the following electrical parameters: the capacity of the discharge capacitors is 45 μF , the voltage is 100 ... 110V, the pulse frequency is 55 ... 65 Hz: average particle size, specific surface area, which will determine the rational area of their practical application.
- On the basis of the obtained results, it can be concluded that the chromium powder, obtained by the method of electroerosive dispersion, can be reused when restoring and hardening machine parts.
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