

Forecasting the Residual Life of Products by a Functional Mesodiagnosics Device

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key words

residual life, forecasting, damage, model, mesodiagnosics, surface layer

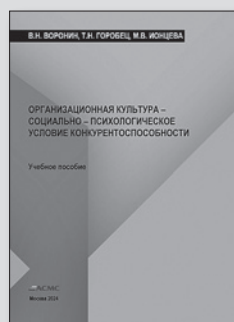
Forecasting the resource parameters of the surface layer material as a trigger for failure of the entire product is most relevant for the majority of potentially dangerous objects of analysis in various sectors of the real economy. A diagram illustrating the mechanism of deformation-fatigue formation of operational and technological damage to the surface layer material is proposed. An analytical expression has been obtained that relates the residual life of the product with the results of its mesodiagnosics before and during operation. Thus, the study allows us to assess the role of IMD technologies in ensuring the functional quality of a product of critical importance from a single scientific and methodological position by calculating and algorithmically assessing their residual life of reliable operation.

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НОВАЯ КНИГА

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