MEDICAL MATERIALS BASED ON TI-NB-SI SYSTEM

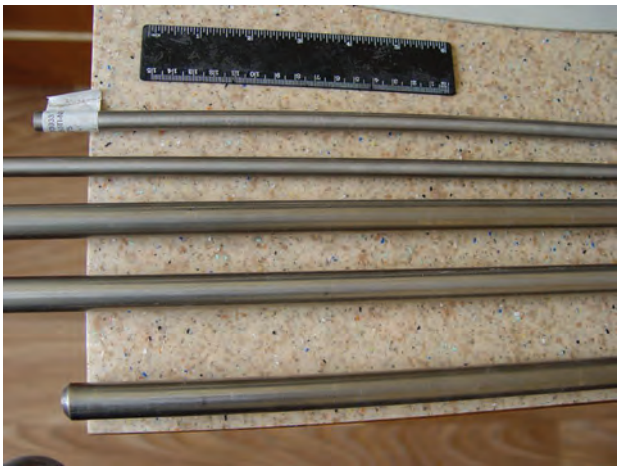
Areas of Application

The materials are to be used for manufacturing bone implants, prostheses, and metallic structural parts for osteosynthesis

Specification

The materials are passing are pre-clinical tests.

Ultimate tensile strength, MPa	1050—1250
Yield stress, MPa	850—1050
Elongation, %	7—12
Elastic modulus, MPa	70—100



Rods

Advantages

The mechanical properties of Ti-Nb-Si alloys are as good as or even better than those of conventional titanium alloys of medical application. The alloys are osteoactive and promote osteoinduction in the areas of interface between the material and the bone tissue. The materials have passed preclinical trials

Plates

Stage of Development. Suggestion for Commercialization

IRL4, TRL4
Seeking partners for organization of manufacturing bone implants, endoprostheses, and various products for osteosynthesis

Screws

IPR Protection

IPR2, IPR5

Contact Information

Serhij M. Fomenko, Institute for Problems of Material Science of the NAS of Ukraine;
+38 044 424 04 27, +38 095 244 36 38, e-mail: fsergej688@gmail.com