**Example of article design**

UDС 620.193.8

**A.G. Bortnik, A.V. Botin, N.A. Medvedeva, S.U. Balandina**

**THE STUDY OF CHANGES IN THE MECHANICAL PROPERTIES OF STELL UNDER THE INFLUENCE OF MICROMYCETE CORROSION**

This article discusses the effect of various micromycetes on the corrosion of steel of two grades. Micromycetes of the genera Aspergillus, Penicillium, and Trichoderma were isolated from soil and water samples taken in the Perm Territory. Deterioration of the mechanical properties of steel and significant structural changes in its surface is revealed.

**Keywords:** biological corrosion, micromycetic corrosion, micromycetes, steel, ultimate tensile strength, fracture surface.

At the moment, more and more attention is paid to the processes occurring at the junction of science. One of these processes is biological corrosion. One of the biggest problems in this area is the small amount of research devoted to this problem.

………………………………………………………………………………………………

**References**

1. Skovhus T.L., Enning D., Lee J.S. Microbiologically Influenced Corrosion in the Upstream Oil and Gas Industry // CRC Press. – 2017. – P. 559.

2. Widdel F. Microbiology and ecology of sulfate and sulfurreducing bacteria // Biology of Anaerobic Microorganisms / ed. A.J.B. Zehnder, Wiley-Liss, John Wiley and Sons, Inc. – New York, 1988. – P. 469–586.

 3. Microbiologically Influenced Corrosion / Brenda J. Little [et. al.]. – John Wiley & Sons, 2007. – 272 p.

 4. O mekhanizme mikrobiologicheskoj korrozii stalej neftepromyslovogo oborudovaniya v usloviyah ekspluatacii i v laboratorii / E.A. Borisenkova [i dr.] // Vestnik SGTU. –2013. – Vol. 3 (39). – P. 99–104.

5. O vozmozhnosti vliyaniya mikromicetov na korrozionnoe povedenie uglerodistoj stali / N.A. Medvedeva, S.Y. Balandina, A.G. Bortnik, M.D. Plotnikova, N.Y. Lisovenko // Vestnik Permskogo Universiteta. – 2020. – №1 (10). – P. 84–93.

**About the autors**

**Bortnik Alisa Georgievna** – Master of Physicts Chemistry, Perm State University, e-mail: oscurasangre@gmail.com.

 **Botin Alexandr Valeryevich** – 3rd year Undergraduate Student, Perm State University, raphunihhh@gmail.com.

**Medvedeva Natalya Alexandrovna** – Candidate of Science in Chemistry, Perm State University, e-mail: nata-kladova@yandex.ru.

**Balandina Svetlana Yurievna** – Head of Laboratory "Bactericide", Department of Pharmacology and Pharmacy, Perm State University, e-mail: bactericid@yandex.ru.