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Nanocrystalline tantalum powders of condenser grade

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Abstract

Researches have been carried out in the given work of chemical, phase and granulometric composition, specific surface area and microstructure of tantalum nanocrystalline powders of condenser grade, obtained by electrochemically. As a result of the researches there have been revealed the following regularities of tantalic powder production. At constant structure of electrolyte and catode current density the temperature increase by 100 degrees leads to reduction of specific surface of powders 2 times. At the increase in cathodic density of the current in 2 times in the conditions of the fixed temperature the specific surface area of powders decreases by 15-20%. The choice of electrolit for carrying out the electrolysis exerts essential influence both on the form, and on the size of powders. Powders obtained by the given way are suitable for making tantalum condensers.