

# **Экологический вестник Донбасса**

Научный журнал  
Выходит 4 раза в год  
Основан в марте 2020 г.  
Выпуск 2 2021

# **Ecological Bulletin of Donbass**

Scientific Journal  
Publication Frequency: 4 times a year  
Established: March, 2020  
Issue 2 2021

Алчевск  
2021

**UDC 502:504.06**

**Ecological Bulletin of Donbass**

**Scientific Journal**

Issue 2 2021

**Establishers:**  
**SEI HE "DonSTI" (LPR) supported by**  
**Ministry of Natural Resources**  
**and Environmental Safety of LPR**

---

*Certificate of Ministry of Communications  
and Mass Media of the LPR  
for mass media registration  
III 000174 dated 19.01.2021*

*Recommended by academic council  
of SEI HE "DonSTI"  
(Record № 12 dated 25.06.2021)*

---

Format 60×84 $\frac{1}{8}$   
Conventional printed sheet 15  
Order № 166  
Circulation 100 copies  
Publishing office is not responsible for  
material content giving by author  
for publishing

Address of editorial office, publishing  
and establishing:  
SEI HE "Donbass State Technical Institute"  
Lenin avenue, 16, Alchevsk, LPR  
94204  
E-mail: [info@dstu.education](mailto:info@dstu.education)  
Web-site: <http://www.dstu.education>

PUBLISHING AND PRINTING CENTER,  
Room 2113, tel/fax 2-58-59  
Certificate of State registration for mass  
media publisher, owner and distributor  
MI-SGR ID 0000055 dated 05.02.2016

**Editor-in-chief**

Kuberskyi S. V. — PhD in Engineering, Prof.,  
Acting Rector

**Deputy chief editor**

Vishnevskiy D. A. — PhD in Engineering, Ass. Prof.

**Editorial board:**

Degtyaryov Yu. A. — Minister of Natural Resources  
and Environmental Safety of LPR

Pyatkova N. P. — PhD in Economics, Ass. Prof.

Ladysh I. A. — Doctor of Agricultural Sciences,  
Ass. Prof.

Zinchenko A. M. — PhD in Economics, Ass. Prof.

Kusayko N. P. — Head of SMCE

Smirnova I. V. — PhD in Chemistry

Levchenko E. P. — PhD in Engineering, Ass. Prof.

Protsenko N. Yu. — PhD in Engineering, Ass. Prof.

Shvydchenko S. S. — PhD in Biology, Ass. Prof.

**Secretary of Editorial board**

Podlipenskaya L. Ye. — PhD in Engineering,  
Ass. Prof.

For research scientists, PhD seekers, students  
of higher educational institutions, scientific  
institutions, environmental specialists and ecologists,  
governmental institutions.

Issue language:  
Russian, English

Computer layout  
*Ismailova L. M.*

© SEI HE "DonSTI", 2021  
© Chernyshova N. V., graphic, 2021