A METHOD TO OBTAIN SUBMICRON NICKEL POWDER

Description
A method to obtain submicron nickel powder is proposed. The method involves thermal decomposition of nickel formiate in a liquid organic medium. The specific feature of the method is that thermal decomposition of nickel formiate is carried out in benzyl alcohol at a temperature of 195 °C.

Technical appraisal and economic benefits
• The size of nickel particles varies within a broad range — from 0.05 to 0.8 μm.
• It is easy to store, transport and use the powder.
• The powder is uninflammable.

Application areas
• Production of multi-layer capacitors;
• Manufacture of filtering elements;
• Production of various alloys;
• Catalyst preparation, etc.

Development stage
An experimental sample was obtained using the equipment of the Institute of Solid State Chemistry and Mechanochemistry SB RAS.

Patent situation
Patent of the Russian Federation for the invention was obtained (2004). The know-how is available.

Commercial offers
License agreement, sale of the know-how, agreement on further investigation.

Estimated cost
Contract value.

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