

DEVELOPMENT OF TECHNOLOGY ELEMENTS FOR EXPERIMENTAL PROTOTYPING OF SOFT POLYMER MECHATRONIC DESIGNS

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Annotation. The search for methods and techniques for implementing the line of the material embodiment of simulation for the transition from modeling to prototyping objects of bionanorobotics (BNRT) is one of the actual problems in the field of BNRT research, the solution of which can be obtained as a result of the development of biointegrated soft robotics technologies. In order to prepare a technological base for experimental research in this area, the elements of prototyping technology for soft polymer mechatronic designs (SPMD) of soft robotics have been developed. In general, the basic technological scheme of physical prototyping of the SPMD is presented. Its main elements have been experimentally worked out. The first test specimen of the SPMD was obtained.

Keywords: bionanorobotics, soft robotics, mechatronics, bioengineering systems, technology, virtual prototyping, physical prototyping, soft polymer mechatronic designs

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