

The factors influencing the enhancement of the critical current I_c and pinning force F_p in superconducting wires NbTi/Cu

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In the paper we present the results of the measurements of critical current I_c in NbTi wires. Experiments were made for the wires of 0,3 mm in diameter and the length of 25 mm. The wires were produced by means of two methods : conventional (hydroextrusion and drawing) and preliminary ECMAP (equal channel multiple angle pressing). The samples were heat treated at different temperatures. We describe the influence of annealing temperature, NbTi alloy composition and ECMAP application on I_c and F_p of the material.