

Публикации лаборатории механики функциональных материалов

1. Bochkarev S.A., Lekomtsev S.V. Stability of functionally graded circular cylindrical shells under combined loading // *Mechanics of Composite Materials*. 2019. V. 55, N. 3. P. 349–362.
2. Ryzhkov A.V., Raikher Yu.L. Field-induced deformation and structure changes in a magnetic polymersome: Many-particle simulation // *IOP Conference Series: Material Science and Engineering*. 2019. V. 581. 012020.
3. Chudinov V., Kondyurina I., Terpugov V., Kondyurin A. Weakened foreign body response to medical polyurethane treated by plasma immersion ion implantation // *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*. 2019. V. 440. P. 163–174.
4. Kondyurina I.V., Chudinov V.S., Terpugov V.N., Kondyurin A.V. Influence of the Young's modulus of polyurethane implants on the organism's immune response // *Biomedical Engineering*. V. 52, N.6. P. 431–434.
5. Chudinov V.S., Shardakov I. N., Maslova V.V., Solodnikov S.Y., Fefilova I.V., Litvinov V.V., Friend G.G., Chudinova E.Y., Kondyurin A.V. Medical polyurethane with improved biocompatibility treated by the ion implantation method // *AIP Conference Proceedings*. 2019. V. 2167. 020055.
6. Melenev P.V., Ryzhkov A.V. Simulation of uniaxial deformation of a ferrogel sample exposed to external magnetic field // *IOP Conference Series: Material Science and Engineering*. 2019. V. 581. 012039.
7. Chudinov V., Shardakov I., Ivanov Y. Mathematical model of a multi-link manipulator for an ion-plasma system // *AIP Conference Proceedings*. 2020. V. 2312. 060002.
8. Chudinov V.S., Kondyurina I.V., Terpugov V.N., Shardakov I.N., Maslova V.V., Solodnikov S.Y., Fefilova I.V., Kondyurin A.V. Plasma ion treatment of polyurethane implants for reducing the foreign body rejection rate // *Biomedical Engineering*. 2020. V. 54. P. 255–257.
9. Bochkarev S.A., Lekomtsev S.V. Stability analysis of composite cylindrical shell containing rotating fluid // *Journal of Physics: Conference Series*. 2021. V. 1945. 012034.
10. Ryzhkov A., Raikher Y. Field-induced response of non-spherical magnetopolymersomes: Coarse-grained molecular dynamics model // *AIP Conference Proceedings*. 2021. V. 2371. 030006.
11. Chudinov V.S., Shardakov I.N. Carbon coating on surface of PVC blood bags // *Journal of Physics: Conference Series*. 2021. V. 1945. 012068.
12. Gilev V.G., Rusakov S.V., Chudinov V.S., Rakhmanov A.Yu., Kondyurin A.V. Modeling the curing kinetics of an epoxy binder with disturbed stoichiometry for a composite material of aerospace purpose // *Mechanics of Composite Materials*. 2021. V. 57. P. 361–372.
13. Chudinov V., Shardakov I., Litvinov V., Ivanov Y., Solodnikov S., Kondyurin A. To avoid a foreign body reaction for polyurethane implants modified by high-energy ions // *2021 IEEE Ural-Siberian Conference on Computational Technologies in Cognitive Science, Genomics and Biomedicine (CSGB)*, 2021. 2021. p. 490–494.
14. Melenev P. V, Ryzhkov A. V, Balasoiu M. Simulation of magneto-mechanical response of ferrogel samples with various polymer structure // *Soft Materials*. 2021. doi: 10.1080/1539445X.2021.1998119
15. Bochkarev S.A., Lekomtsev S.V. Natural vibrations and hydroelastic stability of laminated composite circular cylindrical shells // *Structural Engineering and Mechanics*. 2022. V. 80, No. 6. P. 769–780.